# **Amazon Route 53**

API Reference API Version 2013-04-01



### Amazon Route 53: API Reference

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# Welcome

Amazon Route 53 is a highly available and scalable Domain Name System (DNS) web service. Amazon Route 53 performs three main functions:

- Domain registration Amazon Route 53 helps lets you register domain names such as example.com.
- Domain Name System (DNS) service Amazon Route 53 translates friendly domains names like www.example.com into IP addresses like 192.0.2.1. Amazon Route 53 responds to DNS queries using a global network of authoritative DNS servers, which reduces latency.
- Health checking Amazon Route 53 sends automated requests over the Internet to your application to verify that it's reachable, available, and functional.

This Amazon Route 53 API Reference explains how to use API actions to create the following resources:

#### **Public Hosted Zones**

A public hosted zone is a container that holds information about how you want to route traffic on the Internet for a domain, such as example.com, and its subdomains. For more information, see Actions on Public Hosted Zones (p. 11).

#### **Private Hosted Zones**

A private hosted zone is a container that holds information about how you want to route traffic for a domain and its subdomains within one or more Amazon Virtual Private Clouds (Amazon VPCs). For more information, see Actions on Private Hosted Zones (p. 48).

#### **Reusable Delegation Sets**

By default, each hosted zone that you create gets a different set of four name servers—a different delegation set. If you create a lot of hosted zones, maintaining different delegation sets can be difficult and time consuming. Amazon Route 53 lets you create a delegation set that you can reuse with multiple hosted zones. For more information, see Actions on Reusable Delegation Sets (p. 92).

#### **Resource Record Sets**

After you create a hosted zone for your domain, such as example.com, you create resource record sets to tell the Domain Name System (DNS) how to route traffic for that domain. For more information, see Actions on Resource Record Sets (p. 107).

#### **Traffic Policies and Traffic Policy Instances**

You can create complex routing configurations, known as traffic policies, that use weighted, latency, failover, and geolocation resource record sets. You can then associate a traffic policy with a domain name or subdomain name, such as www.example.com, by creating a traffic policy instance. When users submit DNS queries for the domain or subdomain, Amazon Route 53 responds based on the traffic policy that you used to create the traffic policy instance. For more information, see Actions on Traffic Policies and Traffic Policy Instances (p. 174).

#### **Health Checks**

Amazon Route 53 health checks monitor the health and performance of your web applications, web servers, and other resources. At regular intervals that you specify, Amazon Route 53 submits automated requests over the Internet to your application, server, or other resource to verify that it's reachable, available, and functional. For more information, see Actions on HealthChecks (p. 254).

#### **Domain Registrations**

When you want to get a new domain name, such as example.com, you can register it with Amazon Route 53. You can also transfer the registration for existing domains from other registrars to Amazon Route 53. For more information, see Actions on Domain Registrations (p. 321).

#### Tags

A tag is a label that you assign to an AWS resource. Each tag consists of a key and a value, both of which you define. You can use tags for a variety of purposes; one common use is to categorize and track your Amazon Route 53 costs. For more information, see Actions on Tags for Hosted Zones and Health Checks (p. 417) and Actions on Tags for Domains (p. 429).

In addition, the Amazon Route 53 API Reference includes the following information:

- Making API Requests (p. 3) How to submit HTTP requests to Amazon Route 53
- Common Headers (p. 440) HTTP headers that you use to submit requests to Amazon Route 53
- Common Errors (p. 443) HTTP 4xx and 5xx status codes that Amazon Route 53 can return

For information about Amazon Route 53 concepts and about how to use the Amazon Route 53 console, see the *Amazon Route 53 Developer Guide*.

# **Making API Requests**

#### Topics

- Making API Requests for Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 3)
- Making API Requests for Domain Registration (p. 7)
- Signing Amazon Route 53 API Requests (p. 9)

This section describes how to make requests to the two Amazon Route 53 APIs:

- · A REST API for hosted zones, resource record sets, health checks, and cost allocation tags
- An RPC API for domain registration

For each API, we describe the components of requests and the content of responses. We also describe how to authenticate requests.

# Making API Requests for Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags

#### Topics

- REST Requests (p. 4)
- REST Responses (p. 6)

This section describes how to make REST requests to the Amazon Route 53 API for creating and managing your hosted zones, resource record sets, health checks, and cost allocation tags. We'll acquaint you with the components of requests, the content of responses, and how to authenticate requests.

#### Note

To register and manage domains, use the Amazon Route 53 API for domain registration. For more information, see Making API Requests for Domain Registration (p. 7).

# **REST Requests**

Amazon Route 53 REST requests are HTTPS requests, as defined by RFC 2616 (for more information, go to http://www.ietf.org/rfc/rfc2616.txt). This section describes the structure of an Amazon Route 53 REST request.

A typical REST action consists of sending a single HTTPS request to Amazon Route 53, and waiting for the response. Like any HTTP request, a REST request to Amazon Route 53 contains a request method, a URI, request headers, and sometimes a query string or request body. The response contains an HTTP status code, response headers, and sometimes a response body.

### **Request URI**

The request URI always starts with a forward slash and then the version of the Amazon Route 53 API you use (for example, 2013-04-01). The remainder of the URI indicates the particular resource you want to act on. For example, following is the URI you use when creating a new hosted zone. (For more information, see POST CreateHostedZone (Public) (p. 12).)

/2013-04-01/hostedzone

### About the Request Time Stamp

You must provide the time stamp in either the HTTP Date header or the AWS x-amz-date header (some HTTP client libraries don't let you set the Date header). When an x-amz-date header is present, the system ignores any Date header when authenticating the request.

The time stamp must be within 5 minutes of the AWS system time when the request is received. If it isn't, the request fails with the RequestExpired error code. This is to prevent replays of your requests by an adversary.

The date must be specified in one of the following three formats, as specified in the HTTP/1.1 RFC:

- Sun, 06 Nov 1994 08:49:37 GMT (RFC 822, updated by RFC 1123)
- Sunday, 06-Nov-94 08:49:37 GMT (RFC 850, obsoleted by RFC 1036)
- Sun Nov 6 08:49:37 1994 (ANSI C's asctime() format)

### **Request Body**

Many of the Amazon Route 53 API actions require you to include XML in the body of the request. The XML conforms to the Amazon Route 53 schema.

#### Example Request

The following example request uses a simple XML statement to create a hosted zone named example.com with the reference identifier, *myUniqueIdentifier*.

The XML elements in your request must appear in the order listed.

```
POST /2013-04-01/hostedzone HTTP/1.1
host:route53.amazonaws.com
x-amz-date: date and time of the request
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/date of the request in yyyymmdd
format/us-east-1/route53domains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=computed signature
[Other required headers]
<?xml version="1.0" encoding="UTF-8"?>
<CreateHostedZoneRequest xmlns="https://route53.amazonaws.com/</pre>
doc/2013-04-01/">
   <Name>example.com.</Name>
   <CallerReference>myUniqueIdentifier</CallerReference>
   <HostedZoneConfig>
      <Comment>This is my hosted zone.</Comment>
   </HostedZoneConfig>
</CreateHostedZoneRequest>
```

# **REST Responses**

Amazon Route 53 responses are just standard HTTP responses. Some of the Amazon Route 53 actions return special information specific to Amazon Route 53 in the form of an HTTP header or XML in the body of the response. The specific details are covered in the API reference topic for the particular action.

Each response contains a request ID that you can use if you need to troubleshoot a request with Amazon Route 53. The ID is contained in an HTTP header called x-amz-request-id. An example of a request ID is 647cd254-e0d1-44a9-af61-1d6d86ea6b77.

The following example shows a response to a request to create a hosted zone. The CreatedHostedZoneResponse element contains information about the hosted zone including an Amazon Route 53 identifier, the domain that the hosted zone is associated with, and a reference description and comment. The change request itself is associated with a submittal time, an identifier and a status, shown as PENDING. Most importantly, the CreatedHostedZoneResponse includes the Amazon Route 53 name servers assigned to the hosted zone; this information is contained in the DelegationSet element.

#### **Example Response**

```
HTTP/1.1 201 Created
x-amz-request-id: request_id
<?xml version="1.0" encoding="UTF-8"?>
<CreateHostedZoneResponse xmlns="https://route53.amazonaws.com/doc/
2013-04-01/">
   <HostedZone>
      <Id>/hostedzone/Z1PA6795UKMFR9</Id>
      <Name>example.com.</Name>
      <CallerReference>myUniqueIdentifier</CallerReference>
      <Config>
         <Comment>This is my first hosted zone.</Comment>
      </Config>
   </HostedZone>
   <ChangeInfo>
      <Id>/change/C1PA6795UKMFR9</Id>
      <Status>PENDING</Status>
      <SubmittedAt>2010-09-10T01:36:41.958Z</SubmittedAt>
   </ChangeInfo>
   <DelegationSet>
      <NameServers>
         <NameServer>ns-2048.awsdns-64.com</NameServer>
         <NameServer>ns-2049.awsdns-65.net</NameServer>
         <NameServer>ns-2050.awsdns-66.org</NameServer>
         <NameServer>ns-2051.awsdns-67.co.uk</NameServer>
      </NameServers>
   </DelegationSet>
</CreateHostedZoneResponse>
```

### **Error Responses**

If a REST request results in an error, the HTTP response has:

- · An XML error document as the response body
- Content-Type header: text/xml
- An appropriate 3xx, 4xx, or 5xx HTTP status code

Following is an example of the XML error document in a REST error response.

# Making API Requests for Domain Registration

#### Topics

- RPC Requests (p. 8)
- RPC Responses (p. 9)

This section describes how to make RPC requests to the Amazon Route 53 API that you use to register and manage domains. We'll acquaint you with the components of requests, the content of responses, and how to authenticate requests.

#### Note

To create and manage hosted zones, resource record sets, health checks, and cost allocation tags, use the applicable Amazon Route 53 API. For more information, see Making API Requests for Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 3).

# **RPC Requests**

Amazon Route 53 RPC requests are HTTPS requests, as defined by RFC 2616 (for more information, go to http://www.ietf.org/rfc/rfc2616.txt). This section describes the structure of an Amazon Route 53 RPC request.

For an RPC action, you send an HTTPS request to Amazon Route 53 and wait for the response. An RPC request to Amazon Route 53 contains request headers and sometimes a query string or request body. The response contains an HTTP status code, response headers, and sometimes a response body.

### About the Request Time Stamp

You must provide the time stamp in either the HTTP <code>Date</code> header or the AWS <code>x-amz-date</code> header (some HTTP client libraries don't let you set the <code>Date</code> header). When an <code>x-amz-date</code> header is present, the system ignores any <code>Date</code> header when authenticating the request.

The time stamp must be within 5 minutes of the AWS system time when the request is received. If it isn't, the request fails with the RequestExpired error code. This is to prevent replays of your requests by an adversary.

The date must be specified in one of the following three formats, as specified in the HTTP/1.1 RFC:

- Sun, 06 Nov 1994 08:49:37 GMT (RFC 822, updated by RFC 1123)
- Sunday, 06-Nov-94 08:49:37 GMT (RFC 850, obsoleted by RFC 1036)
- Sun Nov 6 08:49:37 1994 (ANSI C's asctime() format)

### **Request Body**

Many of the Amazon Route 53 API actions require you to include JSON in the body of the request. The JSON conforms to the Amazon Route 53 schema for domain registration.

#### **Example Request**

The following example request uses a simple JSON statement to determine whether the domain name example.com is available.

The JSON elements in your request must appear in the order listed.

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date: date and time of the request
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/date of the request in yyyymmdd
format/us-east-1/route53domains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=computed signature
x-amz-target:Route53Domains_v20140515.CheckDomainAvailability
user-agent: information about the source of the request
content-type:application/x-amz-json- 1.1
content-length: length
connections:Keep-Alive
{
   "DomainName": "example.com"
}
```

# **RPC Responses**

Amazon Route 53 responses are just standard HTTP responses. Some of the Amazon Route 53 actions return special information specific to Amazon Route 53 in the form of an HTTP header or JSON in the body of the response. The specific details are covered in the API reference topic for the particular action.

Each response contains a request ID that you can use if you need to troubleshoot a request with Amazon Route 53. The ID is contained in an HTTP header called x-amz-request-id. An example of a request ID is 647cd254-e0d1-44a9-af61-1d6d86ea6b77.

The following example shows a response to a request to create a hosted zone. The CreatedHostedZoneResponse element contains information about the hosted zone including an Amazon Route 53 identifier, the domain that the hosted zone is associated with, and a reference description and comment. The change request itself is associated with a submittal time, an identifier and a status, shown as PENDING. Most importantly, the CreatedHostedZoneResponse includes the Amazon Route 53 name servers assigned to the hosted zone; this information is contained in the DelegationSet element.

#### **Example Response**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"308c56712-faa4-40fe-94c8-b423069de3f6"
}
```

### **Error Responses**

If an RPC request results in an error, the HTTP response has:

- An error document in JSON format as the response body
- Content-Type header: text/xml
- An appropriate 3xx, 4xx, or 5xx HTTP status code

Following is an example of the JSON error document in an RPC error response.

```
{
    "__type": "com.amazon.coral.service#UnrecognizedClientException",
    "message": "The security token included in the request is invalid."
}
```

# **Signing Amazon Route 53 API Requests**

Requests must be signed using an access key ID and a secret access key. We strongly recommend that you do not use your AWS account credentials for everyday work with Amazon Route 53. You can use the credentials for an IAM user or you can use AWS STS to generate temporary security credentials.

To sign your API requests, we recommend that you use AWS Signature Version 4. For more information, see Signature Version 4 Signing Process in the *Amazon Web Services General Reference*.

In addition, you might also be interested in the following topics:

- AWS Security Credentials Provides general information about the types of credentials used for accessing AWS.
- IAM Best Practices Presents a list of suggestions for using IAM service to help secure your AWS resources.
- Using Temporary Security Credentials Describes how to create and use temporary security credentials.

# **Actions on Public Hosted Zones**

A public hosted zone is a container that holds information about how you want to route traffic on the Internet for a domain, such as example.com, and its subdomains. After you create a public hosted zone, you create resource record sets that determine how the Domain Name System (DNS) responds to queries for your domain and subdomains. For example, if you have one or more email addresses associated with your domain (john@example.com), you'll create an MX record in your hosted zone so that email is sent to the email server for your domain.

You can perform a variety of actions on public hosted zones.

- POST CreateHostedZone (Public) (p. 12) Creates a new hosted zone.
- POST UpdateHostedZoneComment (Public and Private) (p. 19) Updates the comment for a hosted zone.
- GET GetHostedZone (Public) (p. 23) Gets information about a specified hosted zone.
- GET ListHostedZones (Public and Private) (p. 29) Gets a list of the hosted zones that are associated with the current AWS account, in order by hosted zone ID.
- GET ListHostedZonesByName (Public and Private) (p. 36) Gets a list of the hosted zones that are associated with the current AWS account, in order by the name of the hosted zone.
- GET GetHostedZoneCount (Public and Private) (p. 43) Gets a count of hosted zones that are associated with the current AWS account.
- DELETE DeleteHostedZone (Public and Private) (p. 45) Deletes a hosted zone.

For more information, see Hosted Zones in the Amazon Route 53 Developer Guide.

# **POST CreateHostedZone (Public)**

#### Topics

- Requests (p. 12)
- Responses (p. 14)
- Errors (p. 17)
- Examples (p. 18)

This action creates a public hosted zone, which you use to specify how the Domain Name System (DNS) routes traffic on the Internet for a domain, such as example.com, and its subdomains.

#### Important

You can't convert a public hosted zone to a private hosted zone or vice versa. Instead, you must create a new hosted zone with the same name and create new resource record sets.

Send a POST request to the 2013-04-01/hostedzone resource. The request body must include an XML document with a CreateHostedZoneRequest element. The response returns the CreateHostedZoneResponse element, which contains metadata about the hosted zone.

For information about charges for hosted zones, see Amazon Route 53 Pricing.

Note the following:

- You cannot create a hosted zone for a top-level domain (TLD).
- Amazon Route 53 automatically creates a default SOA record and four NS records for the zone. For more information about SOA and NS records, see NS and SOA Records that Amazon Route 53 Creates for a Hosted Zone in the Amazon Route 53 Developer Guide.
- If your domain is registered with a registrar other than Amazon Route 53, you must update the name servers with your registrar to make Amazon Route 53 your DNS service. For more information, see Configuring Amazon Route 53 as Your DNS Service in the Amazon Route 53 Developer Guide.

When you submit a CreateHostedZone request, the initial status of the hosted zone is PENDING. This means that the NS and SOA records for the hosted zone are not yet available on all Amazon Route 53 DNS servers. When the NS and SOA records are available, the status of the hosted zone changes to INSYNC.

## Requests

### **Syntax**

The XML elements in your request must appear in the order listed in the syntax.

delegation set ID</DelegationSetId>
</CreateHostedZoneRequest>

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### CreateHostedZoneRequest (Required)

A complex type containing the hosted zone request information.

Type: Complex

Default: None

Children: Name, CallerReference, HostedZoneConfig, VPC

#### Name (Required)

The name of the domain. For resource record types that include a domain name, specify a fully qualified domain name, for example, *www.example.com*. The trailing dot is optional; Amazon Route 53 assumes that the domain name is fully qualified. This means that Amazon Route 53 treats *www.example.com* (without a trailing dot) and *www.example.com*. (with a trailing dot) as identical.

If you're creating a public hosted zone, this is the name you have registered with your DNS registrar. If your domain name is registered with a registrar other than Amazon Route 53, change the name servers for your domain to the set of NameServers that CreateHostedZone returns in the DelegationSet element.

Type: String

Default: None

Parent: CreateHostedZoneRequest

#### CallerReference (Required)

A unique string that identifies the request and that allows failed CreateHostedZone requests to be retried without the risk of executing the operation twice. You must use a unique CallerReference string every time you create a hosted zone. CallerReference can be any unique string, for example, a date/time stamp.

Type: String

Default: None

Constraints: Allowable characters are any Unicode code points that are legal in an XML 1.0 document. The UTF-8 encoding of the value must be less than 128 bytes.

Parent: CreateHostedZoneRequest

#### HostedZoneConfig (Optional)

A complex type that contains an optional comment about your hosted zone. If you don't want to specify a comment, omit both the <code>HostedZoneConfig</code> and <code>Comment</code> elements.

Type: Complex

Default: None

Parent: CreateHostedZoneRequest

Children: Comment

#### Comment (Optional)

Any comments that you want to include about the hosted zone.

Type: String

Default: None

Constraints: Maximum 256 characters

Parent: HostedZoneConfig

#### **DelegationSetId (Optional)**

If you want to associate a reusable delegation set with this hosted zone, the ID that Amazon Route 53 assigned to the reusable delegation set when you created it. For more information about reusable delegation sets, see Actions on Reusable Delegation Sets (p. 92).

Type: String

Default: None

Parent: CreatedHostedZoneRequest

### Responses

### **Syntax**

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UTF-8"?>
<CreateHostedZoneResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HostedZone>
     <Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
     <Name>DNS domain name</Name>
     <CallerReference>unique description</CallerReference>
     <Config>
        <Comment>optional comment</Comment>
         <PrivateZone>false</PrivateZone>
     </Config>
     <ResourceRecordSetCount>number of resource record sets
        in the hosted zone</ResourceRecordSetCount>
  </HostedZone>
  <ChangeInfo>
     <Id>/change/unique identifier for the
      change batch request</Id>
     <Status>PENDING | INSYNC</Status>
     <SubmittedAt>date and time in ISO 8601
        format</SubmittedAt>
  </ChangeInfo>
   <DelegationSet>
     <1d>
     <CallerReference>
      <NameServers>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### CreateHostedZoneResponse

A complex type containing the response information for the hosted zone.

Type: Complex

Children: HostedZone, ChangeInfo, DelegationSet

#### HostedZone

A complex type that contains general information about the hosted zone.

Type: Complex

Children: Id, Name, VPCs (private hosted zones only), CallerReference, Config, ResourceRecordSetCount

#### Id (HostedZone)

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

#### Name

The name of the domain. For public hosted zones, this is the name that you have registered with your DNS registrar.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format.

Type: String

Parent: HostedZone

#### CallerReference (HostedZone)

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

#### Config

A complex type that includes the Comment and PrivateZone elements. If you omitted the HostedZoneConfig and Comment elements from the request, the Config and Comment elements don't appear in the response.

Type: Complex

Parent: HostedZone

Children: Comment, PrivateZone

#### Comment

The comment included in the CreateHostedZoneRequest element.

Type: String

Constraints: Maximum 256 characters

Parent: Config

#### **PrivateZone**

A value that indicates whether this is a private hosted zone.

Type: Boolean

Valid Values: true | false

Parent: Config

#### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

#### ChangeInfo

A complex type that describes the changes made to your hosted zone.

Type: Complex

Children: Id, Status, SubmittedAt

#### Id (ChangeInfo)

The ID of the request.

Type: String

Parent: ChangeInfo

#### Status

The current state of the request. PENDING indicates that the NS and SOA records associated with this hosted zone have not replicated to all Amazon Route 53 DNS servers.

Type: String

Valid Values: PENDING | INSYNC

Parent: ChangeInfo

#### SubmittedAt

The date and time the change request was submitted, in Coordinated Universal Time (UTC) format: YYYY-MM-DDThh:mm:ssZ. For more information, see the Wikipedia entry ISO 8601.

Type: Timestamp

Parent: ChangeInfo

#### DelegationSet

A complex type that describes the name servers for this hosted zone.

Type: Complex

Children: NameServers

#### Id (DelegationSet)

The ID of the reusable delegation set that you specified in the request, if any. If you didn't specify a reusable delegation set, this element is omitted from the response.

Type: String

Parent: DelegationSet

#### CallerReference (DelegationSet)

The value that you specified for CallerReference when you created the reusable delegation set. If you didn't specify a reusable delegation set, this element is omitted from the response.

Type: String

Parent: DelegationSet

#### NameServers

A complex type that contains a list of the authoritative name servers for the hosted zone.

Type: Complex

Parent: DelegationSet

Children: NameServer

#### NameServer

The name of one of the name servers that is authoritative for your domain.

Type: String

Parent: NameServers

### **Errors**

Amazon Route 53 returns the following errors for this action.

#### **DelegationSetNotAvailable**

You can create a hosted zone that has the same name as an existing hosted zone (example.com is common), but there is a limit to the number of hosted zones that have the same name. If you get this error, Amazon Route 53 has reached that limit. If you own the domain name and Amazon Route 53 generates this error, contact Customer Support.

#### InvalidDomainName

The specified domain name is not valid.

#### HostedZoneAlreadyExists

The hosted zone you are attempting to create already exists.

Amazon Route 53 returns this error when a hosted zone has already been created with the specified CallerReference.

#### **TooManyHostedZones**

This hosted zone cannot be created. The hosted zone limit has been exceeded. To request a limit increase, go to http://aws.amazon.com/route53-request/.

#### InvalidVPCId

Either no Amazon VPC exists with the value that you specified for VPCId or the user doesn't have permission to associate the specified VPC with the specified hosted zone.

#### ConflictingDomainExists

You specified an Amazon VPC that you're already using for another hosted zone, and the domain that you specified for one of the hosted zones is a subdomain of the domain that you specified for the other hosted zone. For example, you cannot use the same Amazon VPC if you're creating hosted zones for example.com and test.example.com.

#### InvalidInput

The input is not valid.

#### NoSuchDelegationSet

A delegation set with the specified delegation set ID does not exist.

## **Examples**

### **Example Request**

```
POST /2013-04-01/hostedzone HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<CreateHostedZoneRequest xmlns="https://route53.amazonaws.com/
doc/2013-04-01/">
        <Name>example.com</Name>
        <CallerReference>myUniqueIdentifier</CallerReference>
        <HostedZoneConfig>
            <Comment>This is my first hosted zone.</Comment>
        </HostedZoneConfig>
        <DelegationSetId>NZ8X2CISAMPLE</DelegationSetId>
</CreateHostedZoneRequest>
```

### **Example Response**

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UTF-8"?>
<CreateHostedZoneResponse xmlns="https://route53.amazonaws.com/doc/</pre>
2013-04-01/">
   <HostedZone>
      <Id>/hostedzone/Z1PA6795UKMFR9</Id>
      <Name>example.com.</Name>
      <CallerReference>myUniqueIdentifier</CallerReference>
      <Config>
         <Comment>This is my first hosted zone.</Comment>
         <PrivateZone>false</PrivateZone>
      </Config>
      <ResourceRecordSetCount>2</ResourceRecordSetCount>
   </HostedZone>
   <ChangeInfo>
      <Id>/change/C1PA6795UKMFR9</Id>
      <Status>PENDING</Status>
      <SubmittedAt>2014-10-15T01:36:41.958Z</SubmittedAt>
   </ChangeInfo>
   <DelegationSet>
      <Id>NZ8X2CISAMPLE</Id>
      <CallerReference>2014-10-14T11:44:14.448Z</Id>
      <NameServers>
         <NameServer>ns-2048.awsdns-64.com</NameServer>
         <NameServer>ns-2049.awsdns-65.net</NameServer>
         <NameServer>ns-2050.awsdns-66.org</NameServer>
         <NameServer>ns-2051.awsdns-67.co.uk</NameServer>
      </NameServers>
   </DelegationSet>
</CreateHostedZoneResponse>
```

# POST UpdateHostedZoneComment (Public and Private)

To update the comment for a hosted zone, send a POST request to the /2013-04-01/hostedzone/hosted zone ID resource.

#### Topics

- Requests (p. 19)
- Responses (p. 20)
- Errors (p. 21)
- Example (p. 22)

# Requests

### **Syntax**

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Request Parameter**

#### Hosted Zone ID (Required)

The ID for the hosted zone for which you want to update the comment.

Type: String

Default: None

### **Elements**

#### UpdateHostedZoneCommentRequest (Required)

A complex type that contains the hosted zone request information.

Type: Complex

Default: None

Child: Comment

#### Comment

The new comment for the hosted zone. If you don't specify a value for Comment, Amazon Route 53 deletes the existing value of the Comment element, if any.

Type: String

Default: None

Constraints: Maximum 256 characters

Parent: UpdateHostedZoneCommentRequest

## Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<UpdateHostedZoneCommentResponse xmlns="https://route53.amazonaws.com/doc/2013-</pre>
04-01/">
   <HostedZone>
      <Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
      <Name>DNS domain name</Name>
      <CallerReference>unique description</CallerReference>
      <Config>
         <Comment>new comment</Comment>
         <PrivateZone> true | false</PrivateZone>
      </Config>
      <ResourceRecordSetCount>number of resource record sets in the hosted
zone</ResourceRecordSetCount>
   </HostedZone>
</UpdateHostedZoneCommentResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### **UpdateHostedZoneCommentResponse**

A complex type that contains the response to the UpdateHostedZoneCommentRequest.

Type: Complex

Child: HostedZone

#### HostedZone

A complex type containing information about the hosted zone for which you updated the Comment element.

Type: String

Parent: UpdateHostedZoneCommentResponse

Children: Id, Name, CallerReference, Config, ResourceRecordSetCount

#### ld

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

#### Name

The name of the domain. For public hosted zones, this is the name that you registered with your domain registrar.

Type: String

Parent: HostedZone

#### CallerReference

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

#### Config

A complex type that includes the Comment and PrivateZone elements.

Type: String

Parent: HostedZone

Children: Comment, PrivateZone

#### Comment

The comment that you specified in the UpdateHostedZoneComment request.

Type: String

Parent: Config

#### PrivateZone

A value that indicates whether this is a private hosted zone.

Type: Boolean

Parent: Config

#### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

### **Errors**

Amazon Route 53 returns the following errors for this action:

#### InvalidInput

The input is not valid.

#### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

# Example

### **Example Request**

```
POST /2013-04-01/hostedzone/Z1D633PJN98FT9 HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<UpdateHostedZoneCommentRequest xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
        <Comment>Example comment</Comment>
</UpdateHostedZoneCommentRequest>
```

### Example Response

# **GET GetHostedZone (Public)**

To retrieve information about a public hosted zone, including the four name servers assigned to the hosted zone, send a GET request to the 2013-04-01/hostedzone/Amazon Route 53 hosted zone ID resource.

To retrieve information about a private hosted zone, see GET GetHostedZone (Private) (p. 70). For more information about name servers, see Getting the Name Servers for a Hosted Zone in the Amazon Route 53 Developer Guide.

#### Topics

- Requests (p. 23)
- Responses (p. 23)
- Errors (p. 26)
- Examples (p. 27)

# Requests

### **Syntax**

GET /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

The request must contain the hosted zone ID that Amazon Route 53 assigned when you created the hosted zone. To get a list of all of the hosted zones that are associated with the current AWS account, including the corresponding hosted zone IDs, see GET ListHostedZones (Public and Private) (p. 29).

## Responses

The response syntax depends on whether the hosted zone is associated with reusable delegation set. If so, the DelegationSet element includes two additional elements: Id and CallerReference. For more information about reusable delegation sets, see Actions on Reusable Delegation Sets (p. 92).

### **Syntax**

Response syntax, default delegation set assigned by Amazon Route 53

```
<CallerReference>unique identifier that you specified
        when you created the hosted zone</CallerReference>
     <Config>
        <Comment>comment that you specified when you
           created the hosted zone</Comment>
         <PrivateZone>false</PrivateZone>
      </Config>
      <ResourceRecordSetCount>number of resource record sets
         in the hosted zone</ResourceRecordSetCount>
  </HostedZone>
  <DelegationSet>
      <NameServers>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
      </NameServers>
   </DelegationSet>
</GetHostedZoneResponse>
```

#### Response syntax, reusable delegation set

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<GetHostedZoneResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HostedZone>
     <Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
     <Name>DNS domain name</Name>
     <CallerReference>unique identifier that you specified
        when you created the hosted zone</CallerReference>
     <Config>
         <Comment>comment that you specified when you
           created the hosted zone</Comment>
         <PrivateZone>false</PrivateZone>
     </Config>
      <ResourceRecordSetCount>number of resource record sets
        in the hosted zone</ResourceRecordSetCount>
  </HostedZone>
  <DelegationSet>
      <Id>reusable delegation set ID</Id>
      <CallerReference>unique string that you
         specified when you created the
         reusable delegation set</CallerReference>
      <NameServers>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
         <NameServer>DNS name for Amazon Route 53 name server</NameServer>
      </NameServers>
  </DelegationSet>
</GetHostedZoneResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### GetHostedZoneResponse

A complex type containing the response information for the hosted zone.

Type: Complex

Children: HostedZone, DelegationSet

#### HostedZone

A complex type that contains general information about the hosted zone.

Type: Complex

Children: Id, Name, VPCs (private hosted zones only), CallerReference, Config, ResourceRecordSetCount

#### Id (HostedZone)

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

#### Name

The name of the domain. For public hosted zones, this is the name that you have registered with your DNS registrar.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format.

Type: String

Parent: HostedZone

#### CallerReference (HostedZone)

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

#### Config

A complex type that includes the Comment and PrivateZone elements. If you omitted the HostedZoneConfig and Comment elements from the request, the Config and Comment elements don't appear in the response.

Type: Complex

Parent: HostedZone

Children: Comment, PrivateZone

#### Comment

The comment included in the CreateHostedZoneRequest element.

Type: String

Constraints: Maximum 256 characters

Parent: Config

#### **PrivateZone**

A value that indicates whether this is a private hosted zone.

Type: Boolean

Valid Values: true | false

Parent: Config

#### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

#### DelegationSet

A complex type that describes the name servers for this hosted zone.

Type: Complex

Children: NameServers

#### Id (DelegationSet)

If you associated a reusable delegation set with this hosted zone, the ID of the reusable delegation set.

Type: String

Parent: DelegationSet

#### CallerReference (DelegationSet)

The value that you specified for CallerReference when you created the reusable delegation set.

Type: String

Parent: DelegationSet

#### NameServers

A complex type that contains a list of the authoritative name servers for the hosted zone.

Type: Complex

Parent: DelegationSet

Children: NameServer

#### NameServer

The name of one of the name servers that is authoritative for your domain.

Type: String

Parent: NameServers

### **Errors**

Amazon Route 53 returns the following errors for this action.

#### InvalidInput

The input is not valid.

### **NoSuchHostedZone**

A hosted zone with the specified hosted zone ID does not exist.

# **Examples**

## **Example Request**

The following example shows a GET request for information about a hosted zone with an ID of Z1D633PJN98FT9.

```
GET /2013-04-01/hostedzone/Z1D633PJN98FT9
```

# **Example Response**

The following example shows the response to the GET request if you have not associated a reusable delegation set with the hosted zone.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<GetHostedZoneResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HostedZone>
     <Id>/hostedzone/Z1D633PJN98FT9</Id>
      <Name>example.com.</Name>
     <CallerReference>2014-11-01T11:22:14Z</CallerReference>
     <Config>
         <Comment>This is my first hosted zone.</Comment>
         <PrivateZone>false</PrivateZone>
      </Config>
      <ResourceRecordSetCount>17</ResourceRecordSetCount>
  </HostedZone>
  <DelegationSet>
      <NameServers>
         <NameServer>ns-2048.awsdns-64.com</NameServer>
         <NameServer>ns-2049.awsdns-65.net</NameServer>
         <NameServer>ns-2050.awsdns-66.org</NameServer>
         <NameServer>ns-2051.awsdns-67.co.uk</NameServer>
      </NameServers>
   </DelegationSet>
</GetHostedZoneResponse>
```

The following example shows the response to the GET request if you have associated a reusable delegation set with the hosted zone.

```
</Config>
<ResourceRecordSetCount>17</ResourceRecordSetCount>
</HostedZone>
<DelegationSet>
<Id>NU241VPSAMPLE</Id>
<CallerReference>2014-10-01T11:22:14Z</CallerReference>
<NameServers>
<NameServer>ns-2048.awsdns-64.com</NameServer>
<NameServer>ns-2049.awsdns-65.net</NameServer>
<NameServer>ns-2050.awsdns-66.org</NameServer>
<NameServer>ns-2051.awsdns-67.co.uk</NameServer>
</NameServers>
</DelegationSet>
</GetHostedZoneResponse>
```

# **GET ListHostedZones (Public and Private)**

To retrieve a list of your public and private hosted zones, send a GET request to the 2013-04-01/hostedzone resource. The response to this request includes a HostedZone child element for each hosted zone that was created by the current AWS account.

Amazon Route 53 returns a maximum of 100 items in each response. If you have a lot of hosted zones, you can use the maxitems parameter to list them in groups of up to 100. The response includes four values that help you navigate from one group of maxitems hosted zones to the next:

- MaxItems is the value that you specified for the maxitems parameter in the request that produced the current response.
- If the value of IsTruncated in the response is true, there are more hosted zones associated with the current AWS account.

If IsTruncated is false, this response includes the last hosted zone that is associated with the current account.

• NextMarker is the hosted zone ID of the next hosted zone that is associated with the current AWS account. If you want to list more hosted zones, make another call to ListHostedZones, and specify the value of the NextMarker element in the marker parameter.

If IsTruncated is false, the NextMarker element is omitted from the response.

• If you're making the second or subsequent call to ListHostedZones, the Marker element matches the value that you specified in the marker parameter in the previous request.

### Topics

- Requests (p. 29)
- Responses (p. 30)
- Errors (p. 32)
- Examples (p. 33)

# Requests

# **Syntax**

```
GET /2013-04-01/hostedzone?DelegationSetId=delegation set ID
&marker=Amazon Route 53 hosted zone ID
&maxitems=maximum number of hosted zones to include in the response
```

## **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

### **DelegationSetId (Optional)**

If you're using reusable delegation sets and you want to list all of the hosted zones that are associated with a reusable delegation set, specify the ID of that reusable delegation set. For more information, see Actions on Reusable Delegation Sets (p. 92).

### Type: String

### marker (Optional)

If you have more hosted zones than the value of maxitems, ListHostedZones returns only the first maxitems hosted zones. To get the next group of maxitems hosted zones, submit another request to ListHostedZones. For the value of marker, specify the value of the NextMarker element that was returned in the previous response.

Hosted zones are listed in the order in which they were created.

Type: String

### maxitems (Optional)

The maximum number of hosted zones to be included in the response body for this request. If you have more than maxitems hosted zones, the value of the IsTruncated element in the response is true, and the value of the NextMarker element is the hosted zone ID of the first hosted zone in the next group of maxitems hosted zones.

Type: String

Default: 100

Constraint: maximum value is 100. If you specify a value greater than 100, ListHostedZones returns the first group of 100 hosted zones.

# Responses

## **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HostedZones>
      <HostedZone>
         <Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
         <Name>DNS domain name</Name>
         <CallerReference>unique description that you specified
           when you created the hosted zone</CallerReference>
         <Config>
            <Comment>comment that you specified when you
              created the hosted zone</Comment>
            <PrivateZone>true | false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>number of resource record sets
            in the hosted zone</ResourceRecordSetCount>
      </HostedZone>
      . . .
  </HostedZones>
   <Marker>value of the marker parameter,
     if any, in the previous request</Marker>
  <IsTruncated>true | false</IsTruncated>
  <NextMarker>if IsTruncated is true,
     the hosted zone ID of the first hosted zone
     in the next group of maxitems hosted zones</NextMarker>
  <MaxItems>value of the maxitems parameter,
```

if any, in the previous request</MaxItems>
</ListHostedZonesResponse>

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### ListHostedZonesResponse

A complex type containing the response information for the request.

Type: Complex

Children: Marker, HostedZones, MaxItems, IsTruncated, NextMarker

### HostedZones

The parent element to HostedZone, this element can contain zero, one, or more HostedZone elements.

Type: Complex

Children: HostedZone

### HostedZone

A complex type that contains general information about the hosted zone.

Type: Complex

Children: Id, Name, CallerReference, Config, ResourceRecordSetCount

### Id (HostedZone)

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

### Name

The name of the domain. For public hosted zones, this is the name that you have registered with your DNS registrar.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format.

Type: String

Parent: HostedZone

### CallerReference

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

### Config

A complex type that includes the Comment and PrivateZone elements. If you omitted the HostedZoneConfig and Comment elements from the request, the Config and Comment elements don't appear in the response.

Type: Complex

Parent: HostedZone

Children: Comment, PrivateZone

### Comment

The comment included in the CreateHostedZoneRequest element.

Type: String

Constraints: Maximum 256 characters

Parent: Config

### PrivateZone

A value that indicates whether this is a private hosted zone.

Type: Boolean

Valid Values: true | false

Parent: Config

### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

### Marker

For the second and subsequent calls to ListHostedZones, Marker is the value that you specified for the marker parameter in the request that produced the current response.

Type: String

### IsTruncated

A flag indicating whether there are more hosted zones to be listed. If the response was truncated, you can get the next group of maxitems hosted zones by calling ListHostedZones again and specifying the value of the NextMarker element in the marker parameter.

Type: String

Valid Values: true | false

### NextMarker

If IsTruncated is true, the value of NextMarker identifies the first hosted zone in the next group of maxitems hosted zones. Call ListHostedZones again and specify the value of NextMarker in the marker parameter.

This element is present only if IsTruncated is true.

Type: String

### MaxItems

The value that you specified for the maxitems parameter in the call to  ${\tt ListHostedZones}$  that produced the current response.

Type: String

# **Errors**

Amazon Route 53 returns the following error for this action.

InvalidInput

The input is not valid.

NoSuchReusableDelegationSet

A reusable delegation set with the specified ID does not exist.

# **Examples**

# **Example Request**

The following example shows a request in which maxitems is 1.

```
GET /2013-04-01/hostedzone?maxitems=1
```

# **Example Response**

This example shows the response for the previous request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HostedZones>
     <HostedZone>
        <Id>/hostedzone/Z111111QQQQQQQ</Id>
         <Name>example.com.</Name>
         <CallerReference>MyUniqueIdentifier1</CallerReference>
         <Config>
            <Comment>This is my first hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>42</ResourceRecordSetCount>
     </HostedZone>
  </HostedZones>
  <IsTruncated>true</IsTruncated>
  <NextMarker>Z22222VVVVVV</NextMarker>
  <MaxItems>1</MaxItems>
</ListHostedZonesResponse>
```

# **Example Follow-up Request**

This example shows the follow-up request to the previous request. In this request, the maxitems parameter has been changed to 2, and the marker parameter is the value of the NextMarker element (2222222VVVVVVVV) in the previous response.

```
GET /2013-04-01/hostedzone?marker=Z222222VVVVVVV&maxitems=2
```

# **Example Follow-up Response**

This example shows the response for the previous request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HostedZones>
     <HostedZone>
         <Id>/hostedzone/Z22222VVVVVV</Id>
         <Name>example2.com.</Name>
         <CallerReference>MyUniqueIdentifier2</CallerReference>
         <Config>
            <Comment>This is my second hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>17</ResourceRecordSetCount>
      </HostedZone>
      <HostedZone>
         <Id>/hostedzone/Z2682N5HXP0BZ4</Id>
         <Name>example3.com.</Name>
         <CallerReference>MyUniqueIdentifier3</CallerReference>
         <Config>
            <Comment>This is my third hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>117</ResourceRecordSetCount>
      </HostedZone>
  </HostedZones>
  <Marker>Z22222VVVVVV</Marker>
  <IsTruncated>true</IsTruncated>
  <NextMarker>Z333333YYYYYYY</NextMarker>
  <MaxItems>2</MaxItems>
</ListHostedZonesResponse>
```

# Example response for the hosted zones that are associated with a specified reusable delegation set

The following example shows a request to return all of the hosted zones that are associated with the reusable delegation set that has the ID  $\tt NZ8X2CISAMPLE.$ 

```
GET /2013-04-01/hostedzone?delegationsetid=NZ8X2CISAMPLE
```

# Example response for the hosted zones that are associated with a specified reusable delegation set

The following example shows the response for the previous request.

```
<CallerReference>2014-10-01T11:22:14Z</CallerReference>
         <Config>
            <Comment>Delegation set id NZ8X2CISAMPLE</Comment>
         </Config>
         <ResourceRecordSetCount>4</ResourceRecordSetCount>
     </HostedZone>
     <HostedZone>
         <Id>/hostedzone/Z1I149ULENZ2PP</Id>
         <Name>example2.com.</Name>
         <CallerReference>2014-11-02T12:33:15Z</CallerReference>
         <Config>
            <Comment>Delegation set id NZ8X2CISAMPLE</Comment>
         </Config>
         <ResourceRecordSetCount>6</ResourceRecordSetCount>
     </HostedZone>
  </HostedZones>
  <IsTruncated>false</IsTruncated>
  <MaxItems>100</MaxItems>
</ListHostedZonesResponse>
```

# GET ListHostedZonesByName (Public and Private)

To retrieve a list of your public and private hosted zones in ASCII order by domain name, send a GET request to the 2013-04-01/hostedzonesbyname resource. The response to this request includes a HostedZone child element for each hosted zone that was created by the current AWS account.

ListHostedZonesByName sorts hosted zones by name with the labels reversed, for example:

com.example.www.

Note the trailing dot, which can change the sort order in some circumstances.

If the domain name includes escape characters or Punycode, ListHostedZonesByName alphabetizes the domain name using the escaped or Punycoded value, which is the format that Amazon Route 53 saves in its database. For example, to create a hosted zone for example.com, you specify ex\344mple.com for the domain name. ListHostedZonesByName alphabetizes it as:

com.ex\344mple.

The labels are reversed, and it's alphabetized using the escaped value. For more information about valid domain name formats, including internationalized domain names, see DNS Domain Name Format in the *Amazon Route 53 Developer Guide*.

Amazon Route 53 returns up to 100 items in each response. If you have a lot of hosted zones, you can use the MaxItems parameter to list them in groups of up to 100. The response includes values that help you navigate from one group of MaxItems hosted zones to the next:

- The DNSName and HostedZoneId elements in the response contain the values, if any, that you specified for the dnsname and hostedzoneid parameters in the request that produced the current response.
- The MaxItems element in the response contains the value, if any, that you specified for the maxitems parameter in the request that produced the current response.
- If the value of IsTruncated in the response is true, there are more hosted zones associated with the current AWS account.

If IsTruncated is false, this response includes the last hosted zone that is associated with the current account. The NextDNSName element and NextHostedZoneId elements are omitted from the response.

• The NextDNSName and NextHostedZoneId elements in the response contain the domain name and the hosted zone ID of the next hosted zone that is associated with the current AWS account. If you want to list more hosted zones, make another call to ListHostedZonesByName, and specify the value of NextDNSName and NextHostedZoneId in the dnsname and hostedzoneid parameters, respectively.

### Topics

- Requests (p. 37)
- Responses (p. 38)
- Errors (p. 41)
- Examples (p. 41)

# Requests

## **Syntax**

```
GET /2013-04-01/hostedzonesbyname?dnsname=hosted zone name
   &hostedzoneid=Amazon Route 53 hosted zone ID
   &maxitems=maximum number of hosted zones to include in the response
```

# **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# **Parameters**

### (Optional) dnsname

For your first request to ListHostedZonesByName, include the dnsname parameter only if you want to specify the name of the first hosted zone in the response. If you don't include the dnsname parameter, Amazon Route 53 returns all of the hosted zones that were created by the current AWS account, in ASCII order.

For subsequent requests, include both dnsname and hostedzoneid parameters. For dnsname, specify the value of NextDNSName from the previous response.

### Type: String

### (Optional) hostedzoneid

For your first request to ListHostedZonesByName, do not include the hostedzoneid parameter.

If you have more hosted zones than the value of maxitems, ListHostedZonesByName returns only the first maxitems hosted zones. To get the next group of maxitems hosted zones, submit another request to ListHostedZonesByName and include both dnsname and hostedzoneid parameters. For the value of hostedzoneid, specify the value of the NextHostedZoneId element from the previous response.

Type: String

### (Optional) maxitems

The maximum number of hosted zones to be included in the response body for this request. If you have more than maxitems hosted zones, then the value of the IsTruncated element in the response is true, and the values of NextDNSName and NextHostedZoneId specify the first hosted zone in the next group of maxitems hosted zones.

Type: String

Default: 100

Constraint: Maximum value is 100. If you specify a value greater than 100, ListHostedZonesByName returns the first group of 100 hosted zones.

# Responses

## **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesByNameResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
  <HostedZones>
     <HostedZone>
         <Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
         <Name>DNS domain name</Name>
         <CallerReference>unique description that you specified
            when you created the hosted zone</CallerReference>
         <Config>
            <Comment>comment that you specified when you
              created the hosted zone</Comment>
            <PrivateZone>true | false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>number of resource record sets
            in the hosted zone</ResourceRecordSetCount>
      </HostedZone>
      . . .
   </HostedZones>
   <DNSName>value of the dnsname parameter,
      if any, in the previous request </ DNSName>
  <HostedZoneId>value of the hostedzoneid parameter,
     if any, in the previous request</HostedZoneId>
  <IsTruncated>true | false</IsTruncated>
  <NextDNSName>if IsTruncated is true,
     the name of the first hosted zone
     in the next group of maxitems hosted zones</DNSName>
  <NextHostedZoneId>if IsTruncated is true,
     the hosted zone ID of the first hosted zone
     in the next group of maxitems hosted zones</HostedZoneId>
  <MaxItems>value of the maxitems parameter,
      if any, in the previous request </ MaxItems >
</ListHostedZonesByNameResponse>
```

# **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# **Elements**

### ListHostedZonesByNameResponse

A complex type that contains the response information for the request.

Type: Complex

Children: HostedZones, DNSName, HostedZoneId, IsTruncated, NextDNSName, NextHostedZoneId, MaxItems

### HostedZones

A list that contains one  ${\tt HostedZone}$  element for each hosted zone that was created by the current AWS account.

Type: Complex

Children: HostedZone

### HostedZone

A complex type that contains general information about the hosted zone.

Type: Complex

Children: Id, Name, CallerReference, Config, ResourceRecordSetCount

### ld

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

### Name

The name of the domain. For public hosted zones, this is the name that you have registered with your DNS registrar.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format.

Type: String

Parent: HostedZone

### CallerReference

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

### Config

A complex type that includes the Comment and PrivateZone elements. If you omitted the HostedZoneConfig and Comment elements from the request, the Config and Comment elements don't appear in the response.

Type: Complex

Parent: HostedZone

Children: Comment, PrivateZone

### Comment

The comment included in the  ${\tt CreateHostedZoneRequest}$  element.

Type: String

Constraints: Maximum 256 characters

Parent: Config

### PrivateZone

A value that indicates whether this is a private hosted zone.

Type: Boolean

Valid Values: true | false

Parent: Config

### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

### **DNSName**

For the second and subsequent calls to ListHostedZonesByName, DNSName is the value that you specified for the dnsname parameter in the request that produced the current response.

Type: String

Parent: ListHostedZonesByNameResponse

### HostedZoneld

For the second and subsequent calls to ListHostedZonesByName, HostedZoneId is the value that you specified for the hostedzoneid parameter in the request that produced the current response.

Type: String

Parent: ListHostedZonesByNameResponse

### IsTruncated

A flag that indicates whether there are more hosted zones to be listed. If the response was truncated, you can get the next group of maxitems hosted zones by calling ListHostedZonesByName again and specifying the values of NextDNSName and NextHostedZoneId elements in the dnsname and hostedzoneid parameters.

Type: String

Parent: ListHostedZonesByNameResponse

Valid Values: true | false

### NextDNSName

If IsTruncated is true, the value of NextDNSName is the name of the first hosted zone in the next group of maxitems hosted zones. Call ListHostedZonesByName again and specify the value of NextDNSName and NextHostedZoneId in the dnsname and hostedzoneid parameters, respectively.

This element is present only if IsTruncated is true.

Type: String

Parent: ListHostedZonesByNameResponse

### NextHostedZoneld

If IsTruncated is true, the value of NextHostedZoneId identifies the first hosted zone in the next group of maxitems hosted zones. Call ListHostedZonesByName again and specify the value of NextDNSName and NextHostedZoneId in the dnsname and hostedzoneid parameters, respectively.

This element is present only if IsTruncated is true.

Type: String

Parent: ListHostedZonesByNameResponse

### MaxItems

The value that you specified for the maxitems parameter in the call to ListHostedZonesByName that produced the current response.

Type: String

Parent: ListHostedZonesByNameResponse

# **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput The input is not valid.

# **Examples**

# **Example Request**

The following example shows a request in which maxitems is 1:

```
GET /2013-04-01/hostedzonesbyname?maxitems=1
```

# **Example Response**

The following example shows the response for the previous request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesByNameResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
  <HostedZones>
     <HostedZone>
        <Id>/hostedzone/Z111111QQQQQQQ</Id>
         <Name>example.com.</Name>
         <CallerReference>MyUniqueIdentifier1</CallerReference>
         <Config>
            <Comment>This is my first hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>42</ResourceRecordSetCount>
      </HostedZone>
  </HostedZones>
  <IsTruncated>true</IsTruncated>
  <NextDNSName>example2.com</NextDNSName>
  <NextHostedZoneId>Z22222VVVVVV</NextHostedZoneId>
   <MaxItems>1</MaxItems>
</ListHostedZonesByNameResponse>
```

# **Example Follow-up Request**

The following example shows the follow-up request to the previous request. In this request:

• The dnsname parameter is the value of the NextDNSName element (example2.com) in the previous response.

- The hostedzoneid parameter is the value of the NextHostedZoneId element (Z222222VVVVVVV) in the previous response.
- The  ${\tt maxitems}$  parameter has been changed to 2

```
GET /2013-04-01/hostedzonesbyname?dnsname=example2.com&hosted zoneid=Z2222222VVVVVV&maxitems=2
```

# Example Follow-up Response

The following example shows the response for the previous request:

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesByNameResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
   <HostedZones>
      <HostedZone>
         <Id>/hostedzone/Z22222VVVVVV</Id>
         <Name>example2.com.</Name>
         <CallerReference>MyUniqueIdentifier2</CallerReference>
         <Config>
            <Comment>This is my second hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>17</ResourceRecordSetCount>
      </HostedZone>
      <HostedZone>
         <Id>/hostedzone/Z2682N5HXP0BZ4</Id>
         <Name>example3.com.</Name>
         <CallerReference>MyUniqueIdentifier3</CallerReference>
         <Config>
            <Comment>This is my third hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>117</ResourceRecordSetCount>
      </HostedZone>
   </HostedZones>
   <DNSName>example2.com</DNSName>
   <HostedZoneId>Z22222VVVVVV</HostedZoneId>
   <IsTruncated>false</IsTruncated>
   <MaxItems>2</MaxItems>
</ListHostedZonesByNameResponse>
```

# **GET GetHostedZoneCount (Public and Private)**

### Topics

- Requests (p. 43)
- Responses (p. 43)
- Errors (p. 44)
- Examples (p. 44)

Gets the total number of public and private hosted zones for the current AWS account.

To get a count of public and private hosted zones, send a GET request to the /2013-04-01/hosted zone count resource.

# Requests

## **Syntax**

GET /2013-04-01/hostedzonecount

## **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# Responses

# **Syntax**

## **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

### GetHostedZoneCountResponse

A complex type that contains the response to a hostedzonecount request.

Type: Complex

Child: HostedZoneCount

### HostedZoneCount

The total number of public and private hosted zones associated with the current AWS account.

Type: Integer

Parent: GetHostedZoneCountResponse

# **Errors**

Amazon Route 53 doesn't return any errors that are specific to this action.

# **Examples**

# **Example Request**

GET /2013-04-01/hostedzonecount

# **Example Response**

# **DELETE DeleteHostedZone (Public and Private)**

This action deletes a hosted zone. To delete a hosted zone, send a DELETE request to the 2013-04-01/hostedzone/Amazon Route 53 hosted zone ID resource.

For more information about deleting a hosted zone, see Deleting a Hosted Zone in the Amazon Route 53 Developer Guide.

### Important

You can delete a hosted zone only if there is no resource record set other than the default SOA record and NS records. If your hosted zone contains resource records other than the default SOA record and NS records, you must delete those resource records before you can delete your hosted zone. Any records you added to the hosted zone must be deleted first. If you try to delete a hosted zone that contains resource records other than the default records, Amazon Route 53 will deny your request with a HostedZoneNotEmpty error. For information about deleting records from your hosted zone, see POST ChangeResourceRecordSets (p. 108).

To verify that the hosted zone has been deleted, do one of the following:

- Use the GET GetHostedZone (Public) (p. 23) action to request information about the hosted zone.
- Use the GET ListHostedZones (Public and Private) (p. 29) action to get a list of the hosted zones associated with the current AWS account.

### Topics

- Requests (p. 45)
- Responses (p. 46)
- Errors (p. 47)
- Examples (p. 47)

# Requests

# **Syntax**

DELETE /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID

## **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Parameters**

The request must contain the hosted zone ID. Amazon Route 53 returns the hosted zone ID in the HostedZone element as part of the CreateHostedZoneResponse or ListHostedZonesResponse. For more information, see POST CreateHostedZone (Public) (p. 12) or GET ListHostedZones (Public and Private) (p. 29).

# Responses

## **Syntax**

# **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

### DeleteHostedZoneResponse

A complex type containing the response information for the request.

Type: Complex

Children: ChangeInfo

### ChangeInfo

A complex type that describes the changes made to your hosted zone.

Type: Complex

Children: Id, Status, SubmittedAt

### Id (ChangeInfo)

The ID of the request.

Type: String

Parent: ChangeInfo

### Status

The current state of the request. PENDING indicates that the NS and SOA records associated with this hosted zone have not replicated to all Amazon Route 53 DNS servers.

Type: String

Valid Values: PENDING | INSYNC

Parent: ChangeInfo

### SubmittedAt

The date and time the change request was submitted, in Coordinated Universal Time (UTC) format: YYYY-MM-DDThh:mm:ssZ. For more information, see the Wikipedia entry ISO 8601. Type: Timestamp

Parent: ChangeInfo

# **Errors**

Amazon Route 53 returns the following errors for this action.

### HostedZoneNotEmpty

The hosted zone contains resource records that are not SOA or NS records.

InvalidInput

The input is not valid.

### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

# **Examples**

# **Example Request**

The following example shows the DELETE request with the hosted zone ID (beginning with the letter Z).

```
DELETE /2013-04-01/hostedzone/Z1PA6795UKMFR9
```

# Example Response

When the status of this change becomes  $\tt INSYNC$ , your hosted zone has been removed from all Amazon Route 53 DNS servers.

# **Actions on Private Hosted Zones**

A private hosted zone is a container that holds information about how you want to route traffic for a domain and its subdomains within one or more Amazon Virtual Private Clouds (Amazon VPCs). To begin, you create a private hosted zone and specify the Amazon VPCs that you want to associate with the hosted zone. You then create resource record sets that determine how Amazon Route 53 responds to queries for your domain and subdomains within and among your Amazon VPCs. For example, if you have a web server associated with your domain, you'll create an A record in your hosted zone so browser queries for example.com are routed to your web server.

### Important

To use private hosted zones, you must set the following Amazon VPC settings to true:

- enableDnsHostnames
- enableDnsSupport

For more information, see Updating DNS Support for Your VPC in the Amazon VPC User Guide.

You can't associate a reusable delegation set with a private hosted zone.

You can perform a variety of actions on private hosted zones.

### POST CreateHostedZone (Private) (p. 50)

Creates a new hosted zone.

### POST UpdateHostedZoneComment (Public and Private) (p. 58)

Updates the comment for a hosted zone.

### POST AssociateVPCWithHostedZone (p. 62)

Associates an additional Amazon VPC virtual private cloud with an Amazon Route 53 hosted zone that you configured for private DNS so you can use Amazon Route 53 as the DNS service for your virtual private cloud.

### POST DisassociateVPCFromHostedZone (p. 66)

Disassociates an Amazon VPC virtual private cloud from an Amazon Route 53 hosted zone that you configured for private DNS.

GET GetHostedZone (Private) (p. 70)

Gets information about a specified hosted zone.

### GET ListHostedZones (Public and Private) (p. 74)

Gets a list of the hosted zones that are associated with the current AWS account, in order by hosted zone ID.

### GET ListHostedZonesByName (Public and Private) (p. 80)

Gets a list of the hosted zones that are associated with the current AWS account, in order by the name of the hosted zone.

GET GetHostedZoneCount (Public and Private) (p. 87) Gets a count of hosted zones that are associated with the current AWS account.

DELETE DeleteHostedZone (Public and Private) (p. 89) Deletes a hosted zone.

For more information, see Working with Private Hosted Zones in the Amazon Route 53 Developer Guide.

# **POST CreateHostedZone (Private)**

This action creates a private hosted zone, which you use to specify how Amazon Route 53 routes traffic for a domain that is accessible only within one or more Amazon Virtual Private Clouds (Amazon VPCs).

### Important

You can't convert a public hosted zone to a private hosted zone or vice versa. Instead, you must create a new hosted zone with the same name and create new resource record sets.

Send a POST request to the 2013-04-01/hostedzone resource. The request body must include an XML document with a CreateHostedZoneRequest element. The response returns the CreateHostedZoneResponse element, which contains metadata about the hosted zone.

You can't associate a reusable delegation set with a private hosted zone.

### Note

If you want to use a different account to create the hosted zone than you used to create the Amazon VPCs that you want to associate with the hosted zone, we need to update account permissions for you. For more information, see Associating Amazon VPCs and Private Hosted Zones That You Create with Different AWS Accounts in the Amazon Route 53 Developer Guide.

For information about charges for hosted zones, see Amazon Route 53 Pricing.

You can create a hosted zone for almost any domain name. However, if you want to use the same VPC for two hosted zones, one domain cannot be a subdomain of the other. For example, you cannot use the same VPC if you're creating hosted zones for example.com and test.example.com.

### Topics

- Requests (p. 50)
- Responses (p. 52)
- Errors (p. 55)
- Examples (p. 56)

# Requests

## **Syntax**

The XML elements in your request must appear in the order listed in the syntax.

## **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

### CreateHostedZoneRequest (Required)

A complex type containing the hosted zone request information.

Type: Complex

Default: None

Children: Name, CallerReference, HostedZoneConfig, VPC

### Name (Required)

The fully qualified name of the domain, for example, *www.example.com*. The trailing dot is optional; Amazon Route 53 assumes that the domain name is fully qualified. This means that Amazon Route 53 treats *www.example.com* (without a trailing dot) and *www.example.com*. (with a trailing dot) as identical.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format.

Type: String

Default: None

Parent: CreateHostedZoneRequest

### VPC

A complex type that contains information about the Amazon VPC that you're associating with this hosted zone.

You can specify only one Amazon VPC when you create a private hosted zone. To associate additional Amazon VPC with the hosted zone, use POST AssociateVPCWithHostedZone (p. 62) after you create a hosted zone.

Type: Complex

Default: None

Parent: CreateHostedZoneRequest

Children: VPCId, VPCRegion

### VPCId

The ID of the Amazon VPC that you want to associate with the hosted zone.

Type: String

Default: None

Parent: VPC

### VPCRegion

The region in which you created the Amazon VPC that you specified in VPCId.

Type: String

Default: None

Valid Values: us-east-1, us-west-1, us-west-2, ap-south-1, ap-northeast-2, ap-southeast-1, ap-southeast-2, ap-northeast-1, eu-central-1, eu-west-1, sa-east-1

### Parent: VPC

### CallerReference (Required)

A unique string that identifies the request and that allows failed CreateHostedZone requests to be retried without the risk of executing the operation twice. You must use a unique CallerReference string every time you create a hosted zone. CallerReference can be any unique string; you might choose to use a string that identifies your project, such as MyDNSMigration\_01.

Type: String

Default: None

Constraints: Allowable characters are any Unicode code points that are legal in an XML 1.0 document. The UTF-8 encoding of the value must be less than 128 bytes.

Parent: CreateHostedZoneRequest

### HostedZoneConfig (Optional)

A complex type that contains an optional comment about your hosted zone.

Type: Complex

Default: None

Parent: CreateHostedZoneRequest

Children: Comment

### **Comment (Optional)**

Any comments that you want to include about the hosted zone. If you omit the <code>HostedZoneConfig</code> element, omit the <code>Comment</code> element, too.

Type: String

Default: None

Constraints: Maximum 256 characters

Parent: HostedZoneConfig

### PrivateZone (Optional)

When you're creating a private hosted zone (when you specify values for VPCId and VPCRegion), you can optionally specify true for PrivateZone.

Type: Boolean

Parent: HostedZoneConfig

# Responses

## **Syntax**

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UTF-8"?>
<CreateHostedZoneResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
```

<HostedZone>

```
<Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
      <Name>DNS domain name</Name>
      <VPC>
         <VPCId>ID of the VPC</VPCId>
        <VPCRegion>region in which
        you created the Amazon VPC</VPCRegion>
      </VPC>
      <CallerReference>unique description</CallerReference>
     <Config>
         <Comment>optional comment</Comment>
         <PrivateZone>true</PrivateZone>
      </Config>
      <ResourceRecordSetCount>number of resource record sets
         in the hosted zone</ResourceRecordSetCount>
  </HostedZone>
   <ChangeInfo>
     <Id>/change/unique identifier for the
      change batch request</Id>
      <Status>PENDING | INSYNC</Status>
      <SubmittedAt>date and time in ISO 8601
         format</SubmittedAt>
  </ChangeInfo>
</CreateHostedZoneResponse>
```

# **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

### CreateHostedZoneResponse

A complex type containing the response information for the hosted zone.

Type: Complex

Children: HostedZone, ChangeInfo, DelegationSet

### HostedZone

A complex type that contains general information about the hosted zone.

Type: Complex

Children: Id, Name, VPCs (private hosted zones only), CallerReference, Config, ResourceRecordSetCount

### Id (HostedZone)

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

### Name

The name of the domain. For public hosted zones, this is the name that you have registered with your DNS registrar.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format.

Type: String

Parent: HostedZone

### VPC

A complex type that contains information about an Amazon VPC that you associated with this hosted zone.

Type: Complex

Parent: HostedZone

Children: VPCId, VPCRegion

### VPCId

The ID of an Amazon VPC that you associated with this hosted zone.

Type: String

Parent: VPC

### VPCRegion

The region in which you created an Amazon VPC that you associated with this hosted zone.

Type: String

Valid Values: us-east-1, us-west-1, us-west-2, ap-south-1, ap-northeast-2, ap-southeast-1, ap-southeast-2, ap-northeast-1, eu-central-1, eu-west-1, sa-east-1

Parent: VPC

### CallerReference

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

### Config

A complex type that includes the Comment and PrivateZone elements. If you omitted the HostedZoneConfig and Comment elements from the request, the Config and Comment elements don't appear in the response.

Type: Complex

Parent: HostedZone

Children: Comment, PrivateZone

### Comment

The comment included in the CreateHostedZoneRequest element.

Type: String

Constraints: Maximum 256 characters

Parent: Config

### **PrivateZone**

A value that indicates whether this is a private hosted zone.

Type: Boolean

Valid Values: true | false

Parent: Config

### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

### ChangeInfo

A complex type that describes the changes made to your hosted zone.

Type: Complex

Children: Id, Status, SubmittedAt

### Id (ChangeInfo)

The ID of the request.

Type: String

Parent: ChangeInfo

### Status

The current state of the request. PENDING indicates that the NS and SOA records associated with this hosted zone have not replicated to all Amazon Route 53 DNS servers.

Type: String

Valid Values: PENDING | INSYNC

Parent: ChangeInfo

### SubmittedAt

The date and time the change request was submitted, in Coordinated Universal Time (UTC) format: YYYY-MM-DDThh:mm:ssZ. For more information, see the Wikipedia entry ISO 8601.

Type: Timestamp

Parent: ChangeInfo

# **Errors**

Amazon Route 53 returns the following errors for this action.

#### **DelegationSetNotAvailable**

You can create a hosted zone that has the same name as an existing hosted zone (example.com is common), but there is a limit to the number of hosted zones that have the same name. If you get this error, Amazon Route 53 has reached that limit. If you own the domain name and Amazon Route 53 generates this error, contact Customer Support.

### InvalidDomainName

The specified domain name is not valid.

#### HostedZoneAlreadyExists

The hosted zone you are attempting to create already exists.

Amazon Route 53 returns this error when a hosted zone has already been created with the specified CallerReference.

### **TooManyHostedZones**

This hosted zone cannot be created. The hosted zone limit has been exceeded. To request a limit increase, go to http://aws.amazon.com/route53-request/.

### InvalidVPCId

Either no Amazon VPC exists with the value that you specified for VPCId or the user doesn't have permission to associate the specified VPC with the specified hosted zone.

### ConflictingDomainExists

You specified an Amazon VPC that you're already using for another hosted zone, and the domain that you specified for one of the hosted zones is a subdomain of the domain that you specified for the other hosted zone. For example, you cannot use the same Amazon VPC if you're creating hosted zones for example.com and test.example.com.

### InvalidInput

The input is not valid.

# **Examples**

# **Example Request**

```
POST /2013-04-01/hostedzone HTTP/1.1
<?rxml version="1.0" encoding="UTF-8"?>
<CreateHostedZoneRequest xmlns="https://route53.amazonaws.com/
doc/2013-04-01/">
        <Name>example.com</Name>
        <VPC>
            <VPCId>vpc-1a2b3c4d</VPCId>
            <VPCRegion>us-east-1</VPCRegion>
        </VPC>
        <CallerReference>myUniqueIdentifier</CallerReference>
        <HostedZoneConfig>
            <Comment>This is my first hosted zone.</Comment>
        </HostedZoneRequest>
```

# **Example Response**

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UTF-8"?>
<CreateHostedZoneResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
   <HostedZone>
      <Id>/hostedzone/Z1D633PJN98FT9</Id>
      <Name>example.com.</Name>
      <VPC>
         <VPCId>vpc-1a2b3c4d</VPCId>
         <VPCRegion>us-east-1</VPCRegion>
      </VPC>
      <CallerReference>myUniqueIdentifier</CallerReference>
      <Config>
         <Comment>This is my first hosted zone.</Comment>
         <PrivateZone>true</PrivateZone>
      </Config>
      <ResourceRecordSetCount>2</ResourceRecordSetCount>
   </HostedZone>
   <ChangeInfo>
      <Id>/change/C1PA6795UKMFR9</Id>
      <Status>PENDING</Status>
```

<SubmittedAt>2014-10-15T01:36:41.958Z</SubmittedAt> </ChangeInfo> </CreateHostedZoneResponse>

# POST UpdateHostedZoneComment (Public and Private)

To update the comment for a hosted zone, send a POST request to the /2013-04-01/hostedzone/hosted zone ID resource.

