aws

API Reference

# AWS Cloud Map

**API Version 2017-03-14**

# AWS Cloud Map: API Reference

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# Welcome

AWS Cloud Map is a fully managed service that you can use to create and maintain a map of the backend services and resources that your applications depend on. Here's how AWS Cloud Map works:

1. You create a namespace that identifies the name that you want to use to locate your resources and also specifies how you want to locate resources: using AWS Cloud Map `DiscoverInstances` API calls, DNS queries in a VPC, or public DNS queries. Typically, a namespace contains all the services for an application, such as a billing application.
2. You create an AWS Cloud Map service for each type of resource for which you want to use AWS Cloud Map to locate endpoints. For example, you might create services for web servers and database servers.

   A service is a template that AWS Cloud Map uses when your application adds another resource, such as another web server. If you chose to locate resources using DNS when you created the namespace, a service contains information about the types of records that you want to use to locate the web server. A service also indicates whether you want to check the health of the resource and, if so, whether you want to use Route 53 health checks or a third-party health checker.
3. When your application adds a resource, it can call the AWS Cloud Map `RegisterInstance` API action, which creates a service instance. The service instance contains information about how your application can locate the resource, whether using DNS or using the AWS Cloud Map `DiscoverInstances` API action.
4. When your application needs to connect to a resource, it calls `DiscoverInstances` and specifies the namespace and service that are associated with the resource. AWS Cloud Map returns information about how to locate one or more resources. If you specified health checking when you created the service, AWS Cloud Map returns only healthy instances.

AWS Cloud Map is tightly integrated with Amazon Elastic Container Service (Amazon ECS). As new container tasks spin up or down, they automatically register with AWS Cloud Map. You can use the Kubernetes ExternalDNS connector to integrate Amazon Elastic Kubernetes Service with AWS Cloud Map. You can also use AWS Cloud Map to register and locate any cloud resources, such as Amazon EC2 instances, Amazon DynamoDB, Amazon S3 buckets, Amazon Simple Queue Service (Amazon SQS) queues, or APIs deployed on top of Amazon API Gateway, among others. You can specify attribute values for services instances, and clients can use these attributes to filter the

resources that AWS Cloud Map returns. For example, an application can request resources in a particular deployment stage, like BETA or PROD.

# Actions

The following actions are supported:

- CreateHttpNamespace
- CreatePrivateDnsNamespace
- CreatePublicDnsNamespace
- CreateService
- DeleteNamespace
- DeleteService
- DeleteServiceAttributes
- DeregisterInstance
- DiscoverInstances
- DiscoverInstancesRevision
- GetInstance
- GetInstancesHealthStatus
- GetNamespace
- GetOperation
- GetService
- GetServiceAttributes
- ListInstances
- ListNamespaces
- ListOperations
- ListServices
- ListTagsForResource
- RegisterInstance
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- UntagResource
- UpdateHttpNamespace
- UpdateInstanceCustomHealthStatus
- UpdatePrivateDnsNamespace

- UpdatePublicDnsNamespace
- UpdateService
- UpdateServiceAttributes

# CreateHttpNamespace

Creates an HTTP namespace. Service instances registered using an HTTP namespace can be discovered using a `DiscoverInstances` request but can't be discovered using DNS.

For the current quota on the number of namespaces that you can create using the same AWS account, see AWS Cloud Map quotas in the *AWS Cloud Map Developer Guide*.

## Request Syntax

```
{
   "CreatorRequestId": "string",
   "Description": "string",
   "Name": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### CreatorRequestId

A unique string that identifies the request and that allows failed `CreateHttpNamespace` requests to be retried without the risk of running the operation twice. `CreatorRequestId` can be any unique string (for example, a date/time stamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

### Description

A description for the namespace.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**Name**

The name that you want to assign to this namespace.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(?!arn:)[!-~]{1,1024}$`

Required: Yes

**Tags**

The tags to add to the namespace. Each tag consists of a key and an optional value that you define. Tags keys can be up to 128 characters in length, and tag values can be up to 256 characters in length.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**OperationId**

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceAlreadyExists**

The namespace that you're trying to create already exists.

**CreatorRequestId**

The `CreatorRequestId` that was used to create the namespace.

**NamespaceId**

The ID of the existing namespace.

HTTP Status Code: 400

**ResourceLimitExceeded**

The resource can't be created because you've reached the quota on the number of resources.

HTTP Status Code: 400

**TooManyTagsException**

The list of tags on the resource is over the quota. The maximum number of tags that can be applied to a resource is 50.

**ResourceName**

The name of the resource.

HTTP Status Code: 400

# Examples

## CreateHttpNamespace Example

This example creates an HTTP namespace called `example-http.com`.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211703Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.CreateHttpNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "CreatorRequestId": "example-creator-request-id-0001",
    "Name": "example-http.com",
    "Description": "Example.com AWS Cloud Map HTTP Namespace"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"httpvoqozuhfet5kzxoxg-a-response-example"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# CreatePrivateDnsNamespace

Creates a private namespace based on DNS, which is visible only inside a specified Amazon VPC. The namespace defines your service naming scheme. For example, if you name your namespace `example.com` and name your service `backend`, the resulting DNS name for the service is `backend.example.com`. Service instances that are registered using a private DNS namespace can be discovered using either a `DiscoverInstances` request or using DNS. For the current quota on the number of namespaces that you can create using the same AWS account, see AWS Cloud Map quotas in the *AWS Cloud Map Developer Guide*.

## Request Syntax

```
{
   "CreatorRequestId": "string",
   "Description": "string",
   "Name": "string",
   "Properties": {
      "DnsProperties": {
         "SOA": {
            "TTL": number
         }
      }
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "Vpc": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### CreatorRequestId

A unique string that identifies the request and that allows failed `CreatePrivateDnsNamespace` requests to be retried without the risk of running the operation twice. `CreatorRequestId` can be any unique string (for example, a date/timestamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

### Description

A description for the namespace.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### Name

The name that you want to assign to this namespace. When you create a private DNS namespace, AWS Cloud Map automatically creates an Amazon Route 53 private hosted zone that has the same name as the namespace.

Type: String

Length Constraints: Maximum length of 253.

Pattern: `^(?!arn:)[!-~]{1,253}$`

Required: Yes

### Properties

Properties for the private DNS namespace.

Type: PrivateDnsNamespaceProperties object

Required: No

**Tags**

The tags to add to the namespace. Each tag consists of a key and an optional value that you define. Tags keys can be up to 128 characters in length, and tag values can be up to 256 characters in length.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

**Vpc**

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

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**OperationId**

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

# Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceAlreadyExists**

The namespace that you're trying to create already exists.

**CreatorRequestId**

The `CreatorRequestId` that was used to create the namespace.

**NamespaceId**

The ID of the existing namespace.

HTTP Status Code: 400

**ResourceLimitExceeded**

The resource can't be created because you've reached the quota on the number of resources.

HTTP Status Code: 400

**TooManyTagsException**

The list of tags on the resource is over the quota. The maximum number of tags that can be applied to a resource is 50.

**ResourceName**

The name of the resource.

HTTP Status Code: 400

# Examples

## CreatePrivateDnsNamespace Example

This example creates a private DNS namespace called `example-private-dns.com` that's visible only in the specified VPC.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211704Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.CreatePrivateDnsNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "CreatorRequestId": "example-creator-request-id-0002",
    "Name": "example-private-dns.com",
    "Description": "Example.com AWS Cloud Map Private DNS Namespace",
    "Vpc": "vpc-12345678"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"dns1voqozuhfet5kzxoxg-a-response-example"
```

```
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# CreatePublicDnsNamespace

Creates a public namespace based on DNS, which is visible on the internet. The namespace defines your service naming scheme. For example, if you name your namespace `example.com` and name your service `backend`, the resulting DNS name for the service is `backend.example.com`. You can discover instances that were registered with a public DNS namespace by using either a `DiscoverInstances` request or using DNS. For the current quota on the number of namespaces that you can create using the same AWS account, see AWS Cloud Map quotas in the *AWS Cloud Map Developer Guide*.

> **Important**
>
> The `CreatePublicDnsNamespace` API operation is not supported in the AWS GovCloud (US) Regions.

## Request Syntax

```
{
   "CreatorRequestId": "string",
   "Description": "string",
   "Name": "string",
   "Properties": {
      "DnsProperties": {
         "SOA": {
            "TTL": number
         }
      }
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### CreatorRequestId

A unique string that identifies the request and that allows failed `CreatePublicDnsNamespace` requests to be retried without the risk of running the operation twice. `CreatorRequestId` can be any unique string (for example, a date/timestamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

### Description

A description for the namespace.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### Name

The name that you want to assign to this namespace.

> **Note**
>
> Do not include sensitive information in the name. The name is publicly available using DNS queries.

Type: String

Length Constraints: Maximum length of 253.

Pattern: `^([a-zA-Z0-9]([a-zA-Z0-9\-]{0,61}[a-zA-Z0-9])?\.)+[a-zA-Z0-9]([a-zA-Z0-9\-]{0,61}[a-zA-Z0-9])?$`

Required: Yes

### Properties

Properties for the public DNS namespace.

Type: PublicDnsNamespaceProperties object

Required: No

**Tags**

The tags to add to the namespace. Each tag consists of a key and an optional value that you define. Tags keys can be up to 128 characters in length, and tag values can be up to 256 characters in length.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**OperationId**

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceAlreadyExists**

The namespace that you're trying to create already exists.

**CreatorRequestId**

The `CreatorRequestId` that was used to create the namespace.

**NamespaceId**

The ID of the existing namespace.

HTTP Status Code: 400

**ResourceLimitExceeded**

The resource can't be created because you've reached the quota on the number of resources.

HTTP Status Code: 400

**TooManyTagsException**

The list of tags on the resource is over the quota. The maximum number of tags that can be applied to a resource is 50.

**ResourceName**

The name of the resource.

HTTP Status Code: 400

# Examples

## CreatePublicDnsNamespace Example

The example creates a public DNS namespace called `example.com`.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211705Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.CreatePublicDnsNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "CreatorRequestId": "example-creator-request-id-0003",
    "Name": "example-public-dns.com",
    "Description": "Example.com AWS Cloud Map Public DNS Namespace"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"dns2voqozuhfet5kzxoxg-a-response-example"
}
```

# See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# CreateService

Creates a service. This action defines the configuration for the following entities:

- For public and private DNS namespaces, one of the following combinations of DNS records in Amazon Route 53:
  - A
  - AAAA
  - A and AAAA
  - SRV
  - CNAME
- Optionally, a health check

After you create the service, you can submit a RegisterInstance request, and AWS Cloud Map uses the values in the configuration to create the specified entities.

For the current quota on the number of instances that you can register using the same namespace and using the same service, see AWS Cloud Map quotas in the *AWS Cloud Map Developer Guide*.

## Request Syntax

```
{
   "CreatorRequestId": "string",
   "Description": "string",
   "DnsConfig": {
      "DnsRecords": [
         {
            "TTL": number,
            "Type": "string"
         }
      ],
      "NamespaceId": "string",
      "RoutingPolicy": "string"
   },
   "HealthCheckConfig": {
      "FailureThreshold": number,
      "ResourcePath": "string",
      "Type": "string"
   },
```

```
   "HealthCheckCustomConfig": {
      "FailureThreshold": number
   },
   "Name": "string",
   "NamespaceId": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "Type": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### CreatorRequestId

A unique string that identifies the request and that allows failed `CreateService` requests to be retried without the risk of running the operation twice. `CreatorRequestId` can be any unique string (for example, a date/timestamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

### Description

A description for the service.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### DnsConfig

A complex type that contains information about the Amazon Route 53 records that you want AWS Cloud Map to create when you register an instance.

Type: DnsConfig object

Required: No

### HealthCheckConfig

*Public DNS and HTTP namespaces only.* A complex type that contains settings for an optional Route 53 health check. If you specify settings for a health check, AWS Cloud Map associates the health check with all the Route 53 DNS records that you specify in `DnsConfig`.

> **Important**
>
> If you specify a health check configuration, you can specify either `HealthCheckCustomConfig` or `HealthCheckConfig` but not both.

For information about the charges for health checks, see AWS Cloud Map Pricing.

Type: HealthCheckConfig object

Required: No

### HealthCheckCustomConfig

A complex type that contains information about an optional custom health check.

> **Important**
>
> If you specify a health check configuration, you can specify either `HealthCheckCustomConfig` or `HealthCheckConfig` but not both.

You can't add, update, or delete a `HealthCheckCustomConfig` configuration from an existing service.

Type: HealthCheckCustomConfig object

Required: No

### Name

The name that you want to assign to the service.

> **Note**
>
> Do not include sensitive information in the name if the namespace is discoverable by public DNS queries.

If you want AWS Cloud Map to create an SRV record when you register an instance and you're using a system that requires a specific SRV format, such as HAProxy, specify the following for `Name`:

- Start the name with an underscore (_), such as `_exampleservice`.
- End the name with *._protocol*, such as `._tcp`.

When you register an instance, AWS Cloud Map creates an SRV record and assigns a name to the record by concatenating the service name and the namespace name (for example,

`_exampleservice._tcp.example.com`).

> **Note**
>
> For services that are accessible by DNS queries, you can't create multiple services with names that differ only by case (such as EXAMPLE and example). Otherwise, these services have the same DNS name and can't be distinguished. However, if you use a namespace that's only accessible by API calls, then you can create services that with names that differ only by case.

Type: String

Pattern: `((?=^.{1,127}$)^([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9])(\.([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9]))*$)|(^\.$)`

Required: Yes

### NamespaceId

The ID or Amazon Resource Name (ARN) of the namespace that you want to use to create the service. For namespaces shared with your AWS account, specify the namespace ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: No

### Tags

The tags to add to the service. Each tag consists of a key and an optional value that you define. Tags keys can be up to 128 characters in length, and tag values can be up to 256 characters in length.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

### Type

If present, specifies that the service instances are only discoverable using the `DiscoverInstances` API operation. No DNS records is registered for the service instances. The only valid value is `HTTP`.

Type: String

Valid Values: `HTTP`

Required: No

## Response Syntax

```
{
   "Service": {
```

```
      "Arn": "string",
      "CreateDate": number,
      "CreatedByAccount": "string",
      "CreatorRequestId": "string",
      "Description": "string",
      "DnsConfig": {
         "DnsRecords": [
            {
               "TTL": number,
               "Type": "string"
            }
         ],
         "NamespaceId": "string",
         "RoutingPolicy": "string"
      },
      "HealthCheckConfig": {
         "FailureThreshold": number,
         "ResourcePath": "string",
         "Type": "string"
      },
      "HealthCheckCustomConfig": {
         "FailureThreshold": number
      },
      "Id": "string",
      "InstanceCount": number,
      "Name": "string",
      "NamespaceId": "string",
      "ResourceOwner": "string",
      "Type": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Service

A complex type that contains information about the new service.

Type: Service object

# Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceNotFound**

No namespace exists with the specified ID.

HTTP Status Code: 400

**ResourceLimitExceeded**

The resource can't be created because you've reached the quota on the number of resources.

HTTP Status Code: 400

**ServiceAlreadyExists**

The service can't be created because a service with the same name already exists.

**CreatorRequestId**

The `CreatorRequestId` that was used to create the service.

**ServiceArn**

The ARN of the existing service.

**ServiceId**

The ID of the existing service.

HTTP Status Code: 400

**TooManyTagsException**

The list of tags on the resource is over the quota. The maximum number of tags that can be applied to a resource is 50.

**ResourceName**

The name of the resource.

HTTP Status Code: 400

# Examples

## Creating a service with Amazon Route 53 health check

The example creates a service with a Amazon Route 53 health check configured.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211706Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.CreateService
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "CreatorRequestId": "example-creator-request-id-0004",
    "NamespaceId": "ns-e4anhexample0004",
    "Name": "example-http-service",
    "HealthCheckConfig": {
        "Type": "HTTPS",
        "ResourcePath": "/",
        "FailureThreshold": 1
    },
    "Description": "Example.com AWS Cloud Map HTTP Service"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
```

```
Content-Type: application/x-amz-json-1.1

{
    "Service": {
        "Arn": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
        "CreateDate": "20181118T211707Z",
        "CreatedByAccount" "123456789012",
        "CreatorRequestId": "example-creator-request-id-0004",
        "Description": "Example.com AWS Cloud Map HTTP Service",
        "HealthCheckConfig": {
            "FailureThreshold": 1,
            "ResourcePath": "/",
            "Type": "HTTPS"
        },
        "Id": "srv-e4anhexample0004",
        "Name": "example-http-service",
        "NamespaceId": "ns-e4anhexample0004",
        "ResourceOwner": "123456789012"
    }
}
```

## Creating a service using namespace ARN

In this example, the `CreateService` request involves a namespace that is shared with the account 111122223333 by account 123456789012. As a consumer of the shared namespace, the requester must include the namespace ARN in the request.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211706Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.CreateService
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
```

```
    "CreatorRequestId": "example-creator-request-id-0007",
    "NamespaceId": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e1tpmexample0001",
    "Name": "example-http-service",
    "HealthCheckConfig": {
        "Type": "HTTPS",
        "ResourcePath": "/",
        "FailureThreshold": 1
    },
    "Description": "Example.com AWS Cloud Map HTTP Service"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Service": {
        "Arn": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0001",
        "CreateDate": "20181118T211707Z",
        "CreatedByAccount": "111122223333"
        "CreatorRequestId": "example-creator-request-id-0007",
        "Description": "Example.com AWS Cloud Map HTTP Service",
        "HealthCheckConfig": {
            "FailureThreshold": 1,
            "ResourcePath": "/",
            "Type": "HTTPS"
        },
        "Id": "srv-e4anhexample0001",
        "Name": "example-http-service",
        "NamespaceId": "ns-e1tpmexample0001",
        "ResourceOwner": "123456789012"
    }
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# DeleteNamespace

Deletes a namespace from the current account. If the namespace still contains one or more services, the request fails.

## Request Syntax

```
{
   "Id": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Id**

The ID or Amazon Resource Name (ARN) of the namespace that you want to delete.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### OperationId

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceNotFound**

No namespace exists with the specified ID.

HTTP Status Code: 400

**ResourceInUse**

The specified resource can't be deleted because it contains other resources. For example, you can't delete a service that contains any instances.

HTTP Status Code: 400

# Examples

## DeleteNamespace Example

This example deletes the specified namespace.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211707Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DeleteNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Id": "ns-e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "OperationId":"deleteelozuhfet5kzxoxg-a-response-example"
}
```

## DeleteNamespace Example using ARN

This example deletes a shared namespace using its ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
```

```
x-amz-date:20181118T211707Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DeleteNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Id": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "OperationId":"deleteelozuhfet5kzxoxg-a-response-example"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

# DeleteService

Deletes a specified service and all associated service attributes. If the service still contains one or more registered instances, the request fails.

## Request Syntax

```
{
   "Id": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Id**

The ID or Amazon Resource Name (ARN) of the service that you want to delete. If the namespace associated with the service is shared with your AWS account, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ResourceInUse**

The specified resource can't be deleted because it contains other resources. For example, you can't delete a service that contains any instances.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## DeleteService Example

This example deletes the specified service.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211708Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DeleteService
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Id": "srv-e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{}
```

## DeleteService Example using ARN

This example deletes a service in a shared namespace using its ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211708Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DeleteService
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Id": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{}
```

# See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# DeleteServiceAttributes

Deletes specific attributes associated with a service.

## Request Syntax

```
{
   "Attributes": [ "string" ],
   "ServiceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Attributes**

A list of keys corresponding to each attribute that you want to delete.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 30 items.

Length Constraints: Maximum length of 255.

Required: Yes

**ServiceId**

The ID or Amazon Resource Name (ARN) of the service from which the attributes will be deleted. For services created in a namespace shared with your AWS account, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

## Examples

### DeleteServiceAttributes Example

This example API request deletes the attribute `Port` associated with the service `srv-e4anhexample0004`.

**Sample Request**

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20241223T173136Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DeleteServiceAttributes
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]
```

```
{
    "ServiceId": "srv-e4anhexample0004",
    "Attributes" : ["Port"]
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{}
```

## DeleteServiceAttributes Example using ARN

This example API request deletes the attribute `Port` associated with a service in a shared namespace using its ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20241223T173136Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DeleteServiceAttributes
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "ServiceId": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
    "Attributes" : ["Port"]
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
```

```
Content-Type: application/x-amz-json-1.1
{}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# DeregisterInstance

Deletes the Amazon Route 53 DNS records and health check, if any, that AWS Cloud Map created for the specified instance.

## Request Syntax

```
{
   "InstanceId": "string",
   "ServiceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**InstanceId**

The value that you specified for `Id` in the RegisterInstance request.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

**ServiceId**

The ID or Amazon Resource Name (ARN) of the service that the instance is associated with. If the namespace associated with the service is shared with your account, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**OperationId**

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InstanceNotFound**

No instance exists with the specified ID, or the instance was recently registered, and information about the instance hasn't propagated yet.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ResourceInUse**

The specified resource can't be deleted because it contains other resources. For example, you can't delete a service that contains any instances.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## DeregisterInstance Example

This example API request deregisters the specified instance.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211816Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DeregisterInstance
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "InstanceId": "i-abcd1234",
```

```
    "ServiceId": "srv-e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"httpvoqozuhfet5kzxoxg-a-response-example"
}
```

## DeregisterInstance Example using service ARN

This example API request deregisters an instance from a service in a shared namespace using the service ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211816Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DeregisterInstance
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "InstanceId": "i-abcd1234",
    "ServiceId": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
```

```
{
    "OperationId":"httpvoqozuhfet5kzxoxg-a-response-example"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# DiscoverInstances

Discovers registered instances for a specified namespace and service. You can use `DiscoverInstances` to discover instances for any type of namespace. `DiscoverInstances` returns a randomized list of instances allowing customers to distribute traffic evenly across instances. For public and private DNS namespaces, you can also use DNS queries to discover instances.