### Topics

- Requests (p. 58)
- Responses (p. 59)
- Errors (p. 60)
- Example (p. 61)

# Requests

## **Syntax**

## **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Request Parameter**

### Hosted Zone ID (Required)

The ID for the hosted zone for which you want to update the comment.

Type: String

Default: None

# **Elements**

### UpdateHostedZoneCommentRequest (Required)

A complex type that contains the hosted zone request information.

Type: Complex

Default: None

Child: Comment

### Comment

The new comment for the hosted zone. If you don't specify a value for Comment, Amazon Route 53 deletes the existing value of the Comment element, if any.

Type: String

Default: None

Constraints: Maximum 256 characters

Parent: UpdateHostedZoneCommentRequest

# Responses

# **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<UpdateHostedZoneCommentResponse xmlns="https://route53.amazonaws.com/doc/2013-</pre>
04-01/">
   <HostedZone>
      <Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
      <Name>DNS domain name</Name>
      <CallerReference>unique description</CallerReference>
      <Config>
         <Comment>new comment</Comment>
         <PrivateZone> true | false</PrivateZone>
      </Config>
      <ResourceRecordSetCount>number of resource record sets in the hosted
zone</ResourceRecordSetCount>
   </HostedZone>
</UpdateHostedZoneCommentResponse>
```

## **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

### **UpdateHostedZoneCommentResponse**

A complex type that contains the response to the UpdateHostedZoneCommentRequest.

Type: Complex

Child: HostedZone

### HostedZone

A complex type containing information about the hosted zone for which you updated the Comment element.

Type: String

Parent: UpdateHostedZoneCommentResponse

Children: Id, Name, CallerReference, Config, ResourceRecordSetCount

### ld

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

### Name

The name of the domain. For public hosted zones, this is the name that you registered with your domain registrar.

Type: String

Parent: HostedZone

#### CallerReference

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

### Config

A complex type that includes the Comment and PrivateZone elements.

Type: String

Parent: HostedZone

Children: Comment, PrivateZone

### Comment

The comment that you specified in the UpdateHostedZoneComment request.

Type: String

Parent: Config

### PrivateZone

A value that indicates whether this is a private hosted zone.

Type: Boolean

Parent: Config

### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

## **Errors**

Amazon Route 53 returns the following errors for this action:

### InvalidInput

The input is not valid.

### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

# Example

# **Example Request**

```
POST /2013-04-01/hostedzone/Z1D633PJN98FT9 HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<UpdateHostedZoneCommentRequest xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
        <Comment>Example comment</Comment>
</UpdateHostedZoneCommentRequest>
```

# **Example Response**

# **POST AssociateVPCWithHostedZone**

This action associates an additional Amazon VPC with a private hosted zone.

### Important

The VPC and the hosted zone must already exist, and you must have created a private hosted zone. You cannot convert a public hosted zone into a private hosted zone.

Send a POST request to the 2013-04-01/hostedzone/hosted zone ID/associatevpc resource. The request body must include an XML document with an AssociateVPCWithHostedZoneRequest element. The response returns the AssociateVPCWithHostedZoneResponse element.

### Note

If you used different accounts to create the hosted zone and to create the Amazon VPCs that you want to associate with the hosted zone, we need to update account permissions for you. For more information, see Associating Amazon VPCs and Private Hosted Zones That You Create with Different AWS Accounts in the Amazon Route 53 Developer Guide.

### Topics

- Requests (p. 62)
- Responses (p. 64)
- Errors (p. 65)
- Examples (p. 65)

# Requests

# **Syntax**

The XML elements in your request must appear in the order listed in the syntax.

# Headers

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Parameters**

The request must contain the hosted zone ID. Amazon Route 53 returns the hosted zone ID in the HostedZone element as part of the CreateHostedZoneResponse or ListHostedZonesResponse.

For more information, see POST CreateHostedZone (Public) (p. 12) or GET ListHostedZones (Public and Private) (p. 29).

### **Elements**

#### AssociateVPCWithHostedZoneRequest (Required)

A complex type that contains information about the VPC and the hosted zone that you want to associate.

Type: Complex

Default: None

Children: VPC, Comment

#### **VPC (Required)**

A complex type containing information about the Amazon VPC that you're associating with the specified hosted zone.

Type: Complex

Default: None

Parent: AssociateVPCWithHostedZoneRequest

Children: VPCId, VPCRegion

#### VPCId (Required)

The ID of the VPC that you want to associate with the specified Amazon Route 53 hosted zone.

Type: String

Default: None

Parent: VPC

#### VPCRegion (Required)

The region in which you created the VPC that you want to associate with the specified Amazon Route 53 hosted zone.

Type: String

Default: None

```
Valid Values: us-east-1, us-west-1, us-west-2, ap-south-1, ap-northeast-2, ap-southeast-1, ap-southeast-2, ap-northeast-1, eu-central-1, eu-west-1, sa-east-1
```

Parent: VPC

#### **Comment (Optional)**

A comment about the association request.

Type: String

Default: None

Parent: AssociateVPCWithHostedZoneRequest

# Responses

### **Syntax**

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UTF-8"?>
<AssociateVPCWithHostedZoneResponse xmlns="https://route53.amazon
aws.com/doc/2013-04-01/">
        <ChangeInfo>
        <Id>/change/unique identifier for the
            change batch request</Id>
        <Id>
        <Id>/change/unique identifier for the
            change batch request</Id>
        </d>

        <Status>PENDING | INSYNC</Status>
        <SubmittedAt>date and time in Coordinated Universal Time
        format</SubmittedAt>
        </ChangeInfo>
</AssociateVPCWithHostedZoneResponse>
```

# **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### AssociateVPCWithHostedZoneResponse

A complex type that contains the response information for the hosted zone.

Type: Complex

Children: ChangeInfo

#### ChangeInfo

A complex type that describes the changes made to your hosted zone.

Type: Complex

Children: Id, Status, SubmittedAt

#### Id (ChangeInfo)

The ID of the request.

Type: String

Parent: ChangeInfo

#### Status

The current state of the request. PENDING indicates that the NS and SOA records associated with this hosted zone have not replicated to all Amazon Route 53 DNS servers.

Type: String

Valid Values: PENDING | INSYNC

Parent: ChangeInfo

#### SubmittedAt

The date and time the change request was submitted, in Coordinated Universal Time (UTC) format: YYYY-MM-DDThh:mm:ssZ. For more information, see the Wikipedia entry ISO 8601. Type: Timestamp

Parent: ChangeInfo

# **Errors**

Amazon Route 53 returns the following errors for this action.

#### **NoSuchHostedZone**

A hosted zone with the specified hosted zone ID does not exist.

#### InvalidInput

The input is not valid.

#### InvalidVPCId

Either no VPC exists with the value that you specified for VPCId or the user doesn't have permission to associate the specified VPC with the specified hosted zone.

#### ConflictingDomainExists

You specified an Amazon VPC that you're already using for another hosted zone, and the domain that you specified for one of the hosted zones is a subdomain of the domain that you specified for the other hosted zone. For example, you cannot use the same Amazon VPC for the hosted zones for example.com and test.example.com.

#### PublicZoneVPCAssociation

The hosted zone specified in HostedZoneId is a public hosted zone.

# **Examples**

### **Example Request**

# **Example Response**

# **POST DisassociateVPCFromHostedZone**

This action disassociates an Amazon Virtual Private Cloud from an Amazon Route 53 private hosted zone. Send a POST request to the 2013-04-01/hostedzone/hosted zone ID/disassociatevpc resource. The request body must include an XML document with a

DisassociateVPCFromHostedZoneRequest element. The response returns the DisassociateVPCFromHostedZoneResponse element.

#### Important

You can only disassociate a VPC from a private hosted zone when two or more VPCs are associated with that hosted zone. You cannot convert a private hosted zone into a public hosted zone.

#### Topics

- Requests (p. 66)
- Responses (p. 67)
- Errors (p. 68)
- Examples (p. 69)

# Requests

# **Syntax**

The XML elements in your request must appear in the order listed in the syntax.

# **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

The request must contain the hosted zone ID. Amazon Route 53 returns the hosted zone ID in the HostedZone element as part of the CreateHostedZoneResponse Or ListHostedZonesResponse. For more information, see POST CreateHostedZone (Public) (p. 12) or GET ListHostedZones (Public and Private) (p. 29).

### **Elements**

#### DisassociateVPCFromHostedZoneRequest (Required)

A complex type that contains information about the VPC and the hosted zone that you want to disassociate.

Type: Complex

Default: None

Children: VPC, Comment

#### VPC (Required)

A complex type containing information about the Amazon VPC that you're disassociating from the specified hosted zone.

Type: Complex

Default: None

Parent: DisassociateVPCFromHostedZoneRequest

Children: VPCId, VPCRegion

#### **VPCId (Required)**

The ID of the VPC that you want to disassociate from an Amazon Route 53 hosted zone.

Type: String

Default: None

#### VPCRegion (Required)

The region in which you created your VPC.

Type: String

Default: None

```
Valid Values: us-east-1, us-west-1, us-west-2, ap-south-1, ap-northeast-2, ap-southeast-1, ap-southeast-2, ap-northeast-1, eu-central-1, eu-west-1, sa-east-1
```

#### Comment (Optional)

A comment about the disassociation request.

Type: String

Default: None

Parent: DisassociateVPCFromHostedZoneRequest

# Responses

### **Syntax**

```
change batch request</Id>
</r>
<Status>PENDING | INSYNC</Status>
<SubmittedAt>date and time in ISO 8601
format</SubmittedAt>
</ChangeInfo>
</DisassociateVPCFromHostedZoneResponse>
```

# **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### **DisassociateVPCFromHostedZoneResponse**

A complex type that contains the response information for the disassociate request.

Type: Complex

Children: ChangeInfo

#### ChangeInfo

A complex type that describes the changes made to your hosted zone.

Type: Complex

Children: Id, Status, SubmittedAt

#### Id (ChangeInfo)

The ID of the request.

Type: String

Parent: ChangeInfo

#### Status

The current state of the request. PENDING indicates that the NS and SOA records associated with this hosted zone have not replicated to all Amazon Route 53 DNS servers.

Type: String

Valid Values: PENDING | INSYNC

Parent: ChangeInfo

#### SubmittedAt

The date and time the change request was submitted, in Coordinated Universal Time (UTC) format: YYYY-MM-DDThh:mm:ssZ. For more information, see the Wikipedia entry ISO 8601.

Type: Timestamp

Parent: ChangeInfo

# **Errors**

Amazon Route 53 returns the following errors for this action.

#### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

#### InvalidInput

The input is not valid.

#### InvalidVPCId

Either no VPC exists with the value that you specified for VPCId or the user doesn't have permission to associate the specified VPC with the specified hosted zone.

#### VPCAssociationNotFound

The specified VPC and hosted zone are not currently associated.

#### LastVPCAssociation

Only one VPC is currently associated with the hosted zone. You cannot convert a private hosted zone into a public hosted zone by disassociating the last VPC from a hosted zone.

# **Examples**

# **Example Request**

# **Example Response**

# **GET GetHostedZone (Private)**

To retrieve information about a private hosted zone, including a list of the associated Amazon VPCs, send a GET request to the 2013-04-01/hostedzone/Amazon Route 53 hosted zone ID resource.

To retrieve information about a public hosted zone, see GET GetHostedZone (Public) (p. 23).

#### Topics

- Requests (p. 70)
- Responses (p. 70)
- Errors (p. 73)
- Examples (p. 73)

# Requests

### **Syntax**

GET /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

The request must contain the hosted zone ID. Amazon Route 53 returns the hosted zone ID in the HostedZone element as part of the CreateHostedZoneResponse or ListHostedZonesResponse. For more information, see POST CreateHostedZone (Public) (p. 12) or GET ListHostedZones (Public and Private) (p. 29).

# Responses

# **Syntax**

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### GetHostedZoneResponse

A complex type containing the response information for the hosted zone.

Type: Complex

Children: HostedZone, VPCs

#### HostedZone

A complex type that contains general information about the hosted zone.

Type: Complex

Children: Id, Name, VPCs (private hosted zones only), CallerReference, Config, ResourceRecordSetCount

#### Id (HostedZone)

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

#### Name

The name of the domain. For public hosted zones, this is the name that you have registered with your DNS registrar.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format.

Type: String

Parent: HostedZone

#### CallerReference

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

#### Config

A complex type that includes the Comment and PrivateZone elements. If you omitted the HostedZoneConfig and Comment elements from the request, the Config and Comment elements don't appear in the response.

Type: Complex

Parent: HostedZone

Children: Comment, PrivateZone

#### Comment

The comment included in the CreateHostedZoneRequest element.

Type: String

Constraints: Maximum 256 characters

Parent: Config

#### PrivateZone

A value that indicates whether this is a private hosted zone.

Type: Boolean

Valid Values: true | false

Parent: Config

#### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

#### VPCs

A complex type that contains one VPC element for each Amazon VPC virtual private cloud that you associated with the specified hosted zone.

Type: Complex

Parent: GetHostedZoneResponse

Child: VPC

#### VPC

If you created a private hosted zone, a complex type that contains information about the Amazon VPC that you associated with this hosted zone.

Type: Complex

Parent: VPCs

Children: VPCId, VPCRegion

#### VPCRegion

The region in which you created an Amazon VPC that you associated with this hosted zone.

Type: String

Valid Values: us-east-1, us-west-1, us-west-2, ap-south-1, ap-northeast-2, ap-southeast-1, ap-southeast-2, ap-northeast-1, eu-central-1, eu-west-1, sa-east-1

Parent: VPC

#### VPCId

The ID of an Amazon VPC that you associated with this hosted zone.

Type: String

Parent: VPC

# **Errors**

Amazon Route 53 returns the following errors for this action.

InvalidInput

The input is not valid.

#### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

# **Examples**

# **Example Request**

The following shows a GET request for information about a hosted zone with an ID of Z1PA6795UKMFR9.

```
GET /2013-04-01/hostedzone/Z1PA6795UKMFR9
```

# **Example Response**

The following shows the response to the GET request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<GetHostedZoneResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
   <HostedZone>
      <Id>/hostedzone/Z1PA6795UKMFR9</Id>
      <Name>example.com.</Name>
      <CallerReference>myUniqueIdentifier</CallerReference>
      <Config>
         <Comment>This is my first hosted zone.</Comment>
         <PrivateZone>false</PrivateZone>
      </Config>
      <ResourceRecordSetCount>17</ResourceRecordSetCount>
   </HostedZone>
   <VPCs>
      <VPC>
         <VPCRegion>us-east-1</VPCRegion>
         <VPCId>vpc-1a2b3c4d</VPCId>
      </VPC>
   </VPCs>
</GetHostedZoneResponse>
```

# **GET ListHostedZones (Public and Private)**

To retrieve a list of your public and private hosted zones, send a GET request to the 2013-04-01/hostedzone resource. The response to this request includes a HostedZones element with a HostedZone child element for each hosted zone that was created by the current AWS account.

Amazon Route 53 returns a maximum of 100 items in each response. If you have a lot of hosted zones, you can use the maxitems parameter to list them in groups of up to 100. The response includes four values that help you navigate from one group of maxitems hosted zones to the next:

- MaxItems is the value that you specified for the maxitems parameter in the request that produced the current response.
- If the value of IsTruncated in the response is true, there are more hosted zones associated with the current AWS account.

If the value of IsTruncated is false, this response includes the last hosted zone that is associated with the current account.

• NextMarker is the hosted zone ID of the next hosted zone that is associated with the current AWS account. If you want to list more hosted zones, make another call to ListHostedZones, and specify the value of the NextMarker element in the marker parameter.

If IsTruncated is false, the  ${\tt NextMarker}$  element is omitted from the response.

• If you're making the second or subsequent call to ListHostedZones, the Marker element matches the value that you specified in the marker parameter in the previous request.

#### Topics

- Requests (p. 74)
- Responses (p. 75)
- Errors (p. 77)
- Examples (p. 78)

# Requests

# **Syntax**

GET /2013-04-01/hostedzone?marker=Amazon Route 53 hosted zone ID& maxitems=maximum number of hosted zones to include in the response

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

#### marker (Optional)

If you have more hosted zones than the value of maxitems, ListHostedZones returns only the first maxitems hosted zones. To get the next group of maxitems hosted zones, submit another request to ListHostedZones. For the value of marker, specify the value of the NextMarker element that was returned in the previous response.

Hosted zones are listed in the order in which they were created.

Type: String

#### maxitems (Optional)

The maximum number of hosted zones to be included in the response body for this request. If you have more than maxitems hosted zones, the value of the IsTruncated element in the response is true, and the value of the NextMarker element is the hosted zone ID of the first hosted zone in the next group of maxitems hosted zones.

Type: String

Default: 100

Constraint: maximum value is 100. If you specify a value greater than 100, ListHostedZones returns the first group of 100 hosted zones.

# Responses

# Syntax

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HostedZones>
     <HostedZone>
        <Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
         <Name>DNS domain name</Name>
         <CallerReference>unique description that you specified
            when you created the hosted zone</CallerReference>
         <Config>
            <Comment>comment that you specified when you
               created the hosted zone</Comment>
            <PrivateZone>true | false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>number of resource record sets
            in the hosted zone</ResourceRecordSetCount>
      </HostedZone>
      . . .
  </HostedZones>
   <Marker>value of the marker parameter,
      if any, in the previous request</Marker>
  <IsTruncated>true | false</IsTruncated>
  <NextMarker>if IsTruncated is true,
   the hosted zone ID of the first hosted zone
   in the next group of maxitems hosted zones</NextMarker>
  <MaxItems>value of the maxitems parameter,
      if any, in the previous request </ MaxItems >
</ListHostedZonesResponse>
```

# Headers

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### ListHostedZonesResponse

A complex type containing the response information for the request.

Type: Complex

Children: Marker, HostedZones, MaxItems, IsTruncated, NextMarker

#### HostedZones

The parent element to HostedZone, this element can contain zero, one, or more HostedZone elements.

Type: Complex

Children: HostedZone

#### HostedZone

A complex type that contains general information about the hosted zone.

Type: Complex

Children: Id, Name, CallerReference, Config, ResourceRecordSetCount

#### Id (HostedZone)

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

#### Name

The name of the domain. For public hosted zones, this is the name that you have registered with your DNS registrar.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format.

Type: String

Parent: HostedZone

#### CallerReference

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

#### Config

A complex type that includes the Comment and PrivateZone elements. If you omitted the HostedZoneConfig and Comment elements from the request, the Config and Comment elements don't appear in the response.

Type: Complex

Parent: HostedZone

Children: Comment, PrivateZone

#### Comment

The comment included in the CreateHostedZoneRequest element.

Type: String

Constraints: Maximum 256 characters

Parent: Config

#### **PrivateZone**

A value that indicates whether this is a private hosted zone.

Type: Boolean

Valid Values: true | false

Parent: Config

#### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

#### Marker

For the second and subsequent calls to ListHostedZones, Marker is the value that you specified for the marker parameter in the request that produced the current response.

Type: String

#### IsTruncated

A flag indicating whether there are more hosted zones to be listed. If the response was truncated, you can get the next group of maxitems hosted zones by calling ListHostedZones again and specifying the value of the NextMarker element in the marker parameter.

Type: String

Valid Values: true | false

#### NextMarker

If IsTruncated is true, the value of NextMarker identifies the first hosted zone in the next group of maxitems hosted zones. Call ListHostedZones again and specify the value of NextMarker in the marker parameter.

This element is present only if IsTruncated is true.

Type: String

#### MaxItems

The value that you specified for the maxitems parameter in the call to ListHostedZones that produced the current response.

Type: String

# **Errors**

Amazon Route 53 returns the following error for this action.

#### InvalidInput

The input is not valid.

# **Examples**

# **Example Request**

The following example shows a request in which maxitems is 1.

```
GET /2013-04-01/hostedzone?maxitems=1
```

# **Example Response**

This example shows the response for the previous request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HostedZones>
     <HostedZone>
         <Id>/hostedzone/Z111111QQQQQQQ</Id>
         <Name>example.com.</Name>
         <CallerReference>MyUniqueIdentifier</CallerReference>
         <Config>
            <Comment>This is my first hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>42</ResourceRecordSetCount>
      </HostedZone>
  </HostedZones>
   <IsTruncated>true</IsTruncated>
   <NextMarker>Z22222VVVVVV</NextMarker>
   <MaxItems>1</MaxItems>
</ListHostedZonesResponse>
```

# **Example Follow-up Request**

This example shows the follow-up request to the previous request. In this request, the maxitems parameter has been changed to 2, and the marker parameter is the value of the NextMarker element (2222222VVVVVVVV) in the previous response.

```
GET /2013-04-01/hostedzone?marker=Z222222VVVVVV&maxitems=2
```

# **Example Follow-up Response**

This example shows the response for the previous request.

```
<Name>example2.com.</Name>
         <CallerReference>MyUniqueIdentifier2</CallerReference>
         <Config>
            <Comment>This is my second hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>17</ResourceRecordSetCount>
      </HostedZone>
      <HostedZone>
         <Id>/hostedzone/Z2682N5HXP0BZ4</Id>
         <Name>example3.com.</Name>
         <CallerReference>MyUniqueIdentifier3</CallerReference>
         <Config>
            <Comment>This is my fourth hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>117</ResourceRecordSetCount>
      </HostedZone>
  </HostedZones>
  <Marker>Z22222VVVVVV</Marker>
  <IsTruncated>true</IsTruncated>
  <NextMarker>Z333333YYYYYYY</NextMarker>
  <MaxItems>2</MaxItems>
</ListHostedZonesResponse>
```

# GET ListHostedZonesByName (Public and Private)

To retrieve a list of your public and private hosted zones in ASCII order by domain name, send a GET request to the 2013-04-01/hostedzonesbyname resource. The response to this request includes a HostedZone child element for each hosted zone that was created by the current AWS account.

ListHostedZonesByName sorts hosted zones by name with the labels reversed, for example:

com.example.www.

Note the trailing dot, which can change the sort order in some circumstances.

If the domain name includes escape characters or Punycode, ListHostedZonesByName alphabetizes the domain name using the escaped or Punycoded value, which is the format that Amazon Route 53 saves in its database. For example, to create a hosted zone for example.com, you specify ex\344mple.com for the domain name. ListHostedZonesByName alphabetizes it as:

com.ex\344mple.

The labels are reversed, and it's alphabetized using the escaped value. For more information about valid domain name formats, including internationalized domain names, see DNS Domain Name Format in the *Amazon Route 53 Developer Guide*.

Amazon Route 53 returns up to 100 items in each response. If you have a lot of hosted zones, you can use the MaxItems parameter to list them in groups of up to 100. The response includes values that help you navigate from one group of MaxItems hosted zones to the next:

- The DNSName and HostedZoneId elements in the response contain the values, if any, that you specified for the dnsname and hostedzoneid parameters in the request that produced the current response.
- The MaxItems element in the response contains the value, if any, that you specified for the maxitems parameter in the request that produced the current response.
- If the value of IsTruncated in the response is true, there are more hosted zones associated with the current AWS account.

If IsTruncated is false, this response includes the last hosted zone that is associated with the current account. The NextDNSName element and NextHostedZoneId elements are omitted from the response.

• The NextDNSName and NextHostedZoneId elements in the response contain the domain name and the hosted zone ID of the next hosted zone that is associated with the current AWS account. If you want to list more hosted zones, make another call to ListHostedZonesByName, and specify the value of NextDNSName and NextHostedZoneId in the dnsname and hostedzoneid parameters, respectively.

#### Topics

- Requests (p. 81)
- Responses (p. 82)
- Errors (p. 85)
- Examples (p. 85)

# Requests

### **Syntax**

```
GET /2013-04-01/hostedzonesbyname?dnsname=hosted zone name
   &hostedzoneid=Amazon Route 53 hosted zone ID
   &maxitems=maximum number of hosted zones to include in the response
```

# **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# **Parameters**

#### (Optional) dnsname

For your first request to ListHostedZonesByName, include the dnsname parameter only if you want to specify the name of the first hosted zone in the response. If you don't include the dnsname parameter, Amazon Route 53 returns all of the hosted zones that were created by the current AWS account, in ASCII order.

For subsequent requests, include both dnsname and hostedzoneid parameters. For dnsname, specify the value of NextDNSName from the previous response.

#### Type: String

#### (Optional) hostedzoneid

For your first request to ListHostedZonesByName, do not include the hostedzoneid parameter.

If you have more hosted zones than the value of maxitems, ListHostedZonesByName returns only the first maxitems hosted zones. To get the next group of maxitems hosted zones, submit another request to ListHostedZonesByName and include both dnsname and hostedzoneid parameters. For the value of hostedzoneid, specify the value of the NextHostedZoneId element from the previous response.

Type: String

#### (Optional) maxitems

The maximum number of hosted zones to be included in the response body for this request. If you have more than maxitems hosted zones, then the value of the IsTruncated element in the response is true, and the values of NextDNSName and NextHostedZoneId specify the first hosted zone in the next group of maxitems hosted zones.

Type: String

Default: 100

Constraint: Maximum value is 100. If you specify a value greater than 100, ListHostedZonesByName returns the first group of 100 hosted zones.

# Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesByNameResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
  <HostedZones>
     <HostedZone>
         <Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
         <Name>DNS domain name</Name>
         <CallerReference>unique description that you specified
            when you created the hosted zone</CallerReference>
         <Config>
            <Comment>comment that you specified when you
              created the hosted zone</Comment>
            <PrivateZone>true | false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>number of resource record sets
            in the hosted zone</ResourceRecordSetCount>
      </HostedZone>
      . . .
   </HostedZones>
   <DNSName>value of the dnsname parameter,
      if any, in the previous request </ DNSName>
  <HostedZoneId>value of the hostedzoneid parameter,
     if any, in the previous request</HostedZoneId>
  <IsTruncated>true | false</IsTruncated>
  <NextDNSName>if IsTruncated is true,
     the name of the first hosted zone
     in the next group of maxitems hosted zones</DNSName>
  <NextHostedZoneId>if IsTruncated is true,
     the hosted zone ID of the first hosted zone
     in the next group of maxitems hosted zones</HostedZoneId>
  <MaxItems>value of the maxitems parameter,
      if any, in the previous request </ MaxItems >
</ListHostedZonesByNameResponse>
```

# **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# **Elements**

#### ListHostedZonesByNameResponse

A complex type that contains the response information for the request.

Type: Complex

Children: HostedZones, DNSName, HostedZoneId, IsTruncated, NextDNSName, NextHostedZoneId, MaxItems

#### HostedZones

A list that contains one  ${\tt HostedZone}$  element for each hosted zone that was created by the current AWS account.

Type: Complex

Children: HostedZone

#### HostedZone

A complex type that contains general information about the hosted zone.

Type: Complex

Children: Id, Name, CallerReference, Config, ResourceRecordSetCount

#### ld

The ID that Amazon Route 53 assigned to the hosted zone when you created it.

Type: String

Parent: HostedZone

#### Name

The name of the domain. For public hosted zones, this is the name that you have registered with your DNS registrar.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format.

Type: String

Parent: HostedZone

#### CallerReference

The value that you specified for CallerReference when you created the hosted zone.

Type: String

Parent: HostedZone

#### Config

A complex type that includes the Comment and PrivateZone elements. If you omitted the HostedZoneConfig and Comment elements from the request, the Config and Comment elements don't appear in the response.

Type: Complex

Parent: HostedZone

Children: Comment, PrivateZone

#### Comment

The comment included in the  ${\tt CreateHostedZoneRequest}$  element.

Type: String

Constraints: Maximum 256 characters

Parent: Config

#### PrivateZone

A value that indicates whether this is a private hosted zone.

Type: Boolean

Valid Values: true | false

Parent: Config

#### ResourceRecordSetCount

The number of resource record sets in the hosted zone.

Type: Unsigned long integer

Parent: HostedZone

#### **DNSName**

For the second and subsequent calls to ListHostedZonesByName, DNSName is the value that you specified for the dnsname parameter in the request that produced the current response.

Type: String

Parent: ListHostedZonesByNameResponse

#### HostedZoneld

For the second and subsequent calls to ListHostedZonesByName, HostedZoneId is the value that you specified for the hostedzoneid parameter in the request that produced the current response.

Type: String

Parent: ListHostedZonesByNameResponse

#### IsTruncated

A flag that indicates whether there are more hosted zones to be listed. If the response was truncated, you can get the next group of maxitems hosted zones by calling ListHostedZonesByName again and specifying the values of NextDNSName and NextHostedZoneId elements in the dnsname and hostedzoneid parameters.

Type: String

Parent: ListHostedZonesByNameResponse

Valid Values: true | false

#### NextDNSName

If IsTruncated is true, the value of NextDNSName is the name of the first hosted zone in the next group of maxitems hosted zones. Call ListHostedZonesByName again and specify the value of NextDNSName and NextHostedZoneId in the dnsname and hostedzoneid parameters, respectively.

This element is present only if IsTruncated is true.

Type: String

Parent: ListHostedZonesByNameResponse

#### NextHostedZoneld

If IsTruncated is true, the value of NextHostedZoneId identifies the first hosted zone in the next group of maxitems hosted zones. Call ListHostedZonesByName again and specify the value of NextDNSName and NextHostedZoneId in the dnsname and hostedzoneid parameters, respectively.

This element is present only if IsTruncated is true.

Type: String

Parent: ListHostedZonesByNameResponse

#### MaxItems

The value that you specified for the maxitems parameter in the call to ListHostedZonesByName that produced the current response.

Type: String

Parent: ListHostedZonesByNameResponse

# **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput The input is not valid.

# **Examples**

# **Example Request**

The following example shows a request in which maxitems is 1:

```
GET /2013-04-01/hostedzonesbyname?maxitems=1
```

# **Example Response**

The following example shows the response for the previous request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesByNameResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
  <HostedZones>
     <HostedZone>
        <Id>/hostedzone/Z111111QQQQQQQ</Id>
         <Name>example.com.</Name>
         <CallerReference>MyUniqueIdentifier1</CallerReference>
         <Config>
            <Comment>This is my first hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>42</ResourceRecordSetCount>
      </HostedZone>
  </HostedZones>
  <IsTruncated>true</IsTruncated>
  <NextDNSName>example2.com</NextDNSName>
  <NextHostedZoneId>Z22222VVVVVV</NextHostedZoneId>
   <MaxItems>1</MaxItems>
</ListHostedZonesByNameResponse>
```

# **Example Follow-up Request**

The following example shows the follow-up request to the previous request. In this request:

• The dnsname parameter is the value of the NextDNSName element (example2.com) in the previous response.

- The hostedzoneid parameter is the value of the NextHostedZoneId element (Z222222VVVVVVV) in the previous response.
- The  ${\tt maxitems}$  parameter has been changed to 2

```
GET /2013-04-01/hostedzonesbyname?dnsname=example2.com&hosted zoneid=Z222222VVVVVV&maxitems=2
```

# Example Follow-up Response

The following example shows the response for the previous request:

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHostedZonesByNameResponse xmlns="https://route53.amazonaws.com/doc/2013-</pre>
04-01/">
   <HostedZones>
      <HostedZone>
         <Id>/hostedzone/Z22222VVVVVV</Id>
         <Name>example2.com.</Name>
         <CallerReference>MyUniqueIdentifier2</CallerReference>
         <Config>
            <Comment>This is my second hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>17</ResourceRecordSetCount>
      </HostedZone>
      <HostedZone>
         <Id>/hostedzone/Z2682N5HXP0BZ4</Id>
         <Name>example3.com.</Name>
         <CallerReference>MyUniqueIdentifier3</CallerReference>
         <Config>
            <Comment>This is my third hosted zone.</Comment>
            <PrivateZone>false</PrivateZone>
         </Config>
         <ResourceRecordSetCount>117</ResourceRecordSetCount>
      </HostedZone>
   </HostedZones>
   <DNSName>example2.com</DNSName>
   <HostedZoneId>Z22222VVVVVV</HostedZoneId>
   <IsTruncated>false</IsTruncated>
   <MaxItems>2</MaxItems>
</ListHostedZonesByNameResponse>
```

# **GET GetHostedZoneCount (Public and Private)**

#### Topics

- Requests (p. 87)
- Responses (p. 87)
- Errors (p. 88)
- Examples (p. 88)

Gets the total number of public and private hosted zones for the current AWS account.

To get a count of public and private hosted zones, send a GET request to the /2013-04-01/hosted zone count resource.

# Requests

### **Syntax**

GET /2013-04-01/hostedzonecount

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# Responses

# **Syntax**

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### GetHostedZoneCountResponse

A complex type that contains the response to a hostedzonecount request.

Type: Complex

Child: HostedZoneCount

#### HostedZoneCount

The total number of public and private hosted zones associated with the current AWS account.

Type: Integer

Parent: GetHostedZoneCountResponse

# **Errors**

Amazon Route 53 doesn't return any errors that are specific to this action.

# **Examples**

# **Example Request**

GET /2013-04-01/hostedzonecount

# **Example Response**

# **DELETE DeleteHostedZone (Public and Private)**

This action deletes a hosted zone. To delete a hosted zone, send a DELETE request to the 2013-04-01/hostedzone/Amazon Route 53 hosted zone ID resource.

For more information about deleting a hosted zone, see Deleting a Hosted Zone in the Amazon Route 53 Developer Guide.

#### Important

You can delete a hosted zone only if there is no resource record set other than the default SOA record and NS records. If your hosted zone contains resource records other than the default SOA record and NS records, you must delete those resource records before you can delete your hosted zone. Any records you added to the hosted zone must be deleted first. If you try to delete a hosted zone that contains resource records other than the default records, Amazon Route 53 will deny your request with a HostedZoneNotEmpty error. For information about deleting records from your hosted zone, see POST ChangeResourceRecordSets (p. 108).

To verify that the hosted zone has been deleted, do one of the following:

- Use the GET GetHostedZone (Public) (p. 23) action to request information about the hosted zone.
- Use the GET ListHostedZones (Public and Private) (p. 29) action to get a list of the hosted zones associated with the current AWS account.

#### Topics

- Requests (p. 89)
- Responses (p. 90)
- Errors (p. 91)
- Examples (p. 91)

# Requests

# **Syntax**

DELETE /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

The request must contain the hosted zone ID. Amazon Route 53 returns the hosted zone ID in the HostedZone element as part of the CreateHostedZoneResponse or ListHostedZonesResponse. For more information, see POST CreateHostedZone (Public) (p. 12) or GET ListHostedZones (Public and Private) (p. 29).

# Responses

### **Syntax**

# **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### DeleteHostedZoneResponse

A complex type containing the response information for the request.

Type: Complex

Children: ChangeInfo

#### ChangeInfo

A complex type that describes the changes made to your hosted zone.

Type: Complex

Children: Id, Status, SubmittedAt

#### Id (ChangeInfo)

The ID of the request.

Type: String

Parent: ChangeInfo

#### Status

The current state of the request. PENDING indicates that the NS and SOA records associated with this hosted zone have not replicated to all Amazon Route 53 DNS servers.

Type: String

Valid Values: PENDING | INSYNC

Parent: ChangeInfo

#### SubmittedAt

The date and time the change request was submitted, in Coordinated Universal Time (UTC) format: YYYY-MM-DDThh:mm:ssZ. For more information, see the Wikipedia entry ISO 8601. Type: Timestamp

Parent: ChangeInfo

# **Errors**

Amazon Route 53 returns the following errors for this action.

#### HostedZoneNotEmpty

The hosted zone contains resource records that are not SOA or NS records.

InvalidInput

The input is not valid.

#### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

# **Examples**

# **Example Request**

The following example shows the DELETE request with the hosted zone ID (beginning with the letter Z).

```
DELETE /2013-04-01/hostedzone/Z1PA6795UKMFR9
```

# Example Response

When the status of this change becomes  $\tt INSYNC$ , your hosted zone has been removed from all Amazon Route 53 DNS servers.

# Actions on Reusable Delegation Sets

When you create a hosted zone, Amazon Route 53 automatically assigns four authoritative name servers to the hosted zone; these name servers are known collectively as a delegation set. If your domain is registered with another registrar, you update your registrar's NS records with the domain names of the four Amazon Route 53 name servers so that your registrar knows that Amazon Route 53 is the DNS service provider for the domain.

By default, each hosted zone that you create gets a different set of four name servers—a different delegation set. If you create a lot of hosted zones, maintaining a lot of different delegation sets can be difficult and time consuming. You can optionally create a delegation set that you can reuse with multiple hosted zones. If you want to associate a reusable delegation set with a hosted zone, you must specify the reusable delegation set when you create the hosted zone.

#### Note

You can't associate a reusable delegation set with a private hosted zone.

You can perform a variety of actions on reusable delegation sets.

#### POST CreateReusableDelegationSet (p. 93)

Either creates a new reusable delegation set, or marks the delegation set that is associated with a specified hosted zone as reusable.

#### GET GetReusableDelegationSet (p. 97)

Returns information about the specified reusable delegation set.

#### GET ListReusableDelegationSets (p. 100)

Lists information about all of the reusable delegation sets that are associated with the current AWS account.

#### **DELETE DeleteReusableDelegationSet (p. 105)**

Deletes the specified reusable delegation set.

For more information, see Hosted Zones in the Amazon Route 53 Developer Guide.

# **POST CreateReusableDelegationSet**

This action creates a delegation set (a group of four name servers) that can be reused by multiple hosted zones. If you specify a hosted zone ID, CreateReusableDelegationSet marks the delegation set associated with that hosted zone as reusable.

To create a reusable delegation set, send a POST request to the 2013-04-01/delegationset resource. The request body must include an XML document with a CreateReusableDelegationSetRequest element.

#### Note

You can't associate a reusable delegation set with a private hosted zone.

For more information, including a procedure on how to create and configure a reusable delegation set (also known as white label name servers), see Configuring White Label Name Servers in the Amazon Route 53 Developer Guide.

#### Topics

- Requests (p. 93)
- Responses (p. 94)
- Errors (p. 95)
- Examples (p. 95)

# Requests

# **Syntax**

The XML elements in your request must appear in the order listed in the syntax.

# **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# **Elements**

#### CreateReusableDelegationSetRequest (Required)

A complex type that contains the reusable delegation set request.

Type: Complex

Default: None

Children: CallerReference, HostedZoneId

#### **CallerReference (Required)**

A unique string that identifies the request, and that allows you to retry failed CreateReusableDelegationSet requests without the risk of executing the operation twice. You must use a unique CallerReference string every time you submit a CreateReusableDelegationSet request. CallerReference can be any unique string, for example a date/time stamp.

Type: String

Default: None

Constraints: The string can contain any Unicode characters that are allowed in an XML 1.0 document. The UTF-8 encoding of the value must be less than 128 bytes.

Parent: CreateReusableDelegationSetRequest

#### HostedZoneld (Optional)

If you want to mark the delegation set for an existing hosted zone as reusable, the ID for that hosted zone.

Type: String

Default: None

Parent: CreateReusableDelegationSetRequest

# Responses

### **Syntax**

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UTF-8"?>
<CreateReusableDelegationSetResponse xmlns="https://route53.amazon
aws.com/doc/2013-04-01/">
        <DelegationSet>
        <Id>/delegationset/Amazon Route 53 delegation set ID</Id>
    </r>
    <rr>

            <ld>/delegationset/Amazon Route 53 delegation set ID<//ld>

            <ld></ld>

        <ld>/delegationset/Amazon Route 53 delegation set ID<//ld>

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```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### CreateReusableDelegationSetResponse

A complex type that contains information about the reusable delegation set.

Type: Complex

Children: DelegationSet

#### **DelegationSet**

A complex type that contains information about the reusable delegation set.

Type: Complex

Parent: CreateReusableDelegationSetResponse

Children: Id, CallerReference, NameServers

#### ld

The ID of the reusable delegation set.

Type: String

Parent: DelegationSet

#### CallerReference

The value that you specified for CallerReference when you created the reusable delegation set.

Type: String

Parent: DelegationSet

#### NameServers

A list that contains the four name servers for the delegation set.

Type: List

Parent: DelegationSet

Children: NameServer

#### NameServer

The name of a name server in the reusable delegation set.

Type: String

Parent: NameServers

# **Errors**

Amazon Route 53 returns the following errors for this action:

#### InvalidInput

The input is not valid.

#### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

# **Examples**

### **Example Request**

```
POST /2013-04-01/delegationset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<CreateReusableDelegationSetRequest xmlns="https://route53.amazon</pre>
```

```
aws.com/doc/2013-04-01/">
    <CallerReference>myUniqueIdentifier</CallerReference>
    <HostedZoneId>Z1D633PJN98FT9</HostedZoneId>
    </CreateReusableDelegationSetRequest>
```

# **Example Response**

# **GET GetReusableDelegationSet**

To retrieve information about a reusable delegation set, including the four name servers assigned to the delegation set, send a GET request to the 2013-04-01/delegationset/delegation set ID resource.

#### Topics

- Requests (p. 97)
- Responses (p. 97)
- Errors (p. 98)
- Examples (p. 99)

# Requests

# **Syntax**

GET /2013-04-01/delegationset/Amazon Route 53 reusable delegation set ID

# **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

The request must contain the delegation set ID that Amazon Route 53 assigned when you created the reusable delegation set. To get a list of all of the reusable delegation sets that are associated with the current AWS account, including the corresponding IDs, see GET ListReusableDelegationSets (p. 100).

# Responses

# **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<GetReusableDelegationSetResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
        <DelegationSet>
        <Id>/delegationset/Amazon Route 53 delegation set ID</Id>
        </d>
    </r>

            <Id>/delegationset/Amazon Route 53 delegation set ID</Id>
            <CallerReference>unique description</CallerReference>
            <NameServers>
            <NameServer>DNS name for Amazon Route 53 name server
            <NameServer>
            <NameServer>DNS name for Amazon Route 53 name server

            <NameServer>
```

### **Elements**

#### GetReusableDelegationSetResponse

A complex type that contains the response to the GetReusableDelegationSet request.

Type: Complex

Children: DelegationSet

#### DelegationSet

A complex type that contains information about the reusable delegation set.

Type: Complex

Children: Id, CallerReference, NameServers, Reusable

ld

The ID of the delegation set.

Type: String

Parent: DelegationSet

#### CallerReference

The value that you specified for CallerReference when you created the reusable delegation set.

Type: String

Parent: DelegationSet

#### NameServers

A list that contains the four name servers for the reusable delegation set.

Type: List

Parent: DelegationSet

Children: NameServer

#### NameServer

The name of a name server in the reusable delegation set.

Type: String

Parent: NameServers

# **Errors**

Amazon Route 53 returns the following errors for this action:

#### InvalidInput

The input is not valid.

**NoSuchReusableDelegationSet** 

A reusable delegation set with the specified ID does not exist.

# **Examples**

# **Example Request**

GET /2013-04-01/delegationset/N1PA6795SAMPLE

# **Example Response**

```
<?rxml version="1.0" encoding="UTF-8"?>
<GetReusableDelegationSetResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<DelegationSet>
<Id>/delegationset/N1PA6795SAMPLE</Id>
<CallerReference>2014-10-13T16:30:01Z</CallerReference>
<NameServers>
<NameServer>ns-2048.awsdns-64.com</NameServer>
<NameServer>ns-2049.awsdns-65.net</NameServer>
<NameServer>ns-2050.awsdns-66.org</NameServer>
<NameServer>ns-2051.awsdns-67.co.uk</NameServer>
</NameServers>
</DelegationSet>
</GetReusableDelegationSetResponse>
```

# **GET ListReusableDelegationSets**

To retrieve a list of the reusable delegation sets that are associated with the current AWS account, send a GET request to the 2013-04-01/delegationset resource. The response to this request includes a DelegationSets element with a DelegationSet child element for each reusable delegation set that was created by the current AWS account.

Amazon Route 53 returns a maximum of 100 items in each response. If you have a lot of reusable delegation sets, you can use the maxitems parameter to list them in groups of up to 100. The response includes four values that help you navigate from one group of maxitems reusable delegation sets to the next:

#### MaxItems

The value that you specified for the maxitems parameter in the request that produced the current response.

#### IsTruncated

If the value of IsTruncated in the response is true, there are more reusable delegation sets associated with the current AWS account.

If IsTruncated is false, this response includes the last reusable delegation set that is associated with the current account.

#### NextMarker

The delegation set ID of the next reusable delegation set that is associated with the current AWS account. If you want to list more reusable delegation sets, make another call to ListReusableDelegationSets, and specify the value of the NextMarker element in the marker parameter.

If IsTruncated is false, the  ${\tt NextMarker}$  element is omitted from the response.

#### Marker

If you're making the second or subsequent call to ListReusableDelegationSets, the Marker element matches the value that you specified in the marker parameter in the previous request.

#### Topics

- Requests (p. 100)
- Responses (p. 101)
- Errors (p. 103)
- Examples (p. 103)

# Requests

## **Syntax**

```
GET /2013-04-01/delegationset?marker=Amazon Route 53 delegation set ID
    &maxitems=maximum number of reusable delegation sets to include in the re
sponse
```

## **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Parameters**

#### marker (Optional)

If you have more reusable delegation sets than the value of maxitems,

ListReusableDelegationSets returns only the first maxitems reusable delegation sets. To get the next group of maxitems reusable delegation sets, submit another request to

ListReusableDelegationSets. For the value of marker, specify the value of the NextMarker element that was returned in the previous response.

Reusable delegation sets are listed in the order in which they were created.

Type: String

#### maxitems (Optional)

The maximum number of reusable delegation sets to be included in the response body for this request. If you have more than maxitems reusable delegation sets, the value of the IsTruncated element in the response is true, and the value of the NextMarker element is the ID of the reusable delegation set in the next group of maxitems reusable delegation sets.

Type: String

Default: 100

Constraint: maximum value is 100. If you specify a value greater than 100, ListReusableDelegationSets returns the first group of 100 reusable delegation sets.

# Responses

## **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListReusableDelegationSetsResponse xmlns="https://route53.amazon</pre>
aws.com/doc/2013-04-01/">
   <DelegationSets>
      <DelegationSet>
         <Id>/hostedzone/Amazon Route 53 hosted zone ID</Id>
         <CallerReference>unique description that you specified
            when you created the hosted zone</CallerReference>
         <NameServers>
            <NameServer>DNS name for Amazon Route 53 name server</NameServer>
            <NameServer>DNS name for Amazon Route 53 name server</NameServer>
            <NameServer>DNS name for Amazon Route 53 name server</NameServer>
            <NameServer>DNS name for Amazon Route 53 name server</NameServer>
         </NameServers>
      </DelegationSet>
      . . .
   </DelegationSets>
   <Marker>value of the marker parameter,
      if any, in the previous request </ Marker>
   <IsTruncated>true | false</IsTruncated>
   <NextMarker>if IsTruncated is true,
   the hosted zone ID of the first hosted zone
   in the next group of maxitems reusable delegation sets</NextMarker>
   <MaxItems>value of the maxitems parameter,
```

if any, in the previous request</MaxItems>
</ListReusableDelegationSetsResponse>

## **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

#### ListReusableDelegationSetsResponse

A complex type that contains information about the reusable delegation sets that are associated with the current AWS account.

Type: Complex

Children: DelegationSets, Marker, IsTruncated, NextMarker, MaxItems

#### DelegationSets

A complex type that contains one DelegationSet element for each reusable delegation set that was created by the current AWS account.

Type: List

Children: HostedZone

#### DelegationSet

A complex type that contains information about one delegation set that was created by the current AWS account.

Type: Complex

Parent: DelegationSets

Children: Id, CallerReference, NameServers

#### ld

The ID of the delegation set.

Type: String

Parent: DelegationSet

#### CallerReference

The value that you specified for CallerReference when you created the reusable delegation set.

Type: String

Parent: DelegationSet

#### NameServers

A list that contains the four name servers in the reusable delegation set. If your domains are registered with another registrar, you use the method provided by your registrar to update the NS record for the applicable domains with the names of these name servers.

Type: List

Parent: DelegationSet

Children: NameServer

#### NameServer

The name of an Amazon Route 53 name server that is authoritative for your domain.

Type: String

Parent: NameServers

#### Marker

For the second and subsequent calls to ListReusableDelegationSets, Marker is the value that you specified for the marker parameter in the request that produced the current response.

Type: String

#### IsTruncated

A flag that indicates whether there are more reusable delegation sets to be listed. If the response is truncated, you can get the next group of maxitems reusable delegation sets by calling ListReusableDelegationSets again and specifying the value of the NextMarker element in the marker parameter.

Type: String

Valid Values: true | false

#### NextMarker

If IsTruncated is true, the value of NextMarker identifies the first reusable delegation set in the next group of maxitems reusable delegation sets. Call ListReusableDelegationSets again and specify the value of NextMarker in the marker parameter.

This element is present only if IsTruncated is true.

Type: String

#### MaxItems

The value that you specified for the maxitems parameter in the call to ListReusableDelegationSets that produced the current response.

Type: String

# **Errors**

Amazon Route 53 returns the following error for this action:

#### InvalidInput

The input is not valid.

# **Examples**

## **Example Request**

The following example shows a request in which maxitems is 2.

```
GET /2013-04-01/delegationset?maxitems=2
```

## Example Response

This example shows the response for the previous request:

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListReusableDelegationSetsResponse xmlns="https://route53.amazon</pre>
aws.com/doc/2013-04-01/">
   <DelegationSets>
      <DelegationSet>
         <Id>/delegationset/N1PA6795SAMPLE</Id>
         <CallerReference>unique value 1</CallerReference>
         <NameServers>
            <NameServer>ns-2042.awsdns-64.com</NameServer>
            <NameServer>ns-2043.awsdns-65.net</NameServer>
            <NameServer>ns-2044.awsdns-66.org</NameServer>
            <NameServer>ns-2045.awsdns-67.co.uk</NameServer>
         </NameServers>
      </DelegationSet>
      <DelegationSet>
         <Id>/delegationset/N1PA6796SAMPLE</Id>
         <CallerReference>unique value 2</CallerReference>
         <NameServers>
            <NameServer>ns-2046.awsdns-68.com</NameServer>
            <NameServer>ns-2047.awsdns-69.net</NameServer>
            <NameServer>ns-2048.awsdns-70.org</NameServer>
            <NameServer>ns-2049.awsdns-71.co.uk</NameServer>
         </NameServers>
      </DelegationSet>
   </DelegationSets>
   <IsTruncated>true</IsTruncated>
   <NextMarker>N1PA6797SAMPLE</NextMarker>
   <MaxItems>2</MaxItems>
</ListReusableDelegationSetsResponse>
```

# **DELETE DeleteReusableDelegationSet**

This action deletes a reusable delegation set. To delete a reusable delegation set, send a DELETE request to the 2013-04-01/delegationset/delegation set ID resource.

#### Important

You can delete a reusable delegation set only if it isn't associated with any hosted zones.

To verify that the reusable delegation set is not associated with any hosted zones, run the GET GetReusableDelegationSet (p. 97) action and specify the ID of the reusable delegation set that you want to delete.

#### Topics

- Requests (p. 105)
- Responses (p. 105)
- Errors (p. 106)
- Examples (p. 106)

# Requests

## **Syntax**

DELETE /2013-04-01/delegationset/delegation set ID

## **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Parameters**

The request must contain the delegation set ID.

# Responses

## **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<DeleteReusableDelegationSetResponse xmlns="https://route53.amazon
aws.com/doc/2013-04-01/"/>
```

## **Headers**

The response includes the headers that appear in all Amazon Route 53 responses.

## **Elements**

#### DeleteReusableDelegationSetResponse

An empty element.

Type: String

# **Errors**

Amazon Route 53 returns the following errors for this action:

#### InvalidInput

The input is not valid.

### NoSuchDelegationSet

A reusable delegation set with the specified ID does not exist.

# Examples

# **Example Request**

DELETE /2013-04-01/delegationset/N1PA6795SAMPLE

# Example Response

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<DeleteReusableDelegationSetResponse xmlns="https://route53.amazon
aws.com/doc/2013-04-01/"/>
```

# **Actions on Resource Record Sets**

You can perform the following actions on resource record sets.

#### POST ChangeResourceRecordSets (p. 108)

Adds, deletes, and changes resource record sets in an Amazon Route 53 hosted zone.

#### GET ListResourceRecordSets (p. 147)

Lists details about all of the resource record sets in a hosted zone.

#### GET GetChange (p. 161)

Returns the current status of a change batch request that you submitted by using ChangeResourceRecordSets.

If you're using geolocation resource record sets, the following actions provide information about the locations that you can specify.

#### **GET GetGeoLocation (p. 164)**

Returns information about a specified geolocation code.

#### GET ListGeoLocations (p. 168)

Returns a list of the geographic locations that you can specify when you create a geolocation resource record set.

For more information, see Working with Resource Record Sets in the Amazon Route 53 Developer Guide.

# **POST ChangeResourceRecordSets**

Use ChangeResourceRecordSets to create, update, or delete your authoritative DNS information on all Amazon Route 53 DNS servers. Send a POST request to the following resource:

#### 2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset

In the request body, include an XML document with a ChangeResourceRecordSetsRequest element. The request body contains a list of change items, which is known as a change batch. Change batches are considered transactional changes. When you use the Amazon Route 53 API to change resource record sets, Amazon Route 53 either makes all or none of the changes in a change batch request. This ensures that Amazon Route 53 never partially implements the changes that you intended to make to the resource record sets in a hosted zone.

For example, suppose you create a change batch request that deletes the CNAME record for www.example.com and creates an alias resource record set for www.example.com. Amazon Route 53 deletes the first resource record set and creates the second resource record set in a single operation. If either the DELETE or the CREATE action fails, then both changes (plus any other changes in the batch) fail, and the original CNAME record continues to exist.

#### Note

To create resource record sets for complex routing configurations, you can also use either the traffic flow visual editor in the Amazon Route 53 console or the API actions for traffic policies and traffic policy instances. You save the configuration as a traffic policy, and you can then associate the traffic policy with one or more domain names (such as example.com) or subdomain names (such as www.example.com), in the same hosted zone or in multiple hosted zones. In addition, you can roll back the updates if the new configuration isn't performing as you expected it to. For more information, see Using Traffic Flow to Route DNS Traffic in the Amazon Route 53 API Reference or Actions on Traffic Policies and Traffic Policy Instances (p. 174) in this guide.

You can use ChangeResourceRecordSetsRequest to perform the following operations:

- CREATE: Creates a resource record set that has the specified values.
- DELETE: Deletes an existing resource record set that has the specified values for Name, Type, SetIdentifier (for latency, weighted, geolocation, and failover resource record sets), and TTL (except alias resource record sets, for which the TTL is determined by the AWS resource that you're routing DNS queries to).
- UPSERT: If a resource record set does not already exist, Amazon Route 53 creates it.

If a resource record set does exist, Amazon Route 53 updates it with the values in the request. Amazon Route 53 can update an existing resource record set only when all of the following values match: Name, Type, and SetIdentifier (for weighted, latency, geolocation, and failover resource record sets).

When you submit a ChangeResourceRecordSets request, the initial status of your changes is PENDING. This means the change has not yet propagated to all of the authoritative Amazon Route 53 DNS servers. When the change has finished propagating, Amazon Route 53 returns a status of INSYNC.

After you send your change request, we recommend that you confirm that your change has propagated to all Amazon Route 53 DNS servers. Changes generally propagate to all Amazon Route 53 name servers in a couple of minutes. In rare circumstances, propagation can take up to 30 minutes. For more information, see GET GetChange (p. 161).

Note the following limitations on a ChangeResourceRecordSets request:

- A request cannot contain more than 100 Change elements.
- A request cannot contain more than 1000 ResourceRecord elements.

• The sum of the number of characters (including spaces) in all Value elements in a request cannot exceed 32,000 characters.

#### Note

If the value of the Action element in a ChangeResourceRecordSets request is UPSERT and the resource record set already exists, Amazon Route 53 automatically performs a DELETE request and a CREATE request. When Amazon Route 53 calculates the number of characters in the Value elements of a change batch request, it adds the number of characters in the Value element of the resource record set being deleted and the number of characters in the Value element of the resource record set being created.

• You cannot delete the same resource record set more than once in a single change batch.

# Requests

#### Topics

- Syntax (p. 110)
- Headers (p. 118)
- Parameters (p. 118)
- Elements (p. 118)

## **Syntax**

The XML elements in your request must appear in the order listed in the syntax.

The syntax for each <Change> element in a change batch request depends on the type of resource record set that you want to create or delete. See the applicable syntax:

- Basic Syntax (p. 110)
- Weighted Resource Record Set Syntax (p. 111)
- Alias Resource Record Set Syntax (p. 111)
- Weighted Alias Resource Record Set Syntax (p. 112)
- Latency Resource Record Set Syntax (p. 113)
- Latency Alias Resource Record Set Syntax (p. 114)
- Failover Syntax (p. 114)
- Failover Alias Syntax (p. 115)
- Geolocation Syntax (p. 116)
- Geolocation Alias Syntax (p. 117)

## **Basic Syntax**

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<<u>ChangeResourceRecordSetsRequest</u> xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
   <Comment>optional comment about the changes in this
     change batch request</Comment>
   <Changes>
      <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <TTL>time to live in seconds</TTL>
            <ResourceRecords>
               <ResourceRecord>
                  <Value>applicable value for the record type</Value>
               </ResourceRecord>
               . . .
            </ResourceRecords>
            <HealthCheckId>optional ID of an
               Amazon Route 53 health check</HealthCheckId>
         </ResourceRecordSet>
```

```
</Change>
...
</Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

## Weighted Resource Record Set Syntax

For more information about weighted resource record sets, see Weighted Resource Record Sets in the *Amazon Route 53 Developer Guide*.

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<<u>ChangeResourceRecordSetsRequest</u> xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
   <Comment>optional comment about the changes in this
     change batch request</Comment>
   <Changes>
     <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <SetIdentifier>unique description for this
               resource record set</SetIdentifier>
            <Weight>value between 0 and 255</Weight>
            <TTL>time to live in seconds</TTL>
            <ResourceRecords>
               <ResourceRecord>
                  <Value>applicable value for the record type</Value>
               </ResourceRecord>
               . . .
            </ResourceRecords>
            <HealthCheckId>optional ID of an
               Amazon Route 53 health check</HealthCheckId>
         </ResourceRecordSet>
      </Change>
      . . .
   </Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

## Alias Resource Record Set Syntax

For more information about alias resource record sets, see Choosing Between Alias and Non-Alias Resource Record Sets in the *Amazon Route 53 Developer Guide*.

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<ChangeResourceRecordSetsRequest xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
        <Comment>optional comment about the changes in this
        change batch request</Comment>
```

#### Amazon Route 53 API Reference Requests

```
<Changes>
      <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <AliasTarget>
               <HostedZoneId>hosted zone ID for your CloudFront distribution,
                  Elastic Beanstalk environment that has a regionalized subdo
main,
                  ELB load balancer, Amazon S3 bucket, or
                  Amazon Route 53 hosted zone</HostedZoneId>
               <DNSName>DNS domain name for your CloudFront distribution,
                  Elastic Beanstalk environment that has a regionalized subdo
main,
                ELB load balancer, Amazon S3 bucket, or another resource record
 set
                   in this hosted zone</DNSName>
               <<u>EvaluateTargetHealth</u>>true | false</<u>EvaluateTargetHealth</u>>
            </AliasTarget>
            <HealthCheckId>optional ID of an
               Amazon Route 53 health check</HealthCheckId>
         </ResourceRecordSet>
      </Change>
      . . .
   </Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

## Weighted Alias Resource Record Set Syntax

For more information about weighted resource record sets, see Weighted Resource Record Sets in the *Amazon Route 53 Developer Guide*. For more information about alias resource record sets, see Choosing Between Alias and Non-Alias Resource Record Sets in the *Amazon Route 53 Developer Guide*.

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<<u>ChangeResourceRecordSetsRequest</u> xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
   <Comment>optional comment about the changes in this
     change batch request</Comment>
   <Changes>
      <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <SetIdentifier>unique description for this
               resource record set</SetIdentifier>
            <Weight>value between 0 and 255</Weight>
            <AliasTarget>
               <HostedZoneId>hosted zone ID for your CloudFront distribution,
                  Elastic Beanstalk environment that has a regionalized subdo
```

|  | 1 |
|--|---|
| main,  |   |
| ELB load balancer, Amazon S3 bucket, or                              |   |
| Amazon Route 53 hosted zone  |   |
| <dnsname>DNS domain name for your CloudFront distribution,</dnsname> |   |
| Elastic Beanstalk environment that has a regionalized subdo          |   |
| main,  |   |
| ELB load balancer, Amazon S3 bucket, or another resource record      |   |
| set  |   |
| in this hosted zone  |   |
| <evaluatetargethealth>true   false</evaluatetargethealth>            |   |
|  |   |
| <pre><healthcheckid>optional ID of an</healthcheckid></pre>          |   |
| Amazon Route 53 health check   |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |

## Latency Resource Record Set Syntax

For more information about latency resource record sets, see Latency Resource Record Sets in the *Amazon Route 53 Developer Guide*.

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<<u>ChangeResourceRecordSetsRequest</u> xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
   <Comment>optional comment about the changes in this
      change batch request </ Comment >
   <Changes>
      <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <SetIdentifier>unique description for this
               resource record set</SetIdentifier>
            <Region>Amazon EC2 region name</Region>
            <TTL>time to live in seconds</TTL>
            <ResourceRecords>
               <ResourceRecord>
                  <Value>applicable value for the record type</Value>
               </ResourceRecord>
               . . .
            </ResourceRecords>
            <HealthCheckId>optional ID of an
               Amazon Route 53 health check</HealthCheckId>
         </ResourceRecordSet>
      </Change>
      . . .
   </Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

## Latency Alias Resource Record Set Syntax

For more information about latency resource record sets, see Latency Resource Record Sets in the *Amazon Route 53 Developer Guide*. For more information about alias resource record sets, see Choosing Between Alias and Non-Alias Resource Record Sets in the *Amazon Route 53 Developer Guide*.

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<<u>ChangeResourceRecordSetsRequest</u> xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
   <Comment>optional comment about the changes in this
      change batch request </ Comment >
   <Changes>
      <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <SetIdentifier>unique description for this
               resource record set</SetIdentifier>
            <Region>Amazon EC2 region name</Region>
            <AliasTarget>
               <HostedZoneId>hosted zone ID for your CloudFront distribution,
                  Elastic Beanstalk environment that has a regionalized subdo
main,
                  ELB load balancer, Amazon S3 bucket, or
                  Amazon Route 53 hosted zone</HostedZoneId>
               <DNSName>DNS domain name for your CloudFront distribution,
                  Elastic Beanstalk environment that has a regionalized subdo
main,
                ELB load balancer, Amazon S3 bucket, or another resource record
 set
                  in this hosted zone</DNSName>
               <EvaluateTargetHealth>true | false</EvaluateTargetHealth>
            </AliasTarget>
            <HealthCheckId>optional ID of an
               Amazon Route 53 health check</HealthCheckId>
         </ResourceRecordSet>
      </Change>
      . . .
   </Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

### **Failover Syntax**

For more information, see the following topics in the Amazon Route 53 Developer Guide:

- Amazon Route 53 Health Checks and DNS Failover
- Configuring Failover in a Private Hosted Zone

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
```

```
<<u>ChangeResourceRecordSetsRequest</u> xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
   <Comment>optional comment about the changes in this
     change batch request </ Comment >
   <Changes>
      <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <SetIdentifier>unique description for this
               resource record set</SetIdentifier>
            <Failover>PRIMARY | SECONDARY</Failover>
            <TTL>time to live in seconds</TTL>
            <ResourceRecords>
               <ResourceRecord>
                  <Value>applicable value for the record type</Value>
               </ResourceRecord>
               . . .
            </ResourceRecords>
            <HealthCheckId>ID of an
               Amazon Route 53 health check</HealthCheckId>
         </ResourceRecordSet>
      </Change>
      . . .
   </Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

## **Failover Alias Syntax**

For more information, see the following topics in the Amazon Route 53 Developer Guide:

- Amazon Route 53 Health Checks and DNS Failover
- Configuring Failover in a Private Hosted Zone
- Choosing Between Alias and Non-Alias Resource Record Sets

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<<u>ChangeResourceRecordSetsRequest</u> xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
   <Comment>optional comment about the changes in this
     change batch request </ Comment >
   <Changes>
      <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <SetIdentifier>unique description for this
               resource record set</SetIdentifier>
            <Failover>PRIMARY | SECONDARY</Failover>
            <AliasTarget>
```

```
<HostedZoneId>hosted zone ID for your CloudFront distribution,
                  Elastic Beanstalk environment that has a regionalized subdo
main,
                  ELB load balancer, Amazon S3 bucket, or
                  Amazon Route 53 hosted zone</HostedZoneId>
               <DNSName>DNS domain name for your CloudFront distribution,
                  Elastic Beanstalk environment that has a regionalized subdo
main,
                ELB load balancer, Amazon S3 bucket, or another resource record
set
                  in this hosted zone</DNSName>
               <EvaluateTargetHealth>true | false</EvaluateTargetHealth>
            </AliasTarget>
            <HealthCheckId>optional ID of an
               Amazon Route 53 health check</HealthCheckId>
         </ResourceRecordSet>
      </Change>
      . . .
   </Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

## **Geolocation Syntax**

For more information about geolocation, see Geolocation Resource Record Sets in the Amazon Route 53 Developer Guide.

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<ChangeResourceRecordSetsRequest xmlns="https://route53.amazonaws.com/doc/2013-</pre>
04-01/">
<ChangeBatch>
   <Comment>optional comment about the changes in this
      change batch request</Comment>
   <Changes>
      <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <SetIdentifier>unique description for this
               resource record set</SetIdentifier>
            <GeoLocation>
               <ContinentCode>two-letter continent code</ContinentCode>
               <CountryCode>two-letter country code</CountryCode>
               <SubdivisionCode>subdivision code</SubdivisionCode>
            </GeoLocation>
            <TTL>time to live in seconds</TTL>
            <ResourceRecords>
               <ResourceRecord>
                  <Value>applicable value for the record type</Value>
               </ResourceRecord>
               . . .
            </ResourceRecords>
            <HealthCheckId>ID of an
               Amazon Route 53 health check</HealthCheckId>
```

```
</ResourceRecordSet>
</Change>
...
</Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

## **Geolocation Alias Syntax**

For more information about geolocation, see Geolocation Resource Record Sets in the Amazon Route 53 Developer Guide. For more information about alias resource record sets, see Choosing Between Alias and Non-Alias Resource Record Sets in the Amazon Route 53 Developer Guide.

```
POST /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<<u>ChangeResourceRecordSetsRequest</u> xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
   <Comment>optional comment about the changes in this
      change batch request</Comment>
   <Changes>
      <Change>
         <Action>CREATE | DELETE | UPSERT</Action>
         <ResourceRecordSet>
            <Name>fully qualified domain name</Name>
            <Type>DNS record type</Type>
            <SetIdentifier>unique description for this
               resource record set</SetIdentifier>
            < GeoLocation>
               <ContinentCode>two-letter continent code</ContinentCode>
               <CountryCode>two-letter country code</CountryCode>
               <SubdivisionCode>subdivision code</SubdivisionCode>
            </GeoLocation>
            <AliasTarget>
               <HostedZoneId>hosted zone ID for your CloudFront distribution,
                  Elastic Beanstalk environment that has a regionalized subdo
main,
                  ELB load balancer, Amazon S3 bucket, or
                  Amazon Route 53 hosted zone</HostedZoneId>
               <DNSName>DNS domain name for your CloudFront distribution,
                  Elastic Beanstalk environment that has a regionalized subdo
main,
                ELB load balancer, Amazon S3 bucket, or another resource record
 set
                  in this hosted zone</DNSName>
               <EvaluateTargetHealth>true | false</EvaluateTargetHealth>
            </AliasTarget>
            <HealthCheckId>optional ID of an
               Amazon Route 53 health check</HealthCheckId>
         </ResourceRecordSet>
      </Change>
      . . .
   </Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

## **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Parameters**

The request must contain the hosted zone ID. Amazon Route 53 returns the hosted zone ID in the HostedZone element as part of the CreateHostedZoneResponse or ListHostedZonesResponse. For more information, see POST CreateHostedZone (Public) (p. 12) or GET ListHostedZones (Public and Private) (p. 29).

## **Elements**

Requests include several elements, many of which are required.

#### ChangeResourceRecordSetsRequest (Required)

A complex type that contains change information for the resource record set.

Type: Complex

Default: None

Children: ChangeBatch

#### ChangeBatch (Required)

The information for a change request.

Type: Complex

Default: None

Children: Comment, Changes

#### Comment (Optional)

Any comments you want to include about the changes in this change batch.

Type: String

Default: None

Constraints: Maximum 256 characters

Parent: ChangeBatch

#### **Changes (Required)**

Information about the changes to make to the record sets.

Type: Complex

Default: None

Parent: ChangeBatch

Children: Change

#### Change (Required)

The information for each resource record set that you want to change.

Type: Complex

Default: None

Parent: Changes

Children: Action, ResourceRecordSet

#### Action (Required)

The action to perform:

- CREATE: Creates a resource record set that has the specified values.
- DELETE: Deletes a existing resource record set that has the specified values for Name, Type, SetIdentifier (for latency, weighted, geolocation, and failover resource record sets), and TTL (except alias resource record sets, for which the TTL is determined by the AWS resource that you're routing DNS queries to).

#### Important

To delete the resource record set that is associated with a traffic policy instance, use DELETE DeleteTrafficPolicyInstance (p. 241). Amazon Route 53 will delete the resource record set automatically. If you delete the resource record set by using ChangeResourceRecordSets, Amazon Route 53 doesn't automatically delete the traffic policy instance, and you'll continue to be charged for it even though it's no longer in use.

• UPSERT: If a resource record set does not already exist, Amazon Route 53 creates it.

If a resource record set does exist, Amazon Route 53 updates it with the values in the request. Amazon Route 53 can update an existing resource record set only when all of the following values match: Name, Type, and SetIdentifier (for weighted, latency, geolocation, and failover resource record sets).

Type: String

Default: None

Valid values: CREATE | DELETE | UPSERT

Parent: member

#### ResourceRecordSet (Required)

Information about the resource record set to create or delete.

Type: Complex

Default: None

Parent: member

Children: Name, Type, SetIdentifier, Weight, Region, Failover, TTL, AliasTarget, ResourceRecords

#### Name (Required)

The name of the domain you want to perform the action on.

Enter a fully qualified domain name, for example, *www.example.com*. You can optionally include a trailing dot. If you omit the trailing dot, Amazon Route 53 still assumes that the domain name that you specify is fully qualified. This means that Amazon Route 53 treats *www.example.com* (without a trailing dot) and *www.example.com*. (with a trailing dot) as identical.

For information about how to specify characters other than a-z, 0-9, and - (hyphen) and how to specify internationalized domain names, see DNS Domain Name Format in the Amazon Route 53 Developer Guide.

You can use the \* wildcard to replace the leftmost label in a domain name, for example, \*.example.com. Note the following:

- The \* must replace the entire label. For example, you can't specify \*prod.example.com or prod\*.example.com.
- The \* can't replace any of the middle labels, for example, marketing.\*.example.com.
- If you include \* in any position other than the leftmost label in a domain name, DNS treats it as an \* character (ASCII 42), not as a wildcard.

#### Important

You can't use the \* wildcard for resource records sets that have a type of NS.

You can use the \* wildcard as the leftmost label in a domain name, for example, \*.example.com. You cannot use an \* for one of the middle labels, for example, marketing.\*.example.com. In addition, the \* must replace the entire label; for example, you can't specify prod\*.example.com.

Type: String

Default: None

Parent: ResourceRecordSet

#### Type (Required)

The DNS record type. For information about different record types and how data is encoded for them, see Supported DNS Resource Record Types in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Valid values for basic resource record sets: A | AAAA | CNAME | MX | NS | PTR | SOA | SPF | SRV | TXT

Values for weighted, latency, geolocation, and failover resource record sets: A | AAAA | CNAME | MX | PTR | SPF | SRV | TXT. When creating a group of weighted, latency, geolocation, or failover resource record sets, specify the same value for all of the resource record sets in the group.

#### Note

SPF records were formerly used to verify the identity of the sender of email messages. However, we no longer recommend that you create resource record sets for which the value of Type is SPF. RFC 7208, Sender Policy Framework (SPF) for Authorizing Use of Domains in Email, Version 1, has been updated to say, "...[I]ts existence and mechanism defined in [RFC4408] have led to some interoperability issues. Accordingly, its use is no longer appropriate for SPF version 1; implementations are not to use it." In RFC 7208, see section 14.1, The SPF DNS Record Type.

Values for alias resource record sets:

- CloudFront distribution: A
- Elastic Beanstalk environment that has a regionalized subdomain: A
- ELB load balancer: A | AAAA
- Amazon S3 bucket: A
- Another resource record set in this hosted zone: Specify the type of the resource record set for which you're creating the alias. Specify any value except NS or SOA.

Parent: ResourceRecordSet

SetIdentifier (Required for Weighted, Latency, Failover, and Geolocation Resource Record Sets) Weighted, latency, failover, and geolocation resource record sets only: An identifier that differentiates among multiple resource record sets that have the same combination of DNS name and type. The value of SetIdentifier must be unique for each resource record set that has the same combination of DNS name and type.

Type: String

#### Default: None

Valid values: 1-128 characters, including uppercase and lowercase letters, numbers, spaces, and punctuation.

Parent: ResourceRecordSet

#### Weight (Required for Weighted and Weighted Alias Resource Record Sets)

Among resource record sets that have the same combination of DNS name and type, a value that determines the proportion of DNS queries that Amazon Route 53 responds to using the current resource record set. Amazon Route 53 calculates the sum of the weights for the resource record sets that have the same combination of DNS name and type. Amazon Route 53 then responds to queries based on the ratio of a resource's weight to the total. Note the following:

- You must specify a value for the Weight element for every weighted resource record set.
- You can only specify one ResourceRecord per weighted resource record set.
- You cannot create latency, failover, or geolocation resource record sets that have the same values for the Name and Type elements as weighted resource record sets.
- You can create a maximum of 100 weighted resource record sets that have the same values for the Name and Type elements.
- For weighted (but not weighted alias) resource record sets, if you set Weight to 0 for a resource record set, Amazon Route 53 never responds to queries with the applicable value for that resource record set. However, if you set Weight to 0 for all resource record sets that have the same combination of DNS name and type, traffic is routed to all resources with equal probability.

The effect of setting Weight to 0 is different when you associate health checks with weighted resource record sets. For more information, go to Configuring Active-Active or Active-Passive Failover Using Amazon Route 53 Weighted and Weighted Alias Resource Record Sets in the Amazon Route 53 Developer Guide.

Type: Integer

Default: None

Valid values: 0-255

Parent: ResourceRecordSet

For more information and an example, see Creating Weighted Resource Record Sets in the Amazon Route 53 Developer Guide.

#### Region (Required for Latency and Latency Alias Resource Record Sets)

Latency resource record sets only: The Amazon EC2 region where the resource that is specified in this resource record set resides. The resource typically is an AWS resource, such as an Amazon EC2 instance or an ELB load balancer, and is referred to by an IP address or a DNS domain name, depending on the record type.

#### Note

Creating latency and latency alias resource record sets in private hosted zones is not supported.

When Amazon Route 53 receives a DNS query for a domain name and type for which you have created latency resource record sets, Amazon Route 53 selects the latency resource record set that has the lowest latency between the end user and the associated Amazon EC2 region. Amazon Route 53 then returns the value that is associated with the selected resource record set.

Note the following:

- You can only specify one ResourceRecord per latency resource record set.
- You can only create one latency resource record set for each Amazon EC2 region.

- You are not required to create latency resource record sets for all Amazon EC2 regions. Amazon Route 53 will choose the region with the best latency from among the regions for which you create latency resource record sets.
- You cannot create non-latency resource record sets that have the same values for the Name and Type elements as latency resource record sets.

Valid values include:

- US East (N. Virginia) Region: us-east-1
- US West (N. California) Region: us-west-1
- US West (Oregon) Region: us-west-2
- Asia Pacific (Mumbai) Region: ap-south-1
- Asia Pacific (Seoul) Region: ap-northeast-2
- Asia Pacific (Singapore) Region: ap-southeast-1
- Asia Pacific (Sydney) Region: ap-southeast-2
- Asia Pacific (Tokyo) Region: ap-northeast-1
- China (Beijing) Region: cn-north-1
- EU (Frankfurt) Region: eu-central-1
- EU (Ireland) Region: eu-west-1
- South America (São Paulo) Region: sa-east-1

#### Type: String

Parent: ResourceRecordSet

#### Failover (Required for Failover and Failover Alias Resource Record Sets)

To configure failover, you add the Failover element to two resource record sets. For one resource record set, you specify PRIMARY as the value for Failover; for the other resource record set, you specify SECONDARY. In addition, you include the HealthCheckId element and specify the health check that you want Amazon Route 53 to perform for each resource record set.

Except where noted, the following failover behaviors assume that you have included the HealthCheckId element in both resource record sets:

- When the primary resource record set is healthy, Amazon Route 53 responds to DNS queries with the applicable value from the primary resource record set regardless of the health of the secondary resource record set.
- When the primary resource record set is unhealthy and the secondary resource record set is healthy, Amazon Route 53 responds to DNS queries with the applicable value from the secondary resource record set.
- When the secondary resource record set is unhealthy, Amazon Route 53 responds to DNS queries with the applicable value from the primary resource record set regardless of the health of the primary resource record set.
- If you omit the HealthCheckId element for the secondary resource record set, and if the primary resource record set is unhealthy, Amazon Route 53 always responds to DNS queries with the applicable value from the secondary resource record set. This is true regardless of the health of the associated endpoint.

You cannot create non-failover resource record sets that have the same values for the Name and Type elements as failover resource record sets.

For failover alias resource record sets, you must also include the EvaluateTargetHealth element and set the value to true.

For more information, see the following topics in the Amazon Route 53 Developer Guide:

Amazon Route 53 Health Checks and DNS Failover

• Configuring Failover in a Private Hosted Zone

Type: String

Default: None

Valid Values: PRIMARY | SECONDARY

Parent: ResourceRecordSet

#### GeoLocation (Required for Geolocation and Geolocation Alias Resource Record Sets)

A complex type that lets you control how Amazon Route 53 responds to DNS queries based on the geographic origin of the query. For example, if you want all queries from Africa to be routed to a web server with an IP address of 192.0.2.111, create a resource record set with a  $T_{YP}e$  of A and a ContinentCode of AF.

#### Note

Creating geolocation and geolocation alias resource record sets in private hosted zones is not supported.

If you create separate resource record sets for overlapping geographic regions—for example, one resource record set for a continent and one for a country on the same continent—priority goes to the smallest geographic region. This allows you to route most queries for a continent to one resource and to route queries for a country on that continent to a different resource.

You cannot create two geolocation resource record sets that specify the same geographic location.

The value \* in the CountryCode element matches all geographic locations that aren't specified in other geolocation resource record sets that have the same values for the Name and Type elements.

#### Important

Geolocation works by mapping IP addresses to locations. However, some IP addresses aren't mapped to geographic locations, so even if you create geolocation resource record sets that cover all seven continents, Amazon Route 53 will receive some DNS queries from locations that it can't identify. We recommend that you create a resource record set for which the value of CountryCode is \*, which handles both queries that come from locations for which you haven't created geolocation resource record sets and queries from IP addresses that aren't mapped to a location. If you don't create a \* resource record set, Amazon Route 53 returns a "no answer" response for queries from those locations.

You cannot create non-geolocation resource record sets that have the same values for the Name and  $T_{YP}e$  elements as geolocation resource record sets.

Type: Complex

Default: None

Parent: ResourceRecordSet

Children: ContinentCode, CountryCode, SubdivisionCode

#### ContinentCode

When you want to route all of the DNS queries from a specified continent to the same resource, use ContinentCode to specify the continent. If you include a ContinentCode element, omit CountryCode and SubdivisionCode elements.

Type: String

Default: None

Valid Values: AF, AN, AS, EU, OC, NA, SA

Parent: GeoLocation

#### CountryCode

When you want to route all of the DNS queries from a specified country to the same resource, use CountryCode to identify the country. If you include a CountryCode element, omit the ContinentCode element. If you want to route queries for a state in the United States, also include a SubdivisionCode element. Subdivisions for other countries are not supported.

#### Important

We recommend that you create one geolocation resource record set for which the value of CountryCode is \* to cover geographic locations for which you haven't created resource record sets and to cover IP addresses for which Amazon Route 53 can't identify a location.

We have no data on IP addresses for the following countries, so we can't support them: Bouvet Island (BV), Christmas Island (CX), Western Sahara (EH), and Heard Island and McDonald Islands (HM).

Amazon Route 53 uses the two-letter country codes that are specified in ISO standard 3166-1 alpha-2.

For more information, see GeoLocation.

Type: String

Default: None

Valid Values by Continent: The following country codes are from ISO 3166. For more information, see the Wikipedia article ISO 3166-1 alpha-2:

#### Africa (AF)

AO, BF, BI, BJ, BW, CD, CF, CG, CI, CM, CV, DJ, DZ, EG, ER, ET, GA, GH, GM, GN, GQ, GW, KE, KM, LR, LS, LY, MA, MG, ML, MR, MU, MW, MZ, NA, NE, NG, RE, RW, SC, SD, SH, SL, SN, SO, SS, ST, SZ, TD, TG, TN, TZ, UG, YT, ZA, ZM, ZW

#### Antarctica (AN)

AQ, GS, TF

#### Asia (AS)

AE, AF, AM, AZ, BD, BH, BN, BT, CC, CN, GE, HK, ID, IL, IN, IO, IQ, IR, JO, JP, KG, KH, KP, KR, KW, KZ, LA, LB, LK, MM, MN, MO, MV, MY, NP, OM, PH, PK, PS, QA, SA, SG, SY, TH, TJ, TM, TR, TW, UZ, VN, YE

#### Europe (EU)

AD, AL, AT, AX, BA, BE, BG, BY, CH, CY, CZ, DE, DK, EE, ES, FI, FO, FR, GB, GG, GI, GR, HR, HU, IE, IM, IS, IT, JE, LI, LT, LU, LV, MC, MD, ME, MK, MT, NL, NO, PL, PT, RO, RS, RU, SE, SI, SJ, SK, SM, UA, VA, XK

#### North America (NA)

AG, AI, AW, BB, BL, BM, BQ, BS, BZ, CA, CR, CU, CW, DM, DO, GD, GL, GP, GT, HN, HT, JM, KN, KY, LC, MF, MQ, MS, MX, NI, PA, PM, PR, SV, SX, TC, TT, US, VC, VG, VI

#### Oceania (OC)

AS, AU, CK, FJ, FM, GU, KI, MH, MP, NC, NF, NR, NU, NZ, PF, PG, PN, PW, SB, TK, TL, TO, TV, UM, VU, WF, WS

#### South America (SA)

AR, BO, BR, CL, CO, EC, FK, GF, GY, PE, PY, SR, UY, VE

#### Note

Amazon Route 53 doesn't support creating geolocation resource record sets for the following countries: Bouvet Island (BV), Christmas Island (CX), Western Sahara (EH), and Heard Island and McDonald Islands (HM). No data is available about IP addresses for these countries.

To get a list of supported countries that is not separated by continent, use GET GetGeoLocation (p. 164).

Parent: GeoLocation

#### SubdivisionCode

When you want to route all of the DNS queries from a specified state in the United States to the same resource, use SubdivisionCode to specify the state. Amazon Route 53 doesn't support subdivisions for other countries. If you include a SubdivisionCode element, you must also include a CountryCode element with a value of US. Omit the ContinentCode element.

#### Important

Some IP addresses are associated with the United States but not with an individual state. If you create resource record sets for all of the states in the United States, we recommend that you also create a resource record set for the United States to route queries for these unassociated IP addresses.

United States territories have country codes instead of subdivision codes. For example, the code for Puerto Rico is PR. For more information, see CountryCode.

Type: String

Default: None

Valid Values: AK, AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY

To get a list of supported subdivisions programmatically, use GET GetGeoLocation (p. 164).

Parent: GeoLocation

#### TTL (Required for All Except Alias Resource Record Sets)

The resource record cache time to live (TTL), in seconds. Note the following:

- If you're creating an alias resource record set, omit TTL. Amazon Route 53 uses the value of TTL for the alias target.
- If you're associating this resource record set with a health check (if you're adding a HealthCheckId element), we recommend that you specify a TTL of 60 seconds or less so clients respond quickly to changes in health status.
- All of the resource record sets in a group of weighted, latency, geolocation, or failover resource record sets must have the same value for TTL.
- If a group of weighted resource record sets includes one or more weighted alias resource record sets for which the alias target is an ELB load balancer, we recommend that you specify a TTL of 60 seconds for all of the non-alias weighted resource record sets that have the same name and type. Values other than 60 seconds (the TTL for load balancers) will change the effect of the values that you specify for Weight.

Type: Integer

Default: None

Parent: ResourceRecordSet

ResourceRecords (Required for All Except Alias Resource Record Sets)

Information about the resource records to act upon.

#### Note

If you are creating an alias resource record set, omit ResourceRecords.

Type: Complex

Default: None

Parent: ResourceRecordSet

Children: ResourceRecord

#### ResourceRecord (Required for All Except Alias Resource Record Sets)

Information specific to the resource record.

#### Note

If you are creating an alias resource record set, omit ResourceRecord.

Type: Complex

Default: None

Parent: ResourceRecords

Children: Value

#### Value (Required for All Except Alias Resource Record Sets)

The current or new DNS record value, not to exceed 4,000 characters. In the case of a DELETE action, if the current value does not match the actual value, an error is returned. For descriptions about how to format Value for different record types, see Supported DNS Resource Record Types in the Amazon Route 53 Developer Guide.

You can specify more than one value for all record types except CNAME and SOA. Use the following syntax:

```
<ResourceRecords>
<ResourceRecord>
<Value>applicable value for the record type</Value>
</ResourceRecord>
<Value>applicable value for the record type</Value>
</ResourceRecord>
...
</ResourceRecords>
```

#### Note

If you are creating an alias resource record set, omit Value.

Type: String

Default: None

Parent: ResourceRecord

#### AliasTarget (Required for Alias Resource Record Sets)

Alias resource record sets only: Information about the CloudFront distribution, Elastic Beanstalk environment, ELB load balancer, Amazon S3 bucket, or Amazon Route 53 resource record set to which you are redirecting queries. The Elastic Beanstalk environment must have a regionalized subdomain.

If you're creating resource record sets for a private hosted zone, note the following:

- You can't create alias resource record sets for CloudFront distributions in a private hosted zone.
- Creating geolocation alias resource record sets or latency alias resource record sets in a private hosted zone is unsupported.
- For information about creating failover resource record sets in a private hosted zone, see Configuring Failover in a Private Hosted Zone.

Type: Complex

Default: None

Parent: ResourceRecordSet

Children: HostedZoneId, DNSName

#### HostedZoneld (Required for Alias Resource Record Sets)

Alias resource record sets only. The value you use depends on where you route queries:

• CloudFront distribution: Specify Z2FDTNDATAQYW2.

#### Note

You can't create alias resource record sets for CloudFront distributions in a private hosted zone.

- Elastic Beanstalk environment: Specify the hosted zone ID for the region in which you created the environment. The environment must have a regionalized subdomain. For a list of regions and the corresponding hosted zone IDs, see AWS Elastic Beanstalk in the "Regions and Endpoints" chapter of the Amazon Web Services General Reference.
- **ELB load balancer:** Specify the value of the hosted zone ID for the load balancer. You can use the following methods to get the hosted zone ID:
  - AWS Management Console Go to the EC2 page, click Load Balancers in the navigation pane, select the load balancer, and get the value of the Hosted Zone ID field on the Description tab. Use the same process to get the DNS Name. See DNSName.
  - Elastic Load Balancing API Use DescribeLoadBalancers to get the value of CanonicalHostedZoneNameID. Use the same process to get the CanonicalHostedZoneName. See DNSName.
  - AWS CLI Use describe-load-balancers to get the value of CanonicalHostedZoneNameID. Use the same process to get the CanonicalHostedZoneName. See DNSName.
- Amazon S3 bucket that is configured as a static website: Specify the hosted zone ID for the Amazon S3 website endpoint in which you created the bucket. For more information about valid values, see the table Amazon Simple Storage Service (S3) Website Endpoints in the Amazon Web Services General Reference.
- Another Amazon Route 53 resource record set in your hosted zone: Specify the hosted zone ID of your hosted zone. (An alias resource record set cannot reference a resource record set in a different hosted zone.)

Type: String

Default: None

Parent: AliasTarget

#### **DNSName (Required for Alias Resource Record Sets)**

Alias resource record sets only: The value you use depends on where you route queries:

• **CloudFront distribution** – Specify the domain name that CloudFront assigned when you created your distribution.

Your CloudFront distribution must include an alternate domain name that matches the name of the resource record set. For example, if the name of the resource record set is **acme.example.com**, your CloudFront distribution must include **acme.example.com** as one of the alternate domain names. For more information, see Using Alternate Domain Names (CNAMEs) in the Amazon CloudFront Developer Guide.

- Elastic Beanstalk environment Specify the CNAME attribute for the environment. (The environment must have a regionalized domain name.) You can use the following methods to get the value of the CNAME attribute:
  - AWS Management Console For information about how to get the value by using the console, see Using Custom Domains with Elastic Beanstalk in the AWS Elastic Beanstalk Developer Guide.
  - Elastic Load Balancing API Use the DescribeEnvironments action to get the value of the CNAME attribute. For more information, see DescribeEnvironments in the AWS Elastic Beanstalk API Reference.

- **AWS CLI** Use the describe-environments command to get the value of the CNAME attribute. For more information, see describe-environments in the AWS Command Line Interface Reference.
- AWS SDKs See the applicable SDK documentation on the AWS Documentation page.
- ELB load balancer Specify the DNS name associated with the load balancer. You can use the following methods to get the DNS name:
  - AWS Management Console Go to the EC2 page, click Load Balancers in the navigation pane, choose the load balancer, choose the Description tab, and get the value of the DNS Name field that begins with dualstack. Use the same process to get the Hosted Zone ID. See HostedZoneld.
  - Elastic Load Balancing API Use DescribeLoadBalancers to get the value of CanonicalHostedZoneName. Use the same process to get the CanonicalHostedZoneNameId. See HostedZoneId.
  - AWS CLI Use describe-load-balancers to get the value of CanonicalHostedZoneName. Use the same process to get the CanonicalHostedZoneNameId. See HostedZoneld.
- Amazon S3 bucket that is configured as a static website Specify the domain name of the Amazon S3 website endpoint in which you created the bucket; for example, s3-website-us-east-1.amazonaws.com. For more information about valid values, see the table Amazon Simple Storage Service (S3) Website Endpoints in the Amazon Web Services General Reference.

For more information about using Amazon S3 buckets for websites, see Hosting a Static Website on Amazon S3 in the Amazon Simple Storage Service Developer Guide.

• Another Amazon Route 53 resource record set – Specify the value of the Name element for a resource record set in the current hosted zone.

Type: String

Default: None

Parent: AliasTarget

#### EvaluateTargetHealth (Required for Alias Resource Record Sets)

Applies only to alias, weighted alias, latency alias, and failover alias resource record sets: If you set the value of EvaluateTargetHealth to true for the resource record set or sets in an alias, weighted alias, latency alias, or failover alias resource record set, and if you specify a value for HealthCheckId for every resource record set that is referenced by these alias resource record sets, the alias resource record sets inherit the health of the referenced resource record sets.

In this configuration, when Amazon Route 53 receives a DNS query for an alias resource record set:

- 1. Amazon Route 53 looks at the resource record sets that are referenced by the alias resource record sets to determine which health checks they're using.
- 2. Amazon Route 53 checks the current status of each health check. (Amazon Route 53 periodically checks the health of the endpoint that is specified in a health check; it doesn't perform the health check when the DNS query arrives.)
- 3. Based on the status of the health checks, Amazon Route 53 determines which resource record sets are healthy. Unhealthy resource record sets are immediately removed from consideration. In addition, if all of the resource record sets that are referenced by an alias resource record set are unhealthy, that alias resource record set also is immediately removed from consideration.
- 4. Based on the configuration of the alias resource record sets (weighted alias or latency alias, for example) and the configuration of the resource record sets that they reference, Amazon Route 53 chooses a resource record set from the healthy resource record sets, and responds to the query.

Note the following:

- You cannot set EvaluateTargetHealth to true when the alias target is a CloudFront distribution.
- If the AWS resource that you specify in AliasTarget is a resource record set or a group of resource record sets (for example, a group of weighted resource record sets), but it is not another alias

resource record set, we recommend that you associate a health check with all of the resource record sets in the alias target. For more information, see What Happens When You Omit Health Checks? in the Amazon Route 53 Developer Guide.

• If you specify an Elastic Beanstalk environment in HostedZoneId and DNSName, and if the environment contains an ELB load balancer, Elastic Load Balancing routes queries only to the healthy Amazon EC2 instances that are registered with the load balancer. (An environment automatically contains an ELB load balancer if it includes more than one Amazon EC2 instance.) If you set EvaluateTargetHealth to true and either no Amazon EC2 instances are healthy or the load balancer itself is unhealthy, Amazon Route 53 routes queries to other available resources that are healthy, if any.

If the environment contains a single Amazon EC2 instance, there are no special requirements.

• If you specify an ELB load balancer in AliasTarget, Elastic Load Balancing routes queries only to the healthy Amazon EC2 instances that are registered with the load balancer. If no Amazon EC2 instances are healthy or if the load balancer itself is unhealthy, and if EvaluateTargetHealth is true for the corresponding alias resource record set, Amazon Route 53 routes queries to other resources.

When you create a load balancer, you configure settings for Elastic Load Balancing health checks; they're not Amazon Route 53 health checks, but they perform a similar function. Do not create Amazon Route 53 health checks for the Amazon EC2 instances that you register with an ELB load balancer.

For more information, see How Health Checks Work in More Complex Amazon Route 53 Configurations in the Amazon Route 53 Developer Guide.

• We recommend that you set EvaluateTargetHealth to true only when you have enough idle capacity to handle the failure of one or more endpoints.

For more information and examples, see Amazon Route 53 Health Checks and DNS Failover in the *Amazon Route 53 Developer Guide*.

For information about configuring health checks on a resource record set, see HealthCheckId.

Type: Boolean

Default: None

Parent: AliasTarget

#### HealthCheckId (Required When Checking the Health of Endpoints)

If you want Amazon Route 53 to return this resource record set in response to a DNS query only when a health check is passing, include the HealthCheckId element and specify the ID of the applicable health check.

Amazon Route 53 determines whether a resource record set is healthy based on one of the following:

- By periodically sending a request to the endpoint that is specified in the health check
- By aggregating the status of a specified group of health checks (calculated health checks)
- By determining the current state of a CloudWatch alarm (CloudWatch metric health checks)

For information about how Amazon Route 53 determines whether a health check is healthy, see POST CreateHealthCheck (p. 255).

The HealthCheckId element is only useful when Amazon Route 53 is choosing between two or more resource record sets to respond to a DNS query, and you want Amazon Route 53 to base the choice in part on the status of a health check. Configuring health checks only makes sense in the following configurations:

• You're checking the health of the resource record sets in a weighted, latency, geolocation, or failover resource record set, and you specify health check IDs for all of the resource record sets.

If the health check for one resource record set specifies an endpoint that is not healthy, Amazon Route 53 stops responding to queries using the value for that resource record set.

• You set EvaluateTargetHealth to true for the resource record sets in an alias, weighted alias, latency alias, geolocation alias, or failover alias resource record set, and you specify health check IDs for all of the resource record sets that are referenced by the alias resource record sets. For more information about this configuration, see EvaluateTargetHealth.

#### Important

Amazon Route 53 doesn't check the health of the endpoint specified in the resource record set, for example, the endpoint specified by the IP address in the Value element. When you add a HealthCheckId element to a resource record set, Amazon Route 53 checks the health of the endpoint that you specified in the health check.

For geolocation resource record sets, if an endpoint is unhealthy, Amazon Route 53 looks for a resource record set for the larger, associated geographic region. For example, suppose you have resource record sets for a state in the United States, for the United States, for North America, and for all locations. If the endpoint for the state resource record set is unhealthy, Amazon Route 53 checks the resource record sets for the United States, for North America, and for all locations (a resource record set for which the value of CountryCode is \*), in that order, until it finds a resource record set for which the endpoint is healthy.

If your health checks specify the endpoint only by domain name, we recommend that you create a separate health check for each endpoint. For example, create a health check for each HTTP server that is serving content for www.example.com. For the value of FullyQualifiedDomainName, specify the domain name of the server (such as us-east-1-www.example.com), not the name of the resource record sets (example.com).

#### Important

In this configuration, if you create a health check for which the value of FullyQualifiedDomainName matches the name of the resource record sets and then associate the health check with those resource record sets, health check results will be unpredictable.

For more information, see the following topics in the Amazon Route 53 Developer Guide:

- Amazon Route 53 Health Checks and DNS Failover
- Configuring Failover in a Private Hosted Zone

Type: String

Default: None

Parent: ResourceRecordSet

# Responses

#### Topics

- Syntax (p. 131)
- Headers (p. 131)
- Elements (p. 131)

## **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ChangeResourceRecordSetsResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
        <ChangeInfo>
        <Id>/change/unique identifier for the change batch request</Id>
        <Id>/change/unique identifier for the change batch request</Id>
    <//r>

        <Status>PENDING | INSYNC</Status>
        <SubmittedAt>date and time in Coordinated Universal Time
        format</SubmittedAt>
        </ChangeInfo>
<//ChangeInfo>
<//ChangeInfo>
<//ChangeResourceRecordSetsResponse>
```

## **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

#### ChangeResourceRecordSetsResponse

A complex type containing the response information for the request.

Type: Complex

Children: ChangeInfo

#### ChangeInfo

A complex type that describes change information about changes made to your hosted zone.

Type: Complex

Children: Id, Status, SubmittedAt

ld

The ID of the request. Specify this ID in a GetChange request to determine when the change has propagated to all Amazon Route 53 DNS servers.

Type: String

Parent: ChangeInfo

#### Status

The current state of the request. PENDING indicates that this request has not yet been applied to all Amazon Route 53 DNS servers.

Type: String

Valid Values: PENDING | INSYNC

Parent: ChangeInfo

#### SubmittedAt

The date and time the change request was submitted, in Coordinated Universal Time (UTC) format: yyyy-MM-DDThh:mm:ssZ. For more information, see the Wikipedia entry ISO 8601.

Type: Timestamp

Parent: ChangeInfo

# **Errors**

#### InvalidInput

The input is not valid.

#### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

#### InvalidChangeBatch

This exception contains a list of messages that might contain one or more error messages. Each error message indicates one error in the change batch. For more information, see Example InvalidChangeBatch Errors (p. 133).

#### PriorRequestNotComplete

If Amazon Route 53 can't process a request before the next request arrives, it will reject subsequent requests for the same hosted zone and return an HTTP 400 error (Bad request). If Amazon Route 53 returns this error repeatedly for the same request, we recommend that you wait, in intervals of increasing duration, before you try the request again.

## Example InvalidChangeBatch Errors

The InvalidChangeBatch error contains a list of messages that contain zero, one or more error messages. This section describes InvalidChangeBatch and some of the errors it might return.

#### Note

Amazon Route 53 locates as many errors as possible, but some errors can only be detected after other errors are fixed. As a result, you might need to repeat your request to locate all the errors.

#### Example 1

If you already have a resource record set called duplicate.example.com. with type A records, and you try to create the same resource record set again, you receive the following InvalidChangeBatch exception.

#### Example 2

If you don't have the resource record set noexist.example.com. with type A records, but you try to delete it, you will get the following InvalidChangeBatch error.

#### Example 3

If you put the above two changes into a single change batch and you call ChangeResourceRecordSets, you receive this error.

# **Example: Creating Basic Resource Record Sets**

This example creates an A record for www.example.com and changes the A record for test.example.com from 192.0.2.3 to 192.0.2.1. Following the request is the response from Amazon Route 53.

### **Example Request**

```
POST /2013-04-01/hostedzone/Z1PA6795UKMFR9/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<ChangeResourceRecordSetsRequest xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
<ChangeBatch>
  <Comment>
  This change batch creates a TXT record for www.example.com.,
  and changes the A record for test.example.com. from 192.0.2.3 to 192.0.2.1.
   </Comment>
   <Changes>
      <Change>
         <Action>CREATE</Action>
         <ResourceRecordSet>
            <Name>www.example.com.</Name>
            <Type>TXT</Type>
            <TTL>600</TTL>
            <ResourceRecords>
               <ResourceRecord>
                  <Value>"item 1" "item 2" "item 3"</Value>
               </ResourceRecord>
            </ResourceRecords>
         </ResourceRecordSet>
      </Change>
      <Change>
         <Action>DELETE</Action>
         <ResourceRecordSet>
            <Name>test.example.com.</Name>
            <Type>A</Type>
            <TTL>600</TTL>
            <ResourceRecords>
               <ResourceRecord>
                  <Value>192.0.2.3</Value>
               </ResourceRecord>
            </ResourceRecords>
         </ResourceRecordSet>
      </Change>
      <Change>
         <Action>CREATE</Action>
         <ResourceRecordSet>
            <Name>test.example.com.</Name>
            <Type>A</Type>
            <TTL>600</TTL>
            <ResourceRecords>
               <ResourceRecord>
                  <Value>192.0.2.1</Value>
               </ResourceRecord>
            </ResourceRecords>
```

```
</ResourceRecordSet>
</Change>
</Changes>
</ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

# **Example Response**

This is an example response to the request in the previous example.

# **Example: Creating Alias Resource Record Sets**

The following example shows how to create alias resource record sets using the ChangeResourceRecordSets action. The example assumes the following:

- example.com is the zone apex for which you want to create an alias.
- www.example.com is a subdomain for which you also want to create an alias.
- *Z111111111111111* is an example of a hosted zone ID for an ELB load balancer. You can use the following methods to get the hosted zone ID for a load balancer:
  - AWS Management Console Go to the EC2 page, click Load Balancers in the navigation pane, select the load balancer, and get the value of the Hosted Zone ID field on the Description tab. Use the same process to get the DNS Name for the load balancer.
  - Elastic Load Balancing API Use DescribeLoadBalancers to get the value of CanonicalHostedZoneNameID. Use the same process to get the CanonicalHostedZoneName for the load balancer.
  - AWS CLI Use describe-load-balancers to get the value of CanonicalHostedZoneNameID. Use the same process to get the CanonicalHostedZoneName for the load balancer.

You can also route queries to the following AWS resources:

- CloudFront distribution Specify Z2FDTNDATAQYW2.
- Elastic Beanstalk environment Specify the hosted zone ID for the region in which you created the environment. For a list of regions and the corresponding hosted zone IDs, see AWS Elastic Beanstalk in the "Regions and Endpoints" chapter of the Amazon Web Services General Reference.
- Amazon S3 bucket that is configured as a static website Specify the hosted zone ID for the Amazon S3 website endpoint in which you created the bucket. For more information about valid values, see the table Amazon Simple Storage Service (S3) Website Endpoints in the Amazon Web Services General Reference.
- Another Amazon Route 53 resource record set in your hosted zone Specify the hosted zone ID of your hosted zone. (An alias resource record set cannot reference a resource record set in a different hosted zone.)
- example-load-balancer-1111111111.us-east-1.elb.amazonaws.com is an example of a DNS name for an ELB load balancer.

You can use the following methods to get the DNS name for a load balancer:

- AWS Management Console Go to the EC2 page, click Load Balancers in the navigation pane, choose the load balancer, choose the **Description** tab, and get the value of the **DNS Name** field that begins with **dualstack**. Use the same process to get the **Hosted Zone Id** for the load balancer.
- Elastic Load Balancing API Use DescribeLoadBalancers to get the value of CanonicalHostedZoneName. Use the same process to get the CanonicalHostedZoneNameId for the load balancer.
- AWS CLI Use describe-load-balancers to get the value of CanonicalHostedZoneName. Use the same process to get the CanonicalHostedZoneNameId for the load balancer.
- <EvaluateTargetHealth>true</EvaluateTargetHealth> indicates that health checks are enabled for both alias resource record sets. For more information about health checks, see Amazon Route 53 Health Checks and DNS Failover in the Amazon Route 53 Developer Guide.

### Note

You can also create an alias resource record set by using the elb-associate-route53-hosted-zone CLI command. For more information about the CLI command, see the *Elastic Load Balancing Quick Reference Card* or the Elastic Load Balancing CLI help.

```
POST /2013-04-01/hostedzone/Z22222222/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<ChangeResourceRecordSetsRequest xmlns="https://route53.amazonaws.com/
doc/2013-04-01/">
   <ChangeBatch>
      <Comment>
     This change batch creates two alias resource record sets, one
      for the zone apex, example.com, and one for www.example.com, that both
     point to example-load-balancer-1111111111.us-east-1.elb.amazonaws.com.
      </Comment>
      <Changes>
         <Change>
            <Action>CREATE</Action>
               <ResourceRecordSet>
                  <Name>example.com.</Name>
                  <Type>A</Type>
                  <AliasTarget>
                     <HostedZoneId>Z111111111111//HostedZoneId>
                     <DNSName>example-load-balancer-1111111111.us-east-
1.elb.amazonaws.com.</DNSName>
                     <EvaluateTargetHealth>true</EvaluateTargetHealth>
                  </AliasTarget>
               </ResourceRecordSet>
         </Change>
         <Change>
            <Action>CREATE</Action>
               <ResourceRecordSet>
                  <Name>www.example.com.</Name>
                  <Type>A</Type>
                  <AliasTarget>
                     <HostedZoneId>Z111111111111//HostedZoneId>
                     <DNSName>example-load-balancer-1111111111.us-east-
1.elb.amazonaws.com.</DNSName>
                     <EvaluateTargetHealth>true</EvaluateTargetHealth>
                  </AliasTarget>
               </ResourceRecordSet>
         </Change>
      </Changes>
   </ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

After you send your change request, check to ensure that your change was applied to all Amazon Route 53 DNS servers by polling for the status of the change. When the change is complete, its status becomes INSYNC. For more information about polling for the status of a change request, see GET GetChange (p. 161).

# Example: Creating Weighted Resource Record Sets

To use the Amazon Route 53 API to create a group of weighted resource record sets for a given combination of Name and Type, include SetIdentifier and Weight elements in each resource record set. Name and Type are the same for each resource record set in the group, so you must specify unique values for SetIdentifier to differentiate resource record sets from one another. This unique value is also useful when you retrieve resource records sets using ListResourceRecordSets.

You can create weighted resource record sets using any record type that Amazon Route 53 supports except NS or SOA. For information about supported record types, see Supported DNS Resource Record Types in the Amazon Route 53 Developer Guide.

To disable routing to a resource, set Weight to 0. If you set Weight to 0 for all of the resource record sets in the group, traffic is routed to all resources with equal probability. This ensures that you don't accidentally disable routing for a group of weighted resource record sets. The effect of setting Weight to 0 is different when you associate health checks with weighted resource record sets. For more information, see Configuring Active-Active or Active-Passive Failover Using Amazon Route 53 Weighted and Weighted Alias Resource Record Sets in the Amazon Route 53 Developer Guide.

The following example creates two A records for www.example.com. One-fourth of the time (1/(1+3)), Amazon Route 53 responds to queries for www.example.com with the two values for the first resource record set (192.0.2.9 and 192.0.2.10). Three-fourths of the time (3/(1+3)) Amazon Route 53 responds to queries for www.example.com with the two values for the second resource record set (192.0.2.11 and 192.0.2.12).

```
<ChangeResourceRecordSetsRequest xmlns="https://route53.amazonaws.com/</pre>
doc/2013-04-01/">
   <ChangeBatch>
      <Comment>
      This change creates two weighted resource record sets,
      each of which has two values.
      </Comment>
      <Changes>
         <Change>
            <Action>CREATE</Action>
            <ResourceRecordSet>
               <Name>www.example.com.</Name>
               <Type>A</Type>
               <SetIdentifier>Rack 2, Positions 4 and 5</SetIdentifier>
               <Weight>1</Weight>
               <TTL>600</TTL>
               <ResourceRecords>
                  <ResourceRecord>
                     <Value>192.0.2.9</Value>
                  </ResourceRecord>
                  <ResourceRecord>
                     <Value>192.0.2.10</Value>
                  </ResourceRecord>
               </ResourceRecords>
            </ResourceRecordSet>
         </Change>
         <Change>
            <Action>CREATE</Action>
            <ResourceRecordSet>
               <Name>www.example.com.</Name>
```

```
<Type>A</Type>
               <SetIdentifier>Rack 5, Positions 1 and 2</SetIdentifier>
               <Weight>3</Weight>
               <TTL>600</TTL>
               <ResourceRecords>
                  <ResourceRecord>
                     <Value>192.0.2.11</Value>
                  </ResourceRecord>
                  <ResourceRecord>
                     <Value>192.0.2.12</Value>
                  </ResourceRecord>
               </ResourceRecords>
            </ResourceRecordSet>
         </Change>
      </Changes>
   </ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

After you send your change request, use the GetChange API action to poll for the status of the change to confirm that it has propagated to all Amazon Route 53 DNS servers. When your change has finished propagating, its status changes from PENDING to INSYNC.

### Note

Currently, the only way to verify that changes have propagated is to use the GetChange API action. Changes generally propagate to all Amazon Route 53 name servers in a couple of minutes. In rare circumstances, propagation can take up to 30 minutes.

For more information about using the GetChange API action, see GET GetChange in the Amazon Route 53 API Reference.

# Example: Creating Weighted Alias Resource Record Sets

The following example shows how to create weighted alias resource record sets using the ChangeResourceRecordSets action. The example assumes the following:

- example.com is the domain for which you want to create weighted alias resource record sets.
- SetIdentifier differentiates the two weighted alias resource record sets from one another. This element is required because the Name and Type elements have the same values for both resource record sets.
- - AWS Management Console Go to the EC2 page, click Load Balancers in the navigation pane, select the load balancer, and get the value of the Hosted Zone ID field on the Description tab. Use the same process to get the DNS Name for the load balancer.
  - Elastic Load Balancing API Use DescribeLoadBalancers to get the value of CanonicalHostedZoneNameID. Use the same process to get the CanonicalHostedZoneName for the load balancer.
  - AWS CLI Use describe-load-balancers to get the value of CanonicalHostedZoneNameID. Use the same process to get the CanonicalHostedZoneName for the load balancer.

If you're routing queries to:

- CloudFront distribution: Specify Z2FDTNDATAQYW2.
- Elastic Beanstalk environment Specify the hosted zone ID for the region in which you created the environment. For a list of regions and the corresponding hosted zone IDs, see AWS Elastic Beanstalk in the "Regions and Endpoints" chapter of the Amazon Web Services General Reference.
- Amazon S3 bucket that is configured as a static website: Specify the hosted zone ID for the Amazon S3 website endpoint in which you created the bucket. For more information about valid values, see the table Amazon Simple Storage Service (S3) Website Endpoints in the Amazon Web Services General Reference.
- Another Amazon Route 53 resource record set in your hosted zone: Specify the hosted zone ID of your hosted zone. (An alias resource record set cannot reference a resource record set in a different hosted zone.)
- example-load-balancer-222222222.us-east-1.elb.amazonaws.com and example-load-balancer-444444444.us-east-1.elb.amazonaws.com are examples of Elastic Load Balancing domains from which Amazon Route 53 responds to queries for example.com.

You can use the following methods to get the DNS name for a load balancer:

- AWS Management Console Go to the EC2 page, click Load Balancers in the navigation pane, choose the load balancer, choose the **Description** tab, and get the value of the **DNS Name** field that begins with **dualstack**. Use the same process to get the **Hosted Zone Id** for the load balancer.
- Elastic Load Balancing API Use DescribeLoadBalancers to get the value of CanonicalHostedZoneName. Use the same process to get the CanonicalHostedZoneNameId for the load balancer.
- AWS CLI Use describe-load-balancers to get the value of CanonicalHostedZoneName. Use the same process to get the CanonicalHostedZoneNameId for the load balancer.
- <EvaluateTargetHealth>true</EvaluateTargetHealth> in the first weighted resource record set indicates that health checks are enabled for the load balancer that is specified in DNSName. <EvaluateTargetHealth>false</EvaluateTargetHealth> in the second weighted resource record set indicates that health checks are disabled for the corresponding load balancer. For more information about health checks, see Amazon Route 53 Health Checks and DNS Failover in the Amazon Route 53 Developer Guide.

```
POST /2013-04-01/hostedzone/Z55555555555/rrset HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<ChangeResourceRecordSetsRequest xmlns="https://route53.amazonaws.com/
doc/2013-04-01/">
  <ChangeBatch>
      <Comment>
     This change batch creates two weighted alias resource record sets.
     Amazon Route 53 responds to queries for example.com with the first ELB
     domain 3/4ths of the times and the second one 1/4th of the time.
      </Comment>
      <Changes>
         <Change>
            <Action>CREATE</Action>
            <ResourceRecordSet>
               <Name>example.com.</Name>
               <Type>A</Type>
               <SetIdentifier>1</SetIdentifier>
               <Weight>3</Weight>
               <AliasTarget>
                  <HostedZoneId>Z11111111111//HostedZoneId>
                  <DNSName>example-load-balancer-222222222.us-east-
1.elb.amazonaws.com.</DNSName>
                  <EvaluateTargetHealth>true</EvaluateTargetHealth>
               </AliasTarget>
            </ResourceRecordSet>
         </Change>
         <Change>
            <Action>CREATE</Action>
            <ResourceRecordSet>
               <Name>example.com.</Name>
               <Type>A</Type>
               <SetIdentifier>2</SetIdentifier>
               <Weight>1</Weight>
               <AliasTarget>
                  <HostedZoneId>Z333333333333</HostedZoneId>
                  <DNSName>example-load-balancer-4444444444.us-east-
1.elb.amazonaws.com.</DNSName>
                  <EvaluateTargetHealth>false</EvaluateTargetHealth>
               </AliasTarget>
            </ResourceRecordSet>
         </Change>
      </Changes>
   </ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

After you send your change request, check to ensure that your change was applied to all Amazon Route 53 DNS servers by polling for the status of the change. When the change is complete, its status becomes INSYNC. For more information about polling for the status of a change request, see GET GetChange (p. 161).

# Example: Creating Latency Alias Resource Record Sets

To create latency resource record sets, use the ChangeResourceRecordSets action.

The following example creates two latency alias resource record sets, one for an ELB load balancer in the US West (Oregon) region (us-west-2), and another for a load balancer in the Asia Pacific (Singapore) region (ap-southeast-1). In this example:

- <hosted zone ID> is the ID of the Amazon Route 53 hosted zone in which you're creating the latency resource record set.
- example.com. is the domain for which you are creating latency resource record sets.
- <hosted zone ID for Oregon load balancer> and <hosted zone ID for Singapore load balancer> are the hosted zone IDs for the load balancers for example.com. You can use the following methods to get the hosted zone ID for a load balancer:
  - AWS Management Console Go to the EC2 page, click Load Balancers in the navigation pane, select the load balancer, and get the value of the Hosted Zone ID field on the Description tab. Use the same process to get the DNS Name for the load balancer.
  - Elastic Load Balancing API Use DescribeLoadBalancers to get the value of CanonicalHostedZoneNameID. Use the same process to get the CanonicalHostedZoneName for the load balancer.
  - AWS CLI Use describe-load-balancers to get the value of CanonicalHostedZoneNameID. Use the same process to get the CanonicalHostedZoneName for the load balancer.
- example-load-balancer-111111111.ap-southeast-1.elb.amazonaws.com and example-load-balancer-222222222.us-west-2.elb.amazonaws.com are the domain names for your load balancers. Amazon Route 53 responds to queries for *example.com* with the IP address of one of these load balancers, depending on the latency between your end users and the Amazon EC2 regions in which you created your load balancers.

You can use the following methods to get the DNS name for a load balancer:

- AWS Management Console Go to the EC2 page, click Load Balancers in the navigation pane, choose the load balancer, choose the **Description** tab, and get the value of the **DNS Name** field that begins with **dualstack**. Use the same process to get the **Hosted Zone Id** for the load balancer.
- Elastic Load Balancing API Use DescribeLoadBalancers to get the value of CanonicalHostedZoneName. Use the same process to get the CanonicalHostedZoneNameId for the load balancer.
- AWS CLI Use describe-load-balancers to get the value of CanonicalHostedZoneName. Use the same process to get the CanonicalHostedZoneNameId for the load balancer.
- <EvaluateTargetHealth>true</EvaluateTargetHealth> indicates that health checks are enabled for both latency alias resource record sets. For more information about health checks, see Amazon Route 53 Health Checks and DNS Failover in the Amazon Route 53 Developer Guide.

```
</Comment>
      <Changes>
         <Change>
            <Action>CREATE</Action>
               <ResourceRecordSet>
                  <Name>example.com.</Name>
                  <Type>A</Type>
                  <SetIdentifier>Oregon load balancer 1</SetIdentifier>
                  <Region>us-west-2</Region>
                  <AliasTarget>
                     <HostedZoneId><hosted zone ID for
                        Oregon load balancer></HostedZoneId>
                     <DNSName>example-load-balancer-222222222.us-west-
2.elb.amazonaws.com</DNSName>
                     <EvaluateTargetHealth>true</EvaluateTargetHealth>
                  </AliasTarget>
               </ResourceRecordSet>
         </Change>
         <Change>
            <Action>CREATE</Action>
               <ResourceRecordSet>
                  <Name>example.com.</Name>
                  <Type>A</Type>
                  <SetIdentifier>Singapore load balancer 1</SetIdentifier>
                  <Region>ap-southeast-1</Region>
                  <AliasTarget>
                     <HostedZoneId><hosted zone ID for
                        Singapore load balancer></HostedZoneId>
                     <DNSName>example-load-balancer-1111111111.ap-southeast-
1.elb.amazonaws.com</DNSName>
                     <EvaluateTargetHealth>true</EvaluateTargetHealth>
                  </AliasTarget>
               </ResourceRecordSet>
         </Change>
      </Changes>
  </ChangeBatch>
</ChangeResourceRecordSetsRequest>
```

For more information about changing and listing resource record sets, see Working with Resource Record Sets in the *Amazon Route 53 Developer Guide*.

After you send your change request, check to ensure that your change was applied to all Amazon Route 53 DNS servers by polling for the status of the change. For more information about polling for the status of a change request, see GET GetChange (p. 161).

# **Using Older API Versions**

We recommend that you use the latest version of the API so you can use all of the current features. For an explanation of Amazon Route 53 behavior if you use earlier API versions, see the applicable topic.

### Topics

- Using Aliases with the 2010-10-01 Amazon Route 53 API (p. 145)
- Using Weighted Resource Record Sets with the 2010-10-01 Amazon Route 53 API (p. 145)
- Using Latency Resource Record Sets with Amazon Route 53 API Versions Earlier than 2012-02-29 (p. 145)

# Using Aliases with the 2010-10-01 Amazon Route 53 API

Aliases were added with the 2011-05-05 version of the Amazon Route 53 API. If a zone contains any alias resource record sets, we recommend that you use the 2011-05-05 or a later version of the API. Note the following about using alias resource record sets with the 2010-10-01 API.

- The 2010-10-01 version of the ChangeResourceRecordSets action cannot create or delete resource record sets that include AliasTarget, HostedZoneId, or DNSName elements.
- The 2010-10-01 version of the ListResourceRecordSets action can list resource record sets that include AliasTarget, HostedZoneId, and DNSName elements, but those elements are not included in the output. Instead, the Value element contains a message that says the resource record set includes an unsupported attribute.

### Using Weighted Resource Record Sets with the 2010-10-01 Amazon Route 53 API

Weighted resource record sets were added starting with the 2011-05-05 version of the Amazon Route 53 API. If a zone contains any weighted resource record sets, we recommend that you use the 2011-05-05 or a later version of the API. Note the following about using weighted resource record sets with the 2010-10-01 API.

- The 2010-10-01 version of the ChangeResourceRecordSets action cannot create or delete resource record sets that include SetIdentifier and Weight elements.
- The 2010-10-01 version of the ListResourceRecordSets action can list resource record sets that include the SetIdentifier and Weight elements, but those elements are not included in the output. Instead, the Value element contains a message that says the resource record set includes an unsupported attribute.
- The 2010-10-01 version of the ListResourceRecordSets action can paginate resource record sets that include SetIdentifier and Weight elements, but the combination of Name and Type is no longer guaranteed to correspond with a single resource record set. To ensure that the 2010-10-01 ListResourceRecordSets paginator makes progress and doesn't repeat a partial list of the resource record sets for a given Name and Type, specify a page size that is long enough to accommodate the largest number of resource record sets that are associated with any Name and Type combination in the zone.

### Using Latency Resource Record Sets with Amazon Route 53 API Versions Earlier than 2012-02-29

Latency resource record sets are supported starting with the 2012-02-29 version of the Amazon Route 53 API. If a hosted zone contains any latency resource record sets, we recommend that you use the

2012-02-29 API or later. Note the following restrictions on using latency resource record sets with earlier API versions.

- The ChangeResourceRecordSets action cannot create or delete resource record sets that include the Region element.
- The ListResourceRecordSets action can list resource record sets that include the Region element, but that element is not included in the output. Instead, the Value element of the response contains a message that says the resource record set includes an unsupported attribute.

# **GET ListResourceRecordSets**

### Topics

- Requests (p. 147)
- Responses (p. 149)
- Errors (p. 159)
- Example 1 (p. 159)
- Example 2 (p. 159)

To list your resource record sets, send a GET request to the 2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset resource.

ListResourceRecordSets returns up to 100 resource record sets at a time in ASCII order, beginning at a position specified by the name and type elements. The action sorts results first by DNS name with the labels reversed, for example:

com.example.www.

Note the trailing dot, which can change the sort order in some circumstances. When multiple records have the same DNS name, the action sorts results by the record type.

You can use the name and type elements to adjust the beginning position of the list of resource record sets returned, as described in the following table:

| Specification                      | Results  |
|------------------------------------|--|
| If you do not specify Name or Type | The results begin with the first resource record set that the hosted zone contains.  |
| If you specify Name but not Type   | The results begin with the first resource record set in the list whose name is greater than or equal to ${\tt Name}.$  |
| If you specify Type but not Name   | Amazon Route 53 returns the InvalidInput error.  |
| If you specify both Name and Type  | The results begin with the first resource record set in the list whose name is greater than or equal to ${\tt Name}$ , and whose type is greater than or equal to ${\tt Type}$ . |

This action returns the most current version of the records. This includes records that are PENDING, and that are not yet available on all Amazon Route 53 DNS servers.

To ensure that you get an accurate listing of the resource record sets for a hosted zone at a point in time, do not submit a ChangeResourceRecordSets request while you are paging through the results of a ListResourceRecordSets request. If you do, some pages may display results without the latest changes while other pages display results with the latest changes.

# Requests

### Syntax

GET /2013-04-01/hostedzone/Amazon Route 53 hosted zone ID/rrset? name=DNS domain name at which to start listing resource record sets& type=resource record set type& identifier=value of SetIdentifier&
maxitems=maximum number of resource record sets in the response

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

### Amazon Route 53 Hosted Zone ID (Required)

The ID of the hosted zone containing the resource records sets to be retrieved.

Type: String

Default: None

### name (Optional)

The first name in the lexicographic ordering of domain names to be retrieved in the response to the ListResourceRecordSets request.

Type: String

Default: None

### type (Optional)

The type of resource record set to begin the record listing from. For information about different record types and how data is encoded for them, see Supported DNS Resource Record Types in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Valid values for basic resource record sets: A | AAAA | CNAME | MX | NS | PTR | SOA | SPF | SRV | TXT

Values for weighted, latency, geo, and failover resource record sets: A | AAAA | CNAME | MX | PTR | SPF | SRV | TXT

Values for alias resource record sets:

- CloudFront distribution A
- Elastic Beanstalk environment that has a regionalized subdomain A
- ELB load balancer A | AAAA
- Amazon S3 bucket A

Constraint: Specifying type without specifying name returns an InvalidInput error.

identifier (Required if you are using weighted, latency, geolocation, or failover resource record sets)

Weighted, latency, geolocation, and latency resource record sets only: If results were truncated for a given DNS name and type, the value of SetIdentifier for the next resource record set that has the current DNS name and type.

Type: String

Default: None

#### maxitems (Optional)

The maximum number of resource records sets to include in the response body for this request. If the response includes more than maxitems resource record sets, the value of the IsTruncated element in the response is true, and the values of the NextRecordName and NextRecordType elements in the response identify the first resource record set in the next group of maxitems resource record sets.

Type: String

Default: 100

Constraint: maximum value is 100. If you specify a value greater than 100, ListResourceRecordSets returns the first 100 resource record sets.

# Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListResourceRecordSetsResponse xmlns="https://route53.amazonaws.com/doc/2013-</pre>
04-01/">
   <ResourceRecordSets>
      <!-- Basic syntax -->
      <ResourceRecordSet>
         <Name>DNS domain name</Name>
         <Type>DNS record type</Type>
         <TTL>time to live in seconds</TTL>
         <ResourceRecords>
            <ResourceRecord>
               <Value>applicable value for the DNS record type</Value>
            </ResourceRecord>
         </ResourceRecords>
         <HealthCheckId>ID of an Amazon Route 53 health check</HealthCheckId>
      </ResourceRecordSet>
      <!-- Weighted resource record set syntax -->
      <ResourceRecordSet>
         <Name>DNS domain name</Name>
         <Type>DNS record type</Type>
         <SetIdentifier>unique description for this
                  resource record set</SetIdentifier>
         <Weight>value between 0 and 255</Weight>
         <TTL>time to live in seconds</TTL>
         <ResourceRecords>
            <ResourceRecord>
               <Value>applicable value for the DNS record type</Value>
            </ResourceRecord>
         </ResourceRecords>
         <HealthCheckId>ID of an Amazon Route 53 health check</HealthCheckId>
      </ResourceRecordSet>
      <!-- Alias resource record set syntax -->
      <ResourceRecordSet>
         <Name>DNS domain name</Name>
```

```
<Type>DNS record type</Type>
        <AliasTarget>
           <HostedZoneId>hosted zone ID for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or
              Amazon Route 53 hosted zone</HostedZoneId>
           <DNSName>DNS domain name for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or another resource record
set
              in this hosted zone</DNSName>
           <EvaluateTargetHealth>true | false</EvaluateTargetHealth>
        </AliasTarget>
        <HealthCheckId>optional ID of an
           Amazon Route 53 health check</HealthCheckId>
     </ResourceRecordSet>
     <!-- Weighted alias resource record set syntax -->
     <ResourceRecordSet>
        <Name>DNS domain name</Name>
        <Type>DNS record type</Type>
        <SetIdentifier>unique description for this
           resource record set</SetIdentifier>
        <Weight>value between 0 and 255</Weight>
        <AliasTarget>
           <HostedZoneId>hosted zone ID for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or
              Amazon Route 53 hosted zone</HostedZoneId>
           <DNSName>DNS domain name for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or another resource record
set
              in this hosted zone</DNSName>
           <EvaluateTargetHealth>true | false</EvaluateTargetHealth>
        </AliasTarget>
        <HealthCheckId>optional ID of an
           Amazon Route 53 health check</HealthCheckId>
     </ResourceRecordSet>
     <!-- Latency resource record set syntax -->
     <ResourceRecordSet>
        <Name>DNS domain name</Name>
        <Type>DNS record type</Type>
        <SetIdentifier>unique description for this
           resource record set</SetIdentifier>
        <Region>Amazon EC2 region name</Region>
        <TTL>time to live in seconds</TTL>
        <ResourceRecords>
           <ResourceRecord>
              <Value>applicable value for the record type</Value>
           </ResourceRecord>
        </ResourceRecords>
        <HealthCheckId>optional ID of an
```

```
Amazon Route 53 health check</HealthCheckId>
     </ResourceRecordSet>
     <!-- Latency alias resource record set syntax -->
     <ResourceRecordSet>
        <Name>DNS domain name</Name>
        <Type>DNS record type</Type>
        <SetIdentifier>unique description for this
           resource record set</SetIdentifier>
        <Region>Amazon EC2 region name</Region>
        <AliasTarget>
           <HostedZoneId>hosted zone ID for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or
              Amazon Route 53 hosted zone</HostedZoneId>
           <DNSName>DNS domain name for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or another resource record
set
              in this hosted zone</DNSName>
           <EvaluateTargetHealth>true | false</EvaluateTargetHealth>
        </AliasTarget>
        <HealthCheckId>optional ID of an
           Amazon Route 53 health check</HealthCheckId>
     </ResourceRecordSet>
     <!-- Failover resource record set syntax -->
     <ResourceRecordSet>
        <Name>DNS domain name</Name>
        <Type>DNS record type</Type>
        <SetIdentifier>unique description for this
           resource record set</SetIdentifier>
        <Failover>PRIMARY | SECONDARY</Failover>
        <TTL>time to live in seconds</TTL>
        <ResourceRecords>
           <ResourceRecord>
              <Value>applicable value for the record type</Value>
           </ResourceRecord>
        </ResourceRecords>
        <HealthCheckId>optional ID of an
           Amazon Route 53 health check</HealthCheckId>
     </ResourceRecordSet>
     <!-- Failover alias resource record set syntax -->
     <ResourceRecordSet>
        <Name>DNS domain name</Name>
        <Type>DNS record type</Type>
        <SetIdentifier>unique description for this
           resource record set</SetIdentifier>
        <Failover>PRIMARY | SECONDARY</Failover>
        <AliasTarget>
           <HostedZoneId>hosted zone ID for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or
              Amazon Route 53 hosted zone</HostedZoneId>
```

```
<DNSName>DNS domain name for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or another resource record
set
              in this hosted zone</DNSName>
           <EvaluateTargetHealth>true | false</EvaluateTargetHealth>
        </AliasTarget>
        <HealthCheckId>optional ID of an
           Amazon Route 53 health check</HealthCheckId>
     </ResourceRecordSet>
     <!-- Geolocation resource record set syntax -->
     <ResourceRecordSet>
        <Name>DNS domain name</Name>
        <Type>DNS record type</Type>
        <SetIdentifier>unique description for this
           resource record set</SetIdentifier>
        <Geolocation>
           <ContinentCode>two-letter continent code</ContinentCode>
           <CountryCode>two-letter country code</CountryCode>
           <SubdivisionCode>subdivision code</SubdivisionCode>
        </GeoLocation>
        <TTL>time to live in seconds</TTL>
        <ResourceRecords>
           <ResourceRecord>
              <Value>applicable value for the record type</Value>
           </ResourceRecord>
        </ResourceRecords>
        <HealthCheckId>optional ID of an
           Amazon Route 53 health check</HealthCheckId>
     </ResourceRecordSet>
     <!-- Geolocation alias resource record set syntax -->
     <ResourceRecordSet>
        <Name>DNS domain name</Name>
        <Type>DNS record type</Type>
        <SetIdentifier>unique description for this
           resource record set</SetIdentifier>
        <Geolocation>
           <ContinentCode>two-letter continent code</ContinentCode>
           <CountryCode>two-letter country code</CountryCode>
           <<u>SubdivisionCode</u>><u>subdivision code</u></SubdivisionCode>
        </GeoLocation>
        <AliasTarget>
           <HostedZoneId>hosted zone ID for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or
              Amazon Route 53 hosted zone</HostedZoneId>
           <DNSName>DNS domain name for your CloudFront distribution,
             Elastic Beanstalk environment that has a regionalized subdomain,
              ELB load balancer, Amazon S3 bucket, or another resource record
set
              in this hosted zone</DNSName>
           <EvaluateTargetHealth>true | false</EvaluateTargetHealth>
        </AliasTarget>
```

```
<HealthCheckId>optional ID of an
            Amazon Route 53 health check</HealthCheckId>
      </ResourceRecordSet>
     <!-- Traffic policy instance syntax -->
      <ResourceRecordSet>
         <Name>DNS domain name</Name>
         <Type>DNS record type</Type>
         <ResourceRecords>
            <ResourceRecord>
               <Value>not applicable to traffic policy instances</Value>
            </ResourceRecord>
         <TrafficPolicyInstanceId>ID of the traffic policy instance
            that is associated with this resource record set</TrafficPolicyIn
stanceId>
     </ResourceRecordSet>
      . . .
  </ResourceRecordSets>
  <IsTruncated>true | false</IsTruncated>
  <MaxItems>value of maxitems parameter in the previous request</MaxItems>
  <NextRecordName>if IsTruncated is true,
     the DNS domain name of the first resource record set
     in the next group of maxitems resource record sets</NextRecordName>
  <NextRecordType>if IsTruncated is true,
     the DNS record type of the first resource record set
     in the next group of maxitems resource record sets</NextRecordType>
  <NextRecordIdentifier>if IsTruncated is true
     and results were truncated for a weighted, latency, geolocation, or
     failover resource record set, the value of SetIdentifier for the
     first resource record set in the next group of maxitems
     resource record sets</NextRecordIdentifier>
</ListResourceRecordSetsResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### ListResourceRecordSetsResponse

A complex type that contains list information for the resource record set.