## Request Syntax

```
{
   "HealthStatus": "string",
   "MaxResults": number,
   "NamespaceName": "string",
   "OptionalParameters": {
      "string" : "string"
   },
   "OwnerAccount": "string",
   "QueryParameters": {
      "string" : "string"
   },
   "ServiceName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**HealthStatus**

The health status of the instances that you want to discover. This parameter is ignored for services that don't have a health check configured, and all instances are returned.

HEALTHY

Returns healthy instances.

UNHEALTHY

Returns unhealthy instances.

ALL

Returns all instances.

HEALTHY_OR_ELSE_ALL

Returns healthy instances, unless none are reporting a healthy state. In that case, return all instances. This is also called failing open.

Type: String

Valid Values: `HEALTHY | UNHEALTHY | ALL | HEALTHY_OR_ELSE_ALL`

Required: No

**MaxResults**

The maximum number of instances that you want AWS Cloud Map to return in the response to a `DiscoverInstances` request. If you don't specify a value for `MaxResults`, AWS Cloud Map returns up to 100 instances.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

**NamespaceName**

The `HttpName` name of the namespace. The `HttpName` is found in the `HttpProperties` member of the `Properties` member of the namespace. In most cases, `Name` and `HttpName` match. However, if you reuse `Name` for namespace creation, a generated hash is added to `HttpName` to distinguish the two.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[!-~]{1,1024}$`

Required: Yes

**OptionalParameters**

Opportunistic filters to scope the results based on custom attributes. If there are instances that match both the filters specified in both the `QueryParameters` parameter and this parameter,

all of these instances are returned. Otherwise, the filters are ignored, and only instances that match the filters that are specified in the `QueryParameters` parameter are returned.

Type: String to string map

Key Length Constraints: Maximum length of 255.

Key Pattern: `^[a-zA-Z0-9!-~]+$`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `^([a-zA-Z0-9!-~][ \ta-zA-Z0-9!-~]*){0,1}[a-zA-Z0-9!-~]{0,1}$`

Required: No

**OwnerAccount**

The ID of the AWS account that owns the namespace associated with the instance, as specified in the namespace `ResourceOwner` field. For instances associated with namespaces that are shared with your account, you must specify an `OwnerAccount`.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**QueryParameters**

Filters to scope the results based on custom attributes for the instance (for example, `{version=v1, az=1a}`). Only instances that match all the specified key-value pairs are returned.

Type: String to string map

Key Length Constraints: Maximum length of 255.

Key Pattern: `^[a-zA-Z0-9!-~]+$`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `^([a-zA-Z0-9!-~][ \ta-zA-Z0-9!-~]*){0,1}[a-zA-Z0-9!-~]{0,1}$`

Required: No

**ServiceName**

The name of the service that you specified when you registered the instance.

Type: String

Pattern: `((?=^.{1,127}$)^([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9])(\.([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9]))*$)|(^\.$)`

Required: Yes

## Response Syntax

```
{
   "Instances": [
      {
         "Attributes": {
            "string" : "string"
         },
         "HealthStatus": "string",
         "InstanceId": "string",
         "NamespaceName": "string",
         "ServiceName": "string"
      }
   ],
   "InstancesRevision": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Instances**

A complex type that contains one `HttpInstanceSummary` for each registered instance.

Type: Array of HttpInstanceSummary objects

**InstancesRevision**

The increasing revision associated to the response Instances list. If a new instance is registered or deregistered, the `InstancesRevision` updates. The health status updates don't update `InstancesRevision`.

Type: Long

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceNotFound**

No namespace exists with the specified ID.

HTTP Status Code: 400

**RequestLimitExceeded**

The operation can't be completed because you've reached the quota for the number of requests. For more information, see AWS Cloud Map API request throttling quota in the *AWS Cloud Map Developer Guide*.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## DiscoverInstances Example

This example discovers registered instances for the specified service and namespace.

### Sample Request

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211819Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DiscoverInstances
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "NamespaceName": "example-public-dns.com",
    "ServiceName": "example-dns-pub-service"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Instances": [
        {
            "Attributes": {
                "AWS_INSTANCE_IPV4": "192.0.2.44",
                "AWS_INSTANCE_PORT": "80",
                "color": "green",
                "region": "us-west-2",
                "stage": "beta"
            },
            "HealthStatus": "HEALTHY",
            "InstanceId": "i-abcd1234",
```

```
            "NamespaceName": "example-public-dns.com",
            "ServiceName": "example-dns-pub-service"
        }
    ],
    "InstancesRevision": 2
}
```

## DiscoverInstances Example using OwnerAccount

This example discovers registered instances for a service in a shared namespace by specifying the OwnerAccount.

### Sample Request

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211819Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DiscoverInstances
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "NamespaceName": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e1tpmexample0001",
    "ServiceName": "example-dns-pub-service",
    "OwnerAccount": "123456789012"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Instances": [
        {
```

```
            "Attributes": {
                "AWS_INSTANCE_IPV4": "192.0.2.44",
                "AWS_INSTANCE_PORT": "80",
                "color": "green",
                "region": "us-west-2",
                "stage": "beta"
            },
            "HealthStatus": "HEALTHY",
            "InstanceId": "i-abcd1234",
            "NamespaceName": "example-public-dns.com",
            "ServiceName": "example-dns-pub-service"
        }
    ],
    "InstancesRevision": 2
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# DiscoverInstancesRevision

Discovers the increasing revision associated with an instance.

## Request Syntax

```
{
   "NamespaceName": "string",
   "OwnerAccount": "string",
   "ServiceName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**NamespaceName**

The `HttpName` name of the namespace. The `HttpName` is found in the `HttpProperties` member of the `Properties` member of the namespace.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[!-~]{1,1024}$`

Required: Yes

**OwnerAccount**

The ID of the AWS account that owns the namespace associated with the instance, as specified in the namespace `ResourceOwner` field. For instances associated with namespaces that are shared with your account, you must specify an `OwnerAccount`. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**ServiceName**

The name of the service that you specified when you registered the instance.

Type: String

Pattern: `((?=^.{1,127}$)^([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9])(\.([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9]))*$)|(^\.$)`

Required: Yes

## Response Syntax

```
{
   "InstancesRevision": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**InstancesRevision**

The increasing revision associated to the response Instances list. If a new instance is registered or deregistered, the `InstancesRevision` updates. The health status updates don't update `InstancesRevision`.

Type: Long

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceNotFound**

No namespace exists with the specified ID.

HTTP Status Code: 400

**RequestLimitExceeded**

The operation can't be completed because you've reached the quota for the number of requests. For more information, see AWS Cloud Map API request throttling quota in the *AWS Cloud Map Developer Guide*.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## DiscoverInstancesRevision Example

This example lists the increasing revision associated with instances registered to the specified service in the specified namespace.

**Sample Request**

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20230607T233508Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20230607/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
```

```
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DiscoverInstancesRevision
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]
{
    "NamespaceName": "example-public-dns.com",
    "ServiceName": "example-dns-pub-service"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "InstancesRevision": 1001
}
```

## DiscoverInstancesRevision Example using OwnerAccount

This example lists the increasing revision associated with instances registered to a service in a shared namespace by specifying the `OwnerAccount`.

### Sample Request

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20230607T233508Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20230607/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.DiscoverInstancesRevision
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "NamespaceName": "example-public-dns.com",
    "ServiceName": "example-dns-pub-service",
    "OwnerAccount": "123456789012"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "InstancesRevision": 1001
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# GetInstance

Gets information about a specified instance.

## Request Syntax

```
{
   "InstanceId": "string",
   "ServiceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**InstanceId**

The ID of the instance that you want to get information about.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

**ServiceId**

The ID or Amazon Resource Name (ARN) of the service that the instance is associated with. For services created in a shared namespace, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Syntax

```
{
   "Instance": {
      "Attributes": {
         "string" : "string"
      },
      "CreatedByAccount": "string",
      "CreatorRequestId": "string",
      "Id": "string"
   },
   "ResourceOwner": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Instance**

A complex type that contains information about a specified instance.

Type: Instance object

**ResourceOwner**

The ID of the AWS account that created the namespace that contains the service that the instance is associated with. If this isn't your account ID, it's the ID of the account that shared the namespace with your account.

Type: String

Length Constraints: Fixed length of 12.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InstanceNotFound**

No instance exists with the specified ID, or the instance was recently registered, and information about the instance hasn't propagated yet.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## GetInstance Example

This example retrieves information about the specified instance.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211816Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetInstance
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "InstanceId": "i-abcd1234",
```

```
    "ServiceId": "srv-e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Instance": {
        "Id": "i-abcd1234",
        "Attributes": {
            "AWS_INSTANCE_IPV4": "192.0.2.44",
            "AWS_INSTANCE_PORT": "80",
            "color": "green",
            "region": "us-west-2",
            "stage": "beta"
        },
        "CreatedByAccount": "123456789012"
    }
    "ResourceOwner": "123456789012"
}
```

## GetInstance Example using service ARN

This example retrieves information about an instance registered by account 111122223333 in a namespace shared by account 123456789012 using the service ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211816Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetInstance
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]
```

```
{
    "InstanceId": "i-abcd1234",
    "ServiceId": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Instance": {
        "Id": "i-abcd1234",
        "Attributes": {
            "AWS_INSTANCE_IPV4": "192.0.2.44",
            "AWS_INSTANCE_PORT": "80",
            "color": "green",
            "region": "us-west-2",
            "stage": "beta"
        },
        "CreatedByAccount": "111122223333"
    }
    "ResourceOwner": "123456789012"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# GetInstancesHealthStatus

Gets the current health status (`Healthy`, `Unhealthy`, or `Unknown`) of one or more instances that are associated with a specified service.

> **Note**
>
> There's a brief delay between when you register an instance and when the health status for the instance is available.

## Request Syntax

```
{
   "Instances": [ "string" ],
   "MaxResults": number,
   "NextToken": "string",
   "ServiceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### Instances

An array that contains the IDs of all the instances that you want to get the health status for.

If you omit `Instances`, AWS Cloud Map returns the health status for all the instances that are associated with the specified service.

> **Note**
>
> To get the IDs for the instances that you've registered by using a specified service, submit a ListInstances request.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Maximum length of 64.

Required: No

### MaxResults

The maximum number of instances that you want AWS Cloud Map to return in the response to a `GetInstancesHealthStatus` request. If you don't specify a value for `MaxResults`, AWS Cloud Map returns up to 100 instances.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

For the first `GetInstancesHealthStatus` request, omit this value.

If more than `MaxResults` instances match the specified criteria, you can submit another `GetInstancesHealthStatus` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

Type: String

Length Constraints: Maximum length of 4096.