Type: Complex

Children: ResourceRecordSets, IsTruncated, MaxItems, NextRecordName, NextRecordType

### ResourceRecordSets

Information about multiple resource record sets.

Type: Complex

Parent: ListResourceRecordSetsResponse

Children: ResourceRecordSet

### ResourceRecordSet

Information about multiple resource records.

Type: Complex

Parent: ResourceRecordSets

Children: Name, Type, AliasTarget, SetIdentifier, Weight, TTL, ResourceRecords

#### Name

The name of the domain. If the name includes characters other than a to z, 0 to 9, - (hyphen), or \_ (underscore), ListResourceRecordSets returns the characters as escape codes in the format \three-digit octal code. This is true whether you specified the characters as characters or as escape codes when you created the resource record set. For more information about domain name format, see DNS Domain Name Format in the Amazon Route 53 Developer Guide.

### Note

For alphabetic characters, regardless of whether you specify upper-case letters, lower-case letters, or the corresponding letters in escape codes, Amazon Route 53 stores them internally as lower-case letters.

Type: String

Parent: ResourceRecordSet

#### Туре

The resource record set type the record listing begins from. For more information about resource record types, see Supported DNS Resource Record Types in the Amazon Route 53 Developer Guide.

Type: String

Valid values: A | AAAA | CNAME | MX | NS | PTR | SOA | SPF | SRV | TXT

Values for weighted, latency, geolocation, and failover resource record sets: A | AAAA | CNAME | MX | PTR | SPF | SRV | TXT

Values for alias resource record sets:

- CloudFront distribution A
- Elastic Beanstalk environment that has a regionalized subdomain A
- ELB load balancer A | AAAA
- Amazon S3 bucket A

Parent: ResourceRecordSet

#### SetIdentifier

Weighted, latency, geolocation, and failover resource record sets only: An identifier that differentiates among multiple resource record sets that have the same combination of DNS name and type.

Type: String

Parent: ResourceRecordSet

#### Weight

Weighted resource record sets only: Among resource record sets that have the same combination of DNS name and type, a value that determines what portion of traffic for the current resource record set is routed to the associated location.

Type: Integer

Parent: ResourceRecordSet

#### Region

Latency resource record sets only: The Amazon EC2 region where the resource that is specified in this resource record set resides.

Valid values include:

- US East (N. Virginia) Region: us-east-1
- US West (N. California) Region: us-west-1
- US West (Oregon) Region: us-west-2
- Asia Pacific (Mumbai) Region: ap-south-1
- Asia Pacific (Seoul) Region: ap-northeast-2
- Asia Pacific (Singapore) Region: ap-southeast-1
- Asia Pacific (Sydney) Region: ap-southeast-2
- Asia Pacific (Tokyo) Region: ap-northeast-1
- China (Beijing) Region: cn-north-1
- EU (Frankfurt) Region: eu-central-1
- EU (Ireland) Region: eu-west-1
- South America (São Paulo) Region: sa-east-1

### Type: String

Parent: ResourceRecordSet

#### Failover

Failover resource record sets only: Whether this is the primary or secondary resource record set.

Type: String

Default: None

Valid Values: PRIMARY | SECONDARY

Parent: ResourceRecordSet

#### GeoLocation

*Geolocation resource record sets only:* A complex type that defines the geographic location that DNS queries originated from. Amazon Route 53 responds to queries from the location that you specify using the values in this resource record set.

Type: Complex

Default: None

Parent: ResourceRecordSet

Children: ContinentCode, CountryCode, SubdivisionCode

### ContinentCode

Geolocation resource record sets only: When you want Amazon Route 53 to respond to the queries that originate from a specified continent using the values in this resource record set, ContinentCode is a two-letter code that identifies the continent.

Type: String

Default: None

Valid Values: AF, AN, AS, EU, OC, NA, SA

Parent: GeoLocation

### CountryCode

Geolocation resource record sets only: When you want Amazon Route 53 to respond to the queries that originate from a specified country (or a subdivision, for example, a state or province) using the values in this resource record set, CountryCode is a two-letter code that identifies the country.

Amazon Route 53 uses the two-letter country codes that are specified in ISO standard 3166-1 alpha-2.

The value \* in the CountryCode element matches all geographic locations that aren't specified in other resource record sets that have the same name and type.

Type: String

Default: None

Parent: GeoLocation

#### SubdivisionCode

Geolocation resource record sets only: When you want Amazon Route 53 to respond to the queries that originate from a specified subdivision (for example, a state or province) using the values in this resource record set, SubdivisionCode is a one- to three-letter code that identifies the subdivision.

Type: String

Default: None

Parent: GeoLocation

#### TTL

All resource record sets except aliases: The resource record cache time to live (TTL), in seconds.

Type: Integer

Parent: ResourceRecordSet

#### ResourceRecords

Information about the resource records.

Type: Complex

Parent: ResourceRecordSet

Children: ResourceRecord

### ResourceRecord

Information about the resource record.

Type: Complex

Parent: ResourceRecords

Children: Value

#### Value

Content for the resource record.

Type: String

Parent: ResourceRecord

#### AliasTarget

Alias resource record sets only: Information about the CloudFront distribution, Elastic Beanstalk environment, ELB load balancer, Amazon S3 bucket, or Amazon Route 53 resource record set to which you are redirecting queries.

Type: Complex

Parent: ResourceRecordSet

Children: HostedZoneId, DNSName

### HostedZoneld

Alias resource record sets only. If you are routing queries to:

• CloudFront distribution – This value is always Z2FDTNDATAQYW2.

- Elastic Beanstalk environment The hosted zone ID for the region in which you created the
  environment. (The environment must have a regionalized subdomain.) For a list of regions and
  the corresponding hosted zone IDs, see AWS Elastic Beanstalk > in the "Regions and Endpoints"
  chapter of the Amazon Web Services General Reference.
- **ELB load balancer** The value of the hosted zone ID for the load balancer (CanonicalHostedZoneNameId).
- Amazon S3 bucket that is configured as a static website The hosted zone ID for the Amazon S3 website endpoint in which you created the bucket. For more information about valid values, see the table Amazon Simple Storage Service (S3) Website Endpoints in the Amazon Web Services General Reference.
- Another Amazon Route 53 resource record set in your hosted zone The hosted zone ID of the current hosted zone. (An alias resource record set cannot reference a resource record set in a different hosted zone.)

Type: String

Parent: AliasTarget

### DNSName

Alias resource record sets only: If you are routing queries to:

- CloudFront distribution The domain name that CloudFront assigned when you created your distribution.
- Elastic Beanstalk environment that has a regionalized subdomain The CNAME attribute for the environment.
- ELB load balancer The external DNS name associated with the load balancer.
- Amazon S3 bucket that is configured as a static website The domain name of the Amazon S3 website endpoint in which you created the bucket; for example, s3-website-us-east-1.amazonaws.com. For more information about valid values, see the table Amazon Simple Storage Service (S3) Website Endpoints in the Amazon Web Services General Reference.

For more information about using Amazon S3 buckets for websites, see Hosting a Static Website on Amazon S3 in the Amazon Simple Storage Service Developer Guide.

• Another Amazon Route 53 resource record set in your hosted zone – The value of the Name element for a resource record set in the current hosted zone.

Type: String

### Parent: AliasTarget

### EvaluateTargetHealth

Applies only to alias, weighted alias, latency alias, geolocation alias, and failover alias resource record sets: If EvaluateTargetHealth is true, Amazon Route 53 considers the health of the resource record sets in the alias target when answering DNS queries. For more information, see EvaluateTargetHealth in the topic POST ChangeResourceRecordSets (p. 108).

Type: Boolean

Parent: AliasTarget

### HealthCheckId

The ID of the health check that you want Amazon Route 53 to perform for this resource record set.

For more information about checking the health of endpoints, see Amazon Route 53 Health Checks and DNS Failover in the Amazon Route 53 Developer Guide.

For information about the actions that you can perform on health checks using the Amazon Route 53 API, see Actions on HealthChecks (p. 254).

Type: String

Default: None

Parent: ResourceRecordSet

### TrafficPolicyInstanceId

When you create a traffic policy instance, Amazon Route 53 automatically creates a resource record set. TrafficPolicyInstanceId is the ID of the traffic policy instance for which Amazon Route 53 created this resource record set.

### Important

To delete the resource record set that is associated with a traffic policy instance, use DELETE DeleteTrafficPolicyInstance (p. 241). Amazon Route 53 will delete the resource record set automatically. If you delete the resource record set by using ChangeResourceRecordSets, Amazon Route 53 doesn't automatically delete the traffic policy instance, and you'll continue to be charged for it even though it's no longer in use.

Type: String

Default: None

Parent: ResourceRecord

### IsTruncated

A flag that indicates whether more resource record sets remain to be listed. If your results were truncated, you can make a follow-up pagination request by using the NextRecordName element.

Type: String

Valid Values: true | false

Parent: ListResourceRecordSetsResponse

#### MaxItems

The maximum number of records you requested.

Type: String representation of a number, not to exceed 100

Parent: ListResourceRecordSetsResponse

#### NextRecordName

If the results were truncated, the name of the next record in the list.

This element is present only if IsTruncated is true.

Type: String

Parent: ListResourceRecordSetsResponse

### NextRecordType

If the results were truncated, the type of the next record in the list.

This element is present only if IsTruncated is true.

Type: String

Parent: ListResourceRecordSetsResponse

#### NextRecordIdentifier

Weighted, latency, geolocation, and failover resource record sets only: If results were truncated for a given DNS name and type, the value of SetIdentifier for the next resource record set that has the current DNS name and type.

Type: String

Default: None

Parent: ListResourceRecordSetsResponse

# **Errors**

Amazon Route 53 returns the following errors for this action.

InvalidInput The input is not valid. NoSuchHostedZone A hosted zone with the specified hosted zone ID does not exist.

# **Example 1**

This example returns a single known record set by setting MaxItems to 1.

# **Example Request**

GET /2013-04-01/hostedzone/Z1PA6795UKMFR9/rrset?maxitems=1

# **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListResourceRecordSetsResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
   <ResourceRecordSets>
      <ResourceRecordSet>
         <Name>example.com.</Name>
         <Type>SOA</Type>
         <TTL>900</TTL>
         <ResourceRecords>
            <ResourceRecord>
               <Value>ns-2048.awsdns-64.net. hostmaster.awsdns.com. 1 7200 900
 1209600 86400</Value>
            </ResourceRecord>
         </ResourceRecords>
      </ResourceRecordSet>
   </ResourceRecordSets>
   IsTruncated>true</lsTruncated>
   <MaxItems>1</MaxItems>
   <NextRecordName>testdoc2.example.com</NextRecordName>
   <NextRecordType>NS</NextRecordType>
</ListResourceRecordSetsResponse>
```

# **Example 2**

This example returns a list of record sets by specifying Name and Type, and setting MaxItems to 10.

# **Example Request**

GET /2013-04-01/hostedzone/Z1PA6795UKMFR9/rrset?type=NS&name=example.com&max items=10

### Example Response

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListResourceRecordSetsResponse xmlns="https://route53.amazonaws.com/doc/2013-</pre>
04-01/">
   <ResourceRecordSets>
      <ResourceRecordSet>
         <Name>example.com.</Name>
         <Type>NS</Type>
         <TTL>172800</TTL>
         <ResourceRecords>
            <ResourceRecord>
               <Value>ns-2048.awsdns-64.com.</Value>
            </ResourceRecord>
            <ResourceRecord>
               <Value>ns-2049.awsdns-65.net.</Value>
            </ResourceRecord>
            <ResourceRecord>
               <Value>ns-2050.awsdns-66.org.</Value>
            </ResourceRecord>
            <ResourceRecord>
               <Value>ns-2051.awsdns-67.co.uk.</Value>
            </ResourceRecord>
         </ResourceRecords>
      </ResourceRecordSet>
   </ResourceRecordSets>
   <IsTruncated>false</IsTruncated>
   <MaxItems>10</MaxItems>
</ListResourceRecordSetsResponse>
```

# **GET GetChange**

### Topics

- Requests (p. 161)
- Responses (p. 161)
- Errors (p. 162)
- Example (p. 163)

This action returns the current status of a change batch request. The status is one of the following values:

- PENDING indicates that the changes in this request have not replicated to all Amazon Route 53 DNS servers. This is the initial status of all change batch requests.
- INSYNC indicates that the changes have replicated to all Amazon Route 53 DNS servers.

# Requests

### **Syntax**

GET /2013-04-01/change/change ID

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

### change ID (Required)

The ID of the change batch request. The value that you specify here is the value that POST ChangeResourceRecordSets (p. 108) returned in the Id element when you submitted the request.

Type: String

Default: None

# Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<GetChangeResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
        <ChangeInfo>
        <Id>unique identifier for the change batch request</Id>
        <Id>unique identifier for the change batch request</Id>
        <Status>PENDING | INSYNC</Status>
        <SubmittedAt>date and time in Coordinated Universal Time
        format</SubmittedAt>
```

</ChangeInfo> </GetChangeResponse>

### **Elements**

### GetChangeResponse

A complex type that contains the ChangeInfo element.

Type: Complex

Children: ChangeInfo

### ChangeInfo

A complex type that contains information about the specified change batch.

Type: Complex

Parent: GetChangeResponse

Children: Id, Status, SubmittedAt

#### ld

The ID of the change batch. This is the value that you specified in the change ID parameter when you submitted the request.

Type: String

Parent: ChangeInfo

### Status

The current status of the change batch request:

- PENDING indicates that the changes in this request have not replicated to all Amazon Route 53 DNS servers.
- INSYNC indicates that the changes have replicated to all Amazon Route 53 DNS servers.

Type: String

Valid Values: PENDING | INSYNC

Parent: ChangeInfo

### SubmittedAt

The date and time that the change batch request was submitted. The z after the time indicates that the time is listed in Coordinated Universal Time (UTC), which is synonymous with Greenwich Mean Time in this context.

Type: Timestamp

Parent: ChangeInfo

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Errors**

Amazon Route 53 returns the following errors for this action.

InvalidInput

The input is not valid.

### NoSuchChange

A change with the specified change ID does not exist.

# Example

# Request

GET /2013-04-01/change/C2682N5HXP0BZ4

# Response

# **GET GetGeoLocation**

### Topics

- Requests (p. 164)
- Responses (p. 165)
- Errors (p. 166)
- Examples (p. 166)

To determine whether a geolocation is supported for Amazon Route 53 geolocation, send a GET request to the 2013-04-01/geolocation resource.

# Requests

# **Syntaxes**

Use the following syntax to determine whether a continent is supported for geolocation:

```
GET /2013-04-01/geolocation?
ContinentCode=two-letter abbreviation for a continent
```

Use the following syntax to determine whether a country is supported for geolocation:

```
GET /2013-04-01/geolocation?
CountryCode=two-character country code
```

Use the following syntax to determine whether a subdivision of a country is supported for geolocation:

```
GET /2013-04-01/geolocation?
CountryCode=two-character country code&
SubdivisionCode=subdivision code
```

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

### ContinentCode

Amazon Route 53 supports the following continent codes:

- AF Africa
- AN Antarctica
- AS Asia
- EU Europe
- OC Oceania
- NA North America
- SA South America

### CountryCode

Amazon Route 53 uses the two-letter country codes that are specified in ISO standard 3166-1 alpha-2.

### SubdivisionCode

Amazon Route 53 uses the one- to three-letter subdivision codes that are specified in ISO standard 3166-1 alpha-2. Amazon Route 53 doesn't support subdivision codes for all countries. If you specify SubdivisionCode, you must also specify CountryCode.

# Responses

### **Syntax**

If an element doesn't have a value, for example, a subdivision element for a country that doesn't have states, provinces, or other subdivisions, the element is omitted.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<GetGeoLocationResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
<GeoLocationDetails>
<ContinentCode>AF | AN | AS | EU | OC | NA | SA</ContinentCode>
<ContinentName>Africa | Antarctica | Asia | Europe | Oceania |
North America | South America</ContinentName>
<CountryCode>two-letter country code</CountryCode>
<CountryName>country name</CountryName>
<SubdivisionCode>one- to three-letter subdivision code</SubdivisionCode>
<SubdivisionName>subdivision name</SubdivisionName>
</GeoLocationDetails>
</GeoLocationResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### GetGeoLocationResponse

A complex type that contains the response information for the specified geolocation code.

Type: Complex

 $Children: {\tt GetGeoLocationDetails}$ 

### GeoLocationDetails

A complex type that contains the codes and full continent, country, and subdivision names for the specified geolocation code.

Type: Complex

Parent: GetGeoLocationResponse

Children: GetGeoLocationDetails

### ContinentCode

The two-letter code for the continent.

Type: String

Parent: GetGeoLocationDetails

### ContinentName

The full name of the continent.

Type: String

Parent: GetGeoLocationDetails

### CountryCode

The two-letter code for the country.

Type: String

Parent: GetGeoLocationDetails

### CountryCode

The full name of the country.

Type: String

Parent: GetGeoLocationDetails

### SubdivisionCode

The code for the subdivision, for example, a state in the United States or a province in Canada.

Type: String

Parent: GetGeoLocationDetails

#### SubdivisionName

The full name of the subdivision, for example, a state in the United States or a province in Canada.

Type: String

Parent: GetGeoLocationDetails

# **Errors**

Amazon Route 53 returns the following errors for this action.

InvalidInput The input is not valid.

NoSuchGeoLocation

Amazon Route 53 doesn't support the specified geolocation.

# **Examples**

### **Example Request**

To determine whether France (FR) is supported for Amazon Route 53 geolocation, submit the following request.

GET /2013-04-01/geolocation? CountryCode=FR

### **Example Response**

The following response shows that France is supported for geolocation. If France were not supported, Amazon Route 53 would return an error message.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<GetGeoLocationResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
        <GetGeoLocationDetails>
        <CountryCode>FR</CountryCode>
        <CountryName>France</CountryName>
        </GeoLocationDetails>
        </GeoLocationDetails>
</GetGeoLocationResponse>
```

# **GET ListGeoLocations**

### Topics

- Requests (p. 168)
- Responses (p. 169)
- Errors (p. 172)
- Examples (p. 172)

To get a list of geographic locations that Amazon Route 53 supports for geolocation, send a GET request to the 2013-04-01/geolocations resource. The response to this request includes a GeoLocationDetails element for each location that Amazon Route 53 supports.

Countries are listed first, and continents are listed last. If Amazon Route 53 supports subdivisions for a country (for example, states or provinces), the subdivisions for that country are listed in alphabetical order immediately after the corresponding country.

# Requests

### **Syntax**

Use the following syntax to list continents starting with a specified continent:

```
GET /2013-04-01/geolocations?
   StartContinentCode=two-letter abbreviation for a continent&
   maxitems=maximum number of locations to return
```

Use the following syntax to list countries and subdivisions starting with a specified country:

```
GET /2013-04-01/geolocations?
   StartCountryCode=two-character country code&
   maxitems=maximum number of locations to return
```

Use the following syntax to list countries and subdivisions starting with a specified country and subdivision:

```
GET /2013-04-01/geolocations?
   StartCountryCode=two-character country code&
   StartSubdivisionCode=subdivision code&
   maxitems=maximum number of locations to return
```

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

If you don't specify values for any of the <code>ListGeoLocations</code> parameters, Amazon Route 53 returns the first 100 locations in alphabetical order. If you don't specify any values, omit the ? after <code>GET /2013-04-01/geolocations</code>.

### StartContinentCode (Optional)

The code for the continent with which you want to start listing locations that Amazon Route 53 supports for geolocation. If Amazon Route 53 has already returned a page or more of results, if IsTruncated is true, and if NextContinentCode from the previous response has a value, enter that value in StartContinentCode to return the next page of results.

Include <code>StartContinentCode</code> only if you want to list continents. Don't include <code>StartContinentCode</code> when you're listing countries or countries with their subdivisions.

Type: String

### StartCountryCode (Optional)

The code for the country with which you want to start listing locations that Amazon Route 53 supports for geolocation. If Amazon Route 53 has already returned a page or more of results, if IsTruncated is true, and if NextCountryCode from the previous response has a value, enter that value in StartCountryCode to return the next page of results.

Amazon Route 53 uses the two-letter country codes that are specified in ISO standard 3166-1 alpha-2.

### Type: String

### StartSubdivisionCode (Optional)

The code for the subdivision (for example, state or province) with which you want to start listing locations that Amazon Route 53 supports for geolocation. If Amazon Route 53 has already returned a page or more of results, if IsTruncated is true, and if NextSubdivisionCode from the previous response has a value, enter that value in StartSubdivisionCode to return the next page of results.

To list subdivisions of a country, you must include both StartCountryCode and StartSubdivisionCode.

### Type: String

### MaxItems (Optional)

The maximum number of geolocations to be included in the response body for this request. If more than MaxItems geolocations remain to be listed, then the value of the IsTruncated element in the response is true.

Type: String

Default: 100

Constraint: maximum value is 100. If you specify a value greater than 100, ListGeoLocations returns the first (or the next) 100 locations.

# Responses

### **Syntax**

If an element doesn't have a value, for example, a subdivision element for a country that isn't subdivided into states or provinces, the element is omitted.

```
<ContinentName>Africa | Antarctica | Asia | Europe | Oceania |
            North America | South America</ContinentName>
         <CountryCode>two-letter country code</CountryCode>
         <CountryName>country name</CountryName>
       <SubdivisionCode>one- to three-letter subdivision code</SubdivisionCode>
         <SubdivisionName>subdivision name</SubdivisionName>
      </GeoLocationDetails>
  </GeoLocationDetailsList>
  <IsTruncated>true | false</IsTruncated>
  <NextContinentCode>if IsTruncated is true,
      the continent code of the first location
     in the next group of MaxItems locations</NextContinentCode>
  <NextCountryCode>if IsTruncated is true,
      the country code of the first location
      in the next group of MaxItems locations</NextCountryCode>
  <NextSubdivisionCode>if IsTruncated is true,
     the subdivision code of the first location
      in the next group of MaxItems locations</NextSubdivisionCode>
   <MaxItems>value of maxitems parameter in the previous request</MaxItems>
</ListGeoLocationsResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### ListGeoLocationsResponse

A complex type containing the response information for the request.

Type: Complex

**Children**: GeoLocationDetailsList, NextContinentCode, NextCountryCode, NextSubdivisionCode, IsTruncated, MaxItems

### GeoLocationDetailsList

A complex type that contains one GeoLocationDetails element for each location that Amazon Route 53 supports for geolocation.

Type: Complex

Children: GeoLocationDetails

### GeoLocationDetails

A complex type that contains information about one location that Amazon Route 53 supports for geolocation.

Type: Complex

Children: ContinentCode, ContinentName, CountryCode, CountryName, SubdivisionCode, SubdivisionName

### ContinentCode

The two-letter continent code for a continent that Amazon Route 53 supports for geolocation.

Type: String

Parent: GeoLocationDetails

#### ContinentName

The name of a continent that Amazon Route 53 supports for geolocation.

Type: String

Parent: GeoLocationDetails

#### CountryCode

The two-letter country code for a country that Amazon Route 53 supports for geolocation. Amazon Route 53 uses the two-letter country codes that are specified in ISO standard 3166-1 alpha-2.

Type: String

Parent: GeoLocationDetails

#### CountryName

The name of a country that Amazon Route 53 supports for geolocation.

Type: String

Parent: GeoLocationDetails

### SubdivisionCode

The subdivision code for a subdivision (for example, a state or province) that Amazon Route 53 supports for geolocation. In the response for a continent or a country, SubdivisionCode is omitted.

Type: String

Parent: GeoLocationDetails

#### SubdivisionName

The name of a subdivision that Amazon Route 53 supports for geolocation. In the response for a continent or a country, SubdivisionName is omitted.

Type: String

Parent: GeoLocationDetails

### IsTruncated

A value that indicates whether more locations remain to be listed after the last location in this response. If so, the value of IsTruncated is true. To get more values, submit another request and include the values of NextContinentCode, NextCountryCode, and NextSubdivisionCode in the StartContinentCode, StartCountryCode, and StartSubdivisionCode, as applicable.

Valid values: true, false

Type: String

Parent: ListGeoLocationsResponse

### NextContinentCode

If IsTruncated is true, you can make a follow-up request to display more locations. Enter the value of NextContinentCode in the StartContinentCode parameter in another GET ListGeoLocations request.

Type: String

Parent: ListGeoLocationsResponse

### NextCountryCode

If IsTruncated is true, you can make a follow-up request to display more locations. Enter the value of NextCountryCode in the StartCountryCode parameter in another GET ListGeoLocations request.

Type: String

Parent: ListGeoLocationsResponse

### NextSubdivisionCode

If IsTruncated is true, you can make a follow-up request to display more locations. Enter the value of NextSubdivisionCode in the StartSubdivisionCode parameter in another GET ListGeoLocations request.

Type: String

Parent: ListGeoLocationsResponse

### MaxItems

The value that you specified for MaxItems in the request.

Type: String

Parent: ListGeoLocationsResponse

### **Errors**

Amazon Route 53 returns the following error for this action.

InvalidInput The input is not valid.

NoSuchGeoLocation

Amazon Route 53 doesn't support the specified geolocation.

## **Examples**

### **Example Request**

The following example shows a request in which listing locations begins with the United States state of Oregon.

```
GET /2013-04-01/geolocations?
   StartCountryCode=US&
   StartSubdivisionCode=OR&
   MaxItems=2
```

### **Example Response**

This example shows the response for the previous request.

```
<SubdivisionName>Oregon</SubdivisionName>
</GeoLocationDetails>
<GeoLocationDetails>
<CountryCode>US</CountryCode>
<SubdivisionCode>PA</SubdivisionCode>
<SubdivisionName>Pennsylvania</SubdivisionName>
</GeoLocationDetails>
</GeoLocationDetailsList>
<IsTruncated>true</IsTruncated>
<NextCountryCode>US</NextCountryCode>
<NextSubdivisionCode>RI</NextSubdivisionCode>
<MaxItems>2</MaxItems>
</ListGeoLocationSResponse>
```

### **Example Follow-up Request**

This example shows the follow-up request to the previous request. In this request, the value of NextCountryCode is specified as the value for StartCountryCode, and NextSubdivisionCode is specified as the value for StartSubdivisionCode.

```
GET /2013-04-01/geolocations?
StartCountryCode=US&
StartSubdivisionCode=RI&
MaxItems=2
```

### **Example Follow-up Response**

This example shows the response for the previous request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListGeoLocationsResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
   <GeoLocationDetailsList>
      <GeoLocationDetails>
         <CountryCode>US</CountryCode>
         <CountryName>USA</CountryName>
         <SubdivisionCode>RI</SubdivisionCode>
         <SubdivisionName>Rhode Island</SubdivisionName>
      </GeoLocationDetails>
      <GeoLocationDetails>
         <CountryCode>US</CountryCode>
         <CountryName>USA</CountryName>
         <SubdivisionCode>SC</SubdivisionCode>
         <SubdivisionName>South Carolina</SubdivisionName>
      </GeoLocationDetails>
   </GeoLocationDetailsList>
   <IsTruncated>true</IsTruncated>
   <NextCountryCode>US</NextCountryCode>
   <NextSubdivisionCode>SD</NextSubdivisionCode>
   <MaxItems>2</MaxItems>
</ListGeoLocationsResponse>
```

# Actions on Traffic Policies and Traffic Policy Instances

The Amazon Route 53 console includes a visual editor that allows you to create complex routing configurations, known as traffic policies, that use weighted, latency, failover, and geolocation routing types. You can then associate a traffic policy with a domain name or subdomain name, such as www.example.com, by creating a traffic policy instance. When users submit DNS queries for the domain or subdomain, Amazon Route 53 responds based on the traffic policy that you used to create the traffic policy instance.

You can also create traffic policies and traffic policy instances by using the Amazon Route 53 API. Instead of using the visual editor to define a traffic policy, you use a JSON-formatted document. You then include the document in a request to create a traffic policy or to create a new version of a traffic policy. Amazon Route 53 retains all versions of a traffic policy, so you can revert to a previous version if a new version doesn't produce the behavior that you wanted. (If you're confident that you won't need an old version of a traffic policy, you can delete it.) For information about the JSON format of the traffic policy document, see Traffic Policy Document Format (p. 243).

For information about how to use the visual editor to create and update traffic policies and about how to create traffic policy instances (known in the console as policy records), see Using Traffic Flow to Route DNS Traffic in the Amazon Route 53 Developer Guide.

# **Actions on Traffic Policies**

You can perform the following actions on traffic policies:

POST CreateTrafficPolicy (p. 176)

Creates a traffic policy.

POST CreateTrafficPolicyVersion (p. 180)

Creates an updated version of an existing traffic policy.

GET GetTrafficPolicy (p. 184)

Gets information about a specified traffic policy and version.

GET ListTrafficPolicies (p. 187)

Gets information about all of the traffic policies that are associated with the current AWS account.

### GET ListTrafficPolicyVersions (p. 192)

Gets information about all versions of a specified traffic policy.

POST UpdateTrafficPolicyComment (p. 197)

Updates the comment for a specified traffic policy version.

**DELETE DeleteTrafficPolicy (p. 201)** 

Deletes a specified traffic policy version.

# **Actions on Traffic Policy Instances**

You can perform the following actions on traffic policy instances, which are known as policy records in the Amazon Route 53 console:

### **POST CreateTrafficPolicyInstance (p. 203)**

Creates resource record sets in a specified hosted zone based on the settings in a specified traffic policy and version.

#### GET GetTrafficPolicyInstance (p. 208)

Gets information about a specified traffic policy instance.

#### GET GetTrafficPolicyInstanceCount (p. 213)

Gets the total number of traffic policy instances that have been created by using the current AWS account.

#### GET ListTrafficPolicyInstances (p. 215)

Gets information about all of the traffic policy instances that you've created, including the ID of the hosted zone that each instance was created in, the domain or subdomain name that the instance is associated with, the TTL of all of the resource record sets that Amazon Route 53 created for the instance, and information about the traffic policy that you used to create the traffic policy instance.

### GET ListTrafficPolicyInstancesByHostedZone (p. 222)

Gets information about all of the traffic policy instances that you created in a specified hosted zone.

#### GET ListTrafficPolicyInstancesByPolicy (p. 229)

Gets information about all of the traffic policy instances that you created based on a specified traffic policy and version.

### POST UpdateTrafficPolicyInstance (p. 236)

Updates resource record sets in a specified hosted zone based on the settings in a specified traffic policy and version.

### **DELETE DeleteTrafficPolicyInstance (p. 241)**

Deletes the resource record sets that Amazon Route 53 created based on a specified traffic policy and version.

# **POST CreateTrafficPolicy**

Creates a traffic policy, which you use to create multiple DNS resource record sets for one domain name (such as example.com) or one subdomain name (such as www.example.com).

To create a traffic policy, send a POST request to the 2013-04-01/trafficpolicy resource. The request body must include an XML document with a CreateTrafficPolicyRequest element. The response includes the CreateTrafficPolicyResponse element, which contains information about the new traffic policy.

### Topics

- Requests (p. 176)
- Responses (p. 177)
- Errors (p. 178)
- Examples (p. 179)

# Requests

### **Syntax**

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### CreateTrafficPolicyRequest

A complex type that contains information about the traffic policy that you want to create.

Type: Complex

Default: None

Children: Name, Document, Comment

### Name

The name of the traffic policy.

Type: String

Parent: CreateTrafficPolicyRequest

### Document

The definition of this traffic policy in JSON format. For more information about the JSON format, see Traffic Policy Document Format (p. 243).

Type: String

Parent: CreateTrafficPolicyRequest

### (Optional) Comment

Any comments that you want to include about the traffic policy.

Type: String

Parent: CreateTrafficPolicyRequest

## Responses

### **Syntax**

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### CreateTrafficPolicyResponse

A complex type that contains the response information for the CreateTrafficPolicy request.

Type: Complex

Children: TrafficPolicy, Location

### TrafficPolicy

A complex type that contains settings for the new traffic policy.

Type: Complex

Parent: CreateTrafficPolicyResponse

Children: Id, Version, Name, Type, Document, Comment

### ld

The ID that Amazon Route 53 assigns to the new traffic policy.

Type: String

Parent: TrafficPolicy

#### Version

The version number that Amazon Route 53 assigns to the new traffic policy. For a new traffic policy, the value of Version is always 1.

Type: String

Parent: TrafficPolicy

### Name

The name that you specified in the CreateTrafficPolicy request.

Type: String

Parent: TrafficPolicy

#### Туре

The DNS type of the resource record sets that Amazon Route 53 will create when you use this traffic policy to create a traffic policy instance. You specified this value in the JSON document in the CreateTrafficPolicy request.

Type: String

Parent: TrafficPolicy

#### Document

The definition of this traffic policy in JSON format. You specified this value in the JSON document in the CreateTrafficPolicy request. For more information about the JSON format, see Traffic Policy Document Format (p. 243).

Type: String

Parent: TrafficPolicy

### Comment

The comment that you specified in the CreateTrafficPolicy request, if any.

Type: String

Parent: TrafficPolicy

### **Errors**

Amazon Route 53 returns the following error for this action:

### InvalidInput

The input is not valid.

#### InvalidTrafficPolicyDocument

The format of the traffic policy document that you specified in the Document element is invalid.

### TrafficPolicyAlreadyExists

A traffic policy that has the same value for Name already exists.

## **Examples**

## **Example Request**

The following example shows a request to create the traffic policy  ${\tt MyTrafficPolicy}$ :

## Example Response

The following example shows the response for the previous request.

# **POST CreateTrafficPolicyVersion**

Creates a new version of an existing traffic policy. When you create a new version of a traffic policy, you specify the ID of the traffic policy that you want to update and a JSON-formatted document that describes the new version. You use traffic policies to create multiple DNS resource record sets for one domain name (such as example.com) or one subdomain name (such as www.example.com). You can create a maximum of 1000 versions of a traffic policy. If you reach the limit and need to create another version, you'll need to start a new traffic policy.

To create a new version, send a POST request to the 2013-04-01/trafficpolicy/ID resource. The request body includes an XML document with a CreateTrafficPolicyVersionRequest element. The response returns the CreateTrafficPolicyVersionResponse element, which contains information about the new version of the traffic policy.

### Topics

- Requests (p. 180)
- Responses (p. 181)
- Errors (p. 183)
- Examples (p. 183)

## Requests

### **Syntax**

```
POST /2013-04-01/trafficpolicy/traffic policy ID HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<CreateTrafficPolicyVersionRequest xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
        <Document>updated traffic policy definition in JSON format</Document>
        <Comment>optional comment</Comment>
</CreateTrafficPolicyVersionRequest>
```

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

```
ld
```

The ID of the traffic policy for which you want to create a new version.

Type: String

Parent: CreateTrafficPolicyVersionRequest

### **Elements**

### **CreateTrafficPolicyVersionRequest**

A complex type that contains information about the traffic policy for which you want to create a new version.

Type: Complex

Default: None

Children: Document, Comment

### Document

The definition of the new traffic policy version, in JSON format. You must specify the full definition of the new traffic policy. You cannot specify just the differences between the new version and a previous version.

Type: String

Parent: CreateTrafficPolicyVersionRequest

### (Optional) Comment

Any comments that you want to include about the new traffic policy version.

Type: String

Parent: CreateTrafficPolicyVersionRequest

## Responses

### **Syntax**

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### CreateTrafficPolicyVersionResponse

A complex type that contains the response information for the CreateTrafficPolicyVersion request.

Type: Complex

Default: None

Children: TrafficPolicy

#### TrafficPolicy

A complex type that contains settings for the new version of the traffic policy.

Type: String

Parent: CreateTrafficPolicyVersionResponse

Children: Id, Version, Name, Type, Document, Comment

#### ld

The ID of the traffic policy for which you created a new version.

Type: String

Parent: TrafficPolicy

#### Version

The version number that Amazon Route 53 assigns to the new traffic policy version. Version numbers start at 1 and automatically increment by 1 whenever you create a new traffic policy version.

Type: String

Parent: TrafficPolicy

#### Name

The name of the traffic policy for which you created a new version.

Type: String

Parent: TrafficPolicy

### Туре

The DNS type of the resource record sets that Amazon Route 53 will create when you use this traffic policy version to create a traffic policy instance. You specified this value in the JSON document in the CreateTrafficPolicyVersion request.

Type: String

Parent: TrafficPolicy

### Document

The definition of this version of the traffic policy, in JSON format. You specified the JSON in the CreateTrafficPolicyVersion request. For more information about the JSON format, see Traffic Policy Document Format (p. 243).

Type: String

Parent: TrafficPolicy

### Comment

The comment that you specified in the CreateTrafficPolicyVersion request, if any.

Type: String

Parent: TrafficPolicy

## **Errors**

Amazon Route 53 returns the following error for this action:

### ConcurrentModification

Another user submitted a request to create a new traffic policy version for the same traffic policy at the same time that you did, and Amazon Route 53 tried to give the two versions duplicate version numbers. Retry the request.

### InvalidInput

The input is not valid.

### InvalidTrafficPolicyDocument

The format of the traffic policy document that you specified in the Document element is invalid.

### NoSuchTrafficPolicy

There is no traffic policy that has the specified value for Id.

## **Examples**

## **Example Request**

The following example shows a request in which maxitems is 1:

### **Example Response**

The following example shows the response for the previous request.

# **GET GetTrafficPolicy**

Gets information about a specific traffic policy version. To get the information, send a GET request to the 2013-04-01/traffic policy/traffic policy ID resource.

### Topics

- Requests (p. 184)
- Responses (p. 184)
- Errors (p. 186)
- Examples (p. 186)

## Requests

### **Syntax**

GET /2013-04-01/trafficpolicy/traffic policy ID/traffic policy version number

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

traffic policy ID (Required) The ID of the traffic policy that you want to get information about.

Type: String

### traffic policy version number (Required)

The version number of the traffic policy that you want to get information about.

Type: String

## Responses

### **Syntax**

```
<Document>traffic policy definition in JSON format</Document>
        <Comment>comment that you specified when you created the traffic
policy</Comment>
        </TrafficPolicy>
</GetTrafficPolicyResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### GetTrafficPolicyResponse

A complex type that contains the response information for the request.

Type: Complex

Children: TrafficPolicy

### **TrafficPolicy**

A complex type that contains settings for the specified traffic policy.

Type: Complex

Parent: GetTrafficPolicyResponse

Children: Id, Version, Name, Type, Document, Comment

### ld

The Id of the traffic policy that you requested.

Type: String

Parent: TrafficPolicy

### Version

The version number that you requested.

Type: String

Parent: TrafficPolicy

### Name

The name of the traffic policy that you requested.

Type: String

Parent: TrafficPolicy

### Туре

The DNS type of the resource record sets that Amazon Route 53 will create when you use this traffic policy to create a traffic policy instance. You specified this value in the JSON document when you created the traffic policy or created the specified traffic policy version.

Type: String

Parent: TrafficPolicy

### Document

The JSON-formatted definition of the resource record sets that Amazon Route 53 creates whenever you use this traffic policy.

Type: String

Parent: TrafficPolicy

### Comment

The comment that is associated with the traffic policy that you requested.

Type: String

Parent: TrafficPolicy

### **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput The input is not valid.

**NoSuchTrafficPolicy** There is no traffic policy that has the specified value for Id.

## **Examples**

### **Example Request**

The following example shows a request for the traffic policy that has an ID of 12345678-abcd-9876-fedc-1a2b3c4de5f6 and a version number of 2.

GET /2013-04-01/trafficpolicy/12345678-abcd-9876-fedc-1a2b3c4de5f6/2

### **Example Response**

The following example shows the response for the previous request.

# **GET ListTrafficPolicies**

Gets information about the latest version for every traffic policy that is associated with the current AWS account. To get the information, send a GET request to the 2013-04-01/trafficpolicies resource.

Amazon Route 53 returns a maximum of 100 items in each response. If you have a lot of traffic policies, you can use the maxitems parameter to list them in groups of up to 100.

The response includes three values that help you navigate from one group of maxitems traffic policies to the next:

### IsTruncated

If the value of IsTruncated in the response is true, there are more traffic policies associated with the current AWS account.

If IsTruncated is false, this response includes the last traffic policy that is associated with the current account.

### **TrafficPolicyIdMarker**

If IsTruncated is true, TrafficPolicyIdMarker is the ID of the first traffic policy in the next group of MaxItems traffic policies. If you want to list more traffic policies, make another call to ListTrafficPolicies, and specify the value of the TrafficPolicyIdMarker element from the response in the TrafficPolicyIdMarker request parameter.

If IsTruncated is false, the TrafficPolicyIdMarker element is omitted from the response.

#### MaxItems

The value that you specified for the MaxItems parameter in the request that produced the current response.

### Topics

- Requests (p. 187)
- Responses (p. 188)
- Errors (p. 190)
- Examples (p. 190)

## Requests

### **Syntax**

```
GET /2013-04-01/trafficpolicies/
&trafficpolicyidmarker=value of TrafficPolicyIdMarker from previous response
&maxitems=maximum number of traffic policies to include in the response
```

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

### (Conditional) trafficpolicyidmarker

For your first request to ListTrafficPolicies, do not include the trafficpolicyidmarker parameter.

If you have more traffic policies than the value of maxitems, ListTrafficPolicies returns only the first maxitems traffic policies. To get the next group of maxitems policies, submit another request to ListTrafficPolicies. For the value of trafficpolicyidmarker, specify the value of the TrafficPolicyIdMarker element that was returned in the previous response.

Policies are listed in the order in which they were created.

Type: String

### (Optional) maxitems

The maximum number of traffic policies to be included in the response body for this request. If you have more than maxitems traffic policies, the value of the IsTruncated element in the response is true, and the value of the TrafficPolicyIdMarker element is the ID of the first traffic policy in the next group of maxitems traffic policies.

Type: String

Default: 100

Constraint: Maximum value is 100. If you specify a value greater than 100, ListTrafficPolicies returns the first group of 100 traffic policies.

## Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTrafficPoliciesResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
   <TrafficPolicySummaries>
      <TrafficPolicySummary>
         <Id>traffic policy ID</Id>
        <Name>name that you specified when you created the traffic policy</Name>
         <Type>DNS type of resource record sets</Type>
         <LatestVersion>latest version number for this traffic
policy</LatestVersion>
         <TrafficPolicyCount>number of traffic policies associated with the
current AWS account </ TrafficPolicyCount >
      </TrafficPolicySummary>
      . . .
   </TrafficPolicySummaries>
   <IsTruncated>true | false</IsTruncated>
   <TrafficPolicyIdMarker>if IsTruncated is true, the ID of the first traffic
policy
      in the next group of MaxItems traffic policies</TrafficPolicyIdMarker>
   <MaxItems>value of the maxitems parameter, if any, in the previous re
quest </MaxItems>
</ListTrafficPoliciesResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### ListTrafficPoliciesResponse

A complex type that contains the response information for the request.

Type: Complex

Children: TrafficPolicySummaries, IsTruncated, TrafficPolicyIdMarker, MaxItems

### TrafficPolicySummaries

A list that contains one TrafficPolicySummary element for each traffic policy that was created by the current AWS account.

Type: Complex

Parent: ListTrafficPoliciesResponse

Children: TrafficPolicySummary

### **TrafficPolicySummary**

A complex type that contains one TrafficPolicySummary element for the latest version of every traffic policy that is associated with the current AWS account.

Type: Complex

Parent: TrafficPolicySummaries

Children: Id, Name, Type, LatestVersion, TrafficPolicyCount

### ld

The Id of the traffic policy.

Type: String

Parent: TrafficPolicySummary

### Name

The name of the traffic policy.

Type: String

Parent: TrafficPolicySummary

### Туре

The DNS type of the resource record sets that Amazon Route 53 will create when you create a traffic policy instance by using the traffic policy.

Type: String

Parent: TrafficPolicySummary

#### LatestVersion

The version number of the latest version of the traffic policy.

Type: String

Parent: TrafficPolicySummary

### **TrafficPolicyCount**

The number of traffic policies that are associated with the current AWS account.

Type: String

Parent: TrafficPolicy

#### IsTruncated

A flag indicating whether there are more traffic policies to be listed. If the response was truncated, you can get the next group of MaxItems traffic policies by calling ListTrafficPolicies again and specifying the value of the TrafficPolicyIdMarker element in the trafficpolicyidmarker request parameter.

Type: String

Parent: ListTrafficPoliciesResponse

Valid Values: true | false

### TrafficPolicyIdMarker

If the value of IsTruncated is true, TrafficPolicyIdMarker is the ID of the first traffic policy in the next group of MaxItems traffic policies.

Type: String

Parent: ListTrafficPoliciesResponse

#### MaxItems

The value that you specified for the maxitems parameter in the call to ListTrafficPolicies that produced the current response.

Type: String

Parent: ListTrafficPoliciesResponse

### **Errors**

Amazon Route 53 returns the following error for this action:

### InvalidInput

The input is not valid.

## **Examples**

### **Example Request**

The following example shows a request in which maxitems is 1:

```
GET /2013-04-01/trafficpolicies?maxitems=1
```

### **Example Response**

The following example shows the response for the previous request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
```

### Amazon Route 53 API Reference Examples

```
<ListTrafficPoliciesResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
  <TrafficPolicySummaries>
     <TrafficPolicySummary>
         <Id>12345678-abcd-9876-fedc-1a2b3c4de5f6</Id>
         <Name>MyTrafficPolicy</Name>
         <Type>A</Type>
         <LatestVersion>77</LatestVersion>
         <TrafficPolicyCount>44</TrafficPolicyCount>
      </TrafficPolicySummary>
  </TrafficPolicySummaries>
  <IsTrucated>true</IsTruncated>
  <TrafficPolicyIdMarker>12345678-abcd-9876-fedc-1a2b3c4de5f7</TrafficPolicy
IdMarker>
   <MaxItems>1</MaxItems>
</ListTrafficPoliciesResponse>
```

# **GET ListTrafficPolicyVersions**

Gets information about all of the versions for a specified traffic policy. To get the information, send a GET request to the 2013-04-01/trafficpolicy resource and specify the ID of the traffic policy for which you want to list versions.

### Note

 ${\tt ListTrafficPolicyVersions}$  lists only versions that have not been deleted.

Amazon Route 53 returns a maximum of 100 items in each response. If you have a lot of traffic policies, you can use the maxitems parameter to list them in groups of up to 100.

The response includes three values that help you navigate from one group of maxitems traffic policies to the next:

### IsTruncated

If the value of IsTruncated in the response is true, there are more traffic policy versions associated with the specified traffic policy.

If IsTruncated is false, this response includes the last traffic policy version that is associated with the specified traffic policy.

### **TrafficPolicyVersionMarker**

The ID of the next traffic policy version that is associated with the current AWS account. If you want to list more traffic policies, make another call to ListTrafficPolicyVersions, and specify the value of the TrafficPolicyVersionMarker element in the TrafficPolicyVersionMarker request parameter.

If IsTruncated is false, Amazon Route 53 omits the  ${\tt TrafficPolicyVersionMarker}$  element from the response.

### MaxItems

The value that you specified for the MaxItems parameter in the request that produced the current response.

### Topics

- Requests (p. 192)
- Responses (p. 193)
- Errors (p. 196)
- Examples (p. 196)

## Requests

### **Syntax**

To get information about all of the versions for a specified traffic policy, use the following syntax:

```
GET /2013-04-01/trafficpolicy/traffic policy ID/versions?
    trafficpolicyversion=ID of the next traffic policy version
    &maxitems=maximum number of traffic policy versions to include in the response
```

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

### traffic policy ID (Required)

Specify the value of Id of the traffic policy for which you want to list all versions.

Type: String

### (Conditional) trafficpolicyversion

For your first request to ListTrafficPolicyVersions, do not include the trafficpolicyversion parameter.

If you have more traffic policy versions than the value of maxitems, ListTrafficPolicyVersions returns only the first group of maxitems versions. To get the next group of maxitems traffic policy versions, submit another request to ListTrafficPolicyVersions. For the value of trafficpolicyVersion, specify the value of the TrafficPolicyVersionMarker element that was returned in the previous response.

Traffic policy versions are listed in sequential order.

Type: String

### (Optional) maxitems

The maximum number of traffic policy versions that you want Amazon Route 53 to include in the response body for this request. If the specified traffic policy has more than maxitems versions, the value of the IsTruncated element in the response is true, and the value of the TrafficPolicyVersionMarker element is the ID of the first version in the next group of maxitems traffic policy versions.

Type: String

Default: 100

Constraint: Maximum value is 100. If you specify a value greater than 100, ListTrafficPolicyVersions returns 100 traffic policy versions.

## Responses

### **Syntax**

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### ListTrafficPolicyVersionsResponse

A complex type that contains the response information for the request.

Type: Complex

Children: Policies, Marker, IsTruncated, NextMarker, MaxItems

### **TrafficPolicies**

A list that contains one TrafficPolicy element for each traffic policy version that is associated with the specified traffic policy.

Type: Complex

Parent: ListTrafficPolicyVersionsResponse

Children: TrafficPolicy

### **TrafficPolicy**

A complex type that contains one TrafficPolicy element for every version of the specified traffic policy.

Type: Complex

Parent: TrafficPolicies

Children: Id, Version, Name, Type, Document, Comment

### ld

The Id of the traffic policy.

Type: String

Parent: TrafficPolicy

### Version

The version number of the traffic policy.

Type: String

Parent: TrafficPolicy

#### Name

The name of the traffic policy.

Type: String

Parent: TrafficPolicy

#### Туре

The DNS type of the resource record sets that Amazon Route 53 creates when you create a traffic policy instance by using this version of the traffic policy.

Type: String

Parent: TrafficPolicy

#### Document

The JSON-formatted definition of the resource record sets that Amazon Route 53 creates when you create a traffic policy instance by using this version of the traffic policy.

Type: String

Parent: TrafficPolicy

#### Comment

The comment that is associated with the traffic policy version.

Type: String

Parent: TrafficPolicy

#### IsTruncated

A flag indicating whether there are more traffic policies to be listed. If the response was truncated, you can get the next group of maxitems traffic policies by calling ListTrafficPolicyVersions again and specifying the value of the NextMarker element in the marker parameter.

Type: String

Parent: ListTrafficPolicyVersionsResponse

Valid Values: true | false

### **TrafficPolicyVersionMarker**

If IsTruncated is true, the value of TrafficPolicyVersionMarker identifies the first traffic policy in the next group of MaxItems traffic policies. Call ListTrafficPolicyVersions again and specify the value of TrafficPolicyVersionMarker in the trafficpolicyVersion request parameter.

This element is present only if IsTruncated is true.

Type: String

Parent: ListTrafficPolicyVersionsResponse

#### MaxItems

The value that you specified for the maxitems parameter in the call to ListTrafficPolicyVersions that produced the current response.

Type: String

Parent: ListTrafficPolicyVersionsResponse

## **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput The input is not valid.

### NoSuchTrafficPolicy

There is no traffic policy that has the specified value for Id.

## **Examples**

## **Example Request**

The following example shows a request in which Id is 12345678-abcd-9876-fedc-1a2b3c4de5f6 and maxitems is 1:

```
GET /2013-04-01/trafficpolicy/12345678-abcd-9876-fedc-1a2b3c4de5f6/versions?max items=1
```

### **Example Response**

The following example shows the response for the previous request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTrafficPolicyVersionsResponse xmlns="https://route53.amazonaws.com/doc/2013-</pre>
04-01/">
   <TrafficPolicies>
      <TrafficPolicy>
         <Id>12345678-abcd-9876-fedc-1a2b3c4de5f6</Id>
         <VersionNumber>77</VersionNumber>
         <Name>MyTrafficPolicy</Name>
         <Type>A</Type>
        <Document>JSON-formatted definition of this traffic policy</Definition>
         <Comment>First traffic policy</Comment>
      </TrafficPolicy>
      . . .
   </TrafficPolicies>
   <IsTrucated>true</IsTruncated>
   <TrafficPolicyVersionMarker>12345678-abcd-9876-fedc-1a2b3c4de5f7</Traffic
PolicyVersionMarker>
   <MaxItems>1</MaxItems>
</ListTrafficPolicyVersionsResponse>
```

# **POST UpdateTrafficPolicyComment**

Updates the comment for a specified traffic policy version.

To update the comment, send a POST request to the 2013-04-01/trafficpolicy resource.

The request body must include an XML document with an  ${\tt UpdateTrafficPolicyCommentRequest}$  element.

### Topics

- Requests (p. 197)
- Responses (p. 198)
- Errors (p. 199)
- Examples (p. 199)

## Requests

### **Syntax**

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

### traffic policy ID (Required)

The ID of the traffic policy for which you want to update the comment.

### Type: String

traffic policy version (Required)

The value of Version for the traffic policy for which you want to update the comment.

Type: String

### **Elements**

### **UpdateTrafficPolicyCommentRequest**

A complex type that contains information about the traffic policy for which you want to update the comment.

Type: Complex

Default: None

Children: Comment

### Comment

The new comment for the specified traffic policy and version.

Type: String

Parent: UpdateTrafficPolicyCommentRequest

## Responses

### **Syntax**

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### **UpdateTrafficPolicyCommentResponse**

A complex type that contains the response information for the traffic policy.

Type: Complex

Default: None

Children: TrafficPolicy

### **TrafficPolicy**

A complex type that contains settings for the specified traffic policy.

Type: Complex

Parent: GetTrafficPolicyResponse

Children: Id, Version, Name, Type, Document, Comment

ld

The ID of the traffic policy that you changed.

Type: String

Parent: TrafficPolicy

#### Version

The version number that Amazon Route 53 assigned to the traffic policy version when you created it.

Type: String

Parent: TrafficPolicy

#### Name

The name of the traffic policy.

Type: String

Parent: TrafficPolicy

#### Туре

The DNS type of the resource record sets that Amazon Route 53 will create when you use this traffic policy to create a traffic policy instance. You specified this value in the JSON document when you created the traffic policy or created the specified traffic policy version.

Type: String

Parent: TrafficPolicy

#### Document

The definition of this traffic policy version in JSON format. For more information about the JSON format, see Traffic Policy Document Format (p. 243).

Type: String

Parent: TrafficPolicy

#### Comment

The updated comment about the traffic policy.

Type: String

Parent: TrafficPolicy

### **Errors**

Amazon Route 53 returns the following error for this action:

#### ConcurrentModification

Another user submitted a request to update the comment for a traffic policy version at the same time that you did. Retry the request.

InvalidInput

The input is not valid.

#### **NoSuchTrafficPolicy**

There is no traffic policy that has the specified value for Id.

## **Examples**

### **Example Request**

The following example shows a request to update the comment for version 42 of the traffic policy that has an ID of 12345678-abcd-9876-fedc-1a2b3c4de5f6:

```
POST /2013-04-01/trafficpolicy/12345678-abcd-9876-fedc-la2b3c4de5f6/42 HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<UpdateTrafficPolicyCommentRequest xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
        <Comment>Updated comment</Comment>
</UpdateTrafficPolicyCommentRequest>
```

## Example Response

The following example shows the response for the previous request.

# **DELETE DeleteTrafficPolicy**

Deletes the specified version of a traffic policy. To delete a traffic policy version, send a DELETE request to the 2013-04-01/trafficpolicy resource and include the ID and version number of the traffic policy version that you want to delete.

If one or more existing traffic policy instances were created by using the traffic policy version that you want to delete, you must delete the traffic policy instances before you can delete the traffic policy version.

### Topics

- Requests (p. 201)
- Responses (p. 201)
- Errors (p. 202)
- Examples (p. 202)

## Requests

### **Syntax**

DELETE /2013-04-01/trafficpolicy/traffic policy ID/traffic policy version number

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

### traffic policy ID (Required)

The ID of the traffic policy that you want to delete.

Type: String

### traffic policy version number (Required)

The version number of the traffic policy that you want to delete.

Type: String

## Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<DeleteTrafficPolicyResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
</DeleteTrafficPolicyResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### DeleteTrafficPolicyResponse

An empty element.

Type: String

### **Errors**

Amazon Route 53 returns the following error for this action:

### ConcurrentModification

Another user submitted a request to update the comment for the specified traffic policy version or to delete the traffic policy version at the same time that you submitted the request to delete it.

### InvalidInput

The input is not valid.

**NoSuchTrafficPolicy** 

There is no traffic policy that has the specified value for Id.

### TrafficPolicyInUse

One or more traffic policy instances were created by using the specified traffic policy.

## **Examples**

### **Example Request**

The following example shows a request to delete the traffic policy with an Id of 12345678-abcd-9876-fedc-1a2b3c4de5f6 and a Version of 2:

```
DELETE /2013-04-01/trafficpolicy/12345678-abcd-9876-fedc-1a2b3c4de5f6/2
```

## **Example Response**

The following example shows the response for the previous request.

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<DeleteTrafficPolicyResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
</DeleteTrafficPolicyResponse>
```

# **POST CreateTrafficPolicyInstance**

Creates resource record sets in a specified hosted zone based on the settings in a specified traffic policy version. In addition, CreateTrafficPolicyInstance associates the resource record sets with a specified domain name (such as example.com) or subdomain name (such as www.example.com). Amazon Route 53 responds to DNS queries for the domain or subdomain name by using the resource record sets that CreateTrafficPolicyInstance created.

To create a traffic policy instance, send a POST request to the 2013-04-01/trafficpolicyinstance resource. The request body must include an XML document with a CreateTrafficPolicyRequest element. The response returns the CreateTrafficPolicyInstanceResponse element, which contains information about the traffic policy instance.

### Note

In the Amazon Route 53 console, traffic policy instances are known as policy records.

### Topics

- Requests (p. 203)
- Responses (p. 204)
- Errors (p. 207)
- Examples (p. 207)

## Requests

### **Syntax**

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### CreateTrafficPolicyInstanceRequest

A complex type that contains information about the resource record sets that you want to create based on a specified traffic policy.

Type: Complex

### Default: None

**Children**: HostedZoneId, ResourceRecordSetName, ResourceRecordSetTTL, TrafficPolicyId, VersionNumber

#### HostedZoneld

The ID of the hosted zone in which you want Amazon Route 53 to create resource record sets by using the configuration in a traffic policy.

Type: String

Parent: CreateTrafficPolicyInstanceRequest

#### Name

The domain name (such as example.com) or subdomain name (such as www.example.com) for which Amazon Route 53 responds to DNS queries by using the resource record sets that Amazon Route 53 creates for this traffic policy instance.

Type: String

Parent: CreateTrafficPolicyInstanceRequest

#### TTL (Conditional)

The TTL that you want Amazon Route 53 to assign to all of the resource record sets that it creates in the specified hosted zone. For endpoints that refer to CloudFront distributions, ELB load balancers, or Amazon S3 buckets that are configured as website endpoints, Amazon Route 53 uses the TTL of those resources.

Type: String

Parent: CreateTrafficPolicyInstanceRequest

#### **TrafficPolicyId**

The ID of the traffic policy that you want to use to create resource record sets in the specified hosted zone.

Type: String

Parent: CreateTrafficPolicyInstanceRequest

### **TrafficPolicyVersion**

The version of the traffic policy that you want to use to create resource record sets in the specified hosted zone.

Type: String

Parent: CreateTrafficPolicyInstanceRequest

## Responses

### **Syntax**

```
<Name>domain name of the root resource record set</Name>
<TTL>TTL for all resource record sets</TTL>
<State>Creating | Applied | Failed</State>
<Message>explanation when State is Failed</Message>
<TrafficPolicyId>ID of the traffic policy that defines the resource record
sets</TrafficPolicyUersion>version of the traffic policy that defines the re
source record sets</TrafficPolicyVersion>
<TrafficPolicyType>DNS type of the resource record sets</TrafficPolicyType>
</TrafficPolicyInstance>
</CreateTrafficPolicyInstanceResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### CreateTrafficPolicyInstanceResponse

A complex type that contains the response information for the CreateTrafficPolicyInstance request.

Type: Complex

Default: None

Children: TrafficPolicyInstance

### TrafficPolicyInstance

A complex type that contains settings for the new traffic policy instance.

Type: Complex

Default: None

Parent: CreateTrafficPolicyInstanceResponse

**Children:** Id, HostedZoneId, Name, TTL, State, Message, TrafficPolicyId, TrafficPolicyVersion, TrafficPolicyType

#### ld

The ID that Amazon Route 53 assigned to the new traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### HostedZoneld

The ID of the hosted zone in which Amazon Route 53 created resource record sets.

Type: String

Parent: TrafficPolicyInstance

### Name

The DNS name, such as www.example.com, for which Amazon Route 53 responds to queries by using the resource record sets that are associated with this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

### TTL

The TTL that Amazon Route 53 assigned to all of the resource record sets that it created in the specified hosted zone.

Type: String

Parent: TrafficPolicyInstance

#### State

The value of State is one of the following values:

### Applied

Amazon Route 53 has finished creating resource record sets, and changes have propagated to all Amazon Route 53 edge locations.

#### Creating

Amazon Route 53 is creating the resource record sets. Use GetTrafficPolicyInstance to confirm that the CreateTrafficPolicyInstance request completed successfully.

### Failed

Amazon Route 53 wasn't able to create or update the resource record sets. When the value of State is Failed, see the error response for an explanation of what caused the request to fail.

Type: String

Parent: TrafficPolicyInstance

### Message

If State is Failed, an explanation of the reason for the failure. If State is another value, Message is empty.

Type: String

Parent: TrafficPolicyInstance

### **TrafficPolicyId**

The ID of the traffic policy that Amazon Route 53 used to create resource record sets in the specified hosted zone.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyVersion**

The version of the traffic policy that Amazon Route 53 used to create resource record sets in the specified hosted zone.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyType**

The DNS type that Amazon Route 53 assigned to all of the resource record sets that it created for this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

## **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput

The input is not valid.

NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

NoSuchTrafficPolicy

No traffic policy exists with the specified ID.

#### TrafficPolicyInstanceAlreadyExists

A traffic policy instance with the specified hosted zone ID and name already exists.

## **Examples**

## **Example Request**

The following example shows a request to create resource record sets in the hosted zone that has an ID of Z1D633PJN98FT9. Amazon Route 53 will respond to DNS queries for www.example.com by using the resource record sets that are created for this traffic policy instance:

## **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<CreateTrafficPolicyInstanceResponse xmlns="https://route53.amazon</pre>
aws.com/doc/2013-04-01/">
   <TrafficPolicyInstance>
      <Id>12131415-abac-5432-caba-6f5e4d3c2b1a</Id>
      <HostedZoneId>Z1D633PJN98FT9</HostedZoneId>
      <Name>www.example.com</Name>
      <TTL>300</TTL>
      <State>Applied</State>
      <Message/>
      <TrafficPolicyId>12345678-abcd-9876-fedc-1a2b3c4de5f6</TrafficPolicyId>
      <TrafficPolicyVersion>3</TrafficPolicyVersion>
      <TrafficPolicyType>A</TrafficPolicyType>
   </TrafficPolicyInstance>
</CreateTrafficPolicyInstanceResponse>
```

# **GET GetTrafficPolicyInstance**

Gets information about a specified traffic policy instance.

#### Note

After you submit a CreateTrafficPolicyInstance or an UpdateTrafficPolicyInstance request, there's a brief delay while Amazon Route 53 creates the resource record sets that are specified in the traffic policy definition. For more information, see the State response element.

To get information about a traffic policy instance, send a GET request to the 2013-04-01/trafficpolicyinstance/Id resource.

#### Note

In the Amazon Route 53 console, traffic policy instances are known as policy records.

#### Topics

- Requests (p. 208)
- Responses (p. 208)
- Errors (p. 211)
- Examples (p. 211)

## Requests

### **Syntax**

GET /2013-04-01/trafficpolicyinstance/Id

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

#### Id (Required)

The ID of the traffic policy instance that you want to get information about.

Type: String

## Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<GetTrafficPolicyInstanceResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
        <TrafficPolicyInstance>
            <Id>>ID of the traffic policy instance</Id>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

#### GetTrafficPolicyInstanceResponse

A complex type that contains information about the resource record sets that Amazon Route 53 created based on a specified traffic policy.

Type: Complex

Default: None

Children: TrafficPolicyInstance

#### TrafficPolicyInstance

A complex type that contains settings for the traffic policy instance.

Type: Complex

Default: None

Parent: GetTrafficPolicyInstanceResponse

**Children:** Id, HostedZoneId, Name, TTL, State, Message, TrafficPolicyId, TrafficPolicyVersion, TrafficPolicyType

#### ld

The ID of the traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### HostedZoneld

The ID of the hosted zone in which Amazon Route 53 created resource record sets for the traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### Name

The DNS name, such as www.example.com, for which Amazon Route 53 responds to queries by using the resource record sets that are associated with this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### TTL

The TTL that Amazon Route 53 assigned to all of the resource record sets that it created in the specified hosted zone.

Type: String

Parent: TrafficPolicyInstance

#### State

The value of State depends on whether you recently created, updated, or deleted the traffic policy instance. Possible values include the following:

#### Applied

Amazon Route 53 returns Applied in two circumstances:

- When it has finished creating or updating a traffic policy instance and the corresponding resource record sets.
- Immediately after you submit an UpdateTrafficPolicyInstance request and before Amazon Route 53 has started to create the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Creating

Amazon Route 53 is creating the resource record sets based on a CreateTrafficPolicyInstance request.

#### Updating

Amazon Route 53 is creating the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Deleting

Amazon Route 53 is deleting the traffic policy instance and the associated resource record sets.

#### Deleted

Amazon Route 53 finished deleting the traffic policy instance and the associated resource record sets. This is a temporary state; when the deletion is complete, Amazon Route 53 responds to requests for this traffic policy instance with a NoSuchTrafficPolicyInstance error.

#### Failed

Amazon Route 53 wasn't able to create or update the traffic policy instance and the associated resource record sets. When the value of State is Failed, see the error response for an explanation of what caused the request to fail.

Type: String

Parent: TrafficPolicyInstance

#### Message

If State is Failed, an explanation of the reason for the failure. If State is another value, Message is empty.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyId**

The ID of the traffic policy that Amazon Route 53 used to create resource record sets for this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyVersion**

The version of the traffic policy that Amazon Route 53 used to create resource record sets for this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyType**

The DNS type that Amazon Route 53 assigned to all of the resource record sets that it created for this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

### **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput The input is not valid. NoSuchTrafficPolicyInstance

No traffic policy instance exists with the specified ID.

## **Examples**

### **Example Request**

The following example shows a request for the traffic policy instance that has an ID of 12131415-abac-5432-caba-6f5e4d3c2b1a.

```
GET /2013-04-01/trafficpolicyinstance/12131415-abac-5432-caba-6f5e4d3c2b1a
```

### **Example Response**

</TrafficPolicyInstance> </GetTrafficPolicyInstanceResponse>

# **GET GetTrafficPolicyInstanceCount**

Gets the number of traffic policy instances that are associated with the current AWS account.

To get the number of traffic policy instances, send a GET request to the 2013-04-01/trafficpolicyinstancecount/ resource.

#### Note

In the Amazon Route 53 console, traffic policy instances are known as policy records.

#### Topics

- Requests (p. 213)
- Responses (p. 213)
- Errors (p. 214)
- Examples (p. 214)

## Requests

### **Syntax**

GET /2013-04-01/trafficpolicyinstancecount/

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## Responses

## **Syntax**

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

#### GetTrafficPolicyInstanceCountResponse

A complex type that contains information about the number of traffic policy instances that are associated with the current AWS account.

Type: Complex

Default: None

Children: TrafficPolicyInstanceCount

#### **TrafficPolicyInstanceCount**

The number of traffic policy instances that are associated with the current AWS account.

Type: String

Parent: GetTrafficPolicyInstanceCountResponse

## **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput

The input is not valid.

# **Examples**

### **Example Request**

The following example shows a request for the number of traffic policy instances that are associated with the current AWS account.

```
GET /2013-04-01/trafficpolicyinstancecount/
```

## **Example Response**

# **GET ListTrafficPolicyInstances**

Gets information about the traffic policy instances that you created by using the current AWS account.

#### Note

After you submit a CreateTrafficPolicyInstance or an UpdateTrafficPolicyInstance request, there's a brief delay while Amazon Route 53 creates the resource record sets that are specified in the traffic policy document. For more information, see the State response element.

To get information about the traffic policy instances that are associated with the current AWS account, send a GET request to the 2013-04-01/trafficpolicyinstances resource.

#### Note

In the Amazon Route 53 console, traffic policy instances are known as policy records.

Amazon Route 53 returns a maximum of 100 items in each response. If you have a lot of traffic policy instances, you can use the MaxItems parameter to list them in groups of up to 100.

The response includes five values that help you navigate from one group of MaxItems traffic policy instances to the next:

#### IsTruncated

If the value of IsTruncated in the response is true, there are more traffic policy instances associated with the current AWS account.

If  $\tt IsTruncated$  is false, this response includes the last traffic policy instance that is associated with the current account.

#### MaxItems

The value that you specified for the MaxItems parameter in the request that produced the current response.

#### HostedZoneldMarker, TrafficPolicyInstanceNameMarker, and TrafficPolicyInstanceTypeMarker

If IsTruncated is true, these three values in the response represent the first traffic policy instance in the next group of MaxItems traffic policy instances. To list more traffic policy instances, make another call to ListTrafficPolicyInstances, and specify these values in the corresponding request parameters.

If IsTruncated is false, all three elements are omitted from the response.

#### Topics

- Requests (p. 215)
- Responses (p. 217)
- Errors (p. 220)
- Examples (p. 220)

## Requests

## **Syntax**

```
GET /2013-04-01/trafficpolicyinstances?hostedzoneidhosted zone ID for the next
traffic policy instance
&trafficpolicyinstancename=name of the next traffic policy instance
&trafficpolicyinstancetype=DNS type for the next traffic policy instance
```

&maxitems=maximum number of traffic policy instances to include in the re sponse

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

#### (Conditional) hostedzoneid

For the first request to ListTrafficPolicyInstances, omit this value.

If the value of IsTruncated in the previous response was true, you have more traffic policy instances. To get the next group of maxitems traffic policy instances, submit another ListTrafficPolicyInstances request. For the value of hostedzoneid, specify the value of HostedZoneIdMarker from the previous response, which is the hosted zone ID of the first traffic policy instance in the next group of maxitems traffic policy instances.

If the value of  $\tt IsTruncated$  in the previous response was <code>false</code>, there are no more traffic policy instances to get.

Type: String

#### (Conditional) trafficpolicyinstancename

For the first request to ListTrafficPolicyInstances, omit this value.

If the value of IsTruncated in the previous response was true, the value of TrafficPolicyInstanceNameMarker in the response is the name of the first traffic policy instance in the next group of maxitems traffic policy instances.

If the value of  $\tt IsTruncated$  in the previous response was <code>false</code>, there are no more traffic policy instances to get.

Type: String

#### (Conditional) trafficpolicyinstancetype

For the first request to ListTrafficPolicyInstances, omit this value.

If the value of IsTruncated in the previous response was true, the value of TrafficPolicyInstanceTypeMarker in the response is the DNS type of the first traffic policy instance in the next group of maxitems traffic policy instances.

If the value of  $\tt IsTruncated$  in the previous response was <code>false</code>, there are no more traffic policy instances to get.

Type: String

#### (Optional) maxitems

The maximum number of traffic policy instances to be included in the response body for this request. If you have more than maxitems traffic policy instances, then the value of the IsTruncated element in the response is true, and the values of HostedZoneIdMarker,

TrafficPolicyInstanceNameMarker, and TrafficPolicyInstanceTypeMarker in the response represent the first traffic policy instance in the next group of maxitems traffic policy instances.

Type: String

Default: 100

Constraint: Maximum value is 100. If you specify a value greater than 100, ListTrafficPolicyInstances returns the first group of 100 traffic policy instances.

## Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTrafficPolicyInstancesResponse xmlns="https://route53.amazon</pre>
aws.com/doc/2013-04-01/">
   <TrafficPolicyInstances>
      <TrafficPolicyInstance>
         <Id>traffic policy instance ID</Id>
         <HostedZoneId>hosted zone ID that resource record sets were created
in</HostedZoneId>
         <Name>name of the root resource record set</Name>
         <TTL>TTL of all resource record sets created by this traffic policy
instance</TTL>
         <State>CREATING | UPDATING | APPLIED | DELETING | DELETED |
FAILED</State>
         <Message>explanation when State is Failed</Message>
         <TrafficPolicyId>traffic policy ID</TrafficPolicyId>
         <TrafficPolicyVersion>version number</TrafficPolicyVersion>
         <TrafficPolicyType>DNS type of resource record sets associated with
the traffic policy instance</TrafficPolicyType>
      </TrafficPolicyInstance>
      . . .
   </TrafficPolicyInstances>
  <HostedZoneIdMarker>if IsTruncated is true, the hosted zone ID of the first
traffic policy instance
      in the next group of maxitems instances</HostedZoneIdMarker>
   <TrafficPolicyInstanceNameMarker>if IsTruncated is true, the name of the
first traffic policy instance
     in the next group of maxitems instances</TrafficPolicyInstanceNameMarker>
   <TrafficPolicyInstanceTypeMarker>if IsTruncated is true, the DNS type of
resource record sets for
      the first traffic policy instance in the next group of maxitems in
stances</TrafficPolicyInstanceTypeMarker>
  <IsTruncated>true | false</IsTruncated>
   <MaxItems>value of the maxitems parameter, if any, in the previous re
quest</MaxItems>
</ListTrafficPolicyInstancesResponse>
```

## **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### ListTrafficPolicyInstancesResponse

A complex type that contains the response information for the request.

Type: Complex

Children: TrafficPolicyInstances, HostedZoneIdMarker,

TrafficPolicyInstanceNameMarker,TrafficPolicyInstanceTypeMarker,IsTruncated,MaxItems

#### TrafficPolicyInstances

A list that contains one TrafficPolicyInstance element for each traffic policy instance that matches the elements in the request.

Type: Complex

Parent: ListTrafficPolicyInstancesResponse

Children: TrafficPolicyInstance

#### **TrafficPolicyInstance**

A complex type that contains information about one traffic policy instance that matches the elements in the request.

Type: Complex

Parent: TrafficPolicyInstances

**Children:** Id, HostedZone, Name, TTL, State, Message, TrafficPolicyId, TrafficPolicyVersion, TrafficPolicyType

#### ld

The ld of the traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### HostedZoneld

The ID of the hosted zone in which Amazon Route 53 created resource record sets.

Type: String

Parent: TrafficPolicyInstance

#### Name

The root record set name of the resource record sets that Amazon Route 53 created when you created this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### TTL

The TTL of the resource record sets that Amazon Route 53 created when you created this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### State

The value of State depends on whether you recently created or updated the traffic policy instance. Possible values include the following:

#### Applied

Amazon Route 53 returns Applied in two circumstances:

• When it has finished creating or updating a traffic policy instance and the corresponding resource record sets.

• Immediately after you submit an UpdateTrafficPolicyInstance request and before Amazon Route 53 has started to create the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Creating

Amazon Route 53 is creating the resource record sets based on a CreateTrafficPolicyInstance request.

#### Updating

Amazon Route 53 is creating the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Deleting

Amazon Route 53 is deleting the traffic policy instance and the associated resource record sets.

#### Deleted

Amazon Route 53 finished deleting the traffic policy instance and the associated resource record sets. This is a temporary state; when the deletion is complete, Amazon Route 53 responds to requests for this traffic policy instance with a NoSuchTrafficPolicyInstance error.

#### Failed

Amazon Route 53 wasn't able to create or update the traffic policy instance and the associated resource record sets. When the value of State is Failed, see the error response for an explanation of what caused the request to fail.

Type: String

Parent: TrafficPolicyInstance

#### Message

If State is failed, an explanation of the reason for the failure. If State is another value, Message is empty.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyId**

The version number of the traffic policy that Amazon Route 53 used to create resource record sets.

Type: String

Parent: TrafficPolicyInstance

### TrafficPolicyVersion

The version number of the traffic policy that Amazon Route 53 used to create resource record sets.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyType**

The DNS type of resource record sets that are associated with this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### HostedZoneldMarker

If IsTruncated is true, HostedZoneIdMarker is the ID of the hosted zone of the first traffic policy instance in the next group of MaxItems traffic policy instances.

Type: String

Parent: ListTrafficPolicyInstancesResponse

#### TrafficPolicyInstanceNameMarker

If IsTruncated is true, TrafficPolicyInstanceNameMarker is the name of the first traffic policy instance in the next group of MaxItems traffic policy instances.

Type: String

Parent: ListTrafficPolicyInstancesResponse

#### TrafficPolicyInstanceTypeMarker

If IsTruncated is true, TrafficPolicyInstanceTypeMarker is the DNS type of the resource record sets that are associated with the first traffic policy instance in the next group of MaxItems traffic policy instances.

Type: String

Parent: ListTrafficPolicyInstancesResponse

#### IsTruncated

A flag indicating whether there are more traffic policy instances to be listed. If the response was truncated, you can get the next group of MaxItems traffic policy instances by calling ListTrafficPolicyInstances again and specifying the values of the HostedZoneIdMarker, TrafficPolicyInstanceNameMarker, and TrafficPolicyInstanceTypeMarker elements in the corresponding request parameters.

Type: String

Parent: ListTrafficPolicyInstancesResponse

Valid Values: true | false

#### MaxItems

The value that you specified for the maxitems parameter in the call to ListTrafficPolicyInstances that produced the current response.

Type: String

Parent: ListTrafficPolicyInstancesResponse

## **Errors**

Amazon Route 53 returns the following error for this action:

#### InvalidInput

The input is not valid.

#### **NoSuchTrafficPolicy**

No traffic policy exists with the specified ID.

## **Examples**

### **Example Request**

The following example shows a request after the first request. (For the first request, you'd specify only the maxitems parameter.):

```
GET /2013-04-01/trafficpolicyinstances?hostedzoneid=Z1D633PJN98FT9
&trafficpolicyinstancename=www.example.com
```

```
&trafficpolicyinstancetype=A
&maxitems=1
```

## **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTrafficPolicyInstancesResponse xmlns="https://route53.amazon</pre>
aws.com/doc/2013-04-01/">
  <TrafficPolicyInstances>
     <TrafficPolicyInstance>
         <Id>12131415-abac-5432-caba-6f5e4d3c2b1a</Id>
         <HostedZoneId>Z1D633PJN98FT9</HostedZoneId>
         <Name>www.example.com</Name>
         <TTL>300</TTL>
         <State>Applied</State>
         <Message/>
       <TrafficPolicyId>12345678-abcd-9876-fedc-1a2b3c4de5f6</TrafficPolicyId>
         <TrafficPolicyVersion>7</TrafficPolicyVersion>
         <TrafficPolicyType>A</TrafficPolicyType>
      </TrafficPolicyInstance>
  </TrafficPolicyInstances>
  <HostedZoneIdMarker>Z217DLHR85079R</HostedZoneIdMarker>
  <TrafficPolicyInstanceNameMarker>MyThirdTrafficPolicyInstance</TrafficPoli
cyInstanceNameMarker>
  <TrafficPolicyInstanceTypeMarker>A</TrafficPolicyInstanceTypeMarker>
  <IsTruncated>true</IsTruncated>
  <MaxItems>1</MaxItems>
</ListTrafficPolicyInstancesResponse>
```

# GET ListTrafficPolicyInstancesByHostedZone

Gets information about the traffic policy instances that you created in a specified hosted zone.

#### Note

After you submit a CreateTrafficPolicyInstance or an UpdateTrafficPolicyInstance request, there's a brief delay while Amazon Route 53 creates the resource record sets that are specified in the traffic policy definition. For more information, see the State response element.

To get information about the traffic policy instances that you created in a specified hosted zone, send a GET request to the 2013-04-01/trafficpolicyinstances/hostedzone resource and include the ID of the hosted zone.

#### Note

In the Amazon Route 53 console, traffic policy instances are known as policy records.

Amazon Route 53 returns a maximum of 100 items in each response. If you have a lot of traffic policy instances, you can use the MaxItems parameter to list them in groups of up to 100.

The response includes four values that help you navigate from one group of MaxItems traffic policy instances to the next:

#### IsTruncated

If the value of IsTruncated in the response is true, there are more traffic policy instances associated with the current AWS account.

If  $\tt IsTruncated$  is false, this response includes the last traffic policy instance that is associated with the current account.

#### MaxItems

The value that you specified for the MaxItems parameter in the request that produced the current response.

#### TrafficPolicyInstanceNameMarker and TrafficPolicyInstanceTypeMarker

If IsTruncated is true, these two values in the response represent the first traffic policy instance in the next group of MaxItems traffic policy instances. To list more traffic policy instances, make another call to ListTrafficPolicyInstancesByHostedZone, and specify these values in the corresponding request parameters.

If  ${\tt IsTruncated}$  is false, both elements are omitted from the response.

#### Topics

- Requests (p. 222)
- Responses (p. 224)
- Errors (p. 227)
- Examples (p. 227)

## Requests

### **Syntax**

```
GET /2013-04-01/trafficpolicyinstance/hostedzone?id=ID of the hosted zone for
which you want to list instances
   &trafficpolicyinstancename=name of the next traffic policy instance
   &trafficpolicyinstancetype=DNS type for the next traffic policy instance
```

&maxitems=maximum number of traffic policy instances to include in the re sponse

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

#### id (Required)

The ID of the hosted zone for which you want to list traffic policy instances.

Type: String

#### (Conditional) trafficpolicyinstancename

For the first request to ListTrafficPolicyInstancesByHostedZone, omit this value.

If the value of IsTruncated in the previous response was true, the value of TrafficPolicyInstanceNameMarker in the response is the name of the first traffic policy instance in the next group of maxitems traffic policy instances.

If the value of  $\tt IsTruncated$  in the previous response was false, there are no more traffic policy instances to get for this hosted zone.

If the value of  ${\tt IsTruncated}$  in the previous response was  ${\tt false},$  omit this value.

#### Type: String

#### (Conditional) trafficpolicyinstancetype

For the first request to ListTrafficPolicyInstancesByHostedZone, omit this value.

If the value of IsTruncated in the previous response was true, the value of TrafficPolicyInstanceTypeMarker in the response is the DNS type of the first traffic policy instance in the next group of maxitems traffic policy instances.

If the value of IsTruncated in the previous response was false, there are no more traffic policy instances to get for this hosted zone.

#### Type: String

#### (Optional) maxitems

The maximum number of traffic policy instances to be included in the response body for this request. If you have more than maxitems traffic policy instances, then the value of the IsTruncated element in the response is true, and the values of HostedZoneIdMarker,

TrafficPolicyInstanceNameMarker, and TrafficPolicyInstanceTypeMarker in the response represent the first traffic policy instance in the next group of maxitems traffic policy instances.

Type: String

Default: 100

Constraint: Maximum value is 100. If you specify a value greater than 100, ListTrafficPolicyInstancesByHostedZone returns the first group of 100 traffic policy instances.

## Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTrafficPolicyInstancesByHostedZoneResponse xmlns="https://route53.amazon
aws.com/doc/2013-04-01/">
   <TrafficPolicyInstances>
      <TrafficPolicyInstance>
         <Id>traffic policy instance ID</Id>
         <HostedZoneId>hosted zone ID that resource record sets were created
in</HostedZoneId>
         <Name>name of the root resource record set</Name>
         <TTL>TTL of all resource record sets created by this traffic policy
instance</TTL>
         <State>CREATING | UPDATING | APPLIED | DELETING | DELETED |
FAILED</State>
         <Message>explanation when State is Failed</Message>
         <TrafficPolicyId>traffic policy ID</TrafficPolicyId>
         <TrafficPolicyVersion>version number</TrafficPolicyVersion>
         <TrafficPolicyType>DNS type of resource record sets associated with
the traffic policy instance</TrafficPolicyType>
      </TrafficPolicyInstance>
      . . .
   </TrafficPolicyInstances>
   <HostedZoneIdMarker>if IsTruncated is true, the hosted zone ID of the first
traffic policy instance
      in the next group of MaxItems instances</HostedZoneIdMarker>
   <TrafficPolicyInstanceNameMarker>if IsTruncated is true, the name of the
first traffic policy instance
     in the next group of MaxItems instances</TrafficPolicyInstanceNameMarker>
   <TrafficPolicyInstanceTypeMarker>if IsTruncated is true, the DNS type of
resource record sets for
      the first traffic policy instance in the next group of MaxItems in
stances</TrafficPolicyInstanceTypeMarker>
  <IsTruncated>true | false</IsTruncated>
   <MaxItems>value of the maxitems parameter, if any, in the previous re
quest</MaxItems>
</ListTrafficPolicyInstancesByHostedZoneResponse>
```

## **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Elements**

```
ListTrafficPolicyInstancesByHostedZoneResponse
A complex type that contains the response information for the request.
```

Type: Complex

**Children**: TrafficPolicyInstances, HostedZoneIdMarker,

TrafficPolicyInstanceNameMarker,TrafficPolicyInstanceTypeMarker,IsTruncated,MaxItems

#### TrafficPolicyInstances

A list that contains one TrafficPolicyInstance element for each traffic policy instance that matches the elements in the request.

Type: Complex

Parent: ListTrafficPolicyInstancesByHostedZoneResponse

Children: TrafficPolicyInstance

#### **TrafficPolicyInstance**

A complex type that contains information about one traffic policy instance that matches the elements in the request.

Type: Complex

Parent: TrafficPolicyInstances

**Children:** Id, HostedZone, Name, TTL, State, Message, TrafficPolicyId, TrafficPolicyVersion, TrafficPolicyType

#### ld

The ld of the traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### HostedZoneld

The ID of the hosted zone in which Amazon Route 53 created resource record sets.

Type: String

Parent: TrafficPolicyInstance

#### Name

The root record set name of the resource record sets that Amazon Route 53 created when you created this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### TTL

The TTL of the resource record sets that Amazon Route 53 created when you created this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### State

The value of State depends on whether you recently created or updated the traffic policy instance. Possible values include the following:

#### Applied

Amazon Route 53 returns Applied in two circumstances:

• When it has finished creating or updating a traffic policy instance and the corresponding resource record sets.

• Immediately after you submit an UpdateTrafficPolicyInstance request and before Amazon Route 53 has started to create the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Creating

Amazon Route 53 is creating the resource record sets based on a CreateTrafficPolicyInstance request.

#### Updating

Amazon Route 53 is creating the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Deleting

Amazon Route 53 is deleting the traffic policy instance and the associated resource record sets.

#### Deleted

Amazon Route 53 finished deleting the traffic policy instance and the associated resource record sets. This is a temporary state; when the deletion is complete, Amazon Route 53 responds to requests for this traffic policy instance with a NoSuchTrafficPolicyInstance error.

#### Failed

Amazon Route 53 wasn't able to create or update the traffic policy instance and the associated resource record sets. When the value of State is Failed, see the error response for an explanation of what caused the request to fail.

Type: String

Parent: TrafficPolicyInstance

#### Message

If State is failed, an explanation of the reason for the failure. If State is another value, Message is empty.

Type: String

Parent: TrafficPolicyInstance

#### TrafficPolicyId

The version number of the traffic policy that Amazon Route 53 used to create resource record sets.

Type: String

Parent: TrafficPolicyInstance

### TrafficPolicyVersion

The version number of the traffic policy that Amazon Route 53 used to create resource record sets.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyType**

The DNS type of resource record sets that are associated with this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### HostedZoneldMarker

If IsTruncated is true, HostedZoneIdMarker is the ID of the hosted zone of the first traffic policy instance in the next group of MaxItems traffic policy instances.

#### Type: String

Parent: ListTrafficPolicyInstancesByHostedZoneResponse

#### TrafficPolicyInstanceNameMarker

If IsTruncated is true, TrafficPolicyInstanceNameMarker is the name of the first traffic policy instance in the next group of MaxItems traffic policy instances.

Type: String

Parent: ListTrafficPolicyInstancesByHostedZoneResponse

#### TrafficPolicyInstanceTypeMarker

If IsTruncated is true, TrafficPolicyInstanceTypeMarker is the DNS type of the resource record sets that are associated with the first traffic policy instance in the next group of MaxItems traffic policy instances.

Type: String

Parent: ListTrafficPolicyInstancesByHostedZoneResponse

#### IsTruncated

A flag indicating whether there are more traffic policy instances to be listed. If the response was truncated, you can get the next group of MaxItems traffic policy instances by calling ListTrafficPolicyInstancesByHostedZone again and specifying the values of the HostedZoneIdMarker, TrafficPolicyInstanceNameMarker, and TrafficPolicyInstanceTypeMarker elements in the corresponding request parameters.

Type: String

Parent: ListTrafficPolicyInstancesByHostedZoneResponse

Valid Values: true | false

#### MaxItems

The value that you specified for the MaxItems parameter in the call to ListTrafficPolicyInstancesByHostedZone that produced the current response.

Type: String

Parent: ListTrafficPolicyInstancesByHostedZoneResponse

## **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput

The input is not valid.

NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

NoSuchTrafficPolicy

No traffic policy exists with the specified ID.

## **Examples**

### **Example Request**

The following example shows a request after the first request. (For the first request, you'd specify only the maxitems parameter.):

```
GET /2013-04-01/trafficpolicyinstances/hostedzone?id=Z1D633PJN98FT9
&trafficpolicyinstancename=www.example.com
&trafficpolicyinstancetype=A
&maxitems=1
```

## **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTrafficPolicyInstancesByHostedZoneResponse xmlns="https://route53.amazon
aws.com/doc/2013-04-01/">
  <TrafficPolicyInstances>
     <TrafficPolicyInstance>
         <Id>12131415-abac-5432-caba-6f5e4d3c2b1a</Id>
         <HostedZoneId>Z1D633PJN98FT9</HostedZoneId>
         <Name>www.example.com</Name>
         <TTL>300</TTL>
         <State>Applied</State>
         <Message/>
       <TrafficPolicyId>12345678-abcd-9876-fedc-1a2b3c4de5f6</TrafficPolicyId>
         <TrafficPolicyVersion>7</TrafficPolicyVersion>
         <TrafficPolicyType>A</TrafficPolicyType>
      </TrafficPolicyInstance>
  </TrafficPolicyInstances>
  <HostedZoneIdMarker>Z217DLHR85079R</HostedZoneIdMarker>
  <TrafficPolicyInstanceNameMarker>MyThirdTrafficPolicyInstance</TrafficPoli
cyInstanceNameMarker>
  <TrafficPolicyInstanceTypeMarker>A</TrafficPolicyInstanceTypeMarker>
  <IsTruncated>true</IsTruncated>
  <MaxItems>1</MaxItems>
</ListTrafficPolicyInstancesByHostedZoneResponse>
```

# GET ListTrafficPolicyInstancesByPolicy

Gets information about the traffic policy instances that you created by using a specify traffic policy version.

#### Note

After you submit a CreateTrafficPolicyInstance or an UpdateTrafficPolicyInstance request, there's a brief delay while Amazon Route 53 creates the resource record sets that are specified in the traffic policy definition. For more information, see the State response element.

To get information about the traffic policy instances that you created by using a specified traffic policy version, send a GET request to the 2013-04-01/trafficpolicyinstances/trafficpolicy resource and include the ID and version of the traffic policy.

#### Note

In the Amazon Route 53 console, traffic policy instances are known as policy records.

Amazon Route 53 returns a maximum of 100 items in each response. If you have a lot of traffic policy instances, you can use the MaxItems parameter to list them in groups of up to 100.

The response includes five values that help you navigate from one group of MaxItems traffic policy instances to the next:

#### IsTruncated

If the value of IsTruncated in the response is true, there are more traffic policy instances that were created with the specified traffic policy.

If IsTruncated is false, this response includes the last traffic policy instance that was created by using the specified traffic policy.

#### MaxItems

The value that you specified for the MaxItems parameter in the request that produced the current response.

#### HostedZoneldMarker, TrafficPolicyInstanceNameMarker, and TrafficPolicyInstanceTypeMarker

If IsTruncated is true, these three values in the response represent the first traffic policy instance in the next group of MaxItems traffic policy instances. To list more traffic policy instances, make another call to ListTrafficPolicyInstancesByPolicy, and specify these values in the corresponding request parameters.

If  ${\tt IsTruncated}\ is {\tt false},$  all three elements are omitted from the response.

#### Topics

- Requests (p. 229)
- Responses (p. 231)
- Errors (p. 234)
- Examples (p. 235)

## Requests

### **Syntax**

```
GET /2013-04-01/trafficpolicyinstances/trafficpolicy?id=ID of the traffic policy
for which you want to list instances
&version=version of the traffic policy for which you want to list instances
```

```
&hostedzoneid=ID of the hosted zone for the next traffic policy instance
&trafficpolicyinstancename=name of the next traffic policy instance
&trafficpolicyinstancetype=DNS type for the next traffic policy instance
&maxitems=maximum number of traffic policy instances to include in the re
sponse
```

## **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

id

The ID of the traffic policy for which you want to list traffic policy instances.

Type: String

#### version

The version of the traffic policy for which you want to list traffic policy instances. The version must be associated with the traffic policy that is specified by TrafficPolicyId.

Type: String

#### (Conditional) hostedzoneid

For the first request to ListTrafficPolicyInstancesByPolicy, omit this value.

If the value of IsTruncated in the previous response was true, the value of HostedZoneIdMarker in the response is the ID of the hosted zone for the first traffic policy instance in the next group of maxitems traffic policy instances.

If the value of IsTruncated in the previous response was false, there are no more traffic policy instances to get for this traffic policy version.

If the value of IsTruncated in the previous response was false, omit this value.

Type: String

#### (Conditional) trafficpolicyinstancename

For the first request to ListTrafficPolicyInstancesByPolicy, omit this value.

If the value of IsTruncated in the previous response was true, the value of TrafficPolicyInstanceNameMarker in the response is the name of the first traffic policy instance in the next group of maxitems traffic policy instances.

If the value of IsTruncated in the previous response was false, there are no more traffic policy instances to get for this traffic policy version.

If the value of  ${\tt IsTruncated}$  in the previous response was  ${\tt false},$  omit this value.

Type: String

#### (Conditional) trafficpolicyinstancetype

For the first request to ListTrafficPolicyInstancesByPolicy, omit this value.

If the value of IsTruncated in the previous response was true, the value of TrafficPolicyInstanceTypeMarker in the response is the DNS type of the first traffic policy instance in the next group of maxitems traffic policy instances.

If the value of IsTruncated in the previous response was false, there are no more traffic policy instances to get for this traffic policy version.

#### Type: String

#### (Optional) maxitems

The maximum number of traffic policy instances to be included in the response body for this request. If you have more than maxitems traffic policy instances, the value of the IsTruncated element in the response is true, and the values of HostedZoneIdMarker,

TrafficPolicyInstanceNameMarker, and TrafficPolicyInstanceTypeMarker in the response represent the first traffic policy instance in the next group of maxitems traffic policy instances.

Type: String

Default: 100

Constraint: Maximum value is 100. If you specify a value greater than 100, ListTrafficPolicyInstancesByPolicy returns 100 traffic policy instances.

## Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTrafficPolicyInstancesByPolicyResponse xmlns="https://route53.amazon</pre>
aws.com/doc/2013-04-01/">
  <TrafficPolicyInstances>
      <TrafficPolicyInstance>
         <Id>traffic policy instance ID</Id>
         <HostedZoneId>hosted zone ID that resource record sets were created
in</HostedZoneId>
         <Name>name of the root resource record set</Name>
         <TTL>TTL of all resource record sets created by this traffic policy
instance</TTL>
         <State>CREATING | UPDATING | APPLIED | DELETING | DELETED |
FAILED</State>
         <Message>explanation when State is Failed</Message>
         <TrafficPolicyId>traffic policy ID</TrafficPolicyId>
         <TrafficPolicyVersion>version number</TrafficPolicyVersion>
         <TrafficPolicyType>DNS type of resource record sets associated with
the traffic policy instance</TrafficPolicyType>
      </TrafficPolicyInstance>
      . . .
  </TrafficPolicyInstances>
  <HostedZoneIdMarker>if IsTruncated is true, the hosted zone ID of the first
traffic policy instance
      in the next group of MaxItems instances</HostedZoneIdMarker>
   <TrafficPolicyInstanceNameMarker>if IsTruncated is true, the name of the
first traffic policy instance
     in the next group of MaxItems instances</TrafficPolicyInstanceNameMarker>
   <TrafficPolicyInstanceTypeMarker>if IsTruncated is true, the DNS type of
resource record sets for
      the first traffic policy instance in the next group of MaxItems in
stances</TrafficPolicyInstanceTypeMarker>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### ListTrafficPolicyInstancesByPolicyResponse

A complex type that contains the response information for the request.

Type: Complex

Children: TrafficPolicyInstances, HostedZoneIdMarker,

TrafficPolicyInstanceNameMarker,TrafficPolicyInstanceTypeMarker,IsTruncated,MaxItems

#### **TrafficPolicyInstances**

A list that contains one TrafficPolicyInstance element for each traffic policy instance that matches the elements in the request.

Type: Complex

Parent: ListTrafficPolicyInstancesByPolicyResponse

Children: TrafficPolicyInstance

#### TrafficPolicyInstance

A complex type that contains information about one traffic policy instance that matches the elements in the request.

Type: Complex

Parent: TrafficPolicyInstances

**Children:** Id, HostedZone, Name, TTL, State, Message, TrafficPolicyId, TrafficPolicyVersion, TrafficPolicyType

#### ld

The Id of the traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### HostedZoneld

The ID of the hosted zone in which Amazon Route 53 created resource record sets.

Type: String

Parent: TrafficPolicyInstance

#### Name

The root record set name of the resource record sets that Amazon Route 53 created when you created this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### TTL

The TTL of the resource record sets that Amazon Route 53 created when you created this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### State

The value of State depends on whether you recently created or updated the traffic policy instance. Possible values include the following:

#### Applied

Amazon Route 53 returns Applied in two circumstances:

- When it has finished creating or updating a traffic policy instance and the corresponding resource record sets.
- Immediately after you submit an UpdateTrafficPolicyInstance request and before Amazon Route 53 has started to create the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Creating

Amazon Route 53 is creating the resource record sets based on a

CreateTrafficPolicyInstance request.

#### Updating

Amazon Route 53 is creating the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Deleting

Amazon Route 53 is deleting the traffic policy instance and the associated resource record sets.

#### Deleted

Amazon Route 53 finished deleting the traffic policy instance and the associated resource record sets. This is a temporary state; when the deletion is complete, Amazon Route 53 responds to requests for this traffic policy instance with a NoSuchTrafficPolicyInstance error.

#### Failed

Amazon Route 53 wasn't able to create or update the traffic policy instance and the associated resource record sets. When the value of State is Failed, see the error response for an explanation of what caused the request to fail.

Type: String

Parent: TrafficPolicyInstance

#### Message

If State is failed, an explanation of the reason for the failure. If State is another value, Message is empty.

Type: String

Parent: TrafficPolicyInstance

#### TrafficPolicyId

The version number of the traffic policy that Amazon Route 53 used to create resource record sets.

Type: String

Parent: TrafficPolicyInstance

#### TrafficPolicyVersion

The version number of the traffic policy that Amazon Route 53 used to create resource record sets.

Type: String

Parent: TrafficPolicyInstance

#### TrafficPolicyType

The DNS type of resource record sets that are associated with this traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

#### HostedZoneldMarker

If IsTruncated is true, HostedZoneIdMarker is the ID of the hosted zone of the first traffic policy instance in the next group of MaxItems traffic policy instances.

Type: String

Parent: ListTrafficPolicyInstancesByPolicyResponse

#### **TrafficPolicyInstanceNameMarker**

If IsTruncated is true, TrafficPolicyInstanceNameMarker is the name of the first traffic policy instance in the next group of MaxItems traffic policy instances.

Type: String

Parent: ListTrafficPolicyInstancesByPolicyResponse

#### **TrafficPolicyInstanceTypeMarker**

If IsTruncated is true, TrafficPolicyInstanceTypeMarker is the DNS type of the resource record sets that are associated with the first traffic policy instance in the next group of MaxItems traffic policy instances.

Type: String

Parent: ListTrafficPolicyInstancesByPolicyResponse

#### IsTruncated

A flag indicating whether there are more traffic policy instances to be listed. If the response was truncated, you can get the next group of MaxItems traffic policy instances by calling ListTrafficPolicyInstancesByPolicy again and specifying the values of the HostedZoneIdMarker, TrafficPolicyInstanceNameMarker, and TrafficPolicyInstanceTypeMarker elements in the corresponding request parameters.

Type: String

Parent: ListTrafficPolicyInstancesByPolicyResponse

Valid Values: true | false

#### MaxItems

The value that you specified for the MaxItems parameter in the call to ListTrafficPolicyInstancesByPolicy that produced the current response.

Type: String

Parent: ListTrafficPolicyInstancesByPolicyResponse

### **Errors**

Amazon Route 53 returns the following error for this action:

#### InvalidInput

The input is not valid.

**NoSuchTrafficPolicy** 

No traffic policy exists with the specified ID.

```
NoSuchTrafficPolicyInstance
```

No traffic policy instance exists with the specified ID.

## **Examples**

## **Example Request**

The following example shows a request after the first request. (For the first request, you'd specify only the TrafficPolicyId, TrafficPolicyVersion, and MaxItems parameters.):

```
GET /2013-04-01/trafficpolicyinstances/trafficpolicy?id=12345678-abcd-9876-fedc-
1a2b3c4de5f6
&version=42
&hostedzoneid=Z1D633PJN98FT9
&trafficpolicyinstancename=www.example.com
&trafficpolicyinstancetype=A
&maxitems=1
```

## Example Response

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTrafficPolicyInstancesByPolicyResponse xmlns="https://route53.amazon</pre>
aws.com/doc/2013-04-01/">
   <TrafficPolicyInstances>
      <TrafficPolicyInstance>
         <Id>12131415-abac-5432-caba-6f5e4d3c2b1a</Id>
         <HostedZoneId>Z1D633PJN98FT9</HostedZoneId>
         <Name>www.example.com</Name>
         <TTL>300</TTL>
         <State>Applied</State>
         <Message/>
       <TrafficPolicyId>12345678-abcd-9876-fedc-1a2b3c4de5f6</TrafficPolicyId>
         <TrafficPolicyVersion>42</TrafficPolicyVersion>
         <TrafficPolicyType>A</TrafficPolicyType>
      </TrafficPolicyInstance>
   </TrafficPolicyInstances>
   <HostedZoneIdMarker>Z217DLHR85079R</HostedZoneIdMarker>
  <TrafficPolicyInstanceNameMarker>MyThirdTrafficPolicyInstance</TrafficPoli
cyInstanceNameMarker>
   <TrafficPolicyInstanceTypeMarker>A</TrafficPolicyInstanceTypeMarker>
   <IsTruncated>true</IsTruncated>
   <MaxItems>1</MaxItems>
</ListTrafficPolicyInstancesByPolicyResponse>
```

# **POST UpdateTrafficPolicyInstance**

Updates the resource record sets in a specified hosted zone that were created based on the settings in a specified traffic policy version.

To update a traffic policy instance, send a POST request to the

/2013-04-01/trafficpolicyinstance/traffic policy ID resource. The request body must include an XML document with an UpdateTrafficPolicyInstanceRequest element.

When you update a traffic policy instance, Amazon Route 53 continues to respond to DNS queries for the root resource record set name while it replaces one group of resource record sets with another. Amazon Route 53 performs the following operations:

- 1. Amazon Route 53 creates a new group of resource record sets based on the specified traffic policy version. This is true regardless of how substantial the differences are between the existing resource record sets and the new resource record sets.
- 2. When all of the new resource record sets have been created, Amazon Route 53 starts to respond to DNS queries for the root resource record set name (such as example.com) by using the new resource record sets.
- 3. Amazon Route 53 deletes the old group of resource record sets that are associated with the root resource record set name.

#### Note

In the Amazon Route 53 console, traffic policy instances are known as policy records.

#### Topics

- Requests (p. 236)
- Responses (p. 237)
- Errors (p. 240)
- Examples (p. 240)

# Requests

### **Syntax**

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

ld

The ID of the traffic policy instance that you want to update.

Type: String

### **Elements**

#### **UpdateTrafficPolicyInstanceRequest**

A complex type that contains information about the resource record sets that you want to update based on a specified traffic policy instance.

Type: Complex

Default: None

Children: ResourceRecordSetTTL, TrafficPolicyId, VersionNumber

TTL

The TTL that you want Amazon Route 53 to assign to all of the updated resource record sets.

Type: String

Parent: UpdateTrafficPolicyInstanceRequest

#### **TrafficPolicyId**

The ID of the traffic policy that you want Amazon Route 53 to use to update resource record sets for the specified traffic policy instance.

Type: String

Parent: UpdateTrafficPolicyInstanceRequest

#### **TrafficPolicyVersion**

The version of the traffic policy that you want Amazon Route 53 to use to update resource record sets for the specified traffic policy instance.

Type: String

Parent: UpdateTrafficPolicyInstanceRequest

## Responses

### **Syntax**

```
<Message>explanation when State is Failed</Message>
    <TrafficPolicyId>ID of the traffic policy that defines the resource record
sets</TrafficPolicyId>
    <TrafficPolicyVersion>version of the traffic policy that defines the re
source record sets</TrafficPolicyVersion>
    <TrafficPolicyType>DNS type of the resource record sets</TrafficPolicyType>
    </TrafficPolicyInstance>
</UpdateTrafficPolicyInstanceResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### **UpdateTrafficPolicyInstanceResponse**

A complex type that contains information about the resource record sets that Amazon Route 53 created based on a specified traffic policy.

Type: Complex

Default: None

**Children:** Id, HostedZoneId, Name, TTL, State, Message, TrafficPolicyId, TrafficPolicyVersion, TrafficPolicyType

#### TrafficPolicyInstance

A complex type that contains settings for the updated traffic policy instance.

Type: Complex

Default: None

Parent: UpdateTrafficPolicyInstanceResponse

**Children:** Id, HostedZoneId, Name, TTL, State, Message, TrafficPolicyId, TrafficPolicyVersion, TrafficPolicyType

#### ld

The ID of the traffic policy instance that you updated.

Type: String

Parent: TrafficPolicyInstance

#### HostedZoneld

The ID of the hosted zone in which Amazon Route 53 updated resource record sets.

Type: String

Parent: TrafficPolicyInstance

#### Name

The name of the root resource record set, for example, www.example.com.

Type: String

Parent: TrafficPolicyInstance

#### TTL

The TTL that Amazon Route 53 assigned to all of the resource record sets that it updated in the specified hosted zone.

Type: String

Parent: TrafficPolicyInstance

#### State

The value of State depends on whether you recently updated the traffic policy instance. Possible values include the following:

#### Applied

Amazon Route 53 returns Applied in two circumstances:

- When it has finished updating resource record sets.
- Immediately after you submit an UpdateTrafficPolicyInstance request and before Amazon Route 53 has started to create the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Updating

Amazon Route 53 is creating the new group of resource record sets that will replace the existing group of resource record sets for the specified root resource record set name.

#### Failed

Amazon Route 53 wasn't able to update the resource record sets. When the value of State is Failed, see the error response for an explanation of what caused the request to fail.

#### Type: String

Parent: TrafficPolicyInstance

#### Message

If State is failed, an explanation of the reason for the failure. If State is another value, Message is empty.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyId**

The ID of the traffic policy that Amazon Route 53 used to update resource record sets.

Type: String

Parent: TrafficPolicyInstance

TrafficPolicyVersion

The version of the traffic policy that Amazon Route 53 used to update resource record sets.

Type: String

Parent: TrafficPolicyInstance

#### **TrafficPolicyType**

The DNS type that Amazon Route 53 assigned to all of the resource record sets that it created for this updated traffic policy instance.

Type: String

Parent: TrafficPolicyInstance

## **Errors**

Amazon Route 53 returns the following error for this action:

#### InvalidInput

The input is not valid.

#### **NoSuchHostedZone**

A hosted zone with the specified hosted zone ID does not exist.

#### **NoSuchTrafficPolicy**

No traffic policy exists with the specified ID.

#### **NoSuchTrafficPolicyInstance**

No traffic policy instance exists with the specified ID.

#### PriorRequestNotComplete

Amazon Route 53 is still processing an earlier request to update the specified traffic policy instance.

## **Examples**

## **Example Request**

The following example shows a request to update the resource record sets that are associated with traffic policy instance 470928347:

## **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<UpdateTrafficPolicyInstanceResponse xmlns="https://route53.amazon
aws.com/doc/2013-04-01/">
   <TrafficPolicyInstance>
      <Id>12131415-abac-5432-caba-6f5e4d3c2b1a</Id>
      <HostedZoneId>Z1D633PJN98FT9</HostedZoneId>
      <Name>www.example.com</Name>
      <TTL>300</TTL>
      <State>Applied</State>
      <Message/>
      <TrafficPolicyId>12345678-abcd-9876-fedc-1a2b3c4de5f6</TrafficPolicyId>
      <TrafficPolicyVersion>7</TrafficPolicyVersion>
      <TrafficPolicyType>A</TrafficPolicyType>
   </TrafficPolicyInstance>
</UpdateTrafficPolicyInstanceResponse>
```

# **DELETE DeleteTrafficPolicyInstance**

Deletes a traffic policy instance and all of the resource record sets that Amazon Route 53 created when you created the instance. To delete a traffic policy instance, send a DELETE request to the 2013-04-01/traffic policy/traffic policy instance ID resource.

#### Note

In the Amazon Route 53 console, traffic policy instances are known as policy records.

#### Topics

- Requests (p. 241)
- Responses (p. 241)
- Errors (p. 242)
- Examples (p. 242)

## Requests

### **Syntax**

```
DELETE /2013-04-01/trafficpolicyinstance/Id
```

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

#### ld

The ID of the traffic policy instance that you want to delete.

#### Important

When you delete a traffic policy instance, Amazon Route 53 also deletes all of the resource record sets that were created when you created the traffic policy instance.

Type: String

## Responses

## **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<DeleteTrafficPolicyInstanceResponse xmlns="https://route53.amazon
aws.com/doc/2013-04-01/">
<DeleteTrafficPolicyResponse/>
```

## **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

DeleteTrafficPolicyInstanceResponse

An empty element.

Type: String

## **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput The input is not valid.

NoSuchTrafficPolicyInstance No traffic policy instance exists with the specified ID.

#### PriorRequestNotComplete

Amazon Route 53 is still processing an earlier request to update the specified traffic policy instance.

# **Examples**

## **Example Request**

The following example shows a request in which maxitems is 1:

```
DELETE /2013-04-01/trafficpolicyinstance/12131415-abac-5432-caba-6f5e4d3c2b1a
```

## **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<DeleteTrafficPolicyInstanceResponse xmlns="https://route53.amazon
aws.com/doc/2013-04-01/">
</DeleteTrafficPolicyInstanceResponse>
```

# **Traffic Policy Document Format**

When you create a traffic policy programmatically by using the Amazon Route 53 API, one of the AWS SDKs, the AWS CLI, or AWS Tools for Windows PowerShell, you specify the definition of the traffic policy in a Document element in JSON format.

For more information about traffic policies, see Using Traffic Flow to Route DNS Traffic in the Amazon Route 53 Developer Guide.

#### Topics

- Basic Syntax (p. 243)
- Syntax for Endpoint Definitions (p. 244)
- Syntax for Rule Definitions (p. 245)
- Examples (p. 249)

# **Basic Syntax**

Here is the basic syntax for a traffic policy document:

```
{
   "AWSPolicyFormatVersion": "2015-10-01",
  "RecordType": "DNS type for all resource record sets created by this traffic
policy",
   "StartEndpoint | StartRule": "ID that you assign to an endpoint or rule",
   "Endpoints": {
      "Endpoint ID that you assign": {
         Endpoint definition
      },
      . . .
   },
   "Rules": {
      "Rule ID that you assign": {
         Rule definition
      },
      . . .
   }
}
```

The basic syntax for a traffic policy document contains the following objects:

#### AWSPolicyFormatVersion

The version of the traffic policy format, currently 2015–10–01.

#### RecordType

The DNS type of all of the resource record sets that Amazon Route 53 will create based on this traffic policy. If you want to route traffic to the following AWS resources, choose the applicable value:

- CloudFront distribution Choose A: IP address in IPv4 format.
- ELB load balancer Choose either A: IP address in IPv4 format or AAAA: IP address in IPv6 format.
- Amazon S3 bucket configured as a website endpoint: Choose A: IP address in IPv4 format.

If you want to route traffic to other resources, choose the applicable type for the resource. For example, if you want to route traffic to mail servers, specify MX. For the list of DNS types that Amazon Route 53 supports, see Supported DNS Resource Record Types in the Amazon Route 53 Developer Guide.

#### StartEndpoint | StartRule

Whether you want the starting point for the traffic policy to be an endpoint or a rule, and the ID that you assigned to the endpoint or rule elsewhere in the traffic policy document.

#### Endpoints

The definitions of the endpoints that you want to use in this traffic policy. For more information, see Syntax for Endpoint Definitions (p. 244).

#### Rules

The definitions of the rules that you want to use in this traffic policy. For more information, see Syntax for Rule Definitions (p. 245).

# **Syntax for Endpoint Definitions**

Here is the syntax for the endpoint definitions that you specify in a traffic policy document:

```
"Type": value | cloudfront | elastic-load-balancer | s3-website,
"Region": "AWS region that you created your Amazon S3 bucket in"
"Value": "value applicable to the type of endpoint"
```

The syntax for an endpoint definition contains the following objects:

#### Туре

{

}

Specify the applicable value:

#### value

To route traffic to a resource other than a CloudFront distribution, an ELB load balancer, or an Amazon S3 bucket that is configured as a website endpoint, specify value for Type.

#### cloudfront

To route traffic to a CloudFront distribution, specify cloudfront for Type.

#### elastic-load-balancer

To route traffic to an ELB load balancer, specify elastic-load-balancer for Type.

#### s3-website

To route traffic to an Amazon S3 bucket that is configured as a website endpoint, specify s3-website for Type.

#### Region

To route traffic to an Amazon S3 bucket that is configured as a website endpoint, specify the region in which you created the bucket for Region. For any other resource, omit Region.

#### Value

Specify the applicable value:

#### value

To route traffic to a resource other than a CloudFront distribution, an ELB load balancer, or an Amazon S3 bucket that is configured as a website endpoint, specify the value that corresponds with the value that you specified for RecordType. For example, if you specified A for RecordType, specify an IP address in IPv4 format for Value.

#### cloudfront

If you specified cloudfront for Type, specify the domain name that CloudFront assigned to your CloudFront distribution when you created it, for example, dlllllabcdef8.cloudfront.net.

dililiapcdei8.cloudiront.

#### elastic-load-balancer

If you specified <code>elastic-load-balancer</code> for <code>Type</code>, specify the DNS name for your load balancer. Use the value that begins with <code>dualstack</code>, for example,

dualstack.my-load-balancer-1234567890.us-west-2.elb.amazonaws.com.

#### s3-website

If you specified s3-website for Type, specify the name of your Amazon S3 bucket, for example, example.com.s3-website-us-east-1.amazonaws.com.

#### Important

When you create a traffic policy instance based on this traffic policy, the bucket that you specify here must match the domain name (such as www.example.com) that you specify for Name in the POST CreateTrafficPolicyInstance (p. 203) request. If Value and Name don't match, Amazon S3 won't respond to DNS queries for the domain name.

# **Syntax for Rule Definitions**

There are four different syntaxes for the rule definitions that you specify in a traffic policy document, depending on the type of routing policy that you want to use: failover, weighted, latency, or geolocation.

#### Topics

- Failover Rules (p. 245)
- Weighted Rules (p. 246)
- Latency Rules (p. 247)
- Geolocation Rules (p. 248)

# **Failover Rules**

For more information, see Configuring DNS Failover in the Amazon Route 53 Developer Guide.

```
{
    "RuleType": "failover",
    "Primary": {
        "EndpointReference | RuleReference": "ID that you assigned to the rule
or endpoint that this rule routes traffic to",
        "EvaluateTargetHealth": "true" | "false",
        "HealthCheck": "optional health check ID"
    },
    "Secondary": {
        "EndpointReference | RuleReference": "ID that you assigned to the rule
or endpoint that this rule routes traffic to",
        "EvaluateTargetHealth": "true" | "false",
        "HealthCheck": "optional health check ID"
    }
}
```

When you define a failover rule, you specify the following objects:

#### RuleType

Specify failover.

#### Primary | Secondary

For the Primary object, specify settings for the rule or endpoint that you want to route traffic to whenever the corresponding resources are available.

For the Secondary object, specify settings for the rule or endpoint that you want to route traffic to whenever the primary resources are not available.

#### EndpointReference | RuleReference

Whether you want to route traffic to an endpoint or to another rule, and the ID that you assigned to the endpoint or rule elsewhere in the traffic policy document.

#### EvaluateTargetHealth

A Boolean that indicates whether you want Amazon Route 53 to evaluate the health of the endpoint and route traffic only to healthy endpoints. For more information about EvaluateTargetHealth, see EvaluateTargetHealth (p. 128) in the documentation about POST ChangeResourceRecordSets (p. 108).

#### HealthCheck

If you want to associate a health check with the endpoint or rule, specify the ID of the health check. For more information, see HealthCheckId (p. 129) in the documentation about POST ChangeResourceRecordSets (p. 108).

## **Weighted Rules**

When you add a weighted rule, you configure your traffic policy to route traffic based on proportions that you specify. For example, you might specify weights of 4, 5, 5, and 6 (sum=20). The result is that 4/20ths of your traffic, on average, is routed to the first endpoint or rule, 5/20ths is routed both to the second and third endpoints or rules, and 6/20ths is routed to the last endpoint or rule. For more information, see Weighted Routing in the Amazon Route 53 Developer Guide.

```
{
    "RuleType": "weighted",
    "Items": [
        {
         "EndpointReference | RuleReference": "ID that you assigned to the rule
        or endpoint that this rule routes traffic to",
            "Weight": "value between 0 and 255",
            "EvaluateTargetHealth": "true" | "false",
            "HealthCheck": "optional health check ID"
        },
        ...
    ]
}
```

When you define a weighted rule, you specify the following objects:

#### RuleType

Specify weighted.

#### Items

Specify one set of values (EndpointReference | RuleReference, Weight, EvaluateTargetHealth, and HealthCheck) for each of the weighted rules or endpoints that you want to route traffic to.

#### EndpointReference | RuleReference

Whether you want to route traffic to an endpoint or to another rule, and the ID that you assigned to the endpoint or rule elsewhere in the traffic policy document.

#### Weight

A value between 0 and 255 that determines the proportion of traffic that is routed to the corresponding endpoint or rule. For more information about Weight, see Weight (p. 121) in the documentation about POST ChangeResourceRecordSets (p. 108).

#### **EvaluateTargetHealth**

A Boolean that indicates whether you want Amazon Route 53 to evaluate the health of the endpoint and route traffic only to healthy endpoints. For more information about EvaluateTargetHealth, see EvaluateTargetHealth (p. 128) in the documentation about POST ChangeResourceRecordSets (p. 108).

#### HealthCheck

If you want to associate a health check with the endpoint or rule, specify the ID of the health check. For more information, see HealthCheckId (p. 129) in the documentation about POST ChangeResourceRecordSets (p. 108).

### Latency Rules

When you add a latency rule, you configure your traffic policy to route your traffic based on the latency (the time delay) between your users and the AWS regions where you've created AWS resources such as ELB load balancers and Amazon S3 buckets. For more information, see Latency Routing in the Amazon Route 53 Developer Guide.

```
{
    "RuleType": "latency",
    "Regions": [
        {
         "EndpointReference | RuleReference": "ID that you assigned to the rule
        or endpoint that this rule routes traffic to",
            "Region": "AWS region that you want to route traffic to",
            "EvaluateTargetHealth": "true" | "false",
            "HealthCheck": "optional health check ID"
        },
        ...
    ]
}
```

When you define a latency rule, you specify the following objects:

#### RuleType

Specify latency.

#### Regions

Specify one set of values (EndpointReference | RuleReference, Region,

EvaluateTargetHealth, and HealthCheck) for each of the regions that you want to route traffic to.

#### EndpointReference | RuleReference

Whether you want to route traffic to an endpoint or to another rule, and the ID that you assigned to the endpoint or rule elsewhere in the traffic policy document.

#### Region

A value between 0 and 255 that determines the proportion of traffic that is routed to the corresponding endpoint or rule. For more information about Region, see Region (p. 121) in the documentation about POST ChangeResourceRecordSets (p. 108).

#### EvaluateTargetHealth

A Boolean that indicates whether you want Amazon Route 53 to evaluate the health of the endpoint and route traffic only to healthy endpoints. For more information about EvaluateTargetHealth, see EvaluateTargetHealth (p. 128) in the documentation about POST ChangeResourceRecordSets (p. 108).

#### HealthCheck

If you want to associate a health check with the endpoint or rule, specify the ID of the health check. For more information, see HealthCheckId (p. 129) in the documentation about POST ChangeResourceRecordSets (p. 108).

# **Geolocation Rules**

When you add a geolocation rule, you configure your traffic policy to route your traffic based on the geographic location of your users. For more information, see Geolocation Routing in the Amazon Route 53 Developer Guide.