Required: No

### ServiceId

The ID or Amazon Resource Name (ARN) of the service that the instance is associated with. For services created in a shared namespace, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Syntax

```
{
   "NextToken": "string",
   "Status": {
      "string" : "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextToken**

If more than `MaxResults` instances match the specified criteria, you can submit another `GetInstancesHealthStatus` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

Type: String

Length Constraints: Maximum length of 4096.

**Status**

A complex type that contains the IDs and the health status of the instances that you specified in the `GetInstancesHealthStatus` request.

Type: String to string map

Key Length Constraints: Maximum length of 64.

Valid Values: `HEALTHY | UNHEALTHY | UNKNOWN`

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InstanceNotFound**

No instance exists with the specified ID, or the instance was recently registered, and information about the instance hasn't propagated yet.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## GetInstancesHealthStatus Example

This example retrieves the health status for instances registered with the specified service.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211818Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetInstancesHealthStatus
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "ServiceId": "srv-e4anhexample0004"
```

```
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Status": {
        "i-abcd1234": "HEALTHY",
        "i-abcd1235": "UNHEALTHY"
    }
}
```

## GetInstancesHealthStatus Example using service ARN

This example retrieves the health status for instances registered with a service in a shared namespace using the service ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211818Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetInstancesHealthStatus
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "ServiceId": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
```

```
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Status": {
        "i-abcd1234": "HEALTHY",
        "i-abcd1235": "UNHEALTHY"
    }
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# GetNamespace

Gets information about a namespace.

## Request Syntax

```
{
   "Id": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### Id

The ID or Amazon Resource Name (ARN) of the namespace that you want to get information about. For namespaces shared with your AWS account, specify the namespace ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Syntax

```
{
   "Namespace": {
      "Arn": "string",
      "CreateDate": number,
      "CreatorRequestId": "string",
      "Description": "string",
      "Id": "string",
      "Name": "string",
      "Properties": {
```

```
         "DnsProperties": {
            "HostedZoneId": "string",
            "SOA": {
               "TTL": number
            }
         },
         "HttpProperties": {
            "HttpName": "string"
         }
      },
      "ResourceOwner": "string",
      "ServiceCount": number,
      "Type": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Namespace**

A complex type that contains information about the specified namespace.

Type: Namespace object

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceNotFound**

No namespace exists with the specified ID.

HTTP Status Code: 400

# Examples

## GetNamespace Example

This example request retrieves information about the specified namespace.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211711Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Id": "ns-e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Namespace": {
        "Arn": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e1tpmexample0001",
        "CreateDate": "20181118T211712Z",
        "CreatorRequestId": "example-creator-request-id-0001",
        "Description": "Example.com AWS Cloud Map HTTP Namespace",
        "Id": "ns-e1tpmexample0001",
        "Name": "example-http.com",
        "Properties": {
```

```
            "DnsProperties": {},
            "HttpProperties": {
                "HttpName": "example-http.com"
            }
        },
        "Type": "HTTP",
        "ResourceOwner": "123456789012"
    }
}
```

## GetNamespace Example using ARN

This example request retrieves information about a shared namespace using its ARN. The namespace owner is account 123456789012 and the consumer is 111122223333.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211711Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Id": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Namespace": {
```

```
        "Arn": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e1tpmexample0001",
        "CreateDate": "20181118T211712Z",
        "CreatorRequestId": "example-creator-request-id-0001",
        "Description": "Example.com AWS Cloud Map HTTP Namespace",
        "Id": "ns-e1tpmexample0001",
        "Name": "example-http.com",
        "Properties": {
            "DnsProperties": {},
            "HttpProperties": {
                "HttpName": "example-http.com"
            }
        },
        "Type": "HTTP",
        "ResourceOwner": "123456789012"
    }
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# GetOperation

Gets information about any operation that returns an operation ID in the response, such as a `CreateHttpNamespace` request.

> **Note**
>
> To get a list of operations that match specified criteria, see ListOperations.

## Request Syntax

```
{
   "OperationId": "string",
   "OwnerAccount": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**OperationId**

The ID of the operation that you want to get more information about.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

**OwnerAccount**

The ID of the AWS account that owns the namespace associated with the operation, as specified in the namespace `ResourceOwner` field. For operations associated with namespaces that are shared with your account, you must specify an `OwnerAccount`.

Type: String

Length Constraints: Fixed length of 12.

Required: No

## Response Syntax

```
{
   "Operation": {
      "CreateDate": number,
      "ErrorCode": "string",
      "ErrorMessage": "string",
      "Id": "string",
      "OwnerAccount": "string",
      "Status": "string",
      "Targets": {
         "string" : "string"
      },
      "Type": "string",
      "UpdateDate": number
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Operation

A complex type that contains information about the operation.

Type: Operation object

## Errors

For information about the errors that are common to all actions, see Common Error Types.

#### InvalidInput

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**OperationNotFound**

No operation exists with the specified ID.

HTTP Status Code: 400

# Examples

## GetOperation Example

This example request retrieves information about the specified operation.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211710Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetOperation
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "OperationId": "deleteelozuhfet5kzxoxg-a-response-example"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Operation": {
        "CreateDate": "20181118T211707Z",
        "OwnerAccount": "123456789012"
```

```
        "Id": "deleteelozuhfet5kzxoxg-a-response-example",
        "Status": "SUCCESS",
        "Targets": {
            "NAMESPACE": "ns-e4anhexample0004"
        },
        "Type": "DELETE_NAMESPACE",
        "UpdateDate": "20181118T211708Z"
    }
}
```

## GetOperation Example using OwnerAccount

This example request retrieves information about an operation associated with a shared namespace by specifying the OwnerAccount.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211710Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetOperation
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "OperationId": "deleteelozuhfet5kzxoxg-a-response-example",
    "OwnerAccount": "123456789012"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Operation": {
```

```
        "CreateDate": "20181118T211707Z",
        "OwnerAccount": "123456789012",
        "Id": "deleteelozuhfet5kzxoxg-a-response-example",
        "Status": "SUCCESS",
        "Targets": {
            "NAMESPACE": "ns-e4anhexample0004"
        },
        "Type": "DELETE_NAMESPACE",
        "UpdateDate": "20181118T211708Z"
    }
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# GetService

Gets the settings for a specified service.

## Request Syntax

```
{
   "Id": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### Id

The ID or Amazon Resource Name (ARN) of the service that you want to get settings for. For services created by consumers in a shared namespace, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Syntax

```
{
   "Service": {
      "Arn": "string",
      "CreateDate": number,
      "CreatedByAccount": "string",
      "CreatorRequestId": "string",
      "Description": "string",
      "DnsConfig": {
```

```
         "DnsRecords": [
            {
               "TTL": number,
               "Type": "string"
            }
         ],
         "NamespaceId": "string",
         "RoutingPolicy": "string"
      },
      "HealthCheckConfig": {
         "FailureThreshold": number,
         "ResourcePath": "string",
         "Type": "string"
      },
      "HealthCheckCustomConfig": {
         "FailureThreshold": number
      },
      "Id": "string",
      "InstanceCount": number,
      "Name": "string",
      "NamespaceId": "string",
      "ResourceOwner": "string",
      "Type": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Service**

A complex type that contains information about the service.

Type: Service object

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## GetService Example

This example request retrieves information about the specified service.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211709Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetService
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Id": "srv-e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
```

```
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Service": {
        "Arn": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
        "CreateDate": "20181118T211707Z",
        "CreatorRequestId": "example-creator-request-id-0004",
        "Description": "Example.com AWS Cloud Map HTTP Service",
        "HealthCheckConfig": {
            "FailureThreshold": 1,
            "ResourcePath": "/",
            "Type": "HTTPS"
        },
        "Id": "srv-e4anhexample0004",
        "Name": "example-http-service",
        "NamespaceId": "ns-e4anhexample0004",
        "ResourceOwner": "123456789012",
        "CreatedByAccount": "123456789012"
    }
}
```

## GetService Example using ARN

This example request retrieves information about a service in a shared namespace using its ARN. The service was created by account 11112222333 in a namespace shared by 123456789012.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211709Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetService
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
```

```
    "Id": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Service": {
        "Arn": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
        "CreateDate": "20181118T211707Z",
        "CreatorRequestId": "example-creator-request-id-0004",
        "Description": "Example.com AWS Cloud Map HTTP Service",
        "HealthCheckConfig": {
            "FailureThreshold": 1,
            "ResourcePath": "/",
            "Type": "HTTPS"
        },
        "Id": "srv-e4anhexample0004",
        "Name": "example-http-service",
        "NamespaceId": "ns-e4anhexample0004",
        "ResourceOwner": "123456789012",
        "CreatedByAccount": "111122223333"
    }
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# GetServiceAttributes

Returns the attributes associated with a specified service.

## Request Syntax

```
{
   "ServiceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### ServiceId

The ID or Amazon Resource Name (ARN) of the service that you want to get attributes for. For services created in a namespace shared with your AWS account, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Syntax

```
{
   "ServiceAttributes": {
      "Attributes": {
         "string" : "string"
      },
      "ResourceOwner": "string",
      "ServiceArn": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ServiceAttributes**

A complex type that contains the service ARN and a list of attribute key-value pairs associated with the service.

Type: ServiceAttributes object

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

## Examples

### GetServiceAttributes Example for service with an attribute

The following API request retrieves attributes for the service `srv-e4anhexample0004`. The service has the attribute `Port` with the value `80`.

**Sample Request**

```
POST / HTTP/1.1
```

```
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20241223T173136Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetServiceAttributes
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "ServiceId": "srv-e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "ServiceAttributes": {
        "ServiceArn": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
        "Attributes": {
            "Port": "80"
        },
        "ResourceOwner": "123456789012"
    }
}
```

## GetServiceAttributes Example for service without attributes

The following API request demonstrates the response returned when a service does not have any attributes associated with it.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20241223T173136Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
```

```
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetServiceAttributes
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "ServiceId": "srv-e4anhexample0005"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "ServiceAttributes": {
        "ServiceArn": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0005",
        "Attributes": {},
        "ResourceOwner": "123456789012"
    }
}
```

## GetServiceAttributes Example using service ARN

The following API request retrieves attributes for a service in a shared namespace using its ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20241223T173136Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.GetServiceAttributes
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]
```

```
{
    "ServiceId": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "ServiceAttributes": {
        "ServiceArn": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
        "Attributes": {
            "Port": "80"
        },
        "ResourceOwner": "123456789012"

    }
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# ListInstances

Lists summary information about the instances that you registered by using a specified service.

## Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string",
   "ServiceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**MaxResults**

The maximum number of instances that you want AWS Cloud Map to return in the response to a `ListInstances` request. If you don't specify a value for `MaxResults`, AWS Cloud Map returns up to 100 instances.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken**

For the first `ListInstances` request, omit this value.

If more than `MaxResults` instances match the specified criteria, you can submit another `ListInstances` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

Type: String

Length Constraints: Maximum length of 4096.

Required: No

**ServiceId**

The ID or Amazon Resource Name (ARN) of the service that you want to list instances for. For services created in a shared namespace, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Syntax

```
{
   "Instances": [
      {
         "Attributes": {
            "string" : "string"
         },
         "CreatedByAccount": "string",
         "Id": "string"
      }
   ],
   "NextToken": "string",
   "ResourceOwner": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Instances**

Summary information about the instances that are associated with the specified service.

Type: Array of InstanceSummary objects

**NextToken**

If more than `MaxResults` instances match the specified criteria, you can submit another `ListInstances` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

Type: String

Length Constraints: Maximum length of 4096.

**ResourceOwner**

The ID of the AWS account that created the namespace that contains the specified service. If this isn't your account ID, it's the ID of the account that shared the namespace with your account.

Type: String

Length Constraints: Fixed length of 12.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

## Examples

### ListInstances Example

This example request lists information about all instances associated with the specified service.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211817Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.ListInstances
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "ServiceId": "srv-e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Instances": [
        {
            "Id": "i-abcd1234",
            "Attributes": {
                "AWS_INSTANCE_IPV4": "192.0.2.44",
                "AWS_INSTANCE_PORT": "80",
                "color": "green",
                "region": "us-west-2",
                "stage": "beta"
            },
            "CreatedByAccount": "123456789012"
        },
        {
            "Id": "i-abcd1235",
            "Attributes": {
                "AWS_INSTANCE_IPV4": "192.0.2.45",
                "AWS_INSTANCE_PORT": "80",
                "color": "blue",
```

```
                "region": "us-west-2",
                "stage": "beta"
            },
            "CreatedByAccount": "123456789012"
        }
    ],
    "ResourceOwner": "123456789012"
}
```

## ListInstances Example using service ARN

This example request lists information about all instances associated with a service in a shared namespace using the service ARN. The blue service is created by namespace consumer 111122223333 and the green service is created by the namespace owner 123456789012.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211817Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.ListInstances
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "ServiceId": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Instances": [
```

```
        {
            "Id": "i-abcd1234",
            "Attributes": {
                "AWS_INSTANCE_IPV4": "192.0.2.44",
                "AWS_INSTANCE_PORT": "80",
                "color": "green",
                "region": "us-west-2",
                "stage": "beta"
            },
            "CreatedByAccount": "123456789012"
        },
        {
            "Id": "i-abcd1235",
            "Attributes": {
                "AWS_INSTANCE_IPV4": "192.0.2.45",
                "AWS_INSTANCE_PORT": "80",
                "color": "blue",
                "region": "us-west-2",
                "stage": "beta"
            },
            "CreatedByAccount": "111122223333"
        }
    ],
    "ResourceOwner": "123456789012"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

# ListNamespaces

Lists summary information about the namespaces that were created by the current AWS account and shared with the current AWS account.

## Request Syntax

```
{
   "Filters": [
      {
         "Condition": "string",
         "Name": "string",
         "Values": [ "string" ]
      }
   ],
   "MaxResults": number,
   "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### Filters

A complex type that contains specifications for the namespaces that you want to list.

If you specify more than one filter, a namespace must match all filters to be returned by `ListNamespaces`.

Type: Array of NamespaceFilter objects

Required: No

### MaxResults

The maximum number of namespaces that you want AWS Cloud Map to return in the response to a `ListNamespaces` request. If you don't specify a value for `MaxResults`, AWS Cloud Map returns up to 100 namespaces.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken**

For the first `ListNamespaces` request, omit this value.

If the response contains `NextToken`, submit another `ListNamespaces` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

> **Note**
>
> AWS Cloud Map gets `MaxResults` namespaces and then filters them based on the specified criteria. It's possible that no namespaces in the first `MaxResults` namespaces matched the specified criteria but that subsequent groups of `MaxResults` namespaces do contain namespaces that match the criteria.

Type: String

Length Constraints: Maximum length of 4096.

Required: No

## Response Syntax

```
{
   "Namespaces": [
      {
         "Arn": "string",
         "CreateDate": number,
         "Description": "string",
         "Id": "string",
         "Name": "string",
         "Properties": {
            "DnsProperties": {
               "HostedZoneId": "string",
               "SOA": {
                  "TTL": number
               }
```

```
            },
            "HttpProperties": {
               "HttpName": "string"
            }
         },
         "ResourceOwner": "string",
         "ServiceCount": number,
         "Type": "string"
      }
   ],
   "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Namespaces

An array that contains one `NamespaceSummary` object for each namespace that matches the specified filter criteria.

Type: Array of NamespaceSummary objects

### NextToken

If the response contains `NextToken`, submit another `ListNamespaces` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

> **Note**
>
> AWS Cloud Map gets `MaxResults` namespaces and then filters them based on the specified criteria. It's possible that no namespaces in the first `MaxResults` namespaces matched the specified criteria but that subsequent groups of `MaxResults` namespaces do contain namespaces that match the criteria.

Type: String

Length Constraints: Maximum length of 4096.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

### InvalidInput

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

## Examples

### ListNamespaces Example

This example request lists the namespaces created by and shared with the current AWS account 123456789012 in the current AWS region. `example-http.com` is a shared namespace.

#### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211712Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.ListNamespaces
content-type:application/x-amz-json-1.1
content-length:2

{}
```

#### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
```

```
    "Namespaces": [
        {
            "Arn": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e1tpmexample0001",
            "CreateDate": "20181118T211701Z",
            "Description": "Example.com AWS Cloud Map Public DNS Namespace",
            "Id": "ns-e1tpmexample0001",
            "Name": "example-public-dns.com",
            "Properties": {
                "DnsProperties": {
                    "HostedZoneId": "TH3TGRTT0TR20S"
                },
                "HttpProperties": {
                    "HttpName": "example-public-dns.com"
                }
            },
            "Type": "DNS_PUBLIC"
            "ResourceOwner": "123456789012"
        },
        {
            "Arn": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e2a0cexample0002",
            "CreateDate": "20181118T211702Z",
            "Description": "Example.com AWS Cloud Map Private DNS Namespace",
            "Id": "ns-e2a0cexample0002",
            "Name": "example-private-dns.com",
            "Properties": {
                "DnsProperties": {
                    "HostedZoneId": "T1U1TGSSKSSHD"
                },
                "HttpProperties": {
                    "HttpName": "example-private-dns.com"
                }
            },
            "Type": "DNS_PRIVATE",
            "ResourceOwner": "123456789012"
        },
        {
            "Arn": "arn:aws:servicediscovery:us-west-2:111122223333;:namespace/ns-
e3r0sexample0003",
            "CreateDate": "20181118T211703Z",
            "Description": "Example.com AWS Cloud Map HTTP Namespace",
            "Id": "ns-e3r0sexample0003",
            "Name": "example-http.com",
```

```
            "Properties": {
                "DnsProperties": {},
                "HttpProperties": {
                    "HttpName": "example-http.com"
                }
            },
            "Type": "HTTP",
            "ResourceOwner": "111122223333"
        }
    ]
}
```

## ListNamespaces Example using RESOURCE_OWNER filter

This example request retrieves information about services associated with a namespace shared by another account 111122223333 that account 123456789012 has access to.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211712Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.ListNamespaces
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Filters": [
        {
            "Name": "RESOURCE_OWNER",
            "Condition": "EQ",
            "Values": [
                "OTHER_ACCOUNTS"
            ]
        }
    ]
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Namespaces": [
         {
            "Arn": "arn:aws:servicediscovery:us-west-2:111122223333;:namespace/ns-
e3r0sexample0003",
            "CreateDate": "20181118T211703Z",
            "Description": "Example.com AWS Cloud Map HTTP Namespace",
            "Id": "ns-e3r0sexample0003",
            "Name": "example-http.com",
            "Properties": {
                "DnsProperties": {},
                "HttpProperties": {
                    "HttpName": "example-http.com"
                }
            },
            "Type": "HTTP",
            "ResourceOwner": "111122223333"
        }
    ]
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

# ListOperations

Lists operations that match the criteria that you specify.

## Request Syntax

```
{
   "Filters": [
      {
         "Condition": "string",
         "Name": "string",
         "Values": [ "string" ]
      }
   ],
   "MaxResults": number,
   "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### Filters

A complex type that contains specifications for the operations that you want to list, for example, operations that you started between a specified start date and end date.

If you specify more than one filter, an operation must match all filters to be returned by `ListOperations`.

Type: Array of OperationFilter objects

Required: No

### MaxResults

The maximum number of items that you want AWS Cloud Map to return in the response to a `ListOperations` request. If you don't specify a value for `MaxResults`, AWS Cloud Map returns up to 100 operations.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken**

For the first `ListOperations` request, omit this value.

If the response contains `NextToken`, submit another `ListOperations` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

> **Note**
>
> AWS Cloud Map gets `MaxResults` operations and then filters them based on the specified criteria. It's possible that no operations in the first `MaxResults` operations matched the specified criteria but that subsequent groups of `MaxResults` operations do contain operations that match the criteria.

Type: String

Length Constraints: Maximum length of 4096.

Required: No

## Response Syntax

```
{
   "NextToken": "string",
   "Operations": [
      {
         "Id": "string",
         "Status": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextToken**

If the response contains `NextToken`, submit another `ListOperations` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

> **Note**
>
> AWS Cloud Map gets `MaxResults` operations and then filters them based on the specified criteria. It's possible that no operations in the first `MaxResults` operations matched the specified criteria but that subsequent groups of `MaxResults` operations do contain operations that match the criteria.

Type: String

Length Constraints: Maximum length of 4096.

**Operations**

Summary information about the operations that match the specified criteria.

Type: Array of OperationSummary objects

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

# Examples

## ListOperations Example

This example request lists operations that have a status of PENDING or SUCCESS.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211813Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.ListOperations
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Filters": [
        {
            "Name": "STATUS",
            "Condition": "IN",
            "Values": [
                "PENDING",
                "SUCCESS"
            ]
        }
    ]
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Operations": [
        {
            "Id": "76yy8ovhpdz0plmjzbsnqgnrqvpv2qdt-kexample",
```

```
            "Status": "SUCCESS"
        },
        {
            "Id": "prysnyzpji3u2ciy45nke83x2zanl7yk-dexample",
            "Status": "SUCCESS"
        },
        {
            "Id": "ko4ekftir7kzlbechsh7xvcdgcpk66gh-7example",
            "Status": "PENDING"
        }
    ]
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# ListServices

Lists summary information for all the services that are associated with one or more namespaces.