```
{
   "RuleType": "geo",
   "Locations": [
      {
        "EndpointReference | RuleReference": "ID that you assigned to the rule
or endpoint that this rule routes traffic to",
         "IsDefault": "true" | "false",
         "Continent": "continent name,
         "Country": "country name,
         "Subdivision": "subdivision name,
         "EvaluateTargetHealth": "true" | "false",
         "HealthCheck": "optional health check ID"
      },
      . . .
   ]
}
```

When you define a geolocation rule, you specify the following objects:

#### RuleType

Specify geo.

#### Locations

Specify one set of values (EndpointReference | RuleReference, IsDefault, Continent, Country, Subdivision, EvaluateTargetHealth, and HealthCheck) for each of the geographic locations that you want to route traffic to.

#### EndpointReference | RuleReference

Whether you want to route traffic to an endpoint or to another rule, and the ID that you assigned to the endpoint or rule elsewhere in the traffic policy document.

#### IsDefault

A Boolean that indicates whether this set of values represents the default location. For more information about IsDefault, see the explanation about specifying \* as the value for the CountryCode element when you create or update a resource record set in the description for GeoLocation (p. 123).

#### **Continent, Country, Subdivision**

Values that indicate the geographic location of users whose traffic you want to route to a rule or endpoint. For more information, see the following element descriptions in the documentation about POST ChangeResourceRecordSets (p. 108):

- · GeoLocation (p. 123)
- ContinentCode (p. 123)
- CountryCode (p. 124)
- SubdivisionCode (p. 125)

#### **EvaluateTargetHealth**

A Boolean that indicates whether you want Amazon Route 53 to evaluate the health of the endpoint and route traffic only to healthy endpoints. For more information about EvaluateTargetHealth, see EvaluateTargetHealth (p. 128) in the documentation about POST ChangeResourceRecordSets (p. 108).

#### HealthCheck

If you want to associate a health check with the endpoint or rule, specify the ID of the health check. For more information, see HealthCheckId (p. 129) in the documentation about POST ChangeResourceRecordSets (p. 108).

# **Examples**

The following examples show how to use failover, weighted, latency, and geolocation rules, and how to use multiple types of rules in the same traffic policy.

#### Topics

- Failover Example (p. 249)
- Weighted Example (p. 249)
- Latency Example (p. 250)
- Geolocation Example (p. 251)
- Example with Failover, Latency, and Geolocation Rules (p. 252)

## **Failover Example**

```
{
   "AWSPolicyFormatVersion": "2015-10-01",
   "RecordType": "A",
   "StartRule":"site_switch",
   "Endpoints":{
      "my_elb":{
         "Type": "elastic-load-balancer",
         "Value": "elb-111111.us-east-1.elb.amazonaws.com"
      },
      "site_down_banner":{
         "Type": "s3-website",
         "Region": "us-east-1",
         "Value": "www.example.com"
      }
   },
   "Rules":{
      "site_switch":{
         "RuleType":"failover",
         "Primary":{
            "EndpointReference": "my_elb"
         },
         "Secondary":{
             "EndpointReference":"site_down_banner"
         }
      }
   }
}
```

### **Weighted Example**

```
{
    "AWSPolicyFormatVersion":"2015-10-01",
    "RecordType":"A",
```

```
"StartRule": "round_robin",
 "Endpoints":{
  "srv1":{
    "Type":"value",
    "Value":"192.0.2.1"
  },
  "srv2":{
    "Type":"value",
    "Value":"192.0.2.2"
  },
   "srv3":{
    "Type":"value",
    "Value":"192.0.2.3"
  }
 },
 "Rules":{
  "round_robin":{
    "RuleType": "weighted",
    "Items":[
     {
       "EndpointReference":"srv1",
       "Weight":"3",
       },
      {
       "EndpointReference":"srv2",
       "Weight":"1",
       },
      {
       "EndpointReference": "srv3",
       "Weight":"1",
       ļ
    1
  }
 }
}
```

# Latency Example

```
{
   "AWSPolicyFormatVersion":"2015-10-01",
   "RecordType":"A",
   "StartRule":"region_selector",
   "Endpoints":{
        "us_lb":{
            "Type":"elastic-load-balancer",
            "Value":"elb-123456.us-east-1.elb.amazonaws.com"
        },
        "europe_lb":{
            "Type":"elastic-load-balancer",
            "Value":"elb-654321.eu-west-1.elb.amazonaws.com"
        }
    },
    "Rules":{
```

## **Geolocation Example**

```
{
 "AWSPolicyFormatVersion":"2015-10-01",
 "RecordType":"A",
 "StartRule": "geo_dest",
 "Endpoints":{
  "english":{
    "Type":"value",
    "Value":"192.0.2.1"
  },
   "french":{
    "Type":"value",
    "Value":"192.0.2.2"
  },
   "german":{
    "Type":"value",
    "Value":"192.0.2.3"
  }
 },
 "Rules":{
   "geo_dest":{
    "RuleType":"geo",
    "Locations":[
      {
       "EndpointReference": "english",
       "IsDefault":true,
       },
      {
       "EndpointReference":"french",
       "Country": "FR",
       },
      {
       "EndpointReference": "french",
       "Country":"BE",
       },
      {
```

```
"EndpointReference":"german",
        "Country":"DE",
        "HealthCheck":"3333333-3333-3333-3333-33333333333"
        }
        ]
        }
    }
}
```

{

## Example with Failover, Latency, and Geolocation Rules

```
"AWSPolicyFormatVersion":"2015-10-01",
"RecordType": "A",
"StartRule": "geo_restriction",
"Endpoints":{
  "east_coast_lb1":{
    "Type": "elastic-load-balancer",
    "Value": "elb-111111.us-east-1.elb.amazonaws.com"
  },
  "east_coast_lb2":{
    "Type": "elastic-load-balancer",
    "Value": "elb-222222.us-east-1.elb.amazonaws.com"
  },
  "west_coast_lb1":{
    "Type": "elastic-load-balancer",
    "Value": "elb-111111.us-west-1.elb.amazonaws.com"
  },
  "west_coast_lb2":{
    "Type": "elastic-load-balancer",
    "Value": "elb-222222.us-west-1.elb.amazonaws.com"
  },
  "denied_message":{
    "Type":"s3-website",
    "Region": "us-east-1",
    "Value": "video.example.com"
 }
},
"Rules":{
  "geo_restriction":{
    "RuleType":"geo",
    "Locations":[
      ł
        "EndpointReference": "denied_message",
        "IsDefault":true
      },
        "RuleReference": "region_selector",
        "Country": "US"
      }
    ]
  },
  "region_selector":{
    "RuleType":"latency",
    "Regions":[
      {
```

```
"Region":"us-east-1",
          "RuleReference":"east_coast_region"
        },
        {
          "Region":"us-west-1",
          "RuleReference": "west_coast_region"
        }
      ]
   },
    "east_coast_region":{
     "RuleType":"failover",
      "Primary":{
        "EndpointReference":"east_coast_lb1"
      },
      "Secondary":{
        "EndpointReference":"east_coast_lb2"
      }
    },
    "west_coast_region":{
     "RuleType":"failover",
      "Primary":{
        "EndpointReference":"west_coast_lb1"
      },
      "Secondary":{
        "EndpointReference":"west_coast_lb2"
      }
   }
 }
}
```

# **Actions on HealthChecks**

This section describes actions you can perform on health checks.

- POST CreateHealthCheck (p. 255) Creates a new health check.
- POST UpdateHealthCheck (p. 271) Updates an existing health check.
- GET GetHealthCheck (p. 285) Gets information about a specified health check.
- GET ListHealthChecks (p. 295) Gets a list of the health checks that are associated with the current AWS account. DELETE DeleteHealthCheck (p. 307)
- Deletes a health check. GET GetCheckerlpRanges (p. 309) Gets a list of the IP ranges of Amazon Route 53 health checkers.
- GET GetHealthCheckCount (p. 311) Gets the number of health checks associated with the current account.
- GET GetHealthCheckStatus (p. 313) Gets the current status of a specified health check.
- GET GetHealthCheckLastFailureReason (p. 317) Gets the reason that a specified health check failed most recently.

For more information, see Amazon Route 53 Health Checks and DNS Failover in the Amazon Route 53 Developer Guide.

# **POST CreateHealthCheck**

#### Topics

- Requests (p. 256)
- Responses (p. 264)
- Errors (p. 268)
- Examples (p. 269)

#### Creates a new health check.

To create a new health check, send a POST request to the /2013-04-01/healthcheck resource. The request body must include an XML document with a CreateHealthCheckRequest element. The response returns the CreateHealthCheckResponse element, which contains the health check ID that you specify when you add a health check to a resource record set. For information about adding health checks to resource record sets, see EvaluateTargetHealth and HealthCheckId in POST ChangeResourceRecordSets (p. 108).

If you are registering Amazon EC2 instances with an Elastic Load Balancing (ELB) load balancer, do not create Amazon Route 53 health checks for the EC2 instances. When you register an EC2 instance with a load balancer, you configure settings for an ELB health check, which performs a similar function to an Amazon Route 53 health check.

You can associate health checks with failover resource record sets in a private hosted zone. Note the following:

- Amazon Route 53 health checkers are outside the VPC. To check the health of an endpoint within a VPC by IP address, you must assign a public IP address to the instance in the VPC.
- You can configure a health checker to check the health of an external resource that the instance relies on, such as a database server.
- You can create a CloudWatch metric, associate an alarm with the metric, and then create a health check that is based on the state of the alarm. For example, you might create a CloudWatch metric that checks the status of the EC2 StatusCheckFailed metric, add an alarm to the metric, and then create a health check that is based on the state of the alarm. For information about creating CloudWatch metrics and alarms by using the CloudWatch console, see the Amazon CloudWatch Developer Guide.

Here is how Amazon Route 53 determines whether a health check passes:

#### **HTTP and HTTPS Health Checks**

Amazon Route 53 must be able to establish a TCP connection with the endpoint within four seconds. If a TCP connection is established, Amazon Route 53 sends an HTTP request. The endpoint must respond with an HTTP status code of 200 or greater and less than 400 within two seconds.

#### HTTP\_STR\_MATCH and HTTPS\_STR\_MATCH Health Checks

As with HTTP health checks, Amazon Route 53 must be able to establish a TCP connection with the endpoint within four seconds. If a TCP connection is established, Amazon Route 53 sends an HTTPS request. The endpoint must respond with an HTTP status code of 200 or greater and less than 400 within two seconds.

After an Amazon Route 53 health checker receives the HTTP status code, it must receive the response body from the endpoint within the next two seconds. Amazon Route 53 searches the response body for a string that you specify. The string must appear entirely in the first 5,120 bytes of the response body or the health check fails. Specify the string in the SearchString element.

#### **TCP Health Checks**

Amazon Route 53 must be able to establish a TCP connection with the endpoint within ten seconds.

#### Health Checks Except CLOUDWATCH\_METRIC and CALCULATED Health Checks

For a health check to change from healthy to unhealthy, it must fail *n* consecutive times where *n* is the value that you specify for FailureThreshold when you create the health check. For a health check to change from unhealthy to healthy, it must pass the same number of consecutive health checks.

#### CLOUDWATCH\_METRIC Health Checks

If the state of a CloudWatch alarm is OK, the health check is considered healthy. If the state is ALARM, the health check is considered unhealthy. If CloudWatch doesn't have sufficient data to determine whether the state is OK or ALARM, the health check status depends on the setting for InsufficientDataHealthStatus: Healthy, Unhealthy, Or LastKnownStatus.

We recommend that you don't manually change the state of a CloudWatch alarm. If you manually change the state of a CloudWatch alarm, Amazon Route 53 doesn't automatically change the status of the health check. Amazon Route 53 determines the status of a CLOUDWATCH\_METRIC health check by evaluating the metric that the alarm is associated with, not by determining the current state of the alarm. When the metric changes in a way that would cause the state of the alarm to change, the status of the health check changes. For example, suppose that the state of a CloudWatch alarm is ALARM based on the current metric. If you manually change the state of the alarm to OK, the status of the health check remains unhealthy. If the metric improves and the state of the alarm would have changed to OK even without the manual change, the status of the health check changes to healthy.

Amazon Route 53 checks the state of a CloudWatch alarm every 30 seconds.

For information about creating CloudWatch metrics and alarms by using the CloudWatch console, see the Amazon CloudWatch Developer Guide.

#### **CALCULATED Health Checks**

For health checks that monitor the status of other health checks, Amazon Route 53 adds up the number of health checks that Amazon Route 53 health checkers consider to be healthy and compares that number with the value of HealthThreshold.

# Requests

The XML elements in your request must appear in the order listed in the syntax.

# Syntax for HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks

```
POST /2013-04-01/healthcheck HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<CreateHealthCheckRequest xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <CallerReference>unique description</CallerReference>
  <HealthCheckConfig>
     <IPAddress>IP address of the endpoint to check</IPAddress>
     <Port>port on the endpoint to check</Port>
     <Type>HTTP | HTTPS | HTTP_STR_MATCH | HTTPS_STR_MATCH | TCP</Type>
     <ResourcePath>path of the file that
        you want Amazon Route 53 to request</ResourcePath>
     <FullyQualifiedDomainName>domain name of the
        endpoint to check</FullyQualifiedDomainName>
      <SearchString>if Type is HTTP_STR_MATCH or HTTPS_STR_MATCH,
        the string to search for in the response body
         from the specified resource</SearchString>
      <RequestInterval>10 | 30</RequestInterval>
```

```
<FailureThreshold>integer between 1 and 10</FailureThreshold>
<MeasureLatency>true | false</MeasureLatency>
<EnableSNI>true | false</EnableSNI>
<Regions>
<Region>us-east-1 | us-west-1 | us-west-2 | eu-west-1 |
ap-southeast-1 | ap-southeast-2 | ap-northeast-1 | sa-east-1</Region>
...
</Regions>
<Inverted>true | false</Inverted>
</HealthCheckConfig>
</CreateHealthCheckRequest>
```

# Syntax for CLOUDWATCH\_METRIC Health Checks

```
POST /2013-04-01/healthcheck HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<CreateHealthCheckRequest xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
        <CallerReference>unique description</CallerReference>
        <HealthCheckConfig>
        <Type>CLOUDWATCH_METRIC</Type>
        <AlarmIdentifier>
            <Name>name of CloudWatch alarm</Name>
            <Region>region that CloudWatch alarm was created in</Region>
        </AlarmIdentifier>
        <InsufficientDataHealthStatus>Healthy | Unhealthy |
        LastKnownStatus</InsufficientDataHealthStatus>
        <Inverted>true | false</Inverted>
        </HealthCheckConfig>
<//CreateHealthCheckRequest>
```

# Syntax for CALCULATED Health Checks

```
POST /2013-04-01/healthcheck HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<CreateHealthCheckRequest xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
        <CallerReference>unique description</CallerReference>
        <HealthCheckConfig>
        <Type>CALCULATED</Type>
        <HealthThreshold>number of the health checks that are associated with
            a CALCULATED health check that must be healthy</HealthThreshold>
        <ChildHealthChecks>
            <ChildHealthChecks>
            <ChildHealthChecks>
            </ChildHealthChecks>
            </ChildHealthChecks>
            </Inverted>true | false<//inverted>
            </HealthCheckConfig>
            </CreateHealthCheckRequest>
```

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### CreateHealthCheckRequest (Required)

A complex type that contains the health check request information.

Type: Complex

Default: None

Children: CallerReference, HealthCheckConfig

#### **CallerReference (Required)**

A unique string that identifies the request and that allows failed CreateHealthCheck requests to be retried without the risk of executing the operation twice. You must use a unique CallerReference string every time you create a health check.

Type: String

Default: None

Constraints: Allowable characters are any Unicode code points that are legal in an XML 1.0 document. The UTF-8 encoding of the value must be less than 128 bytes.

#### HealthCheckConfig (Required)

A complex type that contains information about the health check.

Type: Complex

Default: None

Children: IPAddress, Port, Type, ResourcePath, FullyQualifiedDomainName

#### IPAddress (Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The IPv4 IP address of the endpoint on which you want Amazon Route 53 to perform health checks. If you don't specify a value for IPAddress, Amazon Route 53 sends a DNS request to resolve the domain name that you specify in FullyQualifiedDomainName at the interval that you specify in RequestInterval. Using an IP address that DNS returns, Amazon Route 53 then checks the health of the endpoint.

If the endpoint is an Amazon EC2 instance, we recommend that you create an Elastic IP address, associate it with your Amazon EC2 instance, and specify the Elastic IP address for IPAddress. This ensures that the IP address of your instance will never change.

For more information, see FullyQualifiedDomainName.

Type: String

Default: None

Constraints:

- Amazon Route 53 cannot check the health of endpoints for which the IP address is in local, private, non-routable, or multicast ranges. For more information about IP addresses for which you cannot create health checks, see RFC 5735, Special Use IPv4 Addresses and RFC 6598, IANA-Reserved IPv4 Prefix for Shared Address Space.
- When the value of Type is CALCULATED or CLOUDWATCH\_METRIC, omit IPAddress.

Parent: HealthCheckConfig

#### Port (Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The port on the endpoint on which you want Amazon Route 53 to perform health checks. Specify a value for Port only when you specify a value for IPAddress.

Type: String

Default: None

Constraints:

- Required when Type is TCP.
- Optional when Type is HTTP, HTTPS, HTTP\_STR\_MATCH, or HTTPS\_STR\_MATCH. If you omit Port, Amazon Route 53 inserts a default value of 80 for Port.
- When Type is CLOUDWATCH\_METRIC or CALCULATED, omit this element.

Parent: HealthCheckConfig

#### Type (Required)

The type of health check that you want to create, which indicates how Amazon Route 53 determines whether an endpoint is healthy.

#### Important

You can't change the value of  ${\tt Type}$  after you create a health check.

You can create the following types of health check:

- HTTP Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTP request and waits for an HTTP status code of 200 or greater and less than 400.
- HTTPS Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTPS request and waits for an HTTP status code of 200 or greater and less than 400.

#### Important

If you specify HTTPS for the value of Type, the endpoint must support TLS v1.0 or later.

- HTTP\_STR\_MATCH Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTP request and searches the first 5,120 bytes of the response body for the string that you specify in SearchString.
- HTTPS\_STR\_MATCH Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTPS request and searches the first 5,120 bytes of the response body for the string that you specify in SearchString.
- **TCP** Amazon Route 53 tries to establish a TCP connection.
- **CLOUDWATCH\_METRIC** The health check is associated with a CloudWatch alarm. If the state of the alarm is oK, the health check is considered healthy. If the state is ALARM, the health check is considered unhealthy. If CloudWatch doesn't have sufficient data to determine whether the state is OK or ALARM, the health check status depends on the setting for
  - InsufficientDataHealthStatus: Healthy, Unhealthy, Or LastKnownStatus.
- CALCULATED For health checks that monitor the status of other health checks, Amazon Route 53
  adds up the number of health checks that Amazon Route 53 health checkers consider to be healthy
  and compares that number with the value of HealthThreshold.

For more information about how Amazon Route 53 determines whether an endpoint is healthy, see the introduction to this topic.

Type: String

Default: None

Valid values: http | https | http\_str\_match | https\_str\_match | tcp | cloudwatch\_metric | calculated

Parent: HealthCheckConfig

#### ResourcePath (Conditional; HTTP[S] and HTTP[S]\_STR\_MATCH Health Checks Only)

The path, if any, that you want Amazon Route 53 to request when performing health checks. The path can be any value for which your endpoint will return an HTTP status code of 2xx or 3xx when the endpoint is healthy, for example, the file /docs/route53-health-check.html.

Type: String

Default: None

Constraints:

- The path must begin with a forward slash (/). When the value of Type is TCP, omit this element. Maximum 255 characters.
- When the value of Type is TCP, CALCULATED, or CLOUDWATCH\_METRIC, omit this element.
- Maximum 255 characters.

Parent: HealthCheckConfig

FullyQualifiedDomainName (Conditional; HTTP[S] and HTTP[S]\_STR\_MATCH Health Checks Only) Amazon Route 53 behavior depends on whether you specify a value for IPAddress.

#### If you specify IPAddress

The value that you want Amazon Route 53 to pass in the Host header in all health checks except TCP health checks. This is typically the fully qualified DNS name of the website that you are attempting to health check. When Amazon Route 53 checks the health of an endpoint, here is how it constructs the Host header:

- If you specify a value of 80 for Port and HTTP or HTTP\_STR\_MATCH for Type, Amazon Route 53 passes the value of FullyQualifiedDomainName to the endpoint in the Host header.
- If you specify a value of 443 for Port and HTTPS or HTTPS\_STR\_MATCH for Type, Amazon Route 53 passes the value of FullyQualifiedDomainName to the endpoint in the Host header.
- If you specify another value for **Port** and any value except TCP for **Type**, Amazon Route 53 passes *FullyQualifiedDomainName:Port* to the endpoint in the Host header.

If you don't specify a value for FullyQualifiedDomainName, Amazon Route 53 substitutes the value of IPAddress in the Host header in each of the preceding cases.

#### If you don't specify IPAddress

If you don't specify a value for IPAddress, Amazon Route 53 sends a DNS request to the domain that you specify in FullyQualifiedDomainName at the interval you specify in RequestInterval. Using an IP address that DNS returns, Amazon Route 53 then checks the health of the endpoint.

If you want to check the health of weighted, latency, or failover resource record sets and you choose to specify the endpoint only by FullyQualifiedDomainName, we recommend that you create a separate health check for each endpoint. For example, create a health check for each HTTP server that is serving content for www.example.com. For the value of FullyQualifiedDomainName, specify the domain name of the server (such as us-east-1-www.example.com), not the name of the resource record sets (www.example.com).

#### Important

In this configuration, if you create a health check for which the value of FullyQualifiedDomainName matches the name of the resource record sets and you then associate the health check with those resource record sets, health check results will be unpredictable.

In addition, if the value that you specify for Type is HTTP, HTTPS, HTTP\_STR\_MATCH, or HTTPS\_STR\_MATCH, Amazon Route 53 passes the value of FullyQualifiedDomainName in the

Host header, as it does when you specify a value for IPAddress. If the value of Type is TCP, Amazon Route 53 doesn't pass a Host header.

Type: String

Default: None

Constraints:

- When the value of Type is CALCULATED or CLOUDWATCH\_METRIC, omit this element.
- The maximum length of the domain name is 255 characters, including dots. The maximum length of each label (each part between dots) is 63 characters.
- The value can't contain any non-ASCII characters or any of the following characters:

{ } | \ / ^ ` ; : ? @ = &

- The value can't be localhost.
- The value can't be an IP address.

Parent: HealthCheckConfig

#### SearchString (HTTP\_STR\_MATCH and HTTPS\_STR\_MATCH Health Checks Only)

If the value of Type is HTTP\_STR\_MATCH or HTTP\_STR\_MATCH, the string that you want Amazon Route 53 to search for in the response body from the specified resource. If the string appears in the response body, Amazon Route 53 considers the resource healthy.

Amazon Route 53 considers case when searching for SearchString in the response body.

Type: String

Default: None

Constraints:

- The value must be between 1 and 255 characters long.
- When the value of Type is any value but HTTP\_STR\_MATCH or HTTPS\_STR\_MATCH, omit this element.

Parent: HealthCheckConfig

#### RequestInterval (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The number of seconds between the time that Amazon Route 53 gets a response from your endpoint and the time that it sends the next health-check request. Each Amazon Route 53 health checker makes requests at this interval.

#### Important

You can't change the value of RequestInterval after you create a health check.

Type: Integer

Default: 30

Valid values: 10 | 30

Constraints: When the value of Type is CALCULATED or CLOUDWATCH\_METRIC, omit this element.

Parent: HealthCheckConfig

#### FailureThreshold (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The number of consecutive health checks that an endpoint must pass or fail for Amazon Route 53 to change the current status of the endpoint from unhealthy to healthy or vice versa. For more information, see How Amazon Route 53 Determines Whether an Endpoint Is Healthy in the Amazon Route 53 Developer Guide.

Type: Integer

Default: 3

Valid values: Integers between 1 and 10

Constraints: When the value of Type is CALCULATED or CLOUDWATCH\_METRIC, omit this element.

Parent: HealthCheckConfig

#### MeasureLatency (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

Specify whether you want Amazon Route 53 to measure the latency between health checkers in multiple AWS regions and your endpoint, and to display CloudWatch latency graphs on the **Health Checks** page in the Amazon Route 53 console.

#### Important

You can't change the value of MeasureLatency after you create a health check.

Type: Boolean

Valid values: true | false

Constraints: When the value of Type is CALCULATED or CLOUDWATCH\_METRIC, omit this element.

Parent: HealthCheckConfig

#### EnableSNI (Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

Specify whether you want Amazon Route 53 to send the value of FullyQualifiedDomainName to the endpoint in the client\_hello message during TLS negotiation. This allows the endpoint to respond to HTTPS health check requests with the applicable SSL/TLS certificate.

Some endpoints require that HTTPS requests include the host name in the client\_hello message. If you don't enable SNI, the status of the health check will be SSL alert handshake\_failure. A health check can also have that status for other reasons. If SNI is enabled and you're still getting the error, check the SSL/TLS configuration on your endpoint and confirm that your certificate is valid.

The SSL/TLS certificate on your endpoint includes a domain name in the Common Name field and possibly several more in the Subject Alternative Names field. One of the domain names in the certificate should match the value that you specify for FullyQualifiedDomainName. If the endpoint responds to the client\_hello message with a certificate that does not include the domain name that you specified in FullyQualifiedDomainName, a health checker will retry the handshake. In the second attempt, the health checker will omit FullyQualifiedDomainName from the client\_hello message.

Type: Boolean

Valid values: true | false

Defaults: If you don't specify a value for EnableSNI, the default value is true when Type is HTTPS or HTTPS\_STR\_MATCH and false when Type is any other value.

Constraints: The endpoint must support SNI.

Parent: HealthCheckConfig

#### Regions (Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

A complex type that contains one Region element for each region from which you want Amazon Route 53 health checkers to check the specified endpoint.

Type: Complex

Constraints:

• When the value of Type is CALCULATED or CLOUDWATCH\_METRIC, omit this element.

- You must specify at least three regions. If you want Amazon Route 53 health checkers in all of the default regions to check the health of the endpoint, omit Regions. Default regions include:
  - US East (N. Virginia), us-east-1
  - US West (N. California), us-west-1
  - US West (Oregon), us-west-2
  - EU (Ireland), eu-west-1
  - Asia Pacific (Singapore), ap-southeast-1
  - Asia Pacific (Sydney), ap-southeast-2
  - Asia Pacific (Tokyo), ap-northeast-1
  - South America (São Paulo), sa-east-1

#### Parent: HealthCheckConfig

# Region (Amazon Route 53 Health Checker Region; Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

A region from which you want Amazon Route 53 health checkers to check the specified endpoint. Include one Region element for each region.

Type: String

Valid values: us-east-1 | us-west-1 | us-west-2 | eu-west-1 | ap-southeast-1 | ap-southeast-2 | ap-northeast-1 | sa-east-1

Parent: Regions

#### AlarmIdentifier (CLOUDWATCH\_METRIC Health Checks Only)

A complex type that identifies the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy.

Type: Complex

Parent: HealthCheckConfig

#### Name (CloudWatch Alarm Name; CLOUDWATCH\_METRIC Health Checks Only)

The name of the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy.

Type: String

Parent: AlarmIdentifier

#### Region (CloudWatch Alarm Region; CLOUDWATCH\_METRIC Health Checks Only)

For the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy, the region in which the alarm was created.

For the current list of CloudWatch regions, see Amazon CloudWatch in "AWS Regions and Endpoints" in the Amazon Web Services General Reference.

Type: String

Parent: AlarmIdentifier

#### InsufficientDataHealthStatus (CLOUDWATCH\_METRIC Health Checks Only)

When CloudWatch has insufficient data about the metric to determine the alarm state, the status that you want Amazon Route 53 to assign to the health check:

- Healthy Amazon Route 53 considers the health check to be healthy.
- Unhealthy Amazon Route 53 considers the health check to be unhealthy.
- LastKnownStatus Amazon Route 53 uses the status of the health check from the last time CloudWatch had sufficient data to determine the alarm state. For new health checks that have no last known status, the default status for the health check is healthy.

Type: String

Parent: HealthCheckConfig

#### HealthThreshold (CALCULATED Health Checks Only)

The number of child health checks that are associated with a CALCULATED health that Amazon Route 53 must consider healthy for the CALCULATED health check to be considered healthy. To specify the child health checks that you want to associate with a CALCULATED health check, use the ChildHealthChecks and ChildHealthCheck elements.

Note the following:

- If you specify a number greater than the number of child health checks, Amazon Route 53 always considers this health check to be unhealthy.
- If you specify 0, Amazon Route 53 always considers this health check to be healthy.

Type: Integer

Valid values: 0-256

Parent: HealthCheckConfig

#### ChildHealthChecks (CALCULATED Health Checks Only)

A complex type that contains one ChildHealthCheck element for each health check that you want to associate with a CALCULATED health check.

Type: String

Parent: HealthCheckConfig

 $Child: {\tt ChildHealthCheck}$ 

#### ChildHealthCheck (CALCULATED Health Checks Only)

The ID of a health check that you want to associate with a CALCULATED health check.

Note

You can't associate a CALCULATED health check with another CALCULATED health check.

Type: String

Parent: ChildHealthChecks

#### Inverted

Specify whether you want Amazon Route 53 to invert the status of a health check, for example, to consider a health check unhealthy when it otherwise would be considered healthy.

Type: Boolean

Valid values: true | false

Parent: HealthCheckConfig

# Responses

# Syntax for HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UTF-8"?>
<CreateHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-</pre>
```

```
01/">
  <HealthCheck>
     <Id>ID that Amazon Route 53 assigned to the new health check</Id>
      <CallerReference>unique description</CallerReference>
      <HealthCheckConfig>
         <IPAddress>IP address of the endpoint to check</IPAddress>
         <Port>port on the endpoint to check</Port>
         <Type>HTTP | HTTPS | HTTP_STR_MATCH | HTTPS_STR_MATCH | TCP</Type>
         <ResourcePath>path of the file that
            you want Amazon Route 53 to request</ResourcePath>
         <FullyQualifiedDomainName>domain name of the
            endpoint to check</FullyQualifiedDomainName>
         <SearchString>if Type is HTTP_STR_MATCH or HTTPS_STR_MATCH,
            the string to search for in the response body
            from the specified resource</SearchString>
         <RequestInterval>10 | 30</RequestInterval>
         <FailureThreshold>integer between 1 and 10</FailureThreshold>
         <MeasureLatency>true | false</MeasureLatency>
         <EnableSNI>true | false</EnableSNI>
         <Regions>
            <Region>us-east-1 | us-west-1 | us-west-2 | eu-west-1 |
               ap-southeast-1 | ap-southeast-2 | ap-northeast-1 | sa-east-
1</Region>
            . . .
         </Regions>
         <Inverted>true | false</Inverted>
      </HealthCheckConfig>
      <HealthCheckVersion>sequential counter</HealthCheckVersion>
   </HealthCheck>
</CreateHealthCheckResponse>
```

# Syntax for CLOUDWATCH\_METRIC Health Checks

```
POST /2013-04-01/healthcheck HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<CreateHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
  <HealthCheck>
     <Id>ID that Amazon Route 53 assigned to the new health check</Id>
     <CallerReference>unique description</CallerReference>
     <HealthCheckConfig>
         <Type>CLOUDWATCH_METRIC</Type>
         <AlarmIdentifier>
            <Name>name of CloudWatch alarm</Name>
            <Region>region of CloudWatch alarm</Region>
         </AlarmIdentifier>
         <InsufficientDataHealthStatus>Healthy | Unhealthy |
            LastKnownStatus</InsufficientDataHealthStatus>
         <Inverted>true | false</Inverted>
     </HealthCheckConfig>
      <CloudWatchAlarmConfiguration>
         <EvaluationPeriods>number of periods that metric is
            compared to threshold </ Evaluation Periods>
         <Threshold>value the metric is compared with</Threshold>
       <ComparisonOperator>GreaterThanOrEqualToThreshold | GreaterThanThreshold
```

```
LessThanThreshold | LessThanOrEqualToThreshold</ComparisonOperator>
         <Period>duration of a period in seconds</Period>
         <MetricName>name of the metric that's associated with the alarm</Met</pre>
ricName>
         <Namespace>namespace of the metric that the alarm is associated
with</Namespace>
         <Statistic>statistic applied to the CloudWatch metric</Statistic>
         <Dimensions>
            <Dimension>
               <Name>name of a dimension for the metric</Name>
               <Value>value of a dimension for the metric</Value>
            </Dimension>
            . . .
         </Dimensions>
      </CloudWatchAlarmConfiguration>
      <HealthCheckVersion>sequential counter</HealthCheckVersion>
   </HealthCheck>
</CreateHealthCheckResponse>
```

# Syntax for CALCULATED Health Checks

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UT2F-8"?>
<CreateHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
   <HealthCheck>
      <Id>ID that Amazon Route 53 assigned to the new health check</Id>
      <CallerReference>unique description</CallerReference>
      <HealthCheckConfig>
         <Type>CALCULATED</Type>
         <HealthThreshold>number of health checks that are associated
            with a CALCULATED health check
            that must be healthy</HealthThreshold>
         <ChildHealthChecks>
            <ChildHealthCheck>health check ID</ChildHealthCheck>
            . . .
         </ChildHealthChecks>
         <Inverted>true | false</Inverted>
      </HealthCheckConfig>
      <HealthCheckVersion>sequential counter</HealthCheckVersion>
   </HealthCheck>
</CreateHealthCheckResponse>
```

# **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### Elements

When you create a health check, Amazon Route 53 returns the values that you specified in the request. For more information, see Requests (p. 256).

In addition, Amazon Route 53 returns the following values.

#### CreateHealthCheckResponse

A complex type that contains the response to a CreateHealthCheck request.

Type: Complex

Children: HealthCheck

#### HealthCheck

A complex type that contains information about one health check that is associated with the current AWS account.

Type: Complex

Parent: CreateHealthCheckResponse

Children: Id, CallerReference, HealthCheckConfig

#### ld

Identifier for the health check. When you add or update a resource record set, you use this value to specify which health check to use. The value can be up to 64 characters long.

Parent: HealthCheck

#### CloudWatchAlarmConfiguration (CLOUDWATCH\_METRIC Health Checks Only)

A complex type that contains information about the CloudWatch alarm that Amazon Route 53 is monitoring for this health check.

Type: Complex

Parent: HealthCheck

Children: EvaluationPeriods, Threshold, ComparisonOperator, Period, MetricName, Namespace, Statistic, Dimensions

#### EvaluationPeriods (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the number of periods that the metric is compared to the threshold.

Parent: CloudWatchAlarmConfiguration

#### Threshold (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the value the metric is compared with.

Parent: CloudWatchAlarmConfiguration

#### ComparisonOperator (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the arithmetic operation that is used for the comparison.

Valid values: GreaterThanOrEqualToThreshold | GreaterThanThreshold | LessThanThreshold | LessThanOrEqualToThreshold

Parent: CloudWatchAlarmConfiguration

#### Period (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the duration of one evaluation period in seconds.

Parent: CloudWatchAlarmConfiguration

#### MetricName (CLOUDWATCH\_METRIC Health Checks Only)

The name of the CloudWatch metric that the alarm is associated with.

Parent: CloudWatchAlarmConfiguration

#### Namespace (CLOUDWATCH\_METRIC Health Checks Only)

The namespace of the metric that the alarm is associated with. For more information, see Amazon CloudWatch Namespaces, Dimensions, and Metrics Reference in the Amazon CloudWatch Developer Guide.

Parent: CloudWatchAlarmConfiguration

#### Statistic (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the statistic that is applied to the metric.

Parent: CloudWatchAlarmConfiguration

#### Dimensions (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, a complex type that contains information about the dimensions for the metric. For more information, see Amazon CloudWatch Namespaces, Dimensions, and Metrics Reference in the Amazon CloudWatch Developer Guide.

Parent: CloudWatchAlarmConfiguration

Children: Dimension

#### Dimension (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, a complex type that contains information about one dimension.

Parent: Dimensions

Children: Name, Value

#### Name (CloudWatch Dimension Name; CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the name of one dimension.

Parent: Dimension

#### Value (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the value of one dimension.

Parent: Dimension

#### **HealthCheckVersion**

A sequential counter that Amazon Route 53 sets to 1 when you create a health check and increments by 1 each time you update settings for the health check.

Type: Integer

Parent: HealthCheck

# **Errors**

Amazon Route 53 returns the following errors for this action.

#### HealthCheckAlreadyExists

The health check you're attempting to create already exists.

Amazon Route 53 returns this error when a health check has already been created with the specified value for CallerReference.

#### InvalidInput

The input is not valid.

#### **TooManyHealthChecks**

You have reached the maximum number of active health checks for an AWS account. The default limit is 100; you can request a higher limit at http://aws.amazon.com/route53-request.

# **Examples**

# **Example Request for an HTTP Health Check**

```
POST /2013-04-01/healthcheck HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<CreateHealthCheckRequest xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <CallerReference>example.com 192.0.2.17</CallerReference>
  <HealthCheckConfig>
     <IPAddress>192.0.2.17</IPAddress>
     <Port>80</Port>
     <Type>HTTP</Type>
     <ResourcePath>/docs/route-53-health-check.html</ResourcePath>
     <FullyQualifiedDomainName>example.com</FullyQualifiedDomainName>
     <ReguestInterval>30</ReguestInterval>
     <FailureThreshold>3</FailureThreshold>
     <MeasureLatency>true</MeasureLatency>
     <EnableSNI>true</EnableSNI>
      <Regions>
         <Region>ap-southeast-1</Region>
         <Region>ap-southeast-2</Region>
         <Region>ap-northeast-1</Region>
      </Regions>
      <Inverted>false</Inverted>
   </HealthCheckConfig>
</CreateHealthCheckRequest>
```

# **Example Response**

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UTF-8"?>
<CreateHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
   <HealthCheck>
      <Id>abcdef11-2222-3333-4444-555555fedcba</Id>
      <CallerReference>example.com 192.0.2.17</CallerReference>
      <HealthCheckConfig>
         <IPAddress>192.0.2.17</IPAddress>
         <Port>80</Port>
         <Type>HTTP</Type>
         <ResourcePath>/docs/route-53-health-check.html</ResourcePath>
         <FullyQualifiedDomainName>example.com</FullyQualifiedDomainName>
         <ReguestInterval>30</ReguestInterval>
         <FailureThreshold>3</FailureThreshold>
         <MeasureLatency>true</MeasureLatency>
         <EnableSNI>true</EnableSNI>
         <Regions>
            <Region>ap-southeast-1</Region>
            <Region>ap-southeast-2</Region>
            <Region>ap-northeast-1</Region>
         </Regions>
         <Inverted>false</Inverted>
      </HealthCheckConfig>
      <HealthCheckVersion>1<HealthCheckVersion>
```

</HealthCheck> </CreateHealthCheckResponse>

# **POST UpdateHealthCheck**

#### Topics

- Requests (p. 271)
- Responses (p. 278)
- Errors (p. 283)
- Examples (p. 283)

Updates an existing health check.

To update a health check, send a POST request to the /2013-04-01/healthcheck/health check ID resource.

The request body must include an XML document with an <code>UpdateHealthCheckRequest</code> element. The response returns the <code>UpdateHealthCheckResponse</code> element. For more information about updating health checks, see Creating, Updating, and Deleting Health Checks in the Amazon Route 53 Developer Guide.

# Requests

The XML elements in your request must appear in the order listed in the syntax.

# Syntax for HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks

```
POST /2013-04-01/healthcheck/health check ID HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<UpdateHealthCheckRequest xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HealthCheckVersion>sequential counter</HealthCheckVersion>
  <IPAddress>IP address of the endpoint to check</IPAddress>
  <Port>port on the endpoint to check</Port>
  <ResourcePath>path of the file that
     you want Amazon Route 53 to request</ResourcePath>
  <FullyQualifiedDomainName>domain name of the
     endpoint to check</FullyQualifiedDomainName>
  <SearchString>if Type is HTTP_STR_MATCH or HTTPS_STR_MATCH,
     the string to search for in the response body
     from the specified resource</SearchString>
  <FailureThreshold>integer between 1 and 10</FailureThreshold>
  <EnableSNI>true | false</EnableSNI>
  <Regions>
     <Region>us-east-1 | us-west-1 | us-west-2 | eu-west-1 |
       ap-southeast-1 | ap-southeast-2 | ap-northeast-1 | sa-east-1</Region>
      . . .
  </Regions>
   <Inverted>true | false</Inverted>
</UpdateHealthCheckRequest>
```

# Syntax for CLOUDWATCH\_METRIC Health Checks

# Syntax for CALCULATED Health Checks



# **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Request Parameter**

#### Health Check ID (Required)

The ID for the health check that you want to update. When you created the health check, CreateHealthCheck returned the ID in the response, in the HealthCheckId element.

Type: String

Default: None

### **Elements**

If you don't specify an XML element in your request, Amazon Route 53 doesn't change the current value.

#### UpdateHealthCheckRequest (Required)

A complex type that contains the health check request information.

Type: Complex

Default: None

**Children**: HealthCheckVersion, IPAddress, Port, ResourcePath, FullyQualifiedDomainName, SearchString, FailureThreshold

#### HealthCheckVersion (Recommended)

A sequential counter that Amazon Route 53 sets to 1 when you create a health check and increments by 1 each time you update settings for the health check.

We recommend that you use GetHealthCheck or ListHealthChecks to get the current value of HealthCheckVersion for the health check that you want to update, and that you include that value in your UpdateHealthCheck request. This prevents Amazon Route 53 from overwriting an intervening update:

- If the value in the UpdateHealthCheck request matches the value of HealthCheckVersion in the health check, Amazon Route 53 updates the health check with the new settings.
- If the value of HealthCheckVersion in the health check is greater, the health check was changed after you got the version number. Amazon Route 53 does not update the health check, and it returns a HealthCheckVersionMismatch error.

Type: Integer

Parent: UpdateHealthCheckRequest

#### IPAddress (Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The IPv4 IP address of the endpoint on which you want Amazon Route 53 to perform health checks. If you don't specify a value for IPAddress, Amazon Route 53 sends a DNS request to resolve the domain name that you specify in FullyQualifiedDomainName at the interval you specify in RequestInterval. Using an IP address that DNS returns, Amazon Route 53 then checks the health of the endpoint.

If the endpoint is an Amazon EC2 instance, we recommend that you create an Elastic IP address, associate it with your Amazon EC2 instance, and specify the Elastic IP address for IPAddress. This ensures that the IP address of your instance will never change. For more information, see Elastic IP Addresses (EIP) in the Amazon EC2 User Guide for Linux Instances.

#### Note

If a health check already has a value for IPAddress, you can change the value. However, you can't update an existing health check to add or remove the value of IPAddress.

For more information, see FullyQualifiedDomainName.

Type: String

Default: None

Constraints:

- Amazon Route 53 cannot check the health of endpoints for which the IP address is in local, private, non-routable, or multicast ranges. For more information about IP addresses for which you cannot create health checks, see RFC 5735, Special Use IPv4 Addresses and RFC 6598, IANA-Reserved IPv4 Prefix for Shared Address Space.
- When the value of Type is CALCULATED, omit IPAddress. (You can't change the value of Type when you update a health check.)

Parent: UpdateHealthCheckRequest

#### Port (Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The port on the endpoint on which you want Amazon Route 53 to perform health checks.

Type: String

#### Default: None

Constraints:

- Required when Type is TCP.
- Optional when Type is HTTP, HTTPS, HTTP\_STR\_MATCH, or HTTPS\_STR\_MATCH.
- When Type is CLOUDWATCH\_METRIC or CALCULATED, omit this element.

Parent: UpdateHealthCheckRequest

#### ResourcePath (Conditional; HTTP[S] and HTTP[S]\_STR\_MATCH Health Checks Only)

The path that you want Amazon Route 53 to request when performing health checks. The path can be any value for which your endpoint will return an HTTP status code of 2xx or 3xx when the endpoint is healthy, for example the file /docs/route53-health-check.html.

Type: String

Default: None

Constraints:

- The path must begin with a forward slash (/).
- When the value of Type is TCP, CLOUDWATCH\_METRIC, or CALCULATED, omit this element. (You can't change the value of Type when you update a health check.)
- Maximum 255 characters.

Parent: UpdateHealthCheckRequest

### FullyQualifiedDomainName (Conditional; HTTP[S] and HTTP[S]\_STR\_MATCH Health Checks Only)

Amazon Route 53 behavior depends on whether you specify a value for IPAddress.

#### Note

If a health check already has a value for IPAddress, you can change the value. However, you can't update an existing health check to add or remove the value of IPAddress.

#### If you specify IPAddress

The value that you want Amazon Route 53 to pass in the Host header in all health checks except TCP health checks. This is typically the fully qualified DNS name of the endpoint on which you want Amazon Route 53 to perform health checks. When Amazon Route 53 checks the health of an endpoint, here is how it constructs the Host header:

- If you specify a value of 80 for Port and HTTP or HTTP\_STR\_MATCH for Type, Amazon Route 53 passes the value of FullyQualifiedDomainName to the endpoint in the Host header.
- If you specify a value of 443 for Port and HTTPS or HTTPS\_STR\_MATCH for Type, Amazon Route 53 passes the value of FullyQualifiedDomainName to the endpoint in the Host header.
- If you specify another value for **Port** and any value except TCP for **Type**, Amazon Route 53 passes *FullyQualifiedDomainName:Port* to the endpoint in the Host header.

If you don't specify a value for FullyQualifiedDomainName, Amazon Route 53 substitutes the value of IPAddress in the Host header in each of the above cases.

#### If you don't specify IPAddress

If you don't specify a value for IPAddress, Amazon Route 53 sends a DNS request to the domain that you specify in FullyQualifiedDomainName at the interval you specify in RequestInterval. Using an IP address that DNS returns, Amazon Route 53 then checks the health of the endpoint.

If you want to check the health of weighted, latency, or failover resource record sets and you choose to specify the endpoint only by FullyQualifiedDomainName, we recommend that you create a separate health check for each endpoint. For example, create a health check for each HTTP server that is serving content for www.example.com. For the value of FullyQualifiedDomainName,

specify the domain name of the server (such as us-east-1-www.example.com), not the name of the resource record sets (www.example.com).

#### Important

In this configuration, if the value of FullyQualifiedDomainName matches the name of the resource record sets and you then associate the health check with those resource record sets, health check results will be unpredictable.

In addition, if the value of Type is HTTP, HTTPS, HTTP\_STR\_MATCH, or HTTPS\_STR\_MATCH, Amazon Route 53 passes the value of FullyQualifiedDomainName in the Host header, as it does when you specify a value for IPAddress. If the value of Type is TCP, Amazon Route 53 doesn't pass a Host header.

Type: String

Default: None

Constraints:

- When the value of Type is CALCULATED or CLOUDWATCH\_METRIC, omit this element. (You can't change the value of Type when you update a health check.)
- The maximum length of the domain name is 255 characters, including dots. The maximum length of each label (each part between dots) is 63 characters.
- The value can't contain any non-ASCII characters or any of the following characters:

{ } | \ / ^ ` ; : ? @ = &

- The value can't be localhost.
- The value can't be an IP address.

Parent: UpdateHealthCheckRequest

#### SearchString (HTTP\_STR\_MATCH and HTTPS\_STR\_MATCH Only)

If the value of  $T_{YP}e$  is HTTP\_STR\_MATCH or HTTP\_STR\_MATCH, the string that you want Amazon Route 53 to search for in the response body from the specified resource. If the string appears in the response body, Amazon Route 53 considers the resource healthy. (You can't change the value of  $T_{YP}e$  when you update a health check.)

Type: String

Default: None

Constraints:

- The value must be between 1 and 255 characters long.
- When the value of Type is any value but HTTP\_STR\_MATCH or HTTPS\_STR\_MATCH, omit this element. (You can't change the value of Type when you update a health check.)

Parent: UpdateHealthCheckRequest

#### FailureThreshold (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The number of consecutive health checks that an endpoint must pass or fail for Amazon Route 53 to change the current status of the endpoint from unhealthy to healthy or vice versa. For more information, see How Amazon Route 53 Determines Whether an Endpoint Is Healthy in the Amazon Route 53 Developer Guide.

Type: String

Default: 3

Valid values: Integers between 1 and 10

Constraints: When the value of Type is CALCULATED, omit this element.

Parent: UpdateHealthCheckRequest

#### EnableSNI (Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

Specify whether you want Amazon Route 53 to send the value of FullyQualifiedDomainName to the endpoint in the client\_hello message during TLS negotiation. This allows the endpoint to respond to HTTPS health check requests with the applicable SSL/TLS certificate.

Some endpoints require that HTTPS requests include the host name in the client\_hello message. If you don't enable SNI, the status of the health check will be SSL alert handshake\_failure. A health check can also have that status for other reasons. If SNI is enabled and you're still getting the error, check the SSL/TLS configuration on your endpoint and confirm that your certificate is valid.

The SSL/TLS certificate on your endpoint includes a domain name in the Common Name field and possibly several more in the Subject Alternative Names field. One of the domain names in the certificate should match the value that you specify for FullyQualifiedDomainName. If the endpoint responds to the client\_hello message with a certificate that does not include the domain name that you specified in FullyQualifiedDomainName, a health checker will retry the handshake. In the second attempt, the health checker will omit FullyQualifiedDomainName from the client\_hello message.

#### Type: Boolean

Valid values: true | false

Defaults: If you don't specify a value for EnableSNI, the default value is true when Type is HTTPS or HTTPS\_STR\_MATCH and false when Type is any other value.

Constraints: The endpoint must support SNI.

Parent: HealthCheckConfig

#### Regions (Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

A complex type that contains one Region element for each region from which you want Amazon Route 53 health checkers to check the specified endpoint.

Type: Complex

Constraints:

- When the value of Type is CALCULATED or CLOUDWATCH\_METRIC, omit this element.
- You must specify at least three regions. If you want Amazon Route 53 health checkers in all of the default regions to check the health of the endpoint, omit Regions. Default regions include:
  - US East (N. Virginia), us-east-1
  - US West (N. California), us-west-1
  - US West (Oregon), us-west-2
  - EU (Ireland), eu-west-1
  - Asia Pacific (Singapore), ap-southeast-1
  - Asia Pacific (Sydney), ap-southeast-2
  - Asia Pacific (Tokyo), ap-northeast-1
  - South America (São Paulo), sa-east-1

Parent: HealthCheckConfig

# Region (Amazon Route 53 Health Checker Region; Conditional; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

A region from which you want Amazon Route 53 health checkers to check the specified endpoint. Include one Region element for each region.

#### Note

If you remove a region that has been performing health checks, Amazon Route 53 will briefly continue to perform checks from that region to ensure that some health checkers are always checking the endpoint (for example, if you replace three regions with four different regions). To find out when Amazon Route 53 will stop performing checks in the removed region, run GetHealthCheckStatus.

#### Type: String

Valid values: us-east-1 | us-west-1 | us-west-2 | eu-west-1 | ap-southeast-1 | ap-southeast-2 | ap-northeast-1 | sa-east-1

Parent: Regions

#### AlarmIdentifier (CLOUDWATCH\_METRIC Health Checks Only)

A complex type that identifies the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy.

Type: Complex

Parent: HealthCheckConfig

#### Name (CloudWatch Alarm Name; CLOUDWATCH\_METRIC Health Checks Only)

The name of the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy.

Type: String

Parent: AlarmIdentifier

#### Region (CloudWatch Alarm Region; CLOUDWATCH\_METRIC Health Checks Only)

For the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy, the region in which the alarm was created.

For the current list of CloudWatch regions, see Amazon CloudWatch in "AWS Regions and Endpoints" in the Amazon Web Services General Reference.

Type: String

Parent: AlarmIdentifier

#### InsufficientDataHealthStatus (CLOUDWATCH\_METRIC Health Checks Only)

When CloudWatch has insufficient data about the metric to determine the alarm state, the status that you want Amazon Route 53 to assign to the health check:

- Healthy Amazon Route 53 considers the health check to be healthy.
- Unhealthy Amazon Route 53 considers the health check to be unhealthy.
- LastKnownStatus Amazon Route 53 uses the status of the health check from the last time CloudWatch had sufficient data to determine the alarm state. For new health checks that have no last known status, the default status for the health check is healthy.

Type: String

Parent: HealthCheckConfig

#### HealthThreshold (CALCULATED Health Checks Only)

The number of child health checks that are associated with a CALCULATED health that Amazon Route 53 must consider healthy for the CALCULATED health check to be considered healthy. To specify the child health checks that you want to associate with a CALCULATED health check, use the ChildHealthChecks and ChildHealthCheck elements.

Note the following:

- If you specify a number greater than the number of child health checks, Amazon Route 53 always considers this health check to be unhealthy.
- If you specify 0, Amazon Route 53 always considers this health check to be healthy.

Type: Integer

Valid values: 0-256

Parent: HealthCheckConfig

#### ChildHealthChecks (CALCULATED Health Checks Only)

A complex type that contains one ChildHealthCheck element for each health check that you want to associate with a CALCULATED health check.

Type: String

Parent: HealthCheckConfig

Child: ChildHealthCheck

#### ChildHealthCheck (CALCULATED Health Checks Only)

The ID of a health check that you want to associate with a CALCULATED health check.

Note

You can't associate a CALCULATED health check with another CALCULATED health check.

Type: String

Parent: ChildHealthChecks

#### Inverted

Specify whether you want Amazon Route 53 to invert the status of a health check, for example, to consider a health check unhealthy when it otherwise would be considered healthy.

Type: Boolean

Valid values: true | false

Parent: HealthCheckConfig

# Responses

# Syntax for HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks

```
you want Amazon Route 53 to request</ResourcePath>
<FullyQualifiedDomainName>domain name of the
endpoint to check</FullyQualifiedDomainName>
<SearchString>if Type is HTTP_STR_MATCH or HTTPS_STR_MATCH,
the string to search for in the response body
from the specified resource</SearchString>
<RequestInterval>10 | 30</RequestInterval>
<FailureThreshold>integer between 1 and 10</FailureThreshold>
<MeasureLatency>true | false</MeasureLatency>
<EnableSNI>true | false</EnableSNI>
<Inverted>true | false</Inverted>
</HealthCheckVersion>sequential counter</HealthCheckVersion>
</UpdateHealthCheckResponse>
```

### Syntax for CLOUDWATCH\_METRIC Health Checks

```
POST /2013-04-01/healthcheck HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<UpdateHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-</pre>
01/">
   <HealthCheck>
      <Id>ID that Amazon Route 53 assigned to the health check
         when you created it</Id>
      <CallerReference>unique description</CallerReference>
      <HealthCheckConfig>
         <Type>CLOUDWATCH_METRIC</Type>
         <AlarmIdentifier>
            <Name>name of CloudWatch alarm</Name>
            <Region>region of CloudWatch alarm</Region>
         </AlarmIdentifier>
         <InsufficientDataHealthStatus>Healthy | Unhealthy |
            LastKnownStatus</InsufficientDataHealthStatus>
         <Inverted>true | false</Inverted>
      </HealthCheckConfig>
      <CloudWatchAlarmConfiguration>
         <EvaluationPeriods>number of periods that metric is
            compared to threshold</EvaluationPeriods>
         <Threshold>value the metric is compared with</Threshold>
       <ComparisonOperator>GreaterThanOrEqualToThreshold | GreaterThanThreshold
 LessThanThreshold | LessThanOrEqualToThreshold</ComparisonOperator>
         <Period>duration of a period in seconds</Period>
         <MetricName>name of the metric that's associated with the alarm</Met</pre>
ricName>
         <Namespace>namespace of the metric that the alarm is associated
with</Namespace>
         <Statistic>statistic applied to the CloudWatch metric</Statistic>
         <Dimensions>
            <Dimension>
               <Name>name of a dimension for the metric</Name>
               <Value>value of a dimension for the metric</Value>
            </Dimension>
            . . .
```

```
</Dimensions>
</CloudWatchAlarmConfiguration>
<HealthCheckVersion>sequential counter</HealthCheckVersion>
</HealthCheck>
</UpdateHealthCheckResponse>
```

### Syntax for CALCULATED Health Checks

```
HTTP/1.1 201 Created
<?xml version="1.0" encoding="UTF-8"?>
<UpdateHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
   <HealthCheck>
      <Id>ID that Amazon Route 53 assigned to the health check
         when you created it</Id>
      <CallerReference>unique description</CallerReference>
      <HealthCheckConfig>
         <Type>CALCULATED</Type>
         <HealthThreshold>number of health checks associated with a
            CALCULATED health check that must be healthy</HealthThreshold>
         <ChildHealthChecks>
            <ChildHealthCheck>health check ID</ChildHealthCheck>
            . . .
         </ChildHealthChecks>
         <Inverted>true | false</Inverted>
      </HealthCheckConfig>
      <HealthCheckVersion>sequential counter</HealthCheckVersion>
   </HealthCheck>
</UpdateHealthCheckResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

When you update a health check, Amazon Route 53 returns the values that you specified in the request. For more information, see Requests (p. 271).

In addition, Amazon Route 53 returns the following values:

#### UpdateHealthCheckResponse

A complex type that contains the response to an UpdateHealthCheck request.

Type: Complex

Children: HealthCheck

#### HealthCheck

A complex type that contains information about one health check that is associated with the current AWS account.

Type: Complex

Parent: UpdateHealthCheckResponse

Children: Id, CallerReference, HealthCheckConfig

ld

An identifier for the health check. When you add or update a resource record set, you use this value to specify which health check to use. The value can be up to 64 characters long.

Parent: HealthCheck

#### Туре

The type of health check, which indicates how Amazon Route 53 determines whether an endpoint is healthy.

#### Important

You can't change the value of  ${\tt Type}$  after you create a health check.

Valid values include the following:

- HTTP Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTP request and waits for an HTTP status code of 200 or greater and less than 400.
- HTTPS Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTPS request and waits for an HTTP status code of 200 or greater and less than 400.

#### Important

If you specify HTTPS for the value of Type, the endpoint must support TLS v1.0 or later.

- HTTP\_STR\_MATCH Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTP request and searches the first 5120 bytes of the response body for the string that you specified in SearchString.
- HTTPS\_STR\_MATCH Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTPS request and searches the first 5120 bytes of the response body for the string that you specified in SearchString.
- TCP Amazon Route 53 tries to establish a TCP connection.

and compares that number with the value of HealthThreshold.

- **CLOUDWATCH\_METRIC** The health check is associated with a CloudWatch alarm. If the state of the alarm is OK, the health check is considered healthy. If the state is ALARM, the health check is considered unhealthy. If CloudWatch doesn't have sufficient data to determine whether the state is OK or ALARM, the health check status depends on the setting for InsufficientDataHealthStatus: Healthy, Unhealthy, Or LastKnownStatus.
- CALCULATED For health checks that monitor the status of other health checks, Amazon Route 53 adds up the number of health checks that Amazon Route 53 health checkers consider to be healthy

Type: String

Parent: HealthCheckConfig

#### RequestInterval

The number of seconds between the time that Amazon Route 53 gets a response from your endpoint and the time that it sends the next health-check request. Each Amazon Route 53 health checker makes requests at this interval.

#### Important

You can't change the value of RequestInterval after you create a health check.

Type: Integer

Parent: HealthCheckConfig

#### MeasureLatency

Whether you want Amazon Route 53 to measure the latency between health checkers in multiple AWS regions and your endpoint and to display CloudWatch latency graphs on the **Health Checks** page in the Amazon Route 53 console.

#### Important

You can't change the value of MeasureLatency after you create a health check.

Type: Boolean

Valid values: true | false

Parent: HealthCheckConfig

#### CloudWatchAlarmConfiguration (CLOUDWATCH\_METRIC Health Checks Only)

A complex type that contains information about the CloudWatch alarm that Amazon Route 53 is monitoring for this health check.

Type: Complex

Parent: HealthCheck

**Children**: EvaluationPeriods, Threshold, ComparisonOperator, Period, MetricName, Namespace, Statistic, Dimensions

#### EvaluationPeriods (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the number of periods that the metric is compared to the threshold.

Parent: CloudWatchAlarmConfiguration

#### Threshold (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the value the metric is compared with.

Parent: CloudWatchAlarmConfiguration

#### ComparisonOperator (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the arithmetic operation that is used for the comparison.

Valid values: GreaterThanOrEqualToThreshold | GreaterThanThreshold | LessThanThreshold | LessThanOrEqualToThreshold

Parent: CloudWatchAlarmConfiguration

#### Period (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the duration of one evaluation period in seconds.

Parent: CloudWatchAlarmConfiguration

#### MetricName (CLOUDWATCH\_METRIC Health Checks Only)

The name of the CloudWatch metric that the alarm is associated with.

Parent: CloudWatchAlarmConfiguration

#### Namespace (CLOUDWATCH\_METRIC Health Checks Only)

The namespace of the metric that the alarm is associated with. For more information, see Amazon CloudWatch Namespaces, Dimensions, and Metrics Reference in the Amazon CloudWatch Developer Guide.

Parent: CloudWatchAlarmConfiguration

#### Statistic (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the statistic that is applied to the metric.

Parent: CloudWatchAlarmConfiguration

#### Dimensions (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, a complex type that contains information about the dimensions for the metric. For more information, see Amazon CloudWatch Namespaces, Dimensions, and Metrics Reference in the Amazon CloudWatch Developer Guide.

Parent: CloudWatchAlarmConfiguration

Children: Dimension

#### Dimension (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, a complex type that contains information about one dimension.

Parent: Dimensions

Children: Name, Value

#### Name (CloudWatch Dimension Name; CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the name of one dimension.

Parent: Dimension

#### Value (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the value of one dimension.

Parent: Dimension

#### HealthCheckVersion

A sequential counter that indicates how many times the health check has been updated. Amazon Route 53 sets HealthCheckVersion to 1 when you create a health check and increments it by 1 each time you update the settings.

Type: Integer

Parent: HealthCheck

### **Errors**

Amazon Route 53 returns the following errors for this action:

#### HealthCheckVersionMismatch

The value of HealthCheckVersion in the request doesn't match the value of HealthCheckVersion in the health check.

#### InvalidInput

The input is not valid.

#### NoSuchHealthCheck

No health check exists with the ID that you specified in the  ${\tt UpdateHealthCheck}$  request.

# **Examples**

### **Example Request for an HTTP Health Check**

```
POST /2013-04-01/healthcheck/abcdef11-2222-3333-4444-555555fedcba HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<UpdateHealthCheckRequest xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
```

<HealthCheckVersion>3<HealthCheckVersion>

```
<IPAddress>192.0.2.17</IPAddress>
<Port>80</Port>
<ResourcePath>/docs/route-53-health-check.html</ResourcePath>
<FullyQualifiedDomainName>example.com</FullyQualifiedDomainName>
<FailureThreshold>3</FailureThreshold>
<MeasureLatency>true</MeasureLatency>
<EnableSNI>true</EnableSNI>
<Regions>
<Region>ap-southeast-1</Region>
<Region>ap-southeast-2</Region>
<Region>ap-northeast-1</Region>
</Regions>
<Inverted>false</Inverted>
</UpdateHealthCheckRequest>
```

### **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<UpdateHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
   <HealthCheck>
     <Id>abcdef11-2222-3333-4444-555555fedcba</Id>
      <CallerReference>example.com 192.0.2.17</CallerReference>
      <HealthCheckConfig>
         <IPAddress>192.0.2.17</IPAddress>
         <Port>80</Port>
         <Type>HTTP</Type>
         <ResourcePath>/docs/route-53-health-check.html</ResourcePath>
         <FullyQualifiedDomainName>example.com</FullyQualifiedDomainName>
         <RequestInterval>30</RequestInterval>
         <FailureThreshold>3</FailureThreshold>
         <MeasureLatency>true</MeasureLatency>
         <EnableSNI>true</EnableSNI>
         <Regions>
            <Region>ap-southeast-1</Region>
            <Region>ap-southeast-2</Region>
            <Region>ap-northeast-1</Region>
         </Regions>
         <Inverted>false</Inverted>
      </HealthCheckConfig>
      <HealthCheckVersion>4<HealthCheckVersion>
  </HealthCheck>
</UpdateHealthCheckResponse>
```

# **GET GetHealthCheck**

#### Topics

- Requests (p. 285)
- Responses (p. 285)
- Errors (p. 294)
- Examples (p. 294)

This action gets information about a specified health check.

To get information about a health check, send a GET request to the /2013-04-01/healthcheck/health check ID resource.

For information about getting information about a health check using the Amazon Route 53 console, see Amazon Route 53 Health Checks and DNS Failover in the Amazon Route 53 Developer Guide.

# **Requests**

### **Syntax**

GET /2013-04-01/healthcheck/Health check ID

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Request Parameter**

#### Health check ID (Required)

The ID for the health check for which you want detailed information. When you created the health check, CreateHealthCheck returned the ID in the response, in the HealthCheckId element.

Type: String

Default: None

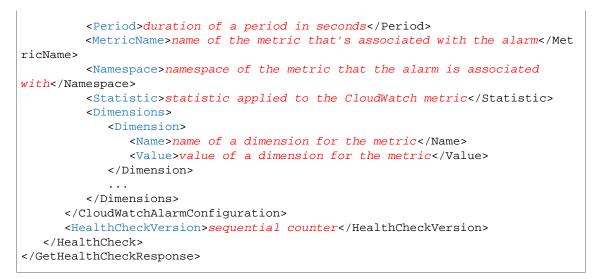
# Responses

# Syntax for HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks

```
<CallerReference>unique description</CallerReference>
      <HealthCheckConfig>
         <IPAddress>IP address of the endpoint to check</IPAddress>
         <Port>port on the endpoint to check</Port>
         <Type>HTTP | HTTPS | HTTP_STR_MATCH | HTTPS_STR_MATCH | TCP</Type>
         <ResourcePath>path of the file that
            you want Amazon Route 53 to request</ResourcePath>
         <FullyQualifiedDomainName>domain name of the
            endpoint to check</FullyQualifiedDomainName>
         <SearchString>if Type is HTTP_STR_MATCH or HTTPS_STR_MATCH,
            the string to search for in the response body
            from the specified resource</SearchString>
         <RequestInterval>10 | 30</RequestInterval>
         <FailureThreshold>integer between 1 and 10</FailureThreshold>
         <<u>MeasureLatency</u>>true | false</<u>MeasureLatency</u>>
         <EnableSNI>true | false</EnableSNI>
         <Regions>
            <Region>us-east-1 | us-west-1 | us-west-2 | eu-west-1 |
              ap-southeast-1 | ap-southeast-2 | ap-northeast-1 | sa-east-
1</Region>
            . . .
         </Regions>
         <Inverted>true | false</Inverted>
      </HealthCheckConfig>
      <HealthCheckVersion>sequential counter</HealthCheckVersion>
   </HealthCheck>
</GetHealthCheckResponse>
```

### Syntax for CLOUDWATCH\_METRIC Health Checks

```
POST /2013-04-01/healthcheck HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<GetHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
   <HealthCheck>
     <Id>ID that Amazon Route 53 assigned to the health check
        when you created it</Id>
     <CallerReference>unique description</CallerReference>
     <HealthCheckConfig>
        <Type>CLOUDWATCH_METRIC</Type>
         <AlarmIdentifier>
            <Name>name of CloudWatch alarm</Name>
            <Region>region that CloudWatch alarm was created in</Region>
         </AlarmIdentifier>
         <InsufficientDataHealthStatus>Healthy | Unhealthy |
            LastKnownStatus</InsufficientDataHealthStatus>
         <Inverted>true | false</Inverted>
     </HealthCheckConfig>
      <CloudWatchAlarmConfiguration>
         <EvaluationPeriods>number of periods that metric is
            compared to threshold </ Evaluation Periods>
         <Threshold>value the metric is compared with</Threshold>
       <ComparisonOperator>GreaterThanOrEqualToThreshold | GreaterThanThreshold
 LessThanThreshold | LessThanOrEqualToThreshold</ComparisonOperator>
```



### Syntax for CALCULATED Health Checks



### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### GetHealthCheckResponse

A complex type that contains the response to a  ${\tt GetHealthCheck}$  request.

Type: Complex

Children: HealthCheck

#### HealthCheck

A complex type that contains information about one health check that is associated with the current AWS account.

Type: Complex

Children: Id, CallerReference, HealthCheckConfig

ld

The identifier that Amazon Route 53 assigned to the health check when you created it. When you add or update a resource record set, you use this value to specify which health check to use. The value can be up to 64 characters long.

Parent: HealthCheck

#### CallerReference

A unique string that you specified when you created the health check.

Type: String

Parent: HealthCheck

#### HealthCheckConfig

A complex type that contains detailed information about one health check.

Type: Complex

Parent: HealthCheck

Children: IPAddress, Port, Type, ResourcePath, FullyQualifiedDomainName

#### IPAddress (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The IPv4 IP address of the endpoint on which you want Amazon Route 53 to perform health checks. If you don't specify a value for IPAddress, Amazon Route 53 sends a DNS request to resolve the domain name that you specify in FullyQualifiedDomainName at the interval you specify in RequestInterval. Using an IP address that DNS returns, Amazon Route 53 then checks the health of the endpoint.

Type: String

Parent: HealthCheckConfig

#### Port (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The port on the endpoint on which you want Amazon Route 53 to perform health checks.

Type: String

Parent: HealthCheckConfig

#### Туре

The type of health check that you want to create, which indicates how Amazon Route 53 determines whether an endpoint is healthy:

- HTTP Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTP request and waits for an HTTP status code of 200 or greater and less than 400.
- HTTPS Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTPS request and waits for an HTTP status code of 200 or greater and less than 400.
- HTTP\_STR\_MATCH Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTP request and searches the first 5120 bytes of the response body for the string that you specify in SearchString.
- HTTPS\_STR\_MATCH Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTPS request and searches the first 5120 bytes of the response body for the string that you specify in SearchString.

- TCP Amazon Route 53 tries to establish a TCP connection.
- **CLOUDWATCH\_METRIC** The health check is associated with a CloudWatch alarm. If the state of the alarm is oK, the health check is considered healthy. If the state is ALARM, the health check is considered unhealthy. If CloudWatch doesn't have sufficient data to determine whether the state is OK or ALARM, the health check status depends on the setting for
  - InsufficientDataHealthStatus: Healthy, Unhealthy, Or LastKnownStatus.
- CALCULATED For health checks that monitor the status of other health checks, Amazon Route 53
  adds up the number of health checks that Amazon Route 53 health checkers consider to be healthy
  and compares that number with the value of HealthThreshold.

For more information about how Amazon Route 53 determines whether an endpoint is healthy, see POST CreateHealthCheck (p. 255).

Type: String

Valid values: HTTP | HTTPS | HTTP\_STR\_MATCH | HTTPS\_STR\_MATCH | TCP | CALCULATED

Parent: HealthCheckConfig

#### ResourcePath (HTTP[S] and HTTP[S]\_STR\_MATCH Health Checks Only)

The path to the file that you want Amazon Route 53 to request when performing health checks, for example, /docs/route53-health-check.html. The path can be any value for which your endpoint will return an HTTP status code of 2xx or 3xx when the endpoint is healthy.

Type: String

Parent: HealthCheckConfig

#### FullyQualifiedDomainName (HTTP[S] and HTTP[S]\_STR\_MATCH Health Checks Only) Amazon Route 53 behavior depends on whether you specify a value for IPAddress.

#### If you specify IPAddress

The value that you want Amazon Route 53 to pass in the Host header in all health checks except TCP health checks. This is typically the fully qualified DNS name of the website that you are attempting to health check. When Amazon Route 53 checks the health of an endpoint, here is how it constructs the Host header:

- If you specify a value of 80 for Port and HTTP or HTTP\_STR\_MATCH for Type, Amazon Route 53 passes the value of FullyQualifiedDomainName to the endpoint in the Host header.
- If you specify a value of 443 for Port and HTTPS or HTTPS\_STR\_MATCH for Type, Amazon Route 53 passes the value of FullyQualifiedDomainName to the endpoint in the Host header.
- If you specify another value for **Port** and any value except **TCP** for **Type**, Amazon Route 53 passes *FullyQualifiedDomainName:Port* to the endpoint in the Host header.

If you don't specify a value for FullyQualifiedDomainName, Amazon Route 53 substitutes the value of IPAddress in the Host header in each of the above cases.

#### If you don't specify IPAddress

If you don't specify a value for IPAddress, Amazon Route 53 sends a DNS request to the domain that you specify in FullyQualifiedDomainName at the interval you specify in RequestInterval. Using an IP address that DNS returns, Amazon Route 53 then checks the health of the endpoint.

If you want to check the health of weighted, latency, or failover resource record sets and you choose to specify the endpoint only by FullyQualifiedDomainName, we recommend that you create a separate health check for each endpoint. For example, create a health check for each HTTP server that is serving content for www.example.com. For the value of FullyQualifiedDomainName, specify the domain name of the server (such as us-east-1-www.example.com), not the name of the resource record sets (www.example.com).

#### Important

In this configuration, if you create a health check for which the value of FullyQualifiedDomainName matches the name of the resource record sets and you then associate the health check with those resource record sets, health check results will be unpredictable.

In addition, if the value that you specify for Type is HTTP, HTTPS, HTTP\_STR\_MATCH, or HTTPS\_STR\_MATCH, Amazon Route 53 passes the value of FullyQualifiedDomainName in the Host header, as it does when you specify a value for IPAddress. If the value of Type is TCP, Amazon Route 53 doesn't pass a Host header.

Type: String

Parent: HealthCheckConfig

#### SearchString (HTTP\_STR\_MATCH and HTTPS\_STR\_MATCH Health Checks Only)

If the value of Type is HTTP\_STR\_MATCH or HTTPS\_STR\_MATCH, the string that you want Amazon Route 53 to search for in the response body from the specified resource. If the string appears in the response body, Amazon Route 53 considers the resource healthy.

Type: String

Parent: HealthCheckConfig

#### RequestInterval (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The number of seconds between the time that Amazon Route 53 gets a response from your endpoint and the time that it sends the next health-check request. Each Amazon Route 53 health checker makes requests at this interval.

Type: Integer

Default: 30

Valid values: 10 | 30

Parent: HealthCheckConfig

#### FailureThreshold (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

The number of consecutive health checks that an endpoint must pass or fail for Amazon Route 53 to change the current status of the endpoint from unhealthy to healthy or vice versa. For more information, see How Amazon Route 53 Determines Whether an Endpoint Is Healthy in the Amazon Route 53 Developer Guide.

Type: String

Default: 3

Valid values: Integers between 1 and 10

Parent: HealthCheckConfig

#### MeasureLatency (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

Indicates whether Amazon Route 53 measures the latency between health checkers in multiple AWS regions and your endpoint and to display CloudWatch latency graphs on the **Health Checks** page in the Amazon Route 53 console.

Type: Boolean

Valid values: true | false

Parent: HealthCheckConfig

#### EnableSNI (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

Indicates whether Amazon Route 53 sends the value of FullyQualifiedDomainName to the endpoint in the client\_hello message during TLS negotiation. This allows the endpoint to respond to HTTPS health check requests with the applicable SSL/TLS certificate.

Type: Boolean

Valid values: true | false

Defaults: If you don't specify a value for EnableSNI, the default value is true when Type is HTTPS or HTTPS\_STR\_MATCH and false when Type is any other value.

Parent: HealthCheckConfig

#### Regions (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

A complex type that contains one Region element for each region from which you want Amazon Route 53 health checkers to check the specified endpoint.

Type: Complex

Parent: HealthCheckConfig

# Region (Amazon Route 53 Health Checker Region; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

A region from which you want Amazon Route 53 health checkers to check the specified endpoint. Include one Region element for each region.

Type: String

```
Valid values: us-east-1 | us-west-1 | us-west-2 | eu-west-1 | ap-southeast-1 | ap-southeast-2 | ap-northeast-1 | sa-east-1
```

Parent: Regions

#### AlarmIdentifier (CLOUDWATCH\_METRIC Health Checks Only)

A complex type that identifies the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy.

Type: Complex

Parent: HealthCheckConfig

#### Name (CloudWatch Alarm Name; CLOUDWATCH\_METRIC Health Checks Only)

The name of the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy.

Type: String

Parent: AlarmIdentifier

#### Region (CloudWatch Alarm Region; CLOUDWATCH\_METRIC Health Checks Only)

For the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy, the region in which the alarm was created.