## Request Syntax

```
{
   "Filters": [
      {
         "Condition": "string",
         "Name": "string",
         "Values": [ "string" ]
      }
   ],
   "MaxResults": number,
   "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Filters**

A complex type that contains specifications for the namespaces that you want to list services for.

If you specify more than one filter, an operation must match all filters to be returned by `ListServices`.

Type: Array of ServiceFilter objects

Required: No

**MaxResults**

The maximum number of services that you want AWS Cloud Map to return in the response to a `ListServices` request. If you don't specify a value for `MaxResults`, AWS Cloud Map returns up to 100 services.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken**

For the first `ListServices` request, omit this value.

If the response contains `NextToken`, submit another `ListServices` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

> **Note**
>
> AWS Cloud Map gets `MaxResults` services and then filters them based on the specified criteria. It's possible that no services in the first `MaxResults` services matched the specified criteria but that subsequent groups of `MaxResults` services do contain services that match the criteria.

Type: String

Length Constraints: Maximum length of 4096.

Required: No

## Response Syntax

```
{
   "NextToken": "string",
   "Services": [
      {
         "Arn": "string",
         "CreateDate": number,
         "CreatedByAccount": "string",
         "Description": "string",
         "DnsConfig": {
            "DnsRecords": [
               {
                  "TTL": number,
                  "Type": "string"
               }
```

```
            ],
            "NamespaceId": "string",
            "RoutingPolicy": "string"
         },
         "HealthCheckConfig": {
            "FailureThreshold": number,
            "ResourcePath": "string",
            "Type": "string"
         },
         "HealthCheckCustomConfig": {
            "FailureThreshold": number
         },
         "Id": "string",
         "InstanceCount": number,
         "Name": "string",
         "ResourceOwner": "string",
         "Type": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the response contains `NextToken`, submit another `ListServices` request to get the next group of results. Specify the value of `NextToken` from the previous response in the next request.

> **Note**
>
> AWS Cloud Map gets `MaxResults` services and then filters them based on the specified criteria. It's possible that no services in the first `MaxResults` services matched the specified criteria but that subsequent groups of `MaxResults` services do contain services that match the criteria.

Type: String

Length Constraints: Maximum length of 4096.

**Services**

An array that contains one `ServiceSummary` object for each service that matches the specified filter criteria.

Type: Array of ServiceSummary objects

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

## Examples

### ListServices Example

This example request retrieves information about services that are associated with the specified namespace.

**Sample Request**

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211713Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.ListServices
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]
```

```
{
    "Filters": [
        {
            "Name": "NAMESPACE_ID",
            "Condition": "EQ",
            "Values": [
                "ns-e3r0sexample0003"
            ]
        }
    ]
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Services": [
        {
            "Arn": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
            "CreateDate": "20181118T211707Z",
            "Description": "Example.com AWS Cloud Map HTTP Service",
            "HealthCheckConfig": {
                "FailureThreshold": 1,
                "ResourcePath": "/",
                "Type": "HTTPS"
            },
            "Id": "srv-e4anhexample0004",
            "Name": "example-http-service",
            "ResourceOwner": "123456789012",
            "CreatedByAccount": "123456789012"
        }
    ]
}
```

## ListServices Example using RESOURCE_OWNER filter

This example request retrieves information about services created by 123456789012 in a namespace shared by another account 111122223333.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211713Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.ListServices
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Filters": [
        {
            "Name": "RESOURCE_OWNER",
            "Condition": "EQ",
            "Values": [
                "OTHER_ACCOUNTS"
            ]
        }
    ]
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "Services": [
        {
            "Arn": "arn:aws:servicediscovery:us-west-2:111122223333:service/srv-
e4anhexample0004",
            "CreateDate": "20181118T211707Z",
            "Description": "Service in shared namespace",
            "HealthCheckConfig": {
                "FailureThreshold": 1,
                "ResourcePath": "/",
                "Type": "HTTPS"
```

```
            },
            "Id": "srv-e4anhexample0004",
            "Name": "shared-service",
            "CreatedByAccount":"123456789012",
            "ResourceOwner": "111122223333"
        }
    ]
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# ListTagsForResource

Lists tags for the specified resource.

## Request Syntax

```
{
   "ResourceARN": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceARN**

The Amazon Resource Name (ARN) of the resource that you want to retrieve tags for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

## Response Syntax

```
{
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Tags**

The tags that are assigned to the resource.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ResourceNotFoundException**

The operation can't be completed because the resource was not found.

HTTP Status Code: 400

## Examples

### ListTagsForResource Example

This example request lists tags associated with the specified resource.

**Sample Request**

```
POST / HTTP/1.1
Host: servicediscovery.us-east-1.amazonaws.com
Accept-Encoding: identity
X-Amz-Target: Route53AutoNaming_v20170314.ListTagsForResource
Content-Type: application/x-amz-json-1.1
X-Amz-Date: 20200521T193322Z
```

```
X-Amz-Security-Token: [security-token]
Authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20200521/us-east-1/
servicediscovery/aws4_request,
               SignedHeaders=content-type;host;x-amz-date;x-amz-security-token;x-amz-
target,
               Signature=[calculated-signature]
Content-Length: [number of characters in the JSON string]

{
    "ResourceARN": "arn:aws:servicediscovery:us-east-1:123456789012:namespace/ns-
ylexjili4cdxy3xm"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Type: application/x-amz-json-1.1
Date: Thu, 21 May 2020 19:33:22 GMT
x-amzn-RequestId: [request-id]
Content-Length: [number of characters in the JSON string]
Connection: keep-alive

{
    "Tags": [{
        "Key": "Project",
        "Value": "Zeta"
    }, {
        "Key": "Department",
        "Value": "Engineering"
    }]
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# RegisterInstance

Creates or updates one or more records and, optionally, creates a health check based on the settings in a specified service. When you submit a `RegisterInstance` request, the following occurs:

- For each DNS record that you define in the service that's specified by `ServiceId`, a record is created or updated in the hosted zone that's associated with the corresponding namespace.
- If the service includes `HealthCheckConfig`, a health check is created based on the settings in the health check configuration.
- The health check, if any, is associated with each of the new or updated records.

> **Important**
>
> One `RegisterInstance` request must complete before you can submit another request and specify the same service ID and instance ID.

For more information, see CreateService.

When AWS Cloud Map receives a DNS query for the specified DNS name, it returns the applicable value:

- **If the health check is healthy**: returns all the records
- **If the health check is unhealthy**: returns the applicable value for the last healthy instance
- **If you didn't specify a health check configuration**: returns all the records

For the current quota on the number of instances that you can register using the same namespace and using the same service, see AWS Cloud Map quotas in the *AWS Cloud Map Developer Guide*.

## Request Syntax

```
{
   "Attributes": {
      "string" : "string"
   },
   "CreatorRequestId": "string",
```

```
    "InstanceId": "string",
    "ServiceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### Attributes

A string map that contains the following information for the service that you specify in `ServiceId`:

- The attributes that apply to the records that are defined in the service.
- For each attribute, the applicable value.

> **Important**
>
> Do not include sensitive information in the attributes if the namespace is discoverable by public DNS queries.

The following are the supported attribute keys.

AWS_ALIAS_DNS_NAME

If you want AWS Cloud Map to create an Amazon Route 53 alias record that routes traffic to an Elastic Load Balancing load balancer, specify the DNS name that's associated with the load balancer. For information about how to get the DNS name, see "DNSName" in the topic AliasTarget in the *Route 53 API Reference*.

Note the following:

- The configuration for the service that's specified by `ServiceId` must include settings for an `A` record, an `AAAA` record, or both.
- In the service that's specified by `ServiceId`, the value of `RoutingPolicy` must be `WEIGHTED`.
- If the service that's specified by `ServiceId` includes `HealthCheckConfig` settings, AWS Cloud Map will create the Route 53 health check, but it doesn't associate the health check with the alias record.

- AWS Cloud Map currently doesn't support creating alias records that route traffic to AWS resources other than Elastic Load Balancing load balancers.
- If you specify a value for AWS_ALIAS_DNS_NAME, don't specify values for any of the AWS_INSTANCE attributes.
- The AWS_ALIAS_DNS_NAME is not supported in the GovCloud (US) Regions.

AWS_EC2_INSTANCE_ID

*HTTP namespaces only.* The Amazon EC2 instance ID for the instance. If the AWS_EC2_INSTANCE_ID attribute is specified, then the only other attribute that can be specified is AWS_INIT_HEALTH_STATUS. When the AWS_EC2_INSTANCE_ID attribute is specified, then the AWS_INSTANCE_IPV4 attribute will be filled out with the primary private IPv4 address.

AWS_INIT_HEALTH_STATUS

If the service configuration includes HealthCheckCustomConfig, you can optionally use AWS_INIT_HEALTH_STATUS to specify the initial status of the custom health check, HEALTHY or UNHEALTHY. If you don't specify a value for AWS_INIT_HEALTH_STATUS, the initial status is HEALTHY.

AWS_INSTANCE_CNAME

If the service configuration includes a CNAME record, the domain name that you want Route 53 to return in response to DNS queries (for example, example.com).

This value is required if the service specified by ServiceId includes settings for an CNAME record.

AWS_INSTANCE_IPV4

If the service configuration includes an A record, the IPv4 address that you want Route 53 to return in response to DNS queries (for example, 192.0.2.44).

This value is required if the service specified by ServiceId includes settings for an A record. If the service includes settings for an SRV record, you must specify a value for AWS_INSTANCE_IPV4, AWS_INSTANCE_IPV6, or both.

AWS_INSTANCE_IPV6

If the service configuration includes an AAAA record, the IPv6 address that you want Route 53 to return in response to DNS queries (for example, 2001:0db8:85a3:0000:0000:abcd:0001:2345).

This value is required if the service specified by `ServiceId` includes settings for an `AAAA` record. If the service includes settings for an `SRV` record, you must specify a value for `AWS_INSTANCE_IPV4`, `AWS_INSTANCE_IPV6`, or both.

AWS_INSTANCE_PORT

If the service includes an `SRV` record, the value that you want Route 53 to return for the port.

If the service includes `HealthCheckConfig`, the port on the endpoint that you want Route 53 to send requests to.

This value is required if you specified settings for an `SRV` record or a Route 53 health check when you created the service.

Custom attributes

You can add up to 30 custom attributes. For each key-value pair, the maximum length of the attribute name is 255 characters, and the maximum length of the attribute value is 1,024 characters. The total size of all provided attributes (sum of all keys and values) must not exceed 5,000 characters.

Type: String to string map

Key Length Constraints: Maximum length of 255.

Key Pattern: `^[a-zA-Z0-9!-~]+$`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `^([a-zA-Z0-9!-~][ \ta-zA-Z0-9!-~]*){0,1}[a-zA-Z0-9!-~]{0,1}$`

Required: Yes

## CreatorRequestId

A unique string that identifies the request and that allows failed `RegisterInstance` requests to be retried without the risk of executing the operation twice. You must use a unique `CreatorRequestId` string every time you submit a `RegisterInstance` request if you're registering additional instances for the same namespace and service. `CreatorRequestId` can be any unique string (for example, a date/time stamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

### InstanceId

An identifier that you want to associate with the instance. Note the following:

- If the service that's specified by `ServiceId` includes settings for an SRV record, the value of `InstanceId` is automatically included as part of the value for the SRV record. For more information, see DnsRecord > Type.
- You can use this value to update an existing instance.
- To register a new instance, you must specify a value that's unique among instances that you register by using the same service.
- If you specify an existing `InstanceId` and `ServiceId`, AWS Cloud Map updates the existing DNS records, if any. If there's also an existing health check, AWS Cloud Map deletes the old health check and creates a new one.

> **Note**
>
> The health check isn't deleted immediately, so it will still appear for a while if you submit a `ListHealthChecks` request, for example.

> **Note**
>
> Do not include sensitive information in `InstanceId` if the namespace is discoverable by public DNS queries and any `Type` member of `DnsRecord` for the service contains SRV because the `InstanceId` is discoverable by public DNS queries.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `^[0-9a-zA-Z_/:.@-]+$`

Required: Yes

### ServiceId

The ID or Amazon Resource Name (ARN) of the service that you want to use for settings for the instance. For services created in a shared namespace, specify the service ARN. For more

information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**OperationId**

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ResourceInUse**

The specified resource can't be deleted because it contains other resources. For example, you can't delete a service that contains any instances.

HTTP Status Code: 400

**ResourceLimitExceeded**

The resource can't be created because you've reached the quota on the number of resources.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## RegisterInstance Example

This example request registers an instance in the specified service.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211815Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
```

```
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.RegisterInstance
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "CreatorRequestId": "example-creator-request-id-0001",
    "InstanceId": "i-abcd1234",
    "Attributes": {
        "AWS_INSTANCE_IPV4": "192.0.2.44",
        "AWS_INSTANCE_PORT": "80",
        "color": "green",
        "region": "us-west-2",
        "stage": "beta"
    },
    "ServiceId": "srv-e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "OperationId":"dns1voqozuhfet5kzxoxg-a-response-example"
}
```

## RegisterInstance Example using service ARN

This example request registers an instance in a service within a shared namespace using the service ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211815Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
```

```
                Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.RegisterInstance
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "CreatorRequestId": "example-creator-request-id-0001",
    "InstanceId": "i-abcd1234",
    "Attributes": {
        "AWS_INSTANCE_IPV4": "192.0.2.44",
        "AWS_INSTANCE_PORT": "80",
        "color": "green",
        "region": "us-west-2",
        "stage": "beta"
    },
    "ServiceId": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "OperationId":"dns1voqozuhfet5kzxoxg-a-response-example"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# TagResource

Adds one or more tags to the specified resource.

## Request Syntax

```
{
   "ResourceARN": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceARN**

The Amazon Resource Name (ARN) of the resource that you want to retrieve tags for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

**Tags**

The tags to add to the specified resource. Specifying the tag key is required. You can set the value of a tag to an empty string, but you can't set the value of a tag to null.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ResourceNotFoundException**

The operation can't be completed because the resource was not found.

HTTP Status Code: 400

**TooManyTagsException**

The list of tags on the resource is over the quota. The maximum number of tags that can be applied to a resource is 50.

**ResourceName**

The name of the resource.

HTTP Status Code: 400

## Examples

### TagResource Example

This example request tags the specified resource.

**Sample Request**

```
POST / HTTP/1.1
Host: servicediscovery.us-east-1.amazonaws.com
```

```
Accept-Encoding: identity
X-Amz-Target: Route53AutoNaming_v20170314.TagResource
Content-Type: application/x-amz-json-1.1
X-Amz-Date: 20200521T192626Z
X-Amz-Security-Token: [security-token]
Authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20200521/us-east-1/
servicediscovery/aws4_request,
               SignedHeaders=content-type;host;x-amz-date;x-amz-security-token;x-amz-
target,
               Signature=[calculated-signature]
Content-Length: [number of characters in the JSON string]

{
    "ResourceARN": "arn:aws:servicediscovery:us-east-1:123456789012:namespace/ns-
ylexjili4cdxy3xm",
    "Tags": [{
        "Key": "Department",
        "Value": "Engineering"
    }, {
        "Key": "Project",
        "Value": "Zeta"
    }]
}
```

### Sample Response

```
HTTP/1.1 200
Content-Type: application/x-amz-json-1.1
Date: Thu, 21 May 2020 19:26:29 GMT
x-amzn-RequestId: [request-id]
Content-Length: 2
Connection: keep-alive

{}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# UntagResource

Removes one or more tags from the specified resource.

## Request Syntax

```
{
   "ResourceARN": "string",
   "TagKeys": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**ResourceARN**

The Amazon Resource Name (ARN) of the resource that you want to retrieve tags for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

**TagKeys**

The tag keys to remove from the specified resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ResourceNotFoundException**

The operation can't be completed because the resource was not found.

HTTP Status Code: 400

## Examples

### UntagResource Example

This example request removes tags with the specified keys from the resource.

**Sample Request**

```
POST / HTTP/1.1
Host: servicediscovery.us-east-1.amazonaws.com
Accept-Encoding: identity
X-Amz-Target: Route53AutoNaming_v20170314.UntagResource
Content-Type: application/x-amz-json-1.1
User-Agent: aws-cli/1.18.63 Python/3.6.9 Linux/4.4.0-18362-Microsoft botocore/1.16.13
X-Amz-Date: 20200521T193349Z
X-Amz-Security-Token: [security-token]
Authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20200521/us-east-1/
servicediscovery/aws4_request,
               SignedHeaders=content-type;host;x-amz-date;x-amz-security-token;x-amz-
target,
               Signature=[calculated-signature]
Content-Length: [number of characters in the JSON string]

{
```

```
    "ResourceARN": "arn:aws:servicediscovery:us-east-1:123456789012:namespace/ns-
ylexjili4cdxy3xm",
    "TagKeys": ["Project", "Department"]
}
```

### Sample Response

```
HTTP/1.1 200
Content-Type: application/x-amz-json-1.1
Date: Thu, 21 May 2020 19:33:49 GMT
x-amzn-RequestId: [request-id]
Content-Length: 2
Connection: keep-alive

{}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# UpdateHttpNamespace

Updates an HTTP namespace.

## Request Syntax

```
{
   "Id": "string",
   "Namespace": {
      "Description": "string"
   },
   "UpdaterRequestId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Id**

The ID or Amazon Resource Name (ARN) of the namespace that you want to update.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

**Namespace**

Updated properties for the the HTTP namespace.

Type: HttpNamespaceChange object

Required: Yes

**UpdaterRequestId**

A unique string that identifies the request and that allows failed `UpdateHttpNamespace` requests to be retried without the risk of running the operation twice. `UpdaterRequestId` can be any unique string (for example, a date/timestamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**OperationId**

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceNotFound**

No namespace exists with the specified ID.

HTTP Status Code: 400

**ResourceInUse**

The specified resource can't be deleted because it contains other resources. For example, you can't delete a service that contains any instances.

HTTP Status Code: 400

# Examples

## UpdateHttpNamespace Example

This example updates the description of an HTTP namespace.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211703Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdateHttpNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
  "Id": "ns-e4anhexample0004",
```

```
  "UpdaterRequestId": "example-id",
  "Namespace": { "Description": "The updated namespace description" }
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"httpvoqozuhfet5kzxoxg-a-response-example"
}
```

## UpdateHttpNamespace Example using ARN

This example updates the description of a shared HTTP namespace using its ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211703Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdateHttpNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
  "Id": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e4anhexample0004",
  "UpdaterRequestId": "example-id",
  "Namespace": { "Description": "The updated namespace description" }
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
```

```
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"httpvoqozuhfet5kzxoxg-a-response-example"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# UpdateInstanceCustomHealthStatus

Submits a request to change the health status of a custom health check to healthy or unhealthy.

You can use `UpdateInstanceCustomHealthStatus` to change the status only for custom health checks, which you define using `HealthCheckCustomConfig` when you create a service. You can't use it to change the status for Route 53 health checks, which you define using `HealthCheckConfig`.

For more information, see HealthCheckCustomConfig.

## Request Syntax

```
{
   "InstanceId": "string",
   "ServiceId": "string",
   "Status": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**InstanceId**

The ID of the instance that you want to change the health status for.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

**ServiceId**

The ID or Amazon Resource Name (ARN) of the service that includes the configuration for the custom health check that you want to change the status for. For services created in a shared namespace, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

**Status**

The new status of the instance, `HEALTHY` or `UNHEALTHY`.

Type: String

Valid Values: `HEALTHY` | `UNHEALTHY`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**CustomHealthNotFound**

The health check for the instance that's specified by `ServiceId` and `InstanceId` isn't a custom health check.

HTTP Status Code: 400

**InstanceNotFound**

No instance exists with the specified ID, or the instance was recently registered, and information about the instance hasn't propagated yet.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## UpdateInstanceCustomHealthStatus Example

This example updates the custom health status for the specified instance to HEALTHY.

### Sample Request

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211819Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdateInstanceCustomHealthStatus
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "InstanceId": "i-abcd1234",
    "ServiceId": "srv-e4anhexample0004",
    "Status": "HEALTHY"
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{}
```

### UpdateInstanceCustomHealthStatus Example using service ARN

This example updates the custom health status for an instance in a service within a shared namespace using the service ARN.

#### Sample Request

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211819Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdateInstanceCustomHealthStatus
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "InstanceId": "i-abcd1234",
    "ServiceId": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
    "Status": "HEALTHY"
}
```

#### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# UpdatePrivateDnsNamespace

Updates a private DNS namespace.

## Request Syntax

```
{
   "Id": "string",
   "Namespace": {
      "Description": "string",
      "Properties": {
         "DnsProperties": {
            "SOA": {
               "TTL": number
            }
         }
      }
   },
   "UpdaterRequestId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### Id

The ID or Amazon Resource Name (ARN) of the namespace that you want to update.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

### Namespace

Updated properties for the private DNS namespace.

Type: PrivateDnsNamespaceChange object

Required: Yes

**UpdaterRequestId**

A unique string that identifies the request and that allows failed `UpdatePrivateDnsNamespace` requests to be retried without the risk of running the operation twice. `UpdaterRequestId` can be any unique string (for example, a date/timestamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**OperationId**

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceNotFound**

No namespace exists with the specified ID.

HTTP Status Code: 400

**ResourceInUse**

The specified resource can't be deleted because it contains other resources. For example, you can't delete a service that contains any instances.

HTTP Status Code: 400

# Examples

## UpdatePrivateDnsNamespace Example

This example updates the description for the specified private DNS namespace.

### Sample Request

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211819Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
```

```
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdatePrivateDNSNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]
{
  "Id": "ns-e4anhexample0004",
  "UpdaterRequestId": "example-id",
  "Namespace": { "Description": "The updated namespace description" }
 }
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"httpvoqozuhfet5kzxoxg-a-response-example"
}
```

## UpdatePrivateDnsNamespace Example using ARN

This example updates the description for a shared private DNS namespace using its ARN.

### Sample Request

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211819Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdatePrivateDNSNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
  "Id": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e4anhexample0004",
  "UpdaterRequestId": "example-id",
```

```
  "Namespace": { "Description": "The updated namespace description" }
 }
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"httpvoqozuhfet5kzxoxg-a-response-example"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# UpdatePublicDnsNamespace

Updates a public DNS namespace.

## Request Syntax

```
{
   "Id": "string",
   "Namespace": {
      "Description": "string",
      "Properties": {
         "DnsProperties": {
            "SOA": {
               "TTL": number
            }
         }
      }
   },
   "UpdaterRequestId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### Id

The ID or Amazon Resource Name (ARN) of the namespace being updated.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

### Namespace

Updated properties for the public DNS namespace.