For the current list of CloudWatch regions, see Amazon CloudWatch in "AWS Regions and Endpoints" in the Amazon Web Services General Reference.

Type: String

Parent: AlarmIdentifier

#### InsufficientDataHealthStatus (CLOUDWATCH\_METRIC Health Checks Only)

When CloudWatch has insufficient data about the metric to determine the alarm state, the status that you want Amazon Route 53 to assign to the health check:

- Healthy Amazon Route 53 considers the health check to be healthy.
- Unhealthy Amazon Route 53 considers the health check to be unhealthy.
- LastKnownStatus Amazon Route 53 uses the status of the health check from the last time CloudWatch had sufficient data to determine the alarm state. For new health checks that have no last known status, the default status for the health check is healthy.

Type: String

Parent: HealthCheckConfig

#### CloudWatchAlarmConfiguration (CLOUDWATCH\_METRIC Health Checks Only)

A complex type that contains information about the CloudWatch alarm that Amazon Route 53 is monitoring for this health check.

Type: Complex

Parent: HealthCheck

**Children:** EvaluationPeriods, Threshold, ComparisonOperator, Period, MetricName, Namespace, Statistic, Dimensions

#### EvaluationPeriods (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the number of periods that the metric is compared to the threshold.

Parent: CloudWatchAlarmConfiguration

#### Threshold (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the value the metric is compared with.

Parent: CloudWatchAlarmConfiguration

#### ComparisonOperator (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the arithmetic operation that is used for the comparison.

Valid values: GreaterThanOrEqualToThreshold | GreaterThanThreshold | LessThanThreshold | LessThanOrEqualToThreshold

Parent: CloudWatchAlarmConfiguration

#### Period (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the duration of one evaluation period in seconds.

Parent: CloudWatchAlarmConfiguration

#### MetricName (CLOUDWATCH\_METRIC Health Checks Only)

The name of the CloudWatch metric that the alarm is associated with.

Parent: CloudWatchAlarmConfiguration

#### Namespace (CLOUDWATCH\_METRIC Health Checks Only)

The namespace of the metric that the alarm is associated with. For more information, see Amazon CloudWatch Namespaces, Dimensions, and Metrics Reference in the Amazon CloudWatch Developer Guide.

Parent: CloudWatchAlarmConfiguration

#### Statistic (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the statistic that is applied to the metric.

Parent: CloudWatchAlarmConfiguration

#### Dimensions (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, a complex type that contains information about the dimensions for the metric. For more information, see Amazon CloudWatch Namespaces, Dimensions, and Metrics Reference in the Amazon CloudWatch Developer Guide.

Parent: CloudWatchAlarmConfiguration

Children: Dimension

#### Dimension (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, a complex type that contains information about one dimension.

Parent: Dimensions

Children: Name, Value

#### Name (CloudWatch Dimension Name; CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the name of one dimension.

Parent: Dimension

#### Value (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the value of one dimension.

Parent: Dimension

#### HealthThreshold (CALCULATED Health Checks Only)

The number of child health checks that are associated with a CALCULATED health that Amazon Route 53 must consider healthy for the CALCULATED health check to be considered healthy.

Type: Integer

Valid values: 0-256

Parent: HealthCheckConfig

#### ChildHealthChecks (CALCULATED Health Checks Only)

A complex type that contains one ChildHealthCheck element for each health check that is included in a CALCULATED health check.

Type: String

Parent: HealthCheckConfig

 $Child: {\tt ChildHealthCheck}$ 

#### ChildHealthCheck (CALCULATED Health Checks Only)

The ID of a health check that is associated with a CALCULATED health check.

Type: String

Parent: ChildHealthChecks

#### Inverted

Indicates whether Amazon Route 53 inverts the status of a health check, for example, to consider a health check unhealthy when it otherwise would be considered healthy.

Type: Boolean

Valid values: true | false

Parent: HealthCheckConfig

#### HealthCheckVersion

A sequential counter that Amazon Route 53 sets to 1 when you create a health check and increments by 1 each time you update settings for the health check.

Type: Integer

Parent: HealthCheck

### **Errors**

Amazon Route 53 returns the following error for this action.

#### InvalidInput

The input is not valid.

#### NoSuchHealthCheck

No health check exists with the ID that you specified in the  ${\tt GetHealthCheck}$  request.

# **Examples**

### **Example Request for an HTTP Health Check**

```
GET /2013-04-01/healthcheck/018927304987
```

### **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<GetHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
   <HealthCheck>
     <Id>abcdef11-2222-3333-4444-555555fedcba</Id>
      <CallerReference>example.com 192.0.2.17</CallerReference>
      <HealthCheckConfig>
         <IPAddress>192.0.2.17</IPAddress>
         <Port>80</Port>
         <Type>HTTP</Type>
         <ResourcePath>/docs/route-53-health-check.html</ResourcePath>
         <FullyQualifiedDomainName>example.com</FullyQualifiedDomainName>
         <RequestInterval>30</RequestInterval>
         <FailureThreshold>3</FailureThreshold>
         <MeasureLatency>true</MeasureLatency>
         <EnableSNI>true</EnableSNI>
         <Regions>
            <Region>ap-southeast-1</Region>
            <Region>ap-southeast-2</Region>
            <Region>ap-northeast-1</Region>
         </Regions>
         <Inverted>false</Inverted>
      </HealthCheckConfig>
      <HealthCheckVersion>2<HealthCheckVersion>
  </HealthCheck>
</GetHealthCheckResponse>
```

# **GET ListHealthChecks**

#### Topics

- Requests (p. 295)
- Responses (p. 296)
- Errors (p. 305)
- Examples (p. 305)

This action gets a list of the health checks that are associated with the current AWS account.

To get a list of health checks, send a GET request to the /2013-04-01/healthcheck resource. The response to this request includes a HealthChecks element with zero or more HealthCheck child elements. By default, ListHealthChecks returns 100 health checks per page. You can control the length of the page by specifying the maxitems parameter in the request.

For information about listing health checks using the Amazon Route 53 console, see Amazon Route 53 Health Checks and DNS Failover in the Amazon Route 53 Developer Guide.

# Requests

### **Syntax**

```
GET /2013-04-01/healthcheck?marker=Amazon Route 53 health check ID& maxitems=maximum number of health checks to include in the response
```

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Request parameters**

#### marker (Conditional)

If the response to a ListHealthChecks is more than one page, marker is the health check ID for the first health check on the next page of results. For more information, see maxitems.

Type: String

Default: None

#### maxitems (Optional)

The maximum number of HealthCheck elements you want ListHealthChecks to return on each page of the response body. If the AWS account includes more HealthCheck elements than the value of maxitems, the response is broken into pages. Each page contains the number of HealthCheck elements specified by maxitems.

For example, suppose you specify 10 for maxitems and the current AWS account has 51 health checks. In the response, ListHealthChecks sets IsTruncated to true and includes the NextMarker element. To access the second and subsequent pages, you resend the GET ListHealthChecks request, add the marker parameter to the request, and specify the value of the NextMarker element from the previous response. On the last (sixth) page of the response, which contains only one HealthCheck element:

- The value of IsTruncated is false.
- NextMarker is omitted.

Type: String

Default: 100

Constraint: maximum value is 100

# Responses

# Syntax for HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHealthChecksResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
   <HealthChecks>
      <HealthCheck>
         <Id>health check ID</Id>
         <CallerReference>unique description</CallerReference>
         <HealthCheckConfig>
            <IPAddress>IP address of the endpoint to check</IPAddress>
            <Port>port on the endpoint to check</Port>
            <Type>HTTP | HTTPS | HTTP_STR_MATCH | HTTPS_STR_MATCH | TCP</Type>
            <ResourcePath>path of the file that
               you want Amazon Route 53 to request</ResourcePath>
            <FullyQualifiedDomainName>domain name of the
               endpoint to check</FullyQualifiedDomainName>
            <SearchString>if Type is HTTP_STR_MATCH or HTTPS_STR_MATCH,
               the string to search for in the response body
               from the specified resource</SearchString>
            <RequestInterval>10 | 30</RequestInterval>
            <FailureThreshold>integer between 1 and 10</FailureThreshold>
            <<u>MeasureLatency</u>>true | false</<u>MeasureLatency</u>>
            <EnableSNI>true | false</EnableSNI>
            <Regions>
               <Region>us-east-1 | us-west-1 | us-west-2 | eu-west-1 |
                 ap-southeast-1 | ap-southeast-2 | ap-northeast-1 | sa-east-
1</Region>
               . . .
            </Regions>
            <Inverted>true | false</Inverted>
         </HealthCheckConfig>
         <HealthCheckVersion>sequential counter</HealthCheckVersion>
      </HealthCheck>
      . . .
   </HealthChecks>
   <Marker>value of the marker parameter,
      if any, in the previous request </Marker>
   <IsTruncated>true | false</IsTruncated>
   <NextMarker>if IsTruncated is true, the health check ID of the
      first health check in the next group of
```

```
maxitems health checks</NextMarker>
  <MaxItems>the value of the maxitems parameter, if any,
    in the previous request</MaxItems>
</ListHealthChecksResponse>
```

### Syntax for CLOUDWATCH\_METRIC Health Checks

```
POST /2013-04-01/healthcheck HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
<ListHealthChecksResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
  <HealthChecks>
      <HealthCheck>
         <Id>ID that Amazon Route 53 assigned to the health check
            when you created it</Id>
         <CallerReference>unique description</CallerReference>
         <HealthCheckConfig>
            <Type>CLOUDWATCH_METRIC</Type>
            <AlarmIdentifier>
               <Name>name of CloudWatch alarm</Name>
               <Region>region that CloudWatch alarm was created in</Region>
            </AlarmIdentifier>
            <InsufficientDataHealthStatus>Health | Unhealthy |
               LastKnownStatus</InsufficientDataHealthStatus>
            <Inverted>true | false</Inverted>
         </HealthCheckConfig>
         <CloudWatchAlarmConfiguration>
            <EvaluationPeriods>number of periods that metric is
               compared to threshold</EvaluationPeriods>
            <Threshold>value the metric is compared with</Threshold>
            <ComparisonOperator>GreaterThanOrEqualToThreshold | GreaterTh
anThreshold,
               LessThanThreshold | LessThanOrEqualToThreshold</ComparisonOper
ator>
            <Period>duration of a period in seconds</Period>
            <MetricName>name of the metric that's associated with the
alarm</MetricName>
            <Namespace>namespace of the metric that the alarm is associated
with</Namespace>
            <Statistic>statistic applied to the CloudWatch metric</Statistic>
            <Dimensions>
               <Dimension>
                  <Name>name of a dimension for the metric</Name>
                  <Value>value of a dimension for the metric</Value>
               </Dimension>
               . . .
            </Dimensions>
         </CloudWatchAlarmConfiguration>
         <HealthCheckVersion>sequential counter</HealthCheckVersion>
      </HealthCheck>
      . . .
  </HealthChecks>
   <Marker>value of the marker parameter,
      if any, in the previous request </ Marker>
  <IsTruncated>true | false</IsTruncated>
   <NextMarker>if IsTruncated is true, the health check ID of the
```

```
first health check in the next group of
    maxitems health checks</NextMarker>
    <MaxItems>the value of the maxitems parameter, if any,
    in the previous request</MaxItems>
</ListHealthCheckResponse>
```

### Syntax for CALCULATED Health Checks

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListHealthChecksResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
   <HealthChecks>
      <HealthCheck>
         <Id>health check ID</Id>
         <CallerReference>unique description</CallerReference>
         <HealthCheckConfig>
            <Type>CALCULATED</Type>
            <HealthThreshold>number of health checks that are
               associated with a CALCULATED health check
               that must be healthy </HealthThreshold>
            <ChildHealthChecks>
               <ChildHealthCheck>health check ID</ChildHealthCheck>
               . . .
            </ChildHealthChecks>
            <Inverted>true | false</Inverted>
         </HealthCheckConfig>
         <HealthCheckVersion>sequential counter</HealthCheckVersion>
      </HealthCheck>
   </HealthChecks>
   <Marker>value of the marker parameter,
      if any, in the previous request </ Marker>
   <IsTruncated>true | false</IsTruncated>
   <NextMarker>if IsTruncated is true, the health check ID of the
      first health check in the next group of
      maxitems health checks</NextMarker>
   <MaxItems>the value of the maxitems parameter, if any,
      in the previous request</MaxItems>
</ListHealthChecksResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### ListHealthChecksResponse

A complex type that contains the response to a  ${\tt ListHealthChecks}$  request.

Type: Complex

Children: HealthChecks, Marker, IsTruncated, NextMarker, MaxItems

#### HealthChecks

A complex type that contains one HealthCheck element for each health check that is associated with the current AWS account.

Type: Complex

Children: HealthCheck

#### HealthCheck

A complex type that contains information about one health check that is associated with the current AWS account.

Type: Complex

Children: Id, CallerReference, HealthCheckConfig

#### ld

The identifier that Amazon Route 53 assigned to the health check when you created it. When you add or update a resource record set, you use this value to specify which health check to use. The value can be up to 64 characters long.

Parent: HealthCheck

#### CallerReference

A unique string that you specified when you created the health check.

Type: String

Parent: HealthCheck

#### HealthCheckConfig

A complex type that contains detailed information about one health check.

Type: Complex

Parent: HealthCheck

Children: IPAddress, Port, Type, ResourcePath, FullyQualifiedDomainName

#### **IPAddress**

The IPv4 IP address of the endpoint on which you want Amazon Route 53 to perform health checks. If you don't specify a value for IPAddress, Amazon Route 53 sends a DNS request to resolve the domain name that you specify in FullyQualifiedDomainName at the interval you specify in RequestInterval. Using an IP address that DNS returns, Amazon Route 53 then checks the health of the endpoint.

Type: String

Parent: HealthCheckConfig

#### Port

The port on the endpoint on which you want Amazon Route 53 to perform health checks.

Type: String

Parent: HealthCheckConfig

#### Туре

The type of health check that you want to create, which indicates how Amazon Route 53 determines whether an endpoint is healthy:

- HTTP Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTP request and waits for an HTTP status code of 200 or greater and less than 400.
- HTTPS Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTPS request and waits for an HTTP status code of 200 or greater and less than 400.

- HTTP\_STR\_MATCH Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTP request and searches the first 5120 bytes of the response body for the string that you specified in SearchString.
- HTTPS\_STR\_MATCH Amazon Route 53 tries to establish a TCP connection. If successful, Amazon Route 53 submits an HTTPS request and searches the first 5120 bytes of the response body for the string that you specified in SearchString.
- **TCP** Amazon Route 53 tries to establish a TCP connection.
- **CLOUDWATCH\_METRIC** The health check is associated with a CloudWatch alarm. If the state of the alarm is OK, the health check is considered healthy. If the state is ALARM, the health check is considered unhealthy. If CloudWatch doesn't have sufficient data to determine whether the state is OK or ALARM, the health check status depends on the setting for InsufficientDataHealthStatus: Healthy, Unhealthy, Or LastKnownStatus.
- **CALCULATED** For health checks that monitor the status of other health checks, Amazon Route 53 adds up the number of health checks that Amazon Route 53 health checkers consider to be healthy and compares that number with the value of HealthThreshold.

For more information about how Amazon Route 53 determines whether an endpoint is healthy, see POST CreateHealthCheck (p. 255).

Type: String

Valid values: http | https | http\_str\_match | https\_str\_match | tcp | calculated

Parent: HealthCheckConfig

#### ResourcePath

The path to the file that you want Amazon Route 53 to request when performing health checks, for example, /docs/route53-health-check.html. The path can be any value for which your endpoint will return an HTTP status code of 2xx or 3xx when the endpoint is healthy.

Type: String

Parent: HealthCheckConfig

#### FullyQualifiedDomainName

Amazon Route 53 behavior depends on whether you specify a value for IPAddress.

#### If you specify IPAddress

The value that you want Amazon Route 53 to pass in the Host header in all health checks except TCP health checks. This is typically the fully qualified DNS name of the website that you are attempting to health check. When Amazon Route 53 checks the health of an endpoint, here is how it constructs the Host header:

- If you specify a value of 80 for Port and HTTP or HTTP\_STR\_MATCH for Type, Amazon Route 53 passes the value of FullyQualifiedDomainName to the endpoint in the Host header.
- If you specify a value of 443 for Port and HTTPS or HTTPS\_STR\_MATCH for Type, Amazon Route 53 passes the value of FullyQualifiedDomainName to the endpoint in the Host header.
- If you specify another value for **Port** and any value except **TCP** for **Type**, Amazon Route 53 passes *FullyQualifiedDomainName:Port* to the endpoint in the Host header.

If you don't specify a value for FullyQualifiedDomainName, Amazon Route 53 substitutes the value of IPAddress in the Host header in each of the above cases.

#### If you don't specify IPAddress

If you don't specify a value for IPAddress, Amazon Route 53 sends a DNS request to the domain that you specify in FullyQualifiedDomainName at the interval you specify in RequestInterval. Using an IP address that DNS returns, Amazon Route 53 then checks the health of the endpoint.

If you want to check the health of weighted, latency, or failover resource record sets and you choose to specify the endpoint only by FullyQualifiedDomainName, we recommend that you create a separate health check for each endpoint. For example, create a health check for each HTTP server that is serving content for www.example.com. For the value of FullyQualifiedDomainName, specify the domain name of the server (such as us-east-1-www.example.com), not the name of the resource record sets (www.example.com).

#### Important

In this configuration, if you create a health check for which the value of FullyQualifiedDomainName matches the name of the resource record sets and you then associate the health check with those resource record sets, health check results will be unpredictable.

In addition, if the value that you specify for Type is HTTP, HTTPS, HTTP\_STR\_MATCH, or HTTPS\_STR\_MATCH, Amazon Route 53 passes the value of FullyQualifiedDomainName in the Host header, as it does when you specify a value for IPAddress. If the value of Type is TCP, Amazon Route 53 doesn't pass a Host header.

Type: String

Parent: HealthCheckConfig

#### SearchString

If the value of Type is HTTP\_STR\_MATCH or HTTPS\_STR\_MATCH, the string that you want Amazon Route 53 to search for in the response body from the specified resource. If the string appears in the response body, Amazon Route 53 considers the resource healthy.

Type: String

Parent: HealthCheckConfig

#### RequestInterval

The number of seconds between the time that Amazon Route 53 gets a response from your endpoint and the time that it sends the next health-check request. Each Amazon Route 53 health checker makes requests at this interval.

Type: Integer

Default: 30

Valid values: 10 | 30

Parent: HealthCheckConfig

#### FailureThreshold

The number of consecutive health checks that an endpoint must pass or fail for Amazon Route 53 to change the current status of the endpoint from unhealthy to healthy or vice versa. For more information, see How Amazon Route 53 Determines Whether an Endpoint Is Healthy in the Amazon Route 53 Developer Guide.

Type: String

Default: 3

Valid values: Integers between 1 and 10

Parent: HealthCheckConfig

#### MeasureLatency

Indicates whether Amazon Route 53 measures the latency between health checkers in multiple AWS regions and your endpoint and to display CloudWatch latency graphs on the **Health Checks** page in the Amazon Route 53 console.

Type: Boolean

Valid values: true | false

Parent: HealthCheckConfig

#### EnableSNI

Indicates whether Amazon Route 53 sends the value of FullyQualifiedDomainName to the endpoint in the client\_hello message during TLS negotiation. This allows the endpoint to respond to HTTPS health check requests with the applicable SSL/TLS certificate.

Type: Boolean

Valid values: true | false

Defaults: If you don't specify a value for EnableSNI, the default value is true when Type is HTTPS or HTTPS\_STR\_MATCH and false when Type is any other value.

Parent: HealthCheckConfig

#### Regions (HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

A complex type that contains one Region element for each region from which you want Amazon Route 53 health checkers to check the specified endpoint.

Type: Complex

Parent: HealthCheckConfig

# Region (Amazon Route 53 Health Checker Region; HTTP[S], HTTP[S]\_STR\_MATCH, and TCP Health Checks Only)

A region from which you want Amazon Route 53 health checkers to check the specified endpoint. Include one Region element for each region.

Type: String

Valid values: us-east-1 | us-west-1 | us-west-2 | eu-west-1 | ap-southeast-1 | ap-southeast-2 | ap-northeast-1 | sa-east-1

Parent: Regions

#### AlarmIdentifier (CLOUDWATCH\_METRIC Health Checks Only)

A complex type that identifies the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy.

Type: Complex

Parent: HealthCheckConfig

#### Name (CloudWatch Alarm Name; CLOUDWATCH\_METRIC Health Checks Only)

The name of the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy.

Type: String

Parent: AlarmIdentifier

#### Region (CloudWatch Alarm Region; CLOUDWATCH\_METRIC Health Checks Only)

For the CloudWatch alarm that you want Amazon Route 53 health checkers to use to determine whether this health check is healthy, the region in which the alarm was created.

For the current list of CloudWatch regions, see Amazon CloudWatch in "AWS Regions and Endpoints" in the Amazon Web Services General Reference.

Type: String

Parent: AlarmIdentifier

#### InsufficientDataHealthStatus (CLOUDWATCH\_METRIC Health Checks Only)

When CloudWatch has insufficient data about the metric to determine the alarm state, the status that you want Amazon Route 53 to assign to the health check:

- Healthy Amazon Route 53 considers the health check to be healthy.
- Unhealthy Amazon Route 53 considers the health check to be unhealthy.
- LastKnownStatus Amazon Route 53 uses the status of the health check from the last time CloudWatch had sufficient data to determine the alarm state. For new health checks that have no last known status, the default status for the health check is healthy.

Type: String

Parent: HealthCheckConfig

#### CloudWatchAlarmConfiguration (CLOUDWATCH\_METRIC Health Checks Only)

A complex type that contains information about the CloudWatch alarm that Amazon Route 53 is monitoring for this health check.

Type: Complex

Parent: HealthCheck

Children: EvaluationPeriods, Threshold, ComparisonOperator, Period, MetricName, Namespace, Statistic, Dimensions

#### EvaluationPeriods (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the number of periods that the metric is compared to the threshold.

Parent: CloudWatchAlarmConfiguration

#### Threshold (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the value the metric is compared with.

Parent: CloudWatchAlarmConfiguration

#### ComparisonOperator (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the arithmetic operation that is used for the comparison.

Valid values: GreaterThanOrEqualToThreshold | GreaterThanThreshold | LessThanThreshold | LessThanOrEqualToThreshold

Parent: CloudWatchAlarmConfiguration

#### Period (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the duration of one evaluation period in seconds.

Parent: CloudWatchAlarmConfiguration

MetricName (CLOUDWATCH\_METRIC Health Checks Only)

The name of the CloudWatch metric that the alarm is associated with.

Parent: CloudWatchAlarmConfiguration

#### Namespace (CLOUDWATCH\_METRIC Health Checks Only)

The namespace of the metric that the alarm is associated with. For more information, see Amazon CloudWatch Namespaces, Dimensions, and Metrics Reference in the Amazon CloudWatch Developer Guide.

Parent: CloudWatchAlarmConfiguration

#### Statistic (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the statistic that is applied to the metric.

Parent: CloudWatchAlarmConfiguration

#### Dimensions (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, a complex type that contains information about the dimensions for the metric. For more information, see Amazon CloudWatch Namespaces, Dimensions, and Metrics Reference in the Amazon CloudWatch Developer Guide.

Parent: CloudWatchAlarmConfiguration

Children: Dimension

#### Dimension (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, a complex type that contains information about one dimension.

Parent: Dimensions

Children: Name, Value

#### Name (CloudWatch Dimension Name; CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the name of one dimension.

Parent: Dimension

#### Value (CLOUDWATCH\_METRIC Health Checks Only)

For the metric that the CloudWatch alarm is associated with, the value of one dimension.

Parent: Dimension

#### HealthThreshold (CALCULATED Health Checks Only)

The number of child health checks that are associated with a CALCULATED health that Amazon Route 53 must consider healthy for the CALCULATED health check to be considered healthy.

Type: Integer

Valid values: 0-256

Parent: HealthCheckConfig

#### ChildHealthChecks (CALCULATED Health Checks Only)

A complex type that contains one ChildHealthCheck element for each health check that is included in a CALCULATED health check.

Type: String

Parent: HealthCheckConfig

**Child:** ChildHealthCheck

#### ChildHealthCheck (CALCULATED Health Checks Only)

The ID of a health check that is associated with a CALCULATED health check.

Type: String

Parent: ChildHealthChecks

#### Inverted

Indicates whether Amazon Route 53 inverts the status of a health check, for example, to consider a health check unhealthy when it otherwise would be considered healthy.

Type: Boolean

Valid values: true | false

Parent: HealthCheckConfig

#### **HealthCheckVersion**

A sequential counter that Amazon Route 53 sets to 1 when you create a health check and increments by 1 each time you update settings for the health check.

Type: Integer

Parent: HealthCheck

#### Marker

For the second and subsequent calls to ListHealthChecks, Marker is the value that you specified for the marker parameter in the previous request.

Type: String

#### IsTruncated

A flag that indicates whether there are more health checks to be listed. If the response was truncated, you can get the next group of maxitems health checks by calling ListHealthChecks again and specifying the value of the NextMarker element in the marker parameter.

Type: String

Valid Values: true | false

#### NextMarker

If IsTruncated is true, the value of NextMarker identifies the first health check in the next group of maxitems health checks. Call ListHealthChecks again and specify the value of NextMarker in the marker parameter.

This element is present only if IsTruncated is true.

Type: String

#### MaxItems

The value that you specified for the maxitems parameter in the call to ListHealthChecks that produced the current response.

Type: String

### **Errors**

Amazon Route 53 returns the following errors for this action.

InvalidInput

The input is not valid.

# **Examples**

### **Example First Request**

```
GET /2013-04-01/healthcheck?maxitems=1
```

### **Example Response**

```
HTTP/1.1 200 OK <?xml version="1.0" encoding="UTF-8"?>
```

```
<ListHealthChecksResponse xmlns="https://route53.amazonaws.com/doc/2013-04-01/">
   <HealthChecks>
      <HealthCheck>
         <Id>abcdef11-2222-3333-4444-555555fedcba</Id>
         <CallerReference>example.com 192.0.2.17</CallerReference>
         <HealthCheckConfig>
            <IPAddress>192.0.2.17</IPAddress>
            <Port>80</Port>
            <Type>HTTP</Type>
            <ResourcePath>/docs/route-53-health-check.html</ResourcePath>
            <FullyQualifiedDomainName>example.com</FullyQualifiedDomainName>
            <RequestInterval>30</RequestInterval>
            <FailureThreshold>3</FailureThreshold>
            <MeasureLatency>true</MeasureLatency>
            <EnableSNI>true</EnableSNI>
            <Inverted>false</Inverted>
         </HealthCheckConfig>
         <HealthCheckVersion>2</HealthCheckVersion>
      </HealthCheck>
      . . .
   </HealthChecks>
   <IsTruncated>true</IsTruncated>
   <NextMarker>aaaaaaaa-1234-5678-9012-bbbbbbcccccc</NextMarker>
   <MaxItems>1</MaxItems>
</ListHealthChecksResponse>
```

### **Example Second Request**

In the response to the first request, the value of IsTruncated was true, indicating that the current AWS account has more health checks than were returned in the first response. The value of marker in this second request is the same as the value of NextMarker in the response to the first request. This is the value of Id for the first health check on the next page of responses.

```
GET /2013-04-01/healthcheck?marker=aaaaaaaa-1234-5678-9012-bbbbbbbcccccc&max items=1
```

# **DELETE DeleteHealthCheck**

#### Topics

- Requests (p. 307)
- Responses (p. 307)
- Errors (p. 308)
- Examples (p. 308)

This action deletes a health check. To delete a health check, send a DELETE request to the /2013-04-01/healthcheck/health check ID resource.

#### Caution

Amazon Route 53 does not prevent you from deleting a health check even if the health check is associated with one or more resource record sets. If you delete a health check and you don't update the associated resource record sets, the future status of the health check cannot be predicted and may change. This will affect the routing of DNS queries for your DNS failover configuration. For more information, see Replacing and Deleting Health Checks in the Amazon Route 53 Developer Guide.

# Requests

### **Syntax**

DELETE /2013-04-01/healthcheck/health check ID

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Request Parameters**

#### Health check ID (Required)

The ID of the health check that you want to delete. To get a list of health checks, including IDs, for the current AWS account, use GET ListHealthChecks (p. 295).

# Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<DeleteHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
</DeleteHealthCheckResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### DeleteHealthCheckResponse

An empty element.

Type: String

### **Errors**

Amazon Route 53 returns the following errors for this action.

#### HealthCheckInUse

The health check ID for this health check is referenced in the HealthCheckId element in one of the resource record sets in one of the hosted zones that are owned by the current AWS account.

#### InvalidInput

The input is not valid.

#### NoSuchHealthCheck

No health check exists with the ID that you specified in the  ${\tt DeleteHealthCheck}$  request.

# **Examples**

### **Example Request**

DELETE /2013-04-01/healthcheck/abcdef11-2222-3333-4444-555555fedcba

# Example Response

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<DeleteHealthCheckResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
</DeleteHealthCheckResponse>
```

# **GET GetCheckerlpRanges**

#### Topics

- Requests (p. 309)
- Responses (p. 309)
- Errors (p. 310)
- Examples (p. 310)

Gets a list of the IP ranges used by Amazon Route 53 health checkers to check the health of your resources. You can use these IP addresses to configure router and firewall rules to allow health checkers to check the health of your resources.

To get a list of IP ranges, send a GET request to the /2013-04-01/checkeripranges resource.

For more information, see Configuring Router and Firewall Rules for Amazon Route 53 Health Checks in the *Amazon Route 53 Developer Guide*.

# Requests

### **Syntax**

```
GET /2013-04-01/checkeripranges
```

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# Responses

### **Syntax**

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### GetCheckerlpRangesResponse

A complex type that contains the response to a checkeripranges request.

Type: Complex

Child: CheckerIpRanges

#### CheckerlpRanges

A complex type that contains a list of the IP ranges that Amazon Route 53 health checks use to check the health of your resources.

Type: Complex

Parent: GetCheckerIpRangesResponse

Child: member

#### member

An IP address range in CIDR notation. For example, 192.0.2.0/24 represents the 256 IP addresses that begin with 192.0.2.0. For more information, see the Wikipedia entry Classless Inter-Domain Routing.

Type: String

Parent: CheckerIpRanges

### **Errors**

Amazon Route 53 returns the following error for this action:

InvalidInput

The input is not valid.

# **Examples**

### **Example Request**

GET /2013-04-01/checkeripranges

### **Example Response**

# **GET GetHealthCheckCount**

#### Topics

- Requests (p. 311)
- Responses (p. 311)
- Errors (p. 312)
- Examples (p. 312)

Gets the total number of health checks for the current AWS account.

To get a count of health checks, send a GET request to the /2013-04-01/healthcheckcount resource.

# Requests

### **Syntax**

GET /2013-04-01/healthcheckcount

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# Responses

### **Syntax**

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### GetHealthCheckCountResponse

A complex type that contains the response to a healthcheckcount request.

Type: Complex

Child: HealthCheckCount

#### HealthCheckCount

The number of health checks associated with the current AWS account.

Type: Integer

Parent: GetHealthCheckCountResponse

# **Errors**

Amazon Route 53 doesn't return any errors that are specific to this action.

# **Examples**

# **Example Request**

GET /2013-04-01/healthcheckcount

### **Example Response**

# **GET GetHealthCheckStatus**

This action gets the current status of a specified health check endpoint as reported by each of the Amazon Route 53 health checkers.

To get the current status of a health check endpoint, send a GET request to the /2013-04-01/healthcheck/health check ID/status resource.

For information about getting the status of a health check endpoint by using the Amazon Route 53 console, see Viewing Health Check Status and the Reason for Health Check Failures in the Amazon Route 53 Developer Guide.

#### Topics

- Requests (p. 313)
- Responses (p. 313)
- Errors (p. 315)
- Examples (p. 315)

# Requests

### **Syntax**

GET /2013-04-01/healthcheck/Health check ID/status

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Request Parameter**

#### Health check ID (Required)

The ID for the health check for which you want the current status. When you created the health check, CreateHealthCheck returned the ID in the response, in the HealthCheckId element.

Type: String

Default: None

# Responses

### **Syntax**

```
<IPAddress>IP address of the
Amazon Route 53 health checker
that is reporting status</IPAddress>
<Region>Route 53 region of the health checker</Region>
<StatusReport>
<Status>Health check status</Status>
<CheckedTime>Date/time that status was observed</CheckedTime>
</StatusReport>
</HealthCheckObservation>
...
</HealthCheckObservations>
</GetHealthCheckStatusResponse>
```

### Headers

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

#### GetHealthCheckStatusResponse

A complex type that contains the response to a GetHealthCheck request.

Type: Complex

Children: HealthCheck

#### HealthCheckObservations

A list that contains one HealthCheckObservation element for each Amazon Route 53 health checker that is reporting a status about the health check endpoint.

Type: List

Children: HealthCheckObservation

#### HealthCheckObservation

A complex type that contains the current status from one Amazon Route 53 health checker.

Type: Complex

Parent: HealthCheckObservations

Children: IPAddress, Region, StatusReport

#### **IPAddress**

The IP address of the Amazon Route 53 health checker that provided the status in StatusReport.

Type: String

Parent: HealthCheckObservation

#### Region

The region of the Amazon Route 53 health checker that provided the status in StatusReport.

Type: String

Parent: HealthCheckObservation

#### StatusReport

A complex type that contains the status that one Amazon Route 53 health checker reports and the time of the health check.

Type: Complex

Parent: HealthCheckObservation

Children: Status, CheckedTime

#### Status

A description of the status of the health check endpoint as reported by one of the Amazon Route 53 health checkers.

Type: String

Parent: StatusReport

### CheckedTime

The time at which the health checker performed the health check in ISO 8601 format and Coordinated Universal Time (UTC). For example, the value 2014-10-27T17:48:16.751z represents October 27, 2014 at 17:48:16.751 UTC.

Type: String

Parent: StatusReport

### **Errors**

Amazon Route 53 returns the following errors for this action:

#### InvalidInput

The input is not valid.

### NoSuchHealthCheck

No health check exists with the ID that you specified in the GetHealthCheckStatus request.

### **Examples**

### **Example Request**

GET /2013-04-01/healthcheck/018927304987/status

### **Example Response**

## GET GetHealthCheckLastFailureReason

This action gets the reason that a specified health check failed most recently.

To get the reason for the last failure of a health check, send a GET request to the /2013-04-01/healthcheck/health check ID/lastfailurereason resource.

For information about viewing the last failure reason for a health check using the Amazon Route 53 console, see Viewing Health Check Status and the Reason for Health Check Failures in the Amazon Route 53 Developer Guide.

### Topics

- Requests (p. 317)
- Responses (p. 317)
- Errors (p. 319)
- Examples (p. 319)

## Requests

### **Syntax**

GET /2013-04-01/healthcheck/Health check ID/lastfailurereason

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Request Parameter**

### Health check ID (Required)

The ID for the health check for which you want the last failure reason. When you created the health check, CreateHealthCheck returned the ID in the response, in the HealthCheckId element.

Type: String

Default: None

## Responses

### **Syntax**

```
Amazon Route 53 health checker
that is reporting status</IPAddress>
<Region>Route 53 region of the health checker</Region>
<StatusReport>
<Status>Reason for last failed health check</Status>
<CheckedTime>Date and time of last failed check</CheckedTime>
</StatusReport>
</HealthCheckObservation>
</GetHealthCheckLastFailureReasonResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Elements**

### GetHealthCheckLastFailureReasonResponse

A complex type that contains the response to a GetHealthCheckLastFailureReason request.

Type: Complex

Children: HealthCheckObservations

### HealthCheckObservations

A list that contains one Observation element for each Amazon Route 53 health checker that is reporting a last failure reason.

Type: List

Parent: GetHealthCheckLastFailureReasonResponse

Children: HealthCheckObservation

### HealthCheckObservation

A complex type that contains the last failure reason as reported by one Amazon Route 53 health checker.

Parent: HealthCheckObservations

Children: IPAddress, StatusReport

### **IPAddress**

The IP address of the Amazon Route 53 health checker that provided the failure reason in StatusReport.

Type: String

Constraints: The IP address must be valid.

Parent: HealthCheckObservation

#### Region

The region of the Amazon Route 53 health checker that provided the status in StatusReport.

Type: String

Parent: HealthCheckObservation

#### StatusReport

A complex type that contains the last failure reason as reported by one Amazon Route 53 health checker and the time of the failed health check.

Type: String

Parent: HealthCheckObservation

Children: Status, CheckedTime

#### Status

A description of the reason for the last failure of the health check endpoint, as reported by one of the Amazon Route 53 health checkers.

Type: String

Parent: StatusReport

#### CheckedTime

The time at which the last failure occurred in ISO 8601 format and Coordinated Universal Time (UTC). For example, the value 2014-10-27T17:48:16.751z represents October 27, 2014 at 17:48:16.751 UTC.

Type: String

Parent: StatusReport

### **Errors**

Amazon Route 53 returns the following errors for this action:

#### InvalidInput

The input is not valid.

#### **NoSuchHealthCheck**

No health check exists with the ID that you specified in the GetHealthCheckLastFailureReason request.

### **Examples**

### **Example Request**

GET /2013-04-01/healthcheck/018927304987

### **Example Response**

### Amazon Route 53 API Reference Examples

```
<CheckedTime>2014-10-25T23:51:20.603Z</CheckedTime>
</StatusReport>
</HealthCheckObservation>
<HealthCheckObservation>
<IPAddress>192.0.2.226</IPAddress>
<StatusReport>
<Status>The health check endpoint has not failed since the Route
</status>The health check endpoint has not failed since the Route
</status=CheckedTime>2014-10-24T03:02:48.809Z</CheckedTime>
</status=CheckObservation>
...
</HealthCheckObservations>
</GetHealthCheckLastFailureReasonResponse>
```

# **Actions on Domain Registrations**

This section describes actions that you can perform on domain registrations.

### Topics

- Register or Update a Domain (p. 321)
- Resend Confirmation Email (p. 322)
- Get Information about a Domain (p. 322)
- Get the Status of Operations (p. 322)
- Transfer a Domain to or from Amazon Route 53 (p. 322)

## **Register or Update a Domain**

#### CheckDomainAvailability (p. 324)

Determines whether a domain name is available for purchase.

RegisterDomain (p. 364)

Registers a domain with Amazon Route 53.

#### RenewDomain (p. 375)

Renews a domain for the specified number of years.

### UpdateDomainContact (p. 396)

Updates contact information for a domain.

#### UpdateDomainNameservers (p. 409)

Updates name servers for a domain.

### UpdateDomainContactPrivacy (p. 405)

Turns privacy protection on or off for the domain, which determines whether WHOIS ("who is") queries return the contact information that you specified for the domain. If privacy protection is enabled, WHOIS queries will return the contact information for the registrar or the value "Protected by policy" instead of the contact information that you specified for the domain. If you're registering a .com or .net domain, you can conceal your contact information for all values of ContactType. If you're registering any other domain, you can only conceal your contact information if ContactType is PERSON.

#### EnableDomainAutoRenew (p. 333)

Configures Amazon Route 53 to automatically renew your domain as the expiration date approaches.

### Important

We strongly recommend that you enable automatic renewal so that your domain doesn't expire; otherwise, you might lose control of the domain name. The registration fee for the automatic renewal of your domain is charged to your AWS account.

#### DisableDomainAutoRenew (p. 327)

Configures Amazon Route 53 to *not* automatically renew your domain as the expiration date approaches.

### Caution

If you disable automatic renewal, registration for the domain will not be renewed when the expiration date passes, and you might lose control of the domain name.

## **Resend Confirmation Email**

### GetContactReachabilityStatus (p. 339)

For operations that require confirmation that the email address for the registrant contact is valid, such as registering a new domain, this operation returns true if the registrant contact has already confirmed the email address for the specified domain or false if not.

### ResendContactReachabilityEmail (p. 378)

For operations that require confirmation that the email address for the registrant contact is valid, such as registering a new domain, this operation resends the confirmation email to the current email address for the registrant contact.

## **Get Information about a Domain**

#### ListDomains (p. 356)

Lists the domains that are associated with the current AWS account.

### GetDomainDetail (p. 342)

Gets detailed information about a specified domain.

### ViewBilling (p. 413)

Gets all the domain-related billing records for an AWS account for a specified period.

## **Get the Status of Operations**

### ListOperations (p. 360)

Gets the operation IDs of operations that are not yet complete.

### GetOperationDetail (p. 353)

Gets the status of an operation on a domain, for example, creating the domain.

## **Transfer a Domain to or from Amazon Route 53**

#### EnableDomainTransferLock (p. 336)

Locks a domain, which helps to prevent someone from transferring the registration for the domain to another domain registrar.

#### DisableDomainTransferLock (p. 330)

Unlocks a domain so you can transfer its registration to another domain registrar.

### RetrieveDomainAuthCode (p. 381)

Gets the authorization code that you provide to another domain registrar when you want to transfer a domain from Amazon Route 53 to the other registrar.

### TransferDomain (p. 384)

Transfers the registration for a domain from another registrar to Amazon Route 53.

## **CheckDomainAvailability**

This operation checks the availability of one domain name. Note that if the availability status of a domain is pending, you must submit another request to determine the availability of the domain name.

### Topics

- Request (p. 324)
- Response (p. 325)
- Errors (p. 325)
- Examples (p. 326)

## Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date: request-date
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.CheckDomainAvailability
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
connections:Keep-Alive
{
   "DomainName": "domain name"
}
```

### **Headers**

CheckDomainAvailability requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.CheckDomainAvailability

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

#### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
          "Availability":"AVAILABLE | AVAILABLE_RESERVED | AVAILABLE_PREORDER |
          DONT_KNOW | UNAVAILABLE | UNAVAILABLE_PREMIUM | UNAVAILABLE_RESTRICTED | RE
          SERVED"
}
```

### **Elements**

### Availability

Whether the domain name is available for registering.

Note

You can only register domains designated as AVAILABLE.

Type: String

Valid values:

AVAILABLE - The domain name is available.

AVAILABLE\_RESERVED - The domain name is reserved under specific conditions.

AVAILABLE\_PREORDER - The domain name is available and can be preordered.

DONT\_KNOW – The TLD registry didn't reply with a definitive answer about whether the domain name is available. Amazon Route 53 can return this response for a variety of reasons, for example, the registry is performing maintenance. Try again later.

UNAVAILABLE – The domain name is not available.

UNAVAILABLE\_PREMIUM – The domain name is not available.

UNAVAILABLE\_RESTRICTED – The domain name is forbidden.

RESERVED - The domain name has been reserved for another person or organization.

### **Errors**

Amazon Route 53 returns the following errors for this method:

#### InvalidInput

The domain name or language code is invalid.

### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

### **HttpTimeoutException**

An HTTP request timeout is enforced after 4998ms.

### UnrecognizedClientException

The security token included in the request is invalid.

## **Examples**

### **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205225Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.CheckDomainAvailability
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json- 1.1
content-length:number of characters in the JSON string
connections:Keep-Alive
{
   "DomainName": "example.com"
}
```

### **Example Response**

## **DisableDomainAutoRenew**

This operation disables automatic renewal of your domain registration before the expiration date.

### Caution

If you disable automatic renewal, registration for the domain will not be renewed when the expiration date passes, and you might lose control of the domain name. For information about enabling automatic renewal, see EnableDomainAutoRenew (p. 333). For information about manually extending the expiration date, see RenewDomain (p. 375).

### Topics

- Request (p. 327)
- Response (p. 328)
- Errors (p. 328)
- Examples (p. 328)

## Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.DisableDomainAutoRenew
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name"
}
```

### **Headers**

DisableDomainAutoRenew requests must contain the following header:

x-amz-target:Route53Domains\_v20140515.DisableDomainAutoRenew

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

**Required: Yes** 

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{}
```

### **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The domain name is invalid or does not belong to the account that submitted the request.

#### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

## **Examples**

### **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.DisableDomainAutoRenew
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "example.com"
}
```

### Example Response

HTTP/1.1 200
Content-Length:number of characters in the JSON string
{}

## **DisableDomainTransferLock**

This operation removes the transfer lock on the domain (specifically the clientTransferProhibited status) to allow domain transfers. We recommend you refrain from performing this action unless you intend to transfer the domain to a different registrar. Successful submission returns an operation ID that you can use to track the progress and completion of the action. If the request is not completed successfully, the domain registrant will be notified by email.

### Topics

- Request (p. 330)
- Response (p. 331)
- Errors (p. 331)
- Examples (p. 332)

### Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.DisableDomainTransferLock
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name"
}
```

### **Headers**

DisableDomainTransferLock requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.DisableDomainTransferLock

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"identifier for this operation"
}
```

### **Elements**

### OperationId

The identifier for tracking the progress of the request. To use this ID to query the operation status, use GetOperationDetail (p. 353).

Type: String

Default: None

Constraints: Maximum 255 characters.

## **Errors**

Amazon Route 53 returns the following errors for this method:

### DuplicateRequest

A  ${\tt DisableDomainTransferLock}$  or  ${\tt EnableDomainTransferLock}$  is already in progress for the domain.

### OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the AWS account.

### **TLDRulesViolation**

The top-level domain does not support this operation.

### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

## **Examples**

### **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.DisableDomainTransferLock
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName":"example.com"
}
```

### **Example Response**

}

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"0b370c79-faa4-40fe-94c8-b423069de3f6"
```

## **EnableDomainAutoRenew**

This operation enables automatic renewal of your domain registration before the expiration date.

### Important

We strongly recommend that you enable automatic renewal so that your domain doesn't expire; otherwise, you might lose control of the domain name. The registration fee for the automatic renewal of your domain is charged to your AWS account.

The period during which you can renew a domain name varies by top-level domain (TLD). For an overview about renewing domains, see Renewing Registration for a Domain in the *Amazon Route 53 Developer Guide*. For information about renewal periods, see Domains that You Can Register with Amazon Route 53 in the *Amazon Route 53 Developer Guide*.

### Topics

- Request (p. 333)
- Response (p. 334)
- Errors (p. 334)
- Examples (p. 334)

## Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.EnableDomainAutoRenew
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name"
}
```

### **Headers**

EnableDomainAutoRenew requests must contain the following header:

x-amz-target:Route53Domains\_v20140515.EnableDomainAutoRenew

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

**Required: Yes** 

### Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{}
```

### **Errors**

Amazon Route 53 returns the following errors for this method:

#### InvalidInput

The domain name is invalid or does not belong to the account that submitted the request.

UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

## **Examples**

### **Example Request**

```
content-type:application/x-amz-json-1.1
content-length:number of characters in the JSON string
{
    "DomainName":"example.com"
}
```

### Example Response

HTTP/1.1 200
Content-Length:number of characters in the JSON string
{}

## **EnableDomainTransferLock**

This operation sets the transfer lock on the domain (specifically the clientTransferProhibited status) to prevent domain transfers. Successful submission returns an operation ID that you can use to track the progress and completion of the action. If the request is not completed successfully, the domain registrant will be notified by email.

### Topics

- Request (p. 336)
- Response (p. 337)
- Errors (p. 337)
- Examples (p. 338)

## Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length; content-type; host; user-agent; x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.EnableDomainTransferLock
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name"
}
```

### Headers

EnableDomainTransferLock requests must contain the following header:

```
x-amz-target: Route53Domains_v20140515.EnableDomainTransferLock
```

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"identifier for this operation"
}
```

### **Elements**

### OperationId

The identifier for tracking the progress of the request. To use this ID to query the operation status, use GetOperationDetail (p. 353).

Type: String

Default: None

Constraints: Maximum 255 characters.

## **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The domain name is invalid or does not belong to the requester account.

### **TLDRulesViolation**

The top-level domain does not support this operation.

### DuplicateRequest

A  $\tt DisableDomainTransferLock$  or  $\tt EnableDomainTransferLock$  is already in progress for the domain.

### OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the account.

## **Examples**

### **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.EnableDomainTransferLock
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName":"example.com"
}
```

### **Example Response**

}

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"0b370c79-faa4-40fe-94c8-b423069de3f6"
```

## **GetContactReachabilityStatus**

For operations that require confirmation that the email address for the registrant contact is valid, such as registering a new domain, this operation returns true if the registrant contact has already confirmed the email address for the specified domain or false if not.

### Note

To submit a GetContactReachabilityStatus request, you must authenticate by using the AWS account that you used to register the domain or transfer the domain to Amazon Route 53.

### Topics

- Request (p. 339)
- Response (p. 340)
- Errors (p. 340)
- Examples (p. 341)

## Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date: request-date
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.GetContactReachabilityStatus
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
connections:Keep-Alive
{
   "domainName": "domain name"
}
```

### **Headers**

CheckDomainAvailability requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.GetContactReachabilityStatus

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### domainName

The name of a domain for which you want to know whether the registrant contact has responded to the confirmation email.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format in the *Amazon Route 53 Developer Guide*.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "domainName":"domain name that you want to know the reachability status of",
    "status":"PENDING | DONE | EXPIRED"
}
```

### **Elements**

### domainName

The name of the domain that you specified in the GetContactReachabilityStatus request.

Type: String

### status

A value that indicates whether the registrant contact for the domain has responded to the email confirmation request and, if not, whether the confirmation link in the most recent confirmation email is still valid:

- PENDING The registrant contact has not responded to the confirmation email yet. The link in the
  email has not expired yet, so the registrant can use the link to confirm that the email address is
  valid.
- DONE The registrant contact has confirmed that the email address is valid.
- EXPIRED The registrant contact has not responded to the confirmation email yet, and the link in the email has expired. If you still want to perform the operation that requires email confirmation, such as registering a domain, use ResendContactReachabilityEmail to resend the confirmation email.

Type: String

### **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The domain name is invalid.

### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

## **Examples**

### **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205225Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.GetContactReachabilityStatus
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json- 1.1
content-length: number of characters in the JSON string
connections:Keep-Alive
{
   "domainName": "example.com"
}
```

### Example Response

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "domainName":"example.com",
    "status":"DONE"
}
```

## **GetDomainDetail**

This operation returns detailed information about the domain. The domain's contact information is also returned as part of the output.

Domain name registration services are provided under our Domain Name Registration Agreement.

### Topics

- Request (p. 342)
- Response (p. 343)
- Errors (p. 350)
- Examples (p. 351)

## Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.GetDomainDetail
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name"
}
```

### **Headers**

GetDomainDetail requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.GetDomainDetail

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

#### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length: number of characters in the JSON string
{
   "AbuseContactEmail":"email address to contact concerning abuse",
   "AbuseContactPhone": "phone number to call concerning abuse",
   "AdminContact":{
      "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType":"PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLinel": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State":"state or province of contact",
      "Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name":"name of an additional parameter required by a top-level
domain" ,
            "Value": "value of an additional parameter required by a top-level
domain"
         },
         . . .
      ]
   },
   "AdminPrivacy":true | false,
   "AutoRenew":true | false,
   "CreationDate": date, in Unix time, that the domain was registered,
   "DomainName": "name of the domain",
   "ExpirationDate": date, in Unix time, that the registration expires,
   "Nameservers":[
      {
         "GlueIps":[
         ],
         "Name": "name of a name server"
      },
   ],
   "RegistrantContact":{
      "FirstName": "first name of contact",
```

```
"LastName": "surname of contact",
      "ContactType":"PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLine1": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State": "state or province of contact",
      "Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name":"name of an additional parameter required by a top-level
domain" ,
            "Value":"value of an additional parameter required by a top-level
domain"
         },
         . . .
      ]
   },
   "RegistrantPrivacy":true | false,
   "RegistrarName": "name of registrar",
   "RegistrarUrl": "web address of registrar",
   "Reseller": "name of reseller",
   "StatusList":[
      "clientTransferProhibited"
   ],
   "TechContact":{
      "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLine1": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State": "state or province of contact",
      "Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name":"name of an additional parameter required by a top-level
domain" ,
            "Value":"value of an additional parameter required by a top-level
domain"
         },
         . . .
      ]
   },
   "TechPrivacy":true | false,
   "UpdatedDate": date of update in Unix time,
   "WhoIsServer": "domain name of WHOIS server"
}
```

### **Elements**

### AbuseContactEmail

Email address to contact to report incorrect contact information for a domain, to report that the domain is being used to send spam, to report that someone is cybersquatting on a domain name, or report some other type of abuse:

- For .com and .net top-level domains (TLDs) Amazon Route 53 is the registrar, and the email address is "registrar-abuse@amazon.com".
- For all other domains Our registrar associate, Gandi, is the registrar, and the email address is "abuse@support.gandi.net".

#### Type: String

AbuseContactPhone

Phone number for reporting abuse.

Type: String

#### AdminContact

Provides details about the domain administrative contact.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

#### AdminPrivacy

Specifies whether contact information for the admin contact is concealed from WHOIS ("who is") queries.

If the value is true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can enable privacy protection for all values of ContactType. If you're registering any other domain, you can only enable privacy protection if ContactType is PERSON.

Type: Boolean

#### AutoRenew

Specifies whether the domain registration is set to renew automatically.

#### Type: Boolean

#### CreationDate

The date when the domain was created as found in the response to a WHOIS ("who is") query. The date format is Unix time.

#### DomainName

The name of the domain.

Type: String

### ExpirationDate

The date when the registration for the domain is set to expire. The date format is Unix time.

#### Nameservers

Contains details for the host and glue IP addresses.

Type: Complex

Children: GlueIps, Name

### Gluelps

List of glue IP address for a name server. Glue IP addresses are required only when the name of the name server is a subdomain of the domain. For example, if your domain is example.com and the

name server for the domain is ns.example.com, you need to specify the IP address for ns.example.com.

Type: List of IP addresses.

Constraint: The list can contain only one IPv4 and one IPv6 address for each name server.

Parent: Nameservers

### Name

The fully qualified host name of the name server.

Type: String

Parent: Nameservers

#### RegistrantContact

Provides details about the domain registrant.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLinel, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

#### RegistrantPrivacy

Specifies whether contact information for the registrant contact is concealed from WHOIS ("who is") queries.

If the value is true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can enable privacy protection for all values of ContactType. If you're registering any other domain, you can only enable privacy protection if ContactType is PERSON.

Type: Boolean

#### RegistrarName

Name of the registrar of the domain as identified in the registry:

- For .com and .net top-level domains (TLDs) Amazon Route 53 is the registrar, and the value is "Amazon Registrar, Inc.".
- For all other domains Our registrar associate, Gandi, is the registrar, and the value is "GANDI SAS".

Type: String

#### RegistrarURL

Web address of the registrar:

- For .com and .net top-level domains (TLDs) Amazon Route 53 is the registrar. The value of RegistrarURL is "http://registrar.amazon.com".
- For all other domains Our registrar associate, Gandi, is the registrar. The value of RegistrarURL is "http://www.gandi.net".

#### Type: String

#### Reseller

Reseller of the domain:

- For .com and .net top-level domains (TLDs) that you registered after Amazon Route 53 became a registrar There is no reseller, so the value is "none".
- For .com and .net TLDs that you registered before Amazon Route 53 became a registrar Amazon Route 53 is the reseller, and our registrar associate, Gandi, is the registrar. The value is "Amazon".

• For all other domains – Amazon Route 53 is the reseller, and our registrar associate, Gandi, is the registrar. The value is "Amazon".

#### Type: String

#### StatusList

An array of domain name status codes, also known as Extensible Provisioning Protocol (EPP) status codes.

ICANN, the organization that maintains a central database of domain names, has developed a set of domain name status codes that tell you the status of a variety of operations on a domain name, for example, registering a domain name, transferring a domain name to another registrar, renewing the registration for a domain name, and so on. All registrars use this same set of status codes.

For a current list of domain name status codes and an explanation of what each code means, go to the ICANN website and search for **epp status codes**. (Search on the ICANN website; web searches sometimes return an old version of the document.)

Type: Array of String

### TechContact

Provides details about the domain technical contact.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

#### TechPrivacy

Specifies whether contact information for the tech contact is concealed from WHOIS ("who is") queries.

If the value is true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can enable privacy protection for all values of ContactType. If you're registering any other domain, you can only enable privacy protection if ContactType is PERSON.

Type: Boolean

#### UpdatedDate

The last updated date of the domain as found in the response to a WHOIS ("who is") query. The date format is Unix time.

#### WhoIsServer

The fully qualified name of the WHOIS server that can answer the WHOIS ("who is") queries for the domain:

- For .com and .net top-level domains (TLDs) Amazon Route 53 is the registrar. The value of WhoIsServer is "whois.registrar.amazon.com".
- For all other domains Our registrar associate, Gandi, is the registrar. The value of WhoIsServer is "whois.gandi.net".

Type: String

#### **FirstName**

The first name of the contact.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

#### LastName

The last name of the contact.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

#### ContactType

Indicates whether the contact is a person, company, association, or public organization.

Type: String

Default: None

Constraints: Maximum 255 characters.

Valid values: PERSON | COMPANY | ASSOCIATION | PUBLIC\_BODY

Parents: RegistrantContact, AdminContact, TechContact

#### OrganizationName

Name of the organization for contact types other than PERSON.

Type: String

Default: None

Constraints: Maximum 255 characters. Contact type must not be PERSON.

Parents: RegistrantContact, AdminContact, TechContact

#### AddressLine1

The first line of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

#### AddressLine2

The second line of the contact's address, if any.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

#### City

The city of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

#### State

The state or province of the contact's city.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

#### CountryCode

The code for the country of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

#### ZipCode

The zip or postal code of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

#### PhoneNumber

The phone number of the contact.

Type: String

Default: None

Constraints: Phone number must be specified in the format "+<*country dialing code*>.<*number including any area code*>". For example, a US phone number might appear as "+1.1234567890".

Parents: RegistrantContact, AdminContact, TechContact

#### Email

The email address of the contact.

Type: String

Default: None

Constraints: Maximum 254 characters.

Parents: RegistrantContact, AdminContact, TechContact

#### Fax

The fax number of the contact.

Type: String

Default: None

Constraints: Phone number must be specified in the format "+<*country dialing code*>.<*number including any area code*>". For example, a US phone number might appear as "+1.1234567890".

Parents: RegistrantContact, AdminContact, TechContact

#### ExtraParams

A list of name-value pairs for parameters required by certain top-level domains.

Type: Complex

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Children: Name, Value

#### Name

The name of the additional parameter required by the top-level domain.

Type: String

Default: None

Valid values: DUNS\_NUMBER | BRAND\_NUMBER | BIRTH\_DEPARTMENT | BIRTH\_DATE\_IN\_YYYY\_MM\_DD | BIRTH\_COUNTRY | BIRTH\_CITY | DOCUMENT\_NUMBER | AU\_ID\_NUMBER | AU\_ID\_TYPE | CA\_LEGAL\_TYPE | FI\_BUSINESS\_NUMBER | FI\_ID\_NUMBER | IT\_PIN | RU\_PASSPORT\_DATA | SE\_ID\_NUMBER | SG\_ID\_NUMBER | VAT\_NUMBER

Parent: ExtraParams

#### Value

The value corresponding with an additional parameter name required by some top-level domains.

Type: String

Default: None

Constraints: Maximum 2047 characters.

Parent: ExtraParams

### **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The domain name is invalid or the domain does not belong to the requester's account.

#### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

# **Examples**

## **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.GetDomainDetail
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "example.com"
}
```

```
HTTP/1.1 200
Content-Length: number of characters in the JSON string
{
   "AbuseContactEmail": "registrar-abuse@amazon.com",
   "AbuseContactPhone":"+1.2062661000",
   "AdminContact":{
      "AddressLine1":"1 Any Street",
      "AddressLine2":"",
      "City": "Anytown",
      "CountryCode": "US",
      "Email":"john@example.com",
      "ExtraParams":[
      ],
      "FirstName":"John",
      "LastName":"Doe",
      "PhoneNumber": "+1.2065550100",
      "State":"WA",
      "ZipCode": "98101"
   },
   "AdminPrivacy":true,
   "AutoRenew": true,
   "CreationDate":1400010459,
   "DomainName":"example.com",
   "ExpirationDate":1431539259,
   "Nameservers":[
      ł
         "GlueIps":[
         ],
         "Name": "ns-2048.awsdns-64.com"
      },
```

```
"GlueIps":[
      ],
      "Name": "ns-2051.awsdns-67.co.uk"
   },
   {
      "GlueIps":[
      ],
      "Name":"ns-2050.awsdns-66.org"
   },
   {
      "GlueIps":[
      ],
      "Name": "ns-2049.awsdns-65.net"
   }
],
"RegistrantContact":{
   "AddressLine1":"1 Any Street",
   "AddressLine2":"",
   "City": "Anytown",
   "CountryCode": "US",
   "Email":"john@example.com",
   "ExtraParams":[
   ],
   "FirstName":"John",
   "LastName":"Doe",
   "PhoneNumber": "+1.2065550100",
   "State":"WA",
   "ZipCode":"98101"
},
"RegistrantPrivacy":true,
"RegistrarName": "Amazon Registrar, Inc.",
"RegistrarUrl": "http://registrar.amazon.com",
"Reseller": "none",
"StatusList":[
   "clientTransferProhibited"
],
"TechContact":{
  "AddressLinel":"1 Any Street",
   "AddressLine2":"",
   "City": "Anytown",
   "CountryCode": "US",
   "Email":"john@example.com",
   "ExtraParams":[
   ],
  "FirstName":"John",
  "LastName":"Doe",
   "PhoneNumber": "+1.2065550100",
   "State":"WA",
   "ZipCode":"98101"
},
"TechPrivacy":true,
"UpdatedDate":1400010459,
"WhoIsServer": "whois.registrar.amazon.com"
```

}

# **GetOperationDetail**

This operation returns the current status of an operation that is not completed.

### Topics

- Request (p. 353)
- Response (p. 354)
- Errors (p. 354)
- Examples (p. 355)

# Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.GetOperationDetail
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "OperationId": "identifier for this operation"
}
```

## Headers

GetOperationDetail requests must contain the following header:

```
x-amz-target: Route53Domains_v20140515.GetOperationDetail
```

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### OperationId

The identifier for the operation for which you want to get the status. Amazon Route 53 returned the identifier in the response to the original request.

Type: String

Default: None

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "DomainName":"name of the domain",
    "OperationId":"identifier for the operation",
    "Status":"current status of the operation",
    "SubmittedDate":date when the action was submitted,
    "Type":"the type of operation"
}
```

### **Elements**

### DomainName

Name of the domain associated with the action.

Type: String

### OperationId

The identifier for the operation.

Type: String

### Status

The current status of the operation. Valid values include the following:

- SUBMITTED
- IN\_PROGRESS
- SUCCESSFUL
- ERROR
- FAILED
- Type: String
- SubmittedDate

The date when the request was submitted.

### Туре

The type of operation that was requested. Valid values include the following:

- REGISTER\_DOMAIN
- DELETE\_DOMAIN
- TRANSFER\_IN\_DOMAIN
- UPDATE\_DOMAIN\_CONTACT
- UPDATE\_NAMESERVER
- CHANGE\_PRIVACY\_PROTECTION
- DOMAIN\_LOCK

Type: String

## **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The operation ID does not exist or is the ID of an already completed operation.

# **Examples**

## **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.GetOperationDetail
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "OperationId": "43884ce5-e30a-4801-858f-7aa86356c127"
}
```

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "DomainName":"happierdomain.ca",
    "OperationId":"43884ce5-e30a-4801-858f-7aa86356c127",
    "Status":"WORKFLOW_IN_PROGRESS",
    "SubmittedDate" : 1402630939.057,
    "Type" : "REGISTER_DOMAIN"
}
```

# **ListDomains**

This operation returns all the domain names that were registered by using Amazon Route 53 for the current AWS account.

### Topics

- Request (p. 356)
- Response (p. 357)
- Errors (p. 358)
- Examples (p. 358)

# Request

## **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ListDomains
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "Marker": "string that identifies the requested page",
   "MaxItems": number of domains to return
}
```

## **Headers**

ListDomains requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.ListDomains

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### Marker

For an initial request for a list of domains, omit this element. If the number of domains that are associated with the current AWS account is greater than the value that you specified for MaxItems, you can use Marker to return additional domains. Get the value of NextPageMarker from the previous response, and submit another request that includes the value of NextPageMarker in the Marker element.

Type: String

Default: None

Constraints: The marker must match the value specified in the previous request.

Required: No

### MaxItems

Number of domains to be returned.

Type: Integer

Default: 20

Constraints: A numeral between 1 and 100.

Required: No

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "Domains":[
        {
            "AutoRenew":true | false,
            "DomainName":"domain name",
            "Expiry":expiration date in Coordinated Universal Time (UTC),
            "TransferLock":true | false
        },
        ...
    ],
    "NextPageMarker":"WyJlMzA9IiwiMSJd"
}
```

### **Elements**

#### Domains

A summary of domains.

Type: Complex type containing a list of domain summaries.

Children: AutoRenew, DomainName, Expiry, TransferLock

#### AutoRenew

Indicates whether the domain is automatically renewed upon expiration.

Type: Boolean

Valid values: true, false

Parent: Domains

### DomainName

The name of a domain. If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then this value is in Punycode. For more information, see DNS Domain Name Format in the *Amazon Route 53 Developer Guide*.

Type: String

Parent: Domains

### Expiry

Expiration date of the domain in Coordinated Universal Time (UTC).

Type: Long

Parent: Domains

### TransferLock

Indicates whether a domain is locked from unauthorized transfer to another party.

Type: Boolean

Valid values: true, false

Parent: Domains

### NextPageMarker

If there are more domains than you specified for MaxItems in the request, submit another request and include the value of NextPageMarker in the value of Marker.

Type: String

Parent: Operations

## **Errors**

No specific errors are associated with this method.

# **Examples**

## **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ListDomains
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "Marker": "AxDAClaROQAXasf29GHWAIKPLA=",
   "MaxItems":20
}
```

```
HTTP/1.1 200
Content-Length: number of characters in the JSON string
{
   "Domains":[
      {
         "AutoRenew":false,
         "DomainName": "example.com",
         "Expiry":1431203765,
         "TransferLock":false
      },
      {
         "AutoRenew":false,
         "DomainName": "example.net",
         "Expiry":1431539260,
         "TransferLock":false
      },
      {
         "AutoRenew":false,
         "DomainName": "example.org",
         "Expiry":1431240024,
         "TransferLock":false
      },
      {
         "AutoRenew":false,
         "DomainName": "example.test",
         "Expiry":1431539259,
         "TransferLock":false
      }
   ]
}
```

# **ListOperations**

This operation returns the operation IDs of operations that are not yet complete.

### Topics

- Request (p. 360)
- Response (p. 361)
- Errors (p. 362)
- Examples (p. 362)

# Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ListOperations
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "Marker": "string that identifies the requested page",
   "MaxItems": number of domains to return
}
```

## **Headers**

ListOperations requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.ListOperations

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

Marker

For an initial request for a list of operations, omit this element. If the number of operations that are not yet complete is greater than the value that you specified for MaxItems, you can use Marker to return additional operations. Get the value of NextPageMarker from the previous response, and submit another request that includes the value of NextPageMarker in the Marker element.

Type: String

Default: None

Required: No

### MaxItems

Number of domains to be returned.

Type: Integer

Default: 20

Constraints: A value between 1 and 100.

Required: No

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "Operations":[
        {
            "OperationId":"identifier for this operation",
            "Status":"current status of the operation",
            "SubmittedDate":date when the action was submitted,
            "Type":"the type of operation"
        },
        ...
    ],
    "NextPageMarker":"WyJlMzA9IiwiMSJd"
}
```

### **Elements**

### Operations

Lists summaries of the operations.

Type: Complex type containing a list of operation summaries

Children: OperationId, Status, SubmittedDate, Type

### OperationId

The identifier for the operation.

Type: String

Parent: Operations

### Status

The status of the operation.

Type: String

Valid values: "WORK\_IN\_PROGRESS", "COMPLETE"

Parent: Operations

### SubmittedDate

The date when the request was submitted.

Parent: Operations

### Туре

The type of the action that the ID refers to.

Type: String

Parent: Operations

### NextPageMarker

If there are more operations than you specified for MaxItems in the request, submit another request and include the value of NextPageMarker in the value of Marker.

Type: String

Parent: Operations

## **Errors**

No specific errors are associated with this method.

## **Examples**

## **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ListOperations
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "MaxItems" : 2
}
```

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "Operations":[
        {
         "OperationId":"4ced3d4a-e011-45ee-b94f-1e2d73477562",
         "Status":"WORKFLOW_IN_PROGRESS",
         "SubmittedDate":1403548979.088,
         "Type":"CHANGE_PRIVACY_PROTECTION"
        },
```

# **RegisterDomain**

This operation registers a domain. For some top-level domains (TLDs), the operation requires extra parameters.

When you register a domain, Amazon Route 53 does the following:

- Creates an Amazon Route 53 hosted zone that has the same name as the domain. Amazon Route 53 assigns four name servers to your hosted zone and automatically updates your domain registration with the names of these name servers.
- Enables autorenew, so your domain registration will renew automatically each year. We'll notify you in advance of the renewal date so you can choose whether to renew the registration.
- Optionally enables privacy protection, which hides personal details from WHOIS ("who is") queries. If you enable privacy protection, WHOIS queries will return contact information for registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can conceal your contact information for all values of ContactType. If you're registering any other domain, you can only conceal your contact information if ContactType is PERSON.
- If registration is successful, returns an operation ID that you can use to track the progress and completion of the action. If the request is not completed successfully, the domain registrant is notified by email.
- Charges your AWS account an amount based on the top-level domain. For more information, see Amazon Route 53 Pricing.

### Note

Amazon Route 53 registers .com and .net top-level domains (TLDs). Our AWS registrar associate, Gandi, registers all other domains.

Domain name registration services are provided under our Domain Name Registration Agreement.

### Topics

- Request (p. 364)
- Response (p. 372)
- Errors (p. 372)
- Examples (p. 373)

# Request

### **Syntax**

```
{
   "DomainName": "name of the domain",
   "DurationInYears": years the domain will be registered,
   "AutoRenew":true | false,
   "RegistrantContact":{
      "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLine1": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State":"state or province of contact",
      "Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name": "name of an additional parameter required by a top-level
domain" ,
            "Value":"value of an additional parameter required by a top-level
domain"
         },
      ]
   },
   "AdminContact":{
     "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC BODY"
      "AddressLine1": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State": "state or province of contact",
      "Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name": "name of an additional parameter required by a top-level
domain" ,
            "Value":"value of an additional parameter required by a top-level
domain"
         },
      ]
   },
   "TechContact":{
      "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLine1": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State": "state or province of contact",
```

```
"Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name": "name of an additional parameter required by a top-level
domain" ,
            "Value": "value of an additional parameter required by a top-level
domain"
         },
         . . .
      ]
   },
   "PrivacyProtectionRegistrantContact":true | false,
   "PrivacyProtectionAdminContact":true | false,
   "PrivacyProtectionTechContact":true | false
   1
}
```

### **Headers**

RegisterDomain requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.RegisterDomain

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

### **DurationInYears**

The number of years the domain will be registered. Domains are registered for a minimum of one year. The maximum period depends on the top-level domain.

Type: Integer

Default: 1

Valid values: Integer from 1 to 10

#### Required: Yes

#### AutoRenew

Indicates whether the domain will be automatically renewed (true) or not (false). Autorenewal only takes effect after the account is charged.

Type: Boolean

Valid values: true | false

Default: true

Required: No

RegistrantContact

Provides details about the domain registrant.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

Required: Yes

#### AdminContact

Provides details about the domain administrator.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

#### **Required: Yes**

#### TechContact

Provides details about the domain technical contact.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

#### **Required: Yes**

#### FirstName

The first name of the contact.

When ContactType is PERSON, you cannot use UpdateDomainContact to update the value of FirstName for the registrant contact because this represents a change in the owner of the domain. Instead, you must use the Amazon Route 53 console. (You can use UpdateDomainContact to update FirstName for other contact types.) For more information, see Editing Contact Information and Other Settings for a Domain in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

#### LastName

The last name of the contact.

When ContactType is PERSON, you cannot use UpdateDomainContact to update the value of LastName for the registrant contact because this represents a change in the owner of the domain. Instead, you must use the Amazon Route 53 console. (You can use UpdateDomainContact to update LastName for other contact types.) For more information, see Editing Contact Information and Other Settings for a Domain in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

#### ContactType

Indicates whether the contact is a person, company, association, or public organization. If you're registering a .com or .net domain, you can enable privacy protection for all values of ContactType. If you're registering any other domain, you can only enable privacy protection if ContactType is PERSON.

Type: String

Default: None

Constraints: Maximum 255 characters.

Valid values: PERSON | COMPANY | ASSOCIATION | PUBLIC\_BODY

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

### OrganizationName

The name of the organization for contact types other than PERSON.

When ContactType is any value except PERSON, you cannot use UpdateDomainContact to update the value of OrganizationName for the registrant contact because this represents a change in the owner of the domain. Instead, you must use the Amazon Route 53 console. (You can use UpdateDomainContact to update OrganizationName for other contact types.) For more information, see Editing Contact Information and Other Settings for a Domain in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Constraints: Maximum 255 characters. Contact type must not be PERSON.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

### AddressLine1

The first line of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

### AddressLine2

The second line of the contact's address, if any.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

### City

The city of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

### State

The state or province of the contact's city.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

#### Country

The code for the country of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

#### ZipCode

The zip or postal code of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

#### PhoneNumber

The phone number of the contact.

Type: String

Default: None

Constraints: Phone number must be specified in the format "+<*country dialing code*>.<*number including any area code*>". For example, a US phone number might appear as "+1.1234567890".

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

#### Email

The email address of the contact.

If you change the email address for the registrant contact, we send an email to the former email address and the new email address to request confirmation. This email comes from route53-dev-admin@amazon.com.

Type: String

Default: None

Constraints: Maximum 254 characters.

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

### Fax

The fax number of the contact.

Type: String

Default: None

Constraints: Phone number must be specified in the format "+<*country dialing code*>.<*number including any area code*>". For example, a US phone number might appear as "+1.1234567890".

Parents: RegistrantContact, AdminContact, TechContact

Required: No

### ExtraParams

A list of name-value pairs for parameters required by certain top-level domains.

Type: Complex

Default: None

Parents: RegistrantContact, AdminContact, TechContact

Children: Name, Value

Required: No

### Name

The name of an additional parameter required by the top-level domain.

Type: String

Default: None

Valid values: DUNS\_NUMBER | BRAND\_NUMBER | BIRTH\_DEPARTMENT | BIRTH\_DATE\_IN\_YYYY\_MM\_DD | BIRTH\_COUNTRY | BIRTH\_CITY | DOCUMENT\_NUMBER | AU\_ID\_NUMBER | AU\_ID\_TYPE | CA\_LEGAL\_TYPE | FI\_BUSINESS\_NUMBER | FI\_ID\_NUMBER | IT\_PIN | RU\_PASSPORT\_DATA | SE\_ID\_NUMBER | SG\_ID\_NUMBER | VAT\_NUMBER

Parent: ExtraParams

**Required: Yes** 

#### Value

The value corresponding with an additional parameter name required by some top-level domains.

Type: String

Default: None

Constraints: Maximum 2048 characters.

Parent: ExtraParams

#### **Required: Yes**

### PrivacyProtectRegistrantContact

Whether you want to conceal contact information for the registrant contact from WHOIS ("who is") queries. If you specify true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can conceal your contact information for all values of ContactType. If you're registering any other domain, you can only conceal your contact information if ContactType is PERSON.

Type: Boolean

Default: None

Valid values: true | false

### Required: No

### **PrivacyProtectAdminContact**

Whether you want to conceal contact information for the admin contact from WHOIS ("who is") queries. If you specify true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can conceal your contact information for all values of ContactType. If you're registering any other domain, you can only conceal your contact information if ContactType is PERSON.

Type: Boolean

Default: None

Valid values: true | false

Required: No

### **PrivacyProtectTechContact**

Whether you want to conceal contact information for the tech contact from WHOIS ("who is") queries. If you specify true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can conceal your contact information for all values of ContactType. If you're registering any other domain, you can only conceal your contact information if ContactType is PERSON.

Type: Boolean

Default: None

Valid values: true | false

Required: No

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"identifier for this operation"
}
```

### **Elements**

### OperationId

The identifier for tracking the progress of the request. To use this ID to query the operation status, use GetOperationDetail (p. 353).

Type: String

Default: None

Constraints: Maximum 255 characters.

## **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The domain name is invalid or does not belong to the requester account.

### UnsupportedTLD

Amazon Route 53 does not support this top-level domain.

### TLDRulesViolation

The top-level domain does not support this operation.

### DuplicateRequest

A RegisterDomain request is already in progress for the domain.

### OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the account.

### DomainLimitExceeded

The number of domains has exceeded the allowed threshold for the account.

# **Examples**

### **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length; content-type; host; user-agent; x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.RegisterDomain
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "example.com",
   "DurationInYears":1,
   "AutoRenew": true,
   "AdminContact":{
      "FirstName": "John",
      "LastName": "Doe",
      "ContactType":"PERSON",
      "OrganizationName":"",
      "AddressLine1": "123 Any Street",
      "AddressLine2":"",
      "City": "Any Town",
      "State":"WA",
      "CountryCode": "US",
      "ZipCode":"98101",
      "PhoneNumber": "+2065550100",
      "Email":"john@example.com",
      "Fax": "+2065550101"
   },
   "RegistrantContact":{
      "FirstName":"John",
      "LastName":"Doe",
      "ContactType": "PERSON",
      "OrganizationName":"",
      "AddressLine1": "123 Any Street",
      "AddressLine2":"",
      "City": "Any Town",
      "State":"WA",
      "CountryCode": "US",
      "ZipCode":"98101",
      "PhoneNumber": "+2065550100",
      "Email":"john@example.com",
      "Fax": "+2065550101"
   },
   "TechContact":{
```

```
"FirstName":"John",
   "LastName":"Doe",
   "ContactType":"PERSON",
   "OrganizationName":"",
   "AddressLinel": "123 Any Street",
   "AddressLine2":"",
   "City": "Any Town",
   "State":"WA",
   "CountryCode": "US",
   "ZipCode":"98101",
   "PhoneNumber":"+2065550100",
  "Email":"john@example.com",
  "Fax":"+2065550101"
},
"PrivacyProtectAdminContact":true,
"PrivacyProtectRegistrantContact":true,
"PrivacyProtectTechContact":true
```

## **Example Response**

}

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"308c56712-faa4-40fe-94c8-b423069de3f6"
}
```

# RenewDomain

Renews registration for a domain for the specified number of years. The cost of renewing your domain is billed to your AWS account.

We recommend that you renew your domain several weeks before the expiration date. Some TLD registries delete domains before the expiration date if you don't renew far enough in advance. For more information about renewing domain registration, see Renewing Registration for a Domain in the Amazon Route 53 Developer Guide.

### Topics

- Request (p. 375)
- Response (p. 376)
- Errors (p. 377)
- Examples (p. 377)

# Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length; content-type; host; user-agent; x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.RenewDomain
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name",
   "DurationInYears": "number of years to renew the domain for",
   "CurrentExpiryYear": "year that the domain currently expires in yyyy format"
}
```

### **Headers**

RenewDomain requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.RenewDomain

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

### **DurationInYears**

The number of years that you want to renew the domain for.

The maximum number of years depends on the top-level domain (TLD). For the range of valid values for your domain, see Domains that You Can Register with Amazon Route 53 in the Amazon Route 53 Developer Guide.

Type: Integer

Default: 1

Valid values: Integer from 1 to 10

Required: No

### CurrentExpiryYear

The year that the domain will expire before you perform this operation, in <sub>YYYY</sub> format. This value must match the current expiration date for the domain.

Type: Integer

Default: None

**Required: Yes** 

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"identifier for this operation"
```

### **Elements**

### OperationId

}

The identifier for tracking the progress of the request. To use this ID to query the operation status, use GetOperationDetail (p. 353).

Type: String

Default: None

Constraints: Maximum 255 characters.

## **Errors**

Amazon Route 53 returns the following errors for this method:

### HttpTimeoutException

An HTTP request timeout is enforced after 4998 ms.

### InvalidInput

The domain name is invalid, the value of DurationInYears exceeds the allowed value, the date of the request was outside the valid date range for renewals, you don't own the domain, or the domain is already being renewed.

### UnrecognizedClientException

The security token included in the request is invalid.

### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

# **Examples**

## **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length; content-type; host; user-agent; x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.RenewDomain
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "example.com",
   "DurationInYears":"6",
   "CurrentExpiryYear": "2017"
}
```

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"308c56712-faa4-40fe-94c8-b423069de3f6"
}
```

# **ResendContactReachabilityEmail**

For operations that require confirmation that the email address for the registrant contact is valid, such as registering a new domain, this operation resends the confirmation email to the current email address for the registrant contact.

### Note

To submit a ResendContactReachabilityEmail request, you must authenticate by using the AWS account that you used to register the domain or transfer the domain to Amazon Route 53.

### Topics

- Request (p. 378)
- Response (p. 379)
- Errors (p. 379)
- Examples (p. 380)

## Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date: request-date
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ResendContactReachabilityEmail
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
connections:Keep-Alive
   "domainName":"domain name"
}
```

### **Headers**

ResendContactReachabilityEmail requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.ResendContactReachabilityEmail

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### domainName

The name of a domain for which you want us to resend a confirmation email to the registrant contact.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format in the *Amazon Route 53 Developer Guide*.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

**Required: Yes** 

# Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "domainName":"domain name that you requested a confirmation email for",
    "emailAddress":"email address that we sent the confirmation email to",
    "isAlreadyVerified":"true|false"
```

### **Elements**

}

### domainName

The name of the domain that you specified in the ResendContactReachabilityEmail request.

Type: String

### emailAddress

The email address that we sent the confirmation email to if <code>isAlreadyVerified</code> is false. This is the email address that was associated with the registrant contact for <code>domainName</code> at the time that you submitted the request.

Type: String

### isAlreadyVerified

If the email address for the specified domain wasn't verified at the time that you submitted the ResendContactReachabilityEmail request, isAlreadyVerified is false.

If the email address for the domain was verified, isAlreadyVerified is true. In that case, we don't resend the email.

Type: Boolean

## **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The domain name is invalid.

### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

# **Examples**

## **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205225Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ResendContactReachabilityEmail
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json- 1.1
content-length: number of characters in the JSON string
connections:Keep-Alive
{
   "domainName":"example.com"
}
```

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "domainName":"example.com",
    "emailAddress":"registrant-contact-email-address@example.com",
    "isAlreadyVerified":"false"
}
```

# **RetrieveDomainAuthCode**

This operation returns the AuthCode for the domain. To transfer a domain to another registrar, you provide this value to the new registrar.

### Topics

- Request (p. 381)
- Response (p. 382)
- Errors (p. 382)
- Examples (p. 382)

# Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.RetrieveDomainAuthCode
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "name of a domain"
}
```

## **Headers**

RetrieveDomainAuthCode requests must contain the following header:

```
x-amz-target: Route53Domains_v20140515.RetrieveDomainAuthCode
```

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

# Response

## **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
     "AuthCode":"the domain authorization code"
}
```

### **Elements**

### AuthCode

The authorization code for the domain.

Type: String

## **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The domain name is invalid or no domain with the specified name is associated with the current AWS account.

### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

## **Examples**

## **Example Request**

```
content-type:application/x-amz-json-1.1
content-length:number of characters in the JSON string
{
    "DomainName":"example.com"
}
```

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "AuthCode":"rqL3*REjYH"
}
```

# **TransferDomain**

This method transfers a domain from another registrar to Amazon Route 53.

For transfer requirements, a detailed procedure, and information about viewing the status of a domain transfer, see Transferring Registration for a Domain to Amazon Route 53 in the Amazon Route 53 Developer Guide.

If the registrar for your domain is also the DNS service provider for the domain, we highly recommend that you transfer your DNS service to Amazon Route 53 or to another DNS service provider before you transfer your registration. Some registrars provide free DNS service when you purchase a domain registration. When you transfer the registration, the previous registrar will not renew your domain registration and could end your DNS service at any time.

### Caution

If the registrar for your domain is also the DNS service provider for the domain and you don't transfer DNS service to another provider, your website, email, and the web applications associated with the domain might become unavailable.

If the request succeeds, this method returns an ID that you can use to track the progress and completion of the transfer. If the request fails, we notify the domain registrant by email.

### Topics

- Request (p. 384)
- Response (p. 392)
- Errors (p. 393)
- Examples (p. 393)

# Request

## **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.TransferDomain
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "name of the domain",
   "DurationInYears": years the domain will be registered,
   "Nameservers":[
      {
         "GlueIps":[
         1.
         "Name": "glue IP address of a name server entry"
      },
```

```
. . .
   ],
   "AuthCode": "the domain authorization code"
   "AutoRenew":true | false,
   "RegistrantContact":{
      "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLine1": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State":"state or province of contact",
      "Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name": "name of an additional parameter required by a top-level
domain" ,
            "Value":"value of an additional parameter required by a top-level
domain"
         },
         . . .
      ]
   },
   "AdminContact":{
     "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC BODY"
      "AddressLine1": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State": "state or province of contact",
      "Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name": "name of an additional parameter required by a top-level
domain" ,
            "Value":"value of an additional parameter required by a top-level
domain"
         },
         . . .
      ]
   },
   "TechContact":{
      "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLine1": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State": "state or province of contact",
```

```
"Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name": "name of an additional parameter required by a top-level
domain" ,
            "Value":"value of an additional parameter required by a top-level
domain"
         },
         . . .
      ]
   },
   "PrivacyProtectionRegistrantContact":true | false,
   "PrivacyProtectionAdminContact":true | false,
   "PrivacyProtectionTechContact":true | false,
}
```

## **Headers**

TransferDomain requests must contain the following header:

```
x-amz-target: Route53Domains_v20140515.TransferDomain
```

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

### Nameservers

Contains details for the host and glue IP addresses.

Type: Complex

Children: GlueIps, Name

### Gluelps

A list of glue IP addresses for a name server. Glue IP addresses are required only when the name of the name server is a subdomain of the domain. For example, if your domain is example.com and

the name server for the domain is ns.example.com, you need to specify the IP address for ns.example.com.

Type: List of IP addresses.

Constraint: The list can contain only one IPv4 and one IPv6 address.

Parent: Nameservers

## Name

The fully qualified host name of the name server.

Type: String

Parent: Nameservers

#### **DurationInYears**

The number of years the domain will be registered for, usually 1. For more information, see Renewing Registration for a Domain in the Amazon Route 53 Developer Guide.

Type: Integer

Default: 1

Valid values: Integer from 1 to 10

Required: Yes

### AuthCode

The authorization code for the domain. You get this value from the current registrar.

Type: String

Required: Yes

### AutoRenew

Indicates whether the domain will be automatically renewed (true) or not (false). Autorenewal takes effect only after the AWS account is charged.

Type: Boolean

Valid values: true | false

Default: true

Required: No

## RegistrantContact

Provides details about the domain registrant.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLinel, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

**Required: Yes** 

#### AdminContact

Provides details about the domain administrator.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

Required: Yes

### TechContact

Provides details about the domain technical contact.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

**Required: Yes** 

## FirstName

The first name of the contact.

When ContactType is PERSON, you cannot use UpdateDomainContact to update the value of FirstName for the registrant contact because this represents a change in the owner of the domain. Instead, you must use the Amazon Route 53 console. (You can use UpdateDomainContact to update FirstName for other contact types.) For more information, see Editing Contact Information and Other Settings for a Domain in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

#### LastName

The last name of the contact.

When ContactType is PERSON, you cannot use UpdateDomainContact to update the value of LastName for the registrant contact because this represents a change in the owner of the domain. Instead, you must use the Amazon Route 53 console. (You can use UpdateDomainContact to update LastName for other contact types.) For more information, see Editing Contact Information and Other Settings for a Domain in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

## ContactType

Indicates whether the contact is a person, company, association, or public organization. If you're registering a .com or .net domain, you can enable privacy protection for all values of ContactType. If you're registering any other domain, you can only enable privacy protection if ContactType is PERSON.

Type: String

Default: None

Constraints: Maximum 255 characters.

Valid values: PERSON | COMPANY | ASSOCIATION | PUBLIC\_BODY

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

### OrganizationName

The name of the organization for contact types other than PERSON.

When ContactType is any value except PERSON, you cannot use UpdateDomainContact to update the value of OrganizationName for the registrant contact because this represents a change in the owner of the domain. Instead, you must use the Amazon Route 53 console. (You can use UpdateDomainContact to update OrganizationName for other contact types.) For more information, see Editing Contact Information and Other Settings for a Domain in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Constraints: Maximum 255 characters. Contact type must not be PERSON.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

## AddressLine1

The first line of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

#### AddressLine2

The second line of the contact's address, if any.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

#### City

The city of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

### State

The state or province of the contact's city.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

#### Country

The code for the country of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

## ZipCode

The zip or postal code of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

#### PhoneNumber

The phone number of the contact.

Type: String

Default: None

Constraints: Phone number must be specified in the format "+<*country dialing code*>.<*number including any area code*>". For example, a US phone number might appear as "+1.1234567890".

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

### Email

The email address of the contact.

If you change the email address for the registrant contact, we send an email to the former email address and the new email address to request confirmation. This email comes from route53-dev-admin@amazon.com.

Type: String

Default: None

Constraints: Maximum 254 characters.

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

## Fax

The fax number of the contact.

Type: String

Default: None

Constraints: Phone number must be specified in the format "+<*country dialing code*>.<*number including any area code*>". For example, a US phone number might appear as "+1.1234567890".

Parents: RegistrantContact, AdminContact, TechContact

Required: No

#### **ExtraParams**

A list of name-value pairs for parameters required by certain top-level domains.

Type: Complex

Default: None

Parents: RegistrantContact, AdminContact, TechContact

Children: Name, Value

Required: No

#### Name

The name of an additional parameter required by the top-level domain.

Type: String

Default: None

Valid values: DUNS\_NUMBER | BRAND\_NUMBER | BIRTH\_DEPARTMENT | BIRTH\_DATE\_IN\_YYYY\_MM\_DD | BIRTH\_COUNTRY | BIRTH\_CITY | DOCUMENT\_NUMBER | AU\_ID\_NUMBER | AU\_ID\_TYPE | CA\_LEGAL\_TYPE | FI\_BUSINESS\_NUMBER | FI\_ID\_NUMBER | IT\_PIN | RU\_PASSPORT\_DATA | SE\_ID\_NUMBER | SG\_ID\_NUMBER | VAT\_NUMBER

Parent: ExtraParams

## Required: Yes

### Value

The value corresponding with an additional parameter name required by some top-level domains.

Type: String

Default: None

Constraints: Maximum 2048 characters.

Parent: ExtraParams

**Required: Yes** 

### **PrivacyProtectRegistrantContact**

Whether you want to conceal contact information for the registrant contact from WHOIS ("who is") queries. If you specify true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered in the registry record.

If you're registering a .com or .net domain, you can conceal contact information for all values of ContactType. If you're registering any other domain, you can only conceal contact information if ContactType is PERSON.

Type: Boolean

Default: true

Valid values: true | false

Required: No

# **PrivacyProtectAdminContact**

Whether you want to conceal contact information for the admin contact from WHOIS ("who is") queries. If you specify true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered in the registry record. If you're registering a .com or .net domain, you can conceal contact information for all values of ContactType. If you're registering any other domain, you can only conceal contact information if ContactType is PERSON.

Type: Boolean

Default: true

Valid values: true | false

Required: No

# PrivacyProtectTechContact

Whether you want to conceal contact information for the tech contact from WHOIS ("who is") queries. If you specify true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered in the registry record. If you're registering a .com or .net domain, you can conceal contact information for all values of ContactType. If you're registering any other domain, you can only conceal contact information if ContactType is PERSON.

Type: Boolean

Default: true

Valid values: true | false

Required: No

# Response

# **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"identifier for this operation"
}
```

# **Elements**

## OperationId

The identifier for tracking the progress of the request. To use this ID to query the operation status, use GetOperationDetail (p. 353).

Type: String

Default: None

Constraints: Maximum 255 characters.

# **Errors**

Amazon Route 53 returns the following errors for this method:

InvalidInput

The domain name is invalid or does not belong to the requester account.

UnsupportedTLD

Amazon Route 53 does not support this top-level domain.

# TLDRulesViolation

The top-level domain does not support this operation.

## DuplicateRequest

A RegisterDomain request is already in progress for the domain.

## OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the account.

## DomainLimitExceeded

The number of domains has exceeded the allowed threshold for the account.

# **Examples**

# **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length; content-type; host; user-agent; x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.TransferDomain
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "example.com",
   "DurationInYears":1,
   "Nameservers":[
      {
```

```
"Name": "ns-2048.awsdns-64.com",
      "GlueIps":[
      ]
   },
   {
      "Name": "ns-2049.awsdns-65.net",
      "GlueIps":[
      ]
   }
],
"AuthCode":"a42qxjz1",
"AutoRenew":true,
"AdminContact":{
  "FirstName":"John",
   "LastName":"Doe",
   "ContactType":"PERSON",
   "OrganizationName":"",
   "AddressLine1": "123 Any Street",
   "AddressLine2":"",
   "City": "Any Town",
   "State":"WA",
   "CountryCode": "US",
   "ZipCode":"98101",
   "PhoneNumber": "+2065550100",
   "Email":"john@example.com",
  "Fax":"+206555-0101"
},
"RegistrantContact":{
  "FirstName":"John",
  "LastName": "Doe",
   "ContactType": "PERSON",
   "OrganizationName":"",
   "AddressLine1": "123 Any Street",
   "AddressLine2":"",
   "City": "Any Town",
   "State":"WA",
   "CountryCode": "US",
   "ZipCode":"98101",
   "PhoneNumber": "+2065550100",
   "Email":"john@example.com",
   "Fax":"+206555-0101"
},
"TechContact":{
   "FirstName":"John",
   "LastName":"Doe",
   "ContactType":"PERSON",
   "OrganizationName":"",
   "AddressLine1": "123 Any Street",
   "AddressLine2":"",
   "City": "Any Town",
   "State":"WA",
   "CountryCode": "US",
   "ZipCode":"98101",
   "PhoneNumber": "+2065550100",
   "Email": "john@example.com",
   "Fax":"+206555-0101"
},
"PrivacyProtectAdminContact":true,
```

"PrivacyProtectRegistrantContact":true, "PrivacyProtectTechContact":true,

# Example Response

}

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"308c56712-faa4-40fe-94c8-b423069de3f6"
}
```

# **UpdateDomainContact**

This operation updates the contact information for a particular domain. Information for at least one contact (registrant, administrator, or technical) must be supplied for update.

When you update contact information for a domain, we send an email notification to the registrant contact about the change. This email comes from route53-dev-admin@amazon.com. The registrant contact is not required to respond.

You can't use UpdateDomainContact to make changes that constitute a change in ownership. Instead, you must use the Amazon Route 53 console. For more information, see FirstName, LastName, and OrganizationName later in this topic.

If the update is successful, this method returns an operation ID that you can use to track the progress and completion of the action. If the request is not completed successfully, the domain registrant will be notified by email.

# Topics

- Request (p. 396)
- Response (p. 402)
- Errors (p. 403)
- Examples (p. 403)

# Request

# **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.UpdateDomainContact
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "domain": "name of the domain with the contact to update",
   "RegistrantContact":{
      "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLine1": "street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State": "state or province of contact",
      "Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
```

```
"Fax": "fax number of contact",
      "ExtraParams":[
         {
            "Name": "name of an additional parameter required by a top-level
domain" ,
            "Value": "value of an additional parameter required by a top-level
domain"
         },
         . . .
      ]
   },
   "AdminContact":{
      "FirstName":"first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLinel":"street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State": "state or province of contact",
      "Country": "country of contact",
      "ZipCode": "zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax": "fax number of contact",
      "ExtraParams":[
         {
            "Name": "name of an additional parameter required by a top-level
domain" ,
            "Value": "value of an additional parameter required by a top-level
domain"
         },
         . . .
     ]
   },
   "TechContact":{
      "FirstName": "first name of contact",
      "LastName": "surname of contact",
      "ContactType": "PERSON | COMPANY | ASSOCIATION | PUBLIC_BODY"
      "AddressLinel":"street address of contact",
      "AddressLine2": "optional second line for contact street address",
      "City":"city of contact",
      "State": "state or province of contact",
      "Country": "country of contact",
      "ZipCode":"zip or postal code of contact",
      "PhoneNumber": "phone number of contact",
      "Email": "email address of contact",
      "Fax":"fax number of contact",
      "ExtraParams":[
         {
            "Name":"name of an additional parameter required by a top-level
domain" ,
            "Value": "value of an additional parameter required by a top-level
domain"
         },
         . . .
      ]
   }
}
```

# **Headers**

UpdateDomainContact requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.UpdateDomainContact

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

# **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

**Required: Yes** 

RegistrantContact

Provides details about the domain registrant.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

Required: Yes

### AdminContact

Provides details about the domain administrator.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

Required: Yes

### TechContact

Provides details about the domain technical contact.

Type: Complex

Children: FirstName, LastName, ContactType, OrganizationName, AddressLine1, AddressLine2, City, State, CountryCode, ZipCode, PhoneNumber, Email, Fax, ExtraParams

**Required: Yes** 

## FirstName

The first name of the contact.

When ContactType is PERSON, you cannot use UpdateDomainContact to update the value of FirstName for the registrant contact because this represents a change in the owner of the domain. Instead, you must use the Amazon Route 53 console. (You can use UpdateDomainContact to update FirstName for other contact types.) For more information, see Editing Contact Information and Other Settings for a Domain in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

### LastName

The last name of the contact.

When ContactType is PERSON, you cannot use UpdateDomainContact to update the value of LastName for the registrant contact because this represents a change in the owner of the domain. Instead, you must use the Amazon Route 53 console. (You can use UpdateDomainContact to update LastName for other contact types.) For more information, see Editing Contact Information and Other Settings for a Domain in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

## ContactType

Indicates whether the contact is a person, company, association, or public organization. If you're registering a .com or .net domain, you can enable privacy protection for all values of ContactType. If you're registering any other domain, you can only enable privacy protection if ContactType is PERSON.

Type: String

Default: None

Constraints: Maximum 255 characters.

Valid values: PERSON | COMPANY | ASSOCIATION | PUBLIC\_BODY

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

## OrganizationName

The name of the organization for contact types other than PERSON.

When ContactType is any value except PERSON, you cannot use UpdateDomainContact to update the value of OrganizationName for the registrant contact because this represents a change in the owner of the domain. Instead, you must use the Amazon Route 53 console. (You can use UpdateDomainContact to update OrganizationName for other contact types.) For more information, see Editing Contact Information and Other Settings for a Domain in the Amazon Route 53 Developer Guide.

Type: String

Default: None

Constraints: Maximum 255 characters. Contact type must not be PERSON.

Parents: RegistrantContact, AdminContact, TechContact

# Required: No

# AddressLine1

The first line of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

### AddressLine2

The second line of the contact's address, if any.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

# City

The city of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

#### State

The state or province of the contact's city.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

### Required: No

## Country

The code for the country of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

## ZipCode

The zip or postal code of the contact's address.

Type: String

Default: None

Constraints: Maximum 255 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: No

## PhoneNumber

The phone number of the contact.

Type: String

Default: None

Constraints: Phone number must be specified in the format "+<*country dialing code*>.<*number including any area code*>". For example, a US phone number might appear as "+1.1234567890".

Parents: RegistrantContact, AdminContact, TechContact

**Required: Yes** 

## Email

The email address of the contact.

If you change the email address for the registrant contact, we send an email to the former email address and the new email address to request confirmation. This email comes from route53-dev-admin@amazon.com.

Type: String

Default: None

Constraints: Maximum 254 characters.

Parents: RegistrantContact, AdminContact, TechContact

Required: Yes

## Fax

The fax number of the contact.

Type: String

Default: None

Constraints: Phone number must be specified in the format "+<*country dialing code*>.<*number including any area code*>". For example, a US phone number might appear as "+1.1234567890".

Parents: RegistrantContact, AdminContact, TechContact

Required: No

## ExtraParams

A list of name-value pairs for parameters required by certain top-level domains.

Type: Complex

Default: None

Parents: RegistrantContact, AdminContact, TechContact

Children: Name, Value

Required: No

#### Name

The name of an additional parameter required by the top-level domain.

Type: String

Default: None

Valid values: DUNS\_NUMBER | BRAND\_NUMBER | BIRTH\_DEPARTMENT | BIRTH\_DATE\_IN\_YYYY\_MM\_DD | BIRTH\_COUNTRY | BIRTH\_CITY | DOCUMENT\_NUMBER | AU\_ID\_NUMBER | AU\_ID\_TYPE | CA\_LEGAL\_TYPE | FI\_BUSINESS\_NUMBER | FI\_ID\_NUMBER | IT\_PIN | RU\_PASSPORT\_DATA | SE\_ID\_NUMBER | SG\_ID\_NUMBER | VAT\_NUMBER

Parent: ExtraParams

**Required: Yes** 

### Value

The value corresponding with an additional parameter name required by some top-level domains.

Type: String

Default: None

Constraints: Maximum 2048 characters.

Parent: ExtraParams

Required: Yes

# Response

# **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"identifier for this operation"
}
```

# **Elements**

## OperationId

The identifier for tracking the progress of the request. To use this ID to query the operation status, use GetOperationDetail (p. 353).

Type: String

Default: None

Constraints: Maximum 255 characters.

# **Errors**

Amazon Route 53 returns the following errors for this method:

## DuplicateRequest

An UpdateDomainContact request is already in progress for the domain.

# OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the account.

## TLDRulesViolation

The top-level domain does not support this operation.

## UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

# **Examples**

# **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.UpdateDomainContact
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "example.com",
   "RegistrantContact":{
      "FirstName":"John",
      "LastName": "Doe",
      "ContactType": "PERSON",
      "OrganizationName":"",
      "AddressLine1": "123 Any Street",
      "AddressLine2":"",
      "City": "Any Town",
```

```
"State":"WA",
   "CountryCode":"US",
   "ZipCode":"98101",
   "PhoneNumber": "+2065550100",
   "Email": "john@example.com",
   "Fax":"+2065550101"
},
"AdminContact":{
  "FirstName":"John",
  "LastName":"Doe",
   "ContactType":"PERSON",
   "OrganizationName":"",
   "AddressLine1": "123 Any Street",
   "AddressLine2":"",
   "City": "Any Town",
   "State":"WA",
   "CountryCode": "US",
   "ZipCode":"98101",
   "PhoneNumber": "+2065550100",
   "Email":"john@example.com",
   "Fax":"+2065550101"
},
"TechContact":{
  "FirstName":"John",
  "LastName":"Doe",
   "ContactType": "PERSON",
   "OrganizationName":"",
   "AddressLine1": "123 Any Street",
   "AddressLine2":"",
   "City": "Any Town",
   "State":"WA",
   "CountryCode": "US",
   "ZipCode":"98101",
   "PhoneNumber": "+2065550100",
   "Email":"john@example.com",
   "Fax":"+2065550101"
},
```

# **Example Response**

}

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"308c56712-faa4-40fe-94c8-b423069de3f6"
}
```

# **UpdateDomainContactPrivacy**

This operation updates the specified domain contact's privacy setting. When the privacy option is enabled, personal information such as postal or email address is hidden from the results of a public WHOIS ("who is") query.

This operation affects only the privacy of the specified contact type (registrant, administrator, or tech). If the request is successfully submitted, the response contains an operation ID that you can use with GetOperationDetail (p. 353) to track the progress and completion of the action. If the request is not completed successfully, the domain registrant will be notified by email.

# Note

Amazon Route 53 provides privacy protection for .com and .net top-level domains (TLDs). Our registrar associate, Gandi, provides privacy protection for all other domains.

# Topics

- Request (p. 405)
- Response (p. 407)
- Errors (p. 407)
- Examples (p. 407)

# Request

# **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains v20140515.UpdateDomainContactPrivacy
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name",
   "AdminPrivacy":true | false,
   "RegistrantPrivacy":true | false,
   "TechPrivacy":true | false
}
```

# **Headers**

UpdateDomainContactPrivacy requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.UpdateDomainContactPrivacy

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

# **Elements**

## DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

## AdminPrivacy

Whether you want to conceal contact information for the admin contact from WHOIS ("who is") queries. If you specify true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can enable privacy protection for all values of ContactType. If you're registering any other domain, you can only enable privacy protection if ContactType is PERSON.

Type: Boolean

Default: None

Valid values: true | false

Required: No

# RegistrantPrivacy

Whether you want to conceal contact information for the registrant contact from WHOIS ("who is") queries. If you specify true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can enable privacy protection for all values of ContactType. If you're registering any other domain, you can only enable privacy protection if ContactType is PERSON.

Type: Boolean

Default: None

Valid values: true | false

Required: No

## TechPrivacy

Whether you want to conceal contact information for the technical contact from WHOIS ("who is") queries. If you specify true, WHOIS queries will return contact information for the registrar or the value "Protected by policy" instead of the contact information that you entered for the domain. If you're registering a .com or .net domain, you can enable privacy protection for all values of ContactType. If you're registering any other domain, you can only enable privacy protection if ContactType is PERSON.

Type: Boolean

Default: None

Valid values: true | false

Required: No

# Response

# **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"identifier for this operation"
}
```

# **Elements**

## OperationId

The identifier for tracking the progress of the request. To use this ID to query the operation status, use GetOperationDetail (p. 353).

Type: String

Default: None

Constraints: Maximum 255 characters.

# **Errors**

Amazon Route 53 returns the following errors for this method:

## DuplicateRequest

An EnableDomainContactPrivacy or DisableDomainContactPrivacy request is already in progress for the domain.

## OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the account.

## **TLDRulesViolation**

The top-level domain does not support modifying contact privacy.

## UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

# **Examples**

# **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
```

```
Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.UpdateDomainContactPrivacy
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName":"example.com",
   "AdminPrivacy":true,
   "RegistrantPrivacy":true,
   "TechPrivacy":true,
}
```

# Example Response

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"777bc5da-fbf7-482c-b2ba-8946884a7dd6"
}
```

# **UpdateDomainNameservers**

This operation replaces the current set of name servers for the domain with the specified set of name servers. If you use Amazon Route 53 as your DNS service, specify the four name servers in the delegation set for the hosted zone for the domain.

If successful, this operation returns an operation ID that you can use to track the progress and completion of the action. If the request is not completed successfully, the domain registrant will be notified by email.

# Topics

- Request (p. 409)
- Response (p. 410)
- Errors (p. 411)
- Examples (p. 411)

# Request

# **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.UpdateDomainNameservers
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
  "DomainName": "name of the domain to be updated",
  "Nameservers":[
    {
      "Name": "domain name of a new name server",
      "GlueIps":[
         "glue IP address of a name server",
         . . .
      1
    },
    . . .
  1
}
```

# **Headers**

UpdateDomainNameservers requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.UpdateDomainNameservers

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

# **Elements**

## DomainName

The domain with the name servers that will be updated.

Type: String

**Required: Yes** 

### Nameservers

A list of new name servers for the domain.

Type: Complex

Children: Name, GlueIps

**Required: Yes** 

### Name

A fully qualified host name of the name server.

Type: String

Constraint: Maximum 255 characters.

Parent: Nameservers

Required: No

### Gluelps

A list of the glue IP addresses of the name server. Glue IP addresses are required only when the name of the name server is a subdomain of the domain. For example, if your domain is example.com and the name server for the domain is ns.example.com, you need to specify the IP address for ns.example.com.

Type: List of IP addresses.

Constraints: The list can have only one IPv4 and one IPv6 address.

Parent: Nameservers

Required: No

# Response

# **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"identifier for this operation"
}
```

# **Elements**

## OperationId

The identifier for tracking the progress of the request. To use this ID to query the operation status, use GetOperationDetail (p. 353).

Type: String

Default: None

Constraints: Maximum 255 characters.

# **Errors**

Amazon Route 53 returns the following errors for this method:

## DuplicateRequest

An UpdateDomainContact request is already in progress for the domain.

# OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the account.

## TLDRulesViolation

The top-level domain does not support this operation.

## UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

# **Examples**

# **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length; content-type; host; user-agent; x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.UpdateDomainNameservers
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "example.com",
   "Nameservers":[
      {
         "Name":"nsl.example.net"
      },
         "Name": "nsl.example.com",
         "GlueIps":[
            "192.0.2.44"
```

```
]
}
]
```

# **Example Response**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "OperationId":"0b370c79-faa4-40fe-94c8-b423069de3f6"
}
```

# ViewBilling

Returns all the domain-related billing records for an AWS account for a specified period.

# Topics

- Request (p. 413)
- Response (p. 414)
- Errors (p. 415)
- Examples (p. 416)

# Request

# **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ViewBilling
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "Start": beginning date for the report,
   "End": ending date for the report,
   "MaxItems": number of billing records to return,
   "Marker": "value of NextPageMarker in previous response"
}
```

# **Headers**

ViewBilling requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.ViewBilling

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

# **Elements**

Start

The beginning date and time for the time period for which you want a list of billing records. Specify the date in Unix time format and Coordinated Universal Time (UTC).

Type: Double

Default: None

### Required: Yes

### End

The end date and time for the time period for which you want a list of billing records. Specify the date in Unix time format and Coordinated Universal Time (UTC).

Type: Double

Default: None

Required: Yes

### Marker

For an initial request for a list of billing records, omit this element. If the number of billing records that are associated with the current AWS account during the specified period is greater than the value that you specified for MaxItems, you can use Marker to return additional domains. Get the value of NextPageMarker from the previous response, and submit another request that includes the value of NextPageMarker in the Marker element.

Type: String

Default: None

Constraints: The marker must match the value of NextPageMarker that was returned in the previous response.

Required: No

### MaxItems

Number of domains to be returned.

Type: Integer

Default: 20

Constraints: A numeral between 1 and 100.

Required: No

# Response

# **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "BillingRecords":[
        {
            "DomainName":"domain name associated with the billing record",
            "BillDate":date of the billing record in Unix format and UTC,
            "InvoiceId":"ID of the billing record",
            "Operation":"REGISTER_DOMAIN | TRANSFER_IN_DOMAIN | RENEW_DOMAIN |
CHANGE_DOMAIN_OWNER",
            "Price":AWS charge for the operation, in US dollars
        },
        ...
    ],
    "NextPageMarker":"identifier for next page of results"
}
```

# **Elements**

## Domains

A summary of billing records.

Type: Complex type that contain a list of billing record summaries.

Children: DomainName, BillDate, InvoiceId, Operation, Price

## DomainName

The name of the domain that the billing record applies to. If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then this value is in Punycode. For more information, see DNS Domain Name Format in the *Amazon Route 53 Developer Guide*.

Type: String

Parent: BillingRecords

## BillDate

The date that the operation was billed, in Unix format and Coordinated Universal Time (UTC).

Type: Double

Parent: BillingRecords

## InvoiceId

The ID of the invoice that is associated with the billing record.

Type: String

Parent: BillingRecords

## Operation

The operation that you were charged for.

Type: String

Valid values: register\_domain, transfer\_in\_domain, renew\_domain, change\_domain\_owner

Parent: BillingRecords

## Price

The price that you were charged for the operation, in US dollars.

Type: Double

Parent: BillingRecords

## **NextPageMarker**

If there are more billing records than you specified for MaxItems in the request, submit another request and include the value of NextPageMarker in the value of Marker.

Type: String

# **Errors**

No specific errors are associated with this method.

# **Examples**

# **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ViewBilling
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length:number of characters in the JSON string
{
   "Start":1464137246,
   "End":1466815646,
   "MaxItems":20
}
```

# **Example Response**

```
HTTP/1.1 200
Content-Length: number of characters in the JSON string
{
   "BillingRecords":[
      {
         "DomainName": "example.com",
         "BillDate":1431211111
         "InvoiceId":"11111111",
         "Operation": "REGISTER_DOMAIN",
         "Price":12
      },
      {
         "DomainName":"example.net",
         "BillDate":1431222222
         "InvoiceId":"22222222",
         "Operation": "TRANSFER_IN_DOMAIN",
         "Price":12
      },
      {
         "DomainName": "example.org",
         "BillDate":1431233333
         "InvoiceId": "33333333",
         "Operation": "RENEW_DOMAIN",
         "Price":12
      }
   ]
}
```

# Actions on Tags for Hosted Zones and Health Checks

This section describes actions you can perform on cost allocation tags for hosted zones and health checks.

## **POST ChangeTagsForResource (p. 418)**

Adds tags to a health check or a hosted zone. You can also use tags to assign a name to a health check.

## GET ListTagsForResource (p. 422)

Lists the tags that are associated with one hosted zone or health check.

## GET ListTagsForResources (p. 425)

Lists the tags that are associated with up to 10 hosted zones or health checks.

# **POST ChangeTagsForResource**

# Topics

- Requests (p. 418)
- Responses (p. 420)
- Errors (p. 421)
- Examples (p. 421)

Adds, edits, or deletes tags for a health check or a hosted zone. To add, edit, or delete tags, send a POST request to the 2013-04-01/tags/*ResourceType/ResourceId* resource.

The request body must include an XML document with a ChangeTagsForResourceRequest element. The response contains an empty ChangeTagsForResourceResponse element.

For information about using tags for cost allocation, see Use Cost Allocation Tags for Custom Billing Reports in the AWS Billing and Cost Management User Guide.

# Requests

# **Syntax**

The XML elements in your request must appear in the order listed in the syntax.

# **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# **Parameters**

# ResourceType (Required)

The type of resource for which you want to add, edit, or delete tags. The ResourceType is one of the following values:

- For health checks, the value is healthcheck.
- For hosted zones, the value is hostedzone.

Type: String

Default: None

## **Resourceld (Required)**

The ID of the health check or hosted zone for which you want to add, edit, or delete tags.

Type: String

Default: None

# **Elements**

## ChangeTagsForResourceRequest (Required)

A complex type that contains information about the tags that you want to add, edit, or delete.

Type: Complex

Default: None

Children: RemoveTagKeys, AddTags

### RemoveTagKeys (Optional)

A complex type that contains a list of the tags that you want to delete from the specified health check or hosted zone. You can specify up to 10 keys.

Type: Complex

Default: None

Parent: ChangeTagsForResourceRequest

Children: Key

## AddTags (Optional)

A complex type that contains a list of the tags that you want to add to the specified health check or hosted zone and/or the tags for which you want to edit the Value element.

You can add a maximum of 10 tags to a health check or a hosted zone.

Type: Complex

Default: None

Parent: ChangeTagsForResourceRequest

### Children: Tag

## Tag (Required If You're Adding or Editing Tags)

A complex type that contains information about a tag that you want to add or edit for the specified health check or hosted zone.

Type: Complex

Default: None

Parent: AddTags

Children: Key, Value

## Key (Required)

The value of Key depends on the operation that you want to perform:

- Add a tag to a health check or hosted zone Key is the name that you want to give to the new tag.
- Edit a tag Key is the name of the tag whose Value element you want to edit.
- Delete a tag Key is the name of the tag that you want to remove.
- Give a name to a health check Edit the default Name tag. In the Amazon Route 53 console, the list of your health checks includes a Name column that lets you see the name that you've given to each health check.

Type: String

Default: None

Parent: RemoveTagKeys or Tag

Valid Characters: uppercase and lowercase letters in the UTF-8 character set, numbers, space, and \_ . : / = + - and @

Constraints: The maximum length of Key is 128 Unicode characters. Do not use the aws: prefix, which is reserved for AWS use.

### Value (Required)

The value of Value depends on the operation that you want to perform:

- Add a tag to a health check or hosted zone Value is the value that you want to give to the new tag.
- Edit a tag Value is the new value that you want to assign to the tag.

Type: String

Default: None

Parent: Tag

Valid Characters: uppercase and lowercase letters in the UTF-8 character set, numbers, space, and \_ . : / = + - and @

Constraints: The maximum length of a Value is 256 Unicode characters. Do not use the aws: prefix, which is reserved for AWS use.

# Responses

# **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ChangeTagsForResourceResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
```

# **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# **Errors**

Amazon Route 53 returns the following errors for this action:

# InvalidInput

The input is not valid.

# NoSuchHealthCheck

A health check with the specified health check ID does not exist.

# NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

# **Examples**

# **Example Request**

# Example Response

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ChangeTagsForResourceResponse xmlns="https://route53.amazonaws.com/doc/2013-
04-01/">
</ChangeTagsForResourceResponse>
```

# **GET ListTagsForResource**

# Topics

- Requests (p. 422)
- Responses (p. 423)
- Errors (p. 423)
- Examples (p. 423)

Lists tags for one health check or hosted zone.

To get a list of tags for a health check or hosted zone, send a GET request to the 2013-04-01/tags/*ResourceType/ResourceId* resource.

For information about using tags for cost allocation, see Use Cost Allocation Tags for Custom Billing Reports in the AWS Billing and Cost Management User Guide.

# Requests

# **Syntax**

The XML elements in your request must appear in the order listed in the syntax.

```
GET /2013-04-01/tags/ResourceType/ResourceId HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
```

# **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

# **Parameters**

# **ResourceType (Required)**

The type of resource for which you want to add, edit, or delete tags. The ResourceType is one of the following values:

- For health checks, the value is healthcheck.
- For hosted zones, the value is hostedzone.

Type: String

Default: None

# Resourceld (Required)

The ID of the health check or hosted zone for which you want to list tags.

Type: String

Default: None

## Responses

### **Syntax**

## **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Errors**

Amazon Route 53 returns the following errors for this action:

### InvalidInput

The input is not valid.

### NoSuchHealthCheck

A health check with the specified health check ID does not exist.

### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

## **Examples**

### **Example Request**

```
GET /2013-04-01/tags/healthcheck/abcdef11-2222-3333-4444-5555555fedcba HTTP/1.1
<?xml version="1.0" encoding="UTF-8"?>
```

## **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTagsForResourceResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
```

```
<ResourceTagSet>

<ResourceType>healthcheck</ResourceType>

<ResourceId>abcdef11-2222-3333-4444-555555fedcba</ResourceId>

<Tags>

<Tag>

<Value>dbadmin<Value>

</Tag>

<Tag>

<ResourceTagSet>

</ListTagsForResourceResponse>
```

## **GET ListTagsForResources**

### Topics

- Requests (p. 425)
- Responses (p. 426)
- Errors (p. 427)
- Examples (p. 427)

Lists tags for up to 10 health checks or hosted zones.

To get a list of tags for up to 10 health checks or hosted zones, send a GET request to the 2013-04-01/tags/*ResourceType* resource.

The request body must include an XML document with a ListTagsForResourcesRequest element.

For information about using tags for cost allocation, see Use Cost Allocation Tags for Custom Billing Reports in the AWS Billing and Cost Management User Guide.

## Requests

## **Syntax**

The XML elements in your request must appear in the order listed in the syntax.

### **Headers**

The request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

### **Parameters**

### ResourceType (Required)

The type of resource for which you want to add, edit, or delete tags. The ResourceType is one of the following values:

- For health checks, the value is healthcheck.
- For hosted zones, the value is hostedzone.

Type: String

Default: None

### **Elements**

### ListTagsForResourcesRequest (Required)

A complex type that contains information about the health checks or hosted zones for which you want to list tags.

Type: Complex

Default: None

Children: ResourceIds

#### **Resourcelds (Required)**

A complex type that contains a list of the health checks or hosted zones for which you want to list tags.

Type: Complex

Default: None

Parent: ListTagsForResourcesRequest

Children: ResourceId

### **Resourceld (Required)**

The ID of a health check or hosted zone for which you want to list tags. You can specify health check IDs or hosted zone IDs for a maximum of 10 health checks or hosted zones. You can't list tags both for health checks and for hosted zones in the same ListTagsForResources request.

Type: Complex

Default: None

Parent: ResourceIds

## Responses

### **Syntax**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTagsForResourcesResponse xmlns="https://route53.amazonaws.com/doc/2013-04-
01/">
   <ResourceTagSets>
      <ResourceTagSet>
         <ResourceType>healthcheck | hostedzone</ResourceType>
         <ResourceId>health check ID</ResourceId>
         <Tags>
            <Taq>
               <Key>tag key<Key>
               <Value>tag value<Value>
            </Tag>
         </Tags>
      <ResourceTagSet>
      . . .
   <ResourceTagSets>
</ListTagsForResourcesResponse>
```

### **Headers**

The response includes the headers that appear in all Amazon Route 53 responses. For more information, see Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440).

## **Errors**

Amazon Route 53 returns the following errors for this action:

### InvalidInput

The input is not valid.

### NoSuchHealthCheck

A health check with the specified health check ID does not exist.

### NoSuchHostedZone

A hosted zone with the specified hosted zone ID does not exist.

## **Examples**

## **Example Request**

## **Example Response**

```
HTTP/1.1 200 OK
<?xml version="1.0" encoding="UTF-8"?>
<ListTagsForResourcesResponse xmlns="https://route53.amazonaws.com/doc/2013-04-</pre>
01/">
   <ResourceTagSets>
      <ResourceTagSet>
         <ResourceType>healthcheck</ResourceType>
         <ResourceId>abcdef11-2222-3333-4444-555555fedcba</ResourceId>
         <Taqs>
            <Taq>
               <Key>Owner<Key>
               <Value>dbadmin<Value>
            </Tag>
         </Tags>
      <ResourceTagSet>
      <ResourceTagSet>
         <ResourceType>healthcheck</ResourceType>
         <ResourceId>aaaaaaaa-1234-5678-9012-bbbbbbbcccccc</ResourceId>
         <Tags>
```

<Tag> <Key>Cost Center<Key> <Value>80432<Value> </Tag> </Tags> <ResourceTagSet> <ResourceTagSets> </ListTagsForResourcesResponse>

# **Actions on Tags for Domains**

This section describes actions you can perform on tags for domains.

UpdateTagsForDomains (p. 430) Adds tags to a domain.

ListTagsForDomain (p. 434) Lists the tags that are associated with the specified domain. DeleteTagsForDomain (p. 437)

Deletes the tags that are associated with the specified domain.

## **UpdateTagsForDomains**

This operation adds or updates tags for a specified domain. All tag operations are eventually consistent. However, if you list tags after you add, update, or delete tags, the changes might not appear immediately.

For information about using tags for cost allocation, see Use Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

### Topics

- Request (p. 430)
- Response (p. 432)
- Errors (p. 432)
- Examples (p. 432)

## Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.UpdateTagsForDomains
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name",
   "TagsToUpdate":[
      ł
         "Key":"value",
         "Value": "value"
      },
      . . .
   ]
}
```

### **Headers**

An UpdateTagsForDomains request must contain the following header:

x-amz-target: Route53Domains\_v20140515.UpdateDomainContactPrivacy

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

## **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

### TagsToUpdate

A list of the tag keys and values that you want to add or update. If you specify a key that already exists, the corresponding value is replaced.

Type: Complex

Children: Key, Value

Required: Yes

### Key

If you're adding a tag to a domain, the name that you want to give to the new tag. If you're editing an existing tag, the name of the tag whose Value element you want to edit.

Type: String

Default: None

Valid characters: A-Z, a-z, 0-9, space, and the characters . : / = + \ - @

Constraints: Each key can be 1-128 characters long.

Required: Yes

### Value

If you're adding a tag to a domain, the value that you want to give to the new tag. If you're editing an existing tag, the new value that you want to assign to the tag.

Type: String

Default: None

Valid characters: A-Z, a-z, 0-9, space, and the characters . : / = + \ - @

Constraints: Each key can be 0-256 characters long.

**Required: Yes** 

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{}
```

### Elements

### OperationId

The identifier for tracking the progress of the request. To use this ID to query the operation status, use GetOperationDetail (p. 353).

Type: String

Default: None

Constraints: Maximum 255 characters.

## **Errors**

Amazon Route 53 returns the following error for this method:

### InvalidInput

The domain name is invalid or does not belong to the account that submitted the request.

### OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the account.

### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

## **Examples**

## **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.UpdateTagsForDomains
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "example.com",
   "TagsToUpdate":[
```

## **Example Response**

HTTP/1.1 200
Content-Length:number of characters in the JSON string
{}

## **ListTagsForDomain**

This operation lists all of the tags that are associated with a specified domain. All tag operations are eventually consistent. However, if you list tags after you add, update, or delete tags, the changes might not appear immediately.

### Topics

- Request (p. 434)
- Response (p. 435)
- Errors (p. 435)
- Examples (p. 436)

## Request

### **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ListTagsForDomain
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name"
}
```

### **Headers**

ListTagsForDomain requests must contain the following header:

x-amz-target: Route53Domains\_v20140515.ListTagsForDomain

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

**Required: Yes** 

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "tagList":[
        {
          "Key":"value",
          "Value":"value"
        },
        ...
    ]
}
```

### **Elements**

### tagList

A list of the tag keys and values that are associated with the specified domain.

Type: Complex

Children: Key, Value

### Key

The name of the tag.

Type: String

Parent: tagList

### Value

The value of the tag.

Type: String

Parent: tagList

## **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The domain name is invalid.

### OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the account.

### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

## **Examples**

## **Example Request**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AKIAIOSFODNN7EXAMPLE/20140711/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.ListTagsForDomain
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "Domain": "example.com"
}
```

## Example Response

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{
    "tagList":[
        {
          "Key":"domain",
          "Value":"example.com"
        },
        {
          "Key":"dept",
          "Value":"84027"
        }
    ]
}
```

## **DeleteTagsForDomain**

This operation deletes the specified tags for a domain. All tag operations are eventually consistent. However, if you list tags after you add, update, or delete tags, the changes might not appear immediately.

### Topics

- Request (p. 437)
- Response (p. 438)
- Errors (p. 438)
- Examples (p. 438)

## Request

## **Syntax**

```
POST / HTTP/1.1
host:route53domains.us-east-1.amazonaws.com
x-amz-date:20140711T205230Z
authorization:AWS4-HMAC-SHA256
              Credential=AccessKeyID/request-date/us-east-1/route53do
mains/aws4_request,
              SignedHeaders=content-length;content-type;host;user-agent;x-amz-
date;x-amz-target,
              Signature=calculated-signature
x-amz-target:Route53Domains_v20140515.DeleteTagsForDomain
user-agent: information about the origin of the request
content-type:application/x-amz-json-1.1
content-length: number of characters in the JSON string
{
   "DomainName": "domain name",
   "TagsToDelete":[
      "key",
      . . .
   ]
}
```

## **Headers**

DeleteTagsForDomain requests must contain the following header:

x-amz-target:Route53Domains\_v20140515.DeleteTagsForDomain

In addition, the request must include the headers that are required in all Amazon Route 53 requests. For more information, see Common Headers for Registrar Actions (p. 441).

### **Elements**

### DomainName

The name of a domain.

If the domain name contains characters other than a-z, 0-9, and - (hyphen), such as an internationalized domain name, then you must convert the name to Punycode. For more information, see DNS Domain Name Format.

Type: String

Default: None

Constraints: The domain name can contain only the letters a through z, the numbers 0 through 9, and - (hyphen).

Required: Yes

### TagsToDelete

A list of the keys for the tags that you want to delete.

Type: List

**Required: Yes** 

## Response

### **Syntax**

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{}
```

## **Errors**

Amazon Route 53 returns the following errors for this method:

### InvalidInput

The domain name is invalid or does not belong to the account that submitted the request.

OperationLimitExceeded

The number of operations or jobs running exceeded the allowed threshold for the account.

### UnsupportedTLD

Amazon Route 53 does not support the specified top-level domain.

## **Examples**

### **Example Request**

```
x-amz-target:Route53Domains_v20140515.DeleteTagsForDomain
user-agent:aws-sdk-java/1.8.3 Linux/2.6.18-164.el5PAE Java_HotSpot (TM )_Serv
er_VM/24.60-b09/1.7.0_60
content-type:application/x-amz-json-1.1
content-length:number of characters in the JSON string
{
    "DomainName":"example.com",
    "TagsToDelete":[
        "domain",
        "dept"
    ]
}
```

## Example Response

```
HTTP/1.1 200
Content-Length:number of characters in the JSON string
{}
```

# **Common Headers**

This section describes common headers for the two Amazon Route 53 APIs:

- An API for actions on hosted zones, resource record sets, health checks, and cost allocation tags
- · An API for actions on domain registrations

### Topics

- Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags (p. 440)
- Common Headers for Registrar Actions (p. 441)

## Common Headers for Actions on Hosted Zones, Resource Record Sets, Health Checks, and Cost Allocation Tags

This section lists the common HTTP headers that Amazon Route 53 uses in REST requests.

### Topics

- Request Headers (p. 440)
- Request ID Response Header (p. 441)

## **Request Headers**

### Authorization (Required)

The information required for request authentication. For more information, see Signing Amazon Route 53 API Requests (p. 9).

### **Content-Length (Conditional)**

Length of the message (without the headers) according to the RFC 2616 specification.

Condition: Required if the request body itself contains information. Most toolkits add this header automatically.

### **Content-Type (Conditional)**

The content type of the resource, for example, text/plain.

Condition: Required for POST and PUT requests.

#### x-amz-date (Conditional)

The date used to create the signature that is included in the Authorization header.

Condition: Required if you do not provide the Date header. If both this header and the Date header are present, the Date header is ignored. For more information about the request time stamp and for information on formatting dates, see REST Requests (p. 4).

### **Date (Conditional)**

The date used to create the signature that is included in the Authorization header.

Condition: Required if you do not provide the x-amz-date header. For more information about the request time stamp and for information on formatting dates, see REST Requests (p. 4).

#### Host (Conditional)

The host being requested. The value must be route53.amazonaws.com.

Condition: Required for HTTP 1.1. Most toolkits add this header automatically.

## **Request ID Response Header**

Each response contains a request ID that you can use if you need to troubleshoot a request with Amazon Route 53. The ID is contained in an HTTP header called x-amz-request-id. An example of a request ID is 647cd254-e0d1-44a9-af61-1d6d86ea6b77.

## **Common Headers for Registrar Actions**

Requests related to Amazon Route 53 domain registration use the following common HTTP headers.

### Topics

- Request Headers (p. 441)
- Request ID Response Header (p. 442)

## **Request Headers**

All of the following headers are required.

#### host

The host being requested. The value must be route53domains.us-east-1.amazonaws.com.

#### x-amz-date

The date used to create the signature that is included in the authorization header.

For more information about the request time stamp and for information about formatting dates, see RPC Requests (p. 8).

### authorization

The information required for request authentication. For more information, see Signing Amazon Route 53 API Requests (p. 9).

#### x-amz-target

Information about the version and API operation. For more information, see the applicable documentation for each API operation.

content-type

The content type of the resource, for example, text/plain.

### content-length

Length of the message (without the headers) according to the RFC 2616 specification. Most toolkits add this header automatically.

## **Request ID Response Header**

Each response contains a request ID that you can use if you need to troubleshoot a request with Amazon Route 53. The ID is contained in an HTTP header called x-amz-request-id. An example of a request ID is 647cd254-e0d1-44a9-af61-1d6d86ea6b77.

# **Common Errors**

This topic lists the errors that all Amazon Route 53 actions return, grouped by HTTP status code. Errors specific to a particular action are listed in the topic for that action. For information about the format of error responses, see REST Responses (p. 6).

### Topics

- HTTP Status Code 400 (p. 443)
- HTTP Status Code 403 (p. 444)
- HTTP Status Code 500 (p. 444)
- HTTP Status Code 501 (p. 444)

## HTTP Status Code 400

### AccessDenied

The API version specified does not exist.

### InappropriateXML

The XML document you provided was well-formed and valid, but not appropriate for this operation.

#### InvalidAction

The action specified is not valid.

#### InvalidArgument

Parameter name and problem

#### InvalidHTTPRequest

There was an error in the body of your HTTP request.

#### InvalidURI

Could not parse the specified URI.

### MalformedXML

The XML you provided was not well-formed or did not validate against our published schema.

### MissingRequiredParameter

Authorized request must have a date or x-amz-date header.

#### RequestExpired

Request has expired. Time stamp date is the value of the date or x-amz-date header that you submitted in the request.

### Throttling

Rate exceeded.

Amazon Route 53 allows up to five requests per second per AWS account.

## HTTP Status Code 403

### AccessDenied

Access denied.

### InvalidSignature

The request signature that Amazon Route 53 calculated does not match the signature that you provided. Check your AWS secret access key and signing method. Consult the service documentation for details.

### MissingAuthenticationToken

The HTTP authorization header is bad. Use the format:

Authorization: *algorithm* Credential=access key ID/credential scope, SignedHeaders=SignedHeaders, Signature=signature

### OptInRequired

The AWS Access Key ID needs a subscription for the service.

### UnrecognizedClient

The security token included in the request is invalid.

## **HTTP Status Code 500**

### InternalError

We encountered an internal error. Please try again.

## HTTP Status Code 501

### NotImplemented

Not implemented.

# **AWS Glossary**

For the latest AWS terminology, see the AWS Glossary in the AWS General Reference.