Type: PublicDnsNamespaceChange object

Required: Yes

### UpdaterRequestId

A unique string that identifies the request and that allows failed `UpdatePublicDnsNamespace` requests to be retried without the risk of running the operation twice. `UpdaterRequestId` can be any unique string (for example, a date/timestamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### OperationId

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**NamespaceNotFound**

No namespace exists with the specified ID.

HTTP Status Code: 400

**ResourceInUse**

The specified resource can't be deleted because it contains other resources. For example, you can't delete a service that contains any instances.

HTTP Status Code: 400

# Examples

## UpdatePublicDnsNamespace Example

This example updates the description for the specified public DNS namespace.

### Sample Request

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211819Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
```

```
x-amz-target:Route53AutoNaming_v20170314.UpdatePublicDNSNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]
{
  "Id": "ns-e4anhexample0004",
  "UpdaterRequestId": "example-id",
  "Namespace": { "Description": "The updated namespace description" }
 }
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"httpvoqozuhfet5kzxoxg-a-response-example"
}
```

## UpdatePublicDnsNamespace Example using ARN

This example updates the description for a shared public DNS namespace using its ARN.

### Sample Request

```
POST / HTTP/1.1
host:data-servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211819Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdatePublicDNSNamespace
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
  "Id": "arn:aws:servicediscovery:us-west-2:123456789012:namespace/ns-
e4anhexample0004",
  "UpdaterRequestId": "example-id",
  "Namespace": { "Description": "The updated namespace description" }
 }
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{
    "OperationId":"httpvoqozuhfet5kzxoxg-a-response-example"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# UpdateService

Submits a request to perform the following operations:

- Update the TTL setting for existing `DnsRecords` configurations
- Add, update, or delete `HealthCheckConfig` for a specified service

> **Note**
>
> You can't add, update, or delete a `HealthCheckCustomConfig` configuration.

For public and private DNS namespaces, note the following:

- If you omit any existing `DnsRecords` or `HealthCheckConfig` configurations from an `UpdateService` request, the configurations are deleted from the service.
- If you omit an existing `HealthCheckCustomConfig` configuration from an `UpdateService` request, the configuration isn't deleted from the service.

> **Note**
>
> You can't call `UpdateService` and update settings in the following scenarios:
>
> - When the service is associated with an HTTP namespace
> - When the service is associated with a shared namespace and contains instances that were registered by AWS accounts other than the account making the `UpdateService` call

When you update settings for a service, AWS Cloud Map also updates the corresponding settings in all the records and health checks that were created by using the specified service.

## Request Syntax

```
{
   "Id": "string",
   "Service": {
      "Description": "string",
      "DnsConfig": {
```

```
         "DnsRecords": [
            {
               "TTL": number,
               "Type": "string"
            }
         ]
      },
      "HealthCheckConfig": {
         "FailureThreshold": number,
         "ResourcePath": "string",
         "Type": "string"
      }
   }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Id**

The ID or Amazon Resource Name (ARN) of the service that you want to update. If the namespace associated with the service is shared with your AWS account, specify the service ARN. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

**Service**

A complex type that contains the new settings for the service. You can specify a maximum of 30 attributes (key-value pairs).

Type: ServiceChange object

Required: Yes

## Response Syntax

```
{
   "OperationId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**OperationId**

A value that you can use to determine whether the request completed successfully. To get the status of the operation, see GetOperation.

Type: String

Length Constraints: Maximum length of 255.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**DuplicateRequest**

The operation is already in progress.

**DuplicateOperationId**

The ID of the operation that's already in progress.

HTTP Status Code: 400

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

# Examples

## UpdateService Example

This example updates the `TTL` and the `HealthCheckConfig` settings of the specified service.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211814Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdateService
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Id": "srv-e4anhexample0004",
    "Service": {
        "HealthCheckConfig": {
            "Type": "HTTP",
            "ResourcePath": "/",
            "FailureThreshold": 1
        },
        "DnsConfig": {
            "DnsRecords": [
                {
                    "Type": "A",
                    "TTL": 60
                }
            ]
        }
    }
```

```
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "OperationId":"m35hsdrkxwjffm3xef4bxyy6vc3ewakx-jdn3y5g5"
}
```

## UpdateService Example using ARN

This example updates the TTL and the HealthCheckConfig settings of a service in a shared namespace using its ARN.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20181118T211814Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdateService
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "Id": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
    "Service": {
        "HealthCheckConfig": {
            "Type": "HTTP",
            "ResourcePath": "/",
            "FailureThreshold": 1
        },
        "DnsConfig": {
            "DnsRecords": [
```

```
                {
                    "Type": "A",
                    "TTL": 60
                }
            ]
        }
    }
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1

{
    "OperationId":"m35hsdrkxwjffm3xef4bxyy6vc3ewakx-jdn3y5g5"
}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# UpdateServiceAttributes

Submits a request to update a specified service to add service-level attributes.

## Request Syntax

```
{
   "Attributes": {
      "string" : "string"
   },
   "ServiceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**Attributes**

A string map that contains attribute key-value pairs.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 255.

Value Length Constraints: Maximum length of 1024.

Required: Yes

**ServiceId**

The ID or Amazon Resource Name (ARN) of the service that you want to update. For services created in a namespace shared with your AWS account, specify the service ARN.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see Common Error Types.

**InvalidInput**

One or more specified values aren't valid. For example, a required value might be missing, a numeric value might be outside the allowed range, or a string value might exceed length constraints.

HTTP Status Code: 400

**ServiceAttributesLimitExceededException**

The attribute can't be added to the service because you've exceeded the quota for the number of attributes you can add to a service.

HTTP Status Code: 400

**ServiceNotFound**

No service exists with the specified ID.

HTTP Status Code: 400

## Examples

### UpdateServiceAttributes Example

This example API request updates the service `srv-e4anhexample0004` to add an attribute `Port` with value `80`.

**Sample Request**

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20241223T173136Z
```

```
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdateServiceAttributes
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]

{
    "ServiceId": "srv-e4anhexample0004",
    "Attributes": {
       "Port":"80"
    }
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{}
```

## UpdateServiceAttributes Example using ARN

This example API request updates a service in a shared namespace using its ARN to add an attribute `Port` with value `80`.

### Sample Request

```
POST / HTTP/1.1
host:servicediscovery.us-west-2.amazonaws.com
x-amz-date:20241223T173136Z
authorization: AWS4-HMAC-SHA256 Credential=AKIAIOSFODNN7EXAMPLE/20181118/us-west-2/
servicediscovery/aws4_request,
               SignedHeaders=content-length;content-type;host;user-agent;x-amz-date;x-
amz-target,
               Signature=[calculated-signature]
x-amz-target:Route53AutoNaming_v20170314.UpdateServiceAttributes
content-type:application/x-amz-json-1.1
content-length:[number of characters in the JSON string]
```

```
{
    "ServiceId": "arn:aws:servicediscovery:us-west-2:123456789012:service/srv-
e4anhexample0004",
    "Attributes": {
       "Port":"80"
    }
}
```

### Sample Response

```
HTTP/1.1 200
Content-Length: [number of characters in the JSON string]
Content-Type: application/x-amz-json-1.1
{}
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

# Data Types

The AWS Cloud Map API contains several data types that various actions use. This section describes each data type in detail.

> **Note**
>
> The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- DnsConfig
- DnsConfigChange
- DnsProperties
- DnsRecord
- HealthCheckConfig
- HealthCheckCustomConfig
- HttpInstanceSummary
- HttpNamespaceChange
- HttpProperties
- Instance
- InstanceSummary
- Namespace
- NamespaceFilter
- NamespaceProperties
- NamespaceSummary
- Operation
- OperationFilter
- OperationSummary
- PrivateDnsNamespaceChange
- PrivateDnsNamespaceProperties

- PrivateDnsNamespacePropertiesChange
- PrivateDnsPropertiesMutable
- PrivateDnsPropertiesMutableChange
- PublicDnsNamespaceChange
- PublicDnsNamespaceProperties
- PublicDnsNamespacePropertiesChange
- PublicDnsPropertiesMutable
- PublicDnsPropertiesMutableChange
- Service
- ServiceAttributes
- ServiceChange
- ServiceFilter
- ServiceSummary
- SOA
- SOAChange
- Tag

# DnsConfig

A complex type that contains information about the Amazon Route 53 DNS records that you want AWS Cloud Map to create when you register an instance.

## Contents

**DnsRecords**

An array that contains one `DnsRecord` object for each Route 53 DNS record that you want AWS Cloud Map to create when you register an instance.

> **Important**
>
> The record type of a service specified in a `DnsRecord` object can't be updated. To change a record type, you need to delete the service and recreate it with a new `DnsConfig`.

Type: Array of DnsRecord objects

Required: Yes

**NamespaceId**

*This member has been deprecated.*

*Use NamespaceId in Service instead.*

The ID of the namespace to use for DNS configuration.

Type: String

Length Constraints: Maximum length of 64.

Required: No

**RoutingPolicy**

The routing policy that you want to apply to all Route 53 DNS records that AWS Cloud Map creates when you register an instance and specify this service.

> **Note**
>
> If you want to use this service to register instances that create alias records, specify `WEIGHTED` for the routing policy.

You can specify the following values:

MULTIVALUE

If you define a health check for the service and the health check is healthy, Route 53 returns the applicable value for up to eight instances.

For example, suppose that the service includes configurations for one A record and a health check. You use the service to register 10 instances. Route 53 responds to DNS queries with IP addresses for up to eight healthy instances. If fewer than eight instances are healthy, Route 53 responds to every DNS query with the IP addresses for all of the healthy instances.

If you don't define a health check for the service, Route 53 assumes that all instances are healthy and returns the values for up to eight instances.

For more information about the multivalue routing policy, see Multivalue Answer Routing in the *Route 53 Developer Guide*.

WEIGHTED

Route 53 returns the applicable value from one randomly selected instance from among the instances that you registered using the same service. Currently, all records have the same weight, so you can't route more or less traffic to any instances.

For example, suppose that the service includes configurations for one A record and a health check. You use the service to register 10 instances. Route 53 responds to DNS queries with the IP address for one randomly selected instance from among the healthy instances. If no instances are healthy, Route 53 responds to DNS queries as if all of the instances were healthy.

If you don't define a health check for the service, Route 53 assumes that all instances are healthy and returns the applicable value for one randomly selected instance.

For more information about the weighted routing policy, see Weighted Routing in the *Route 53 Developer Guide*.

Type: String

Valid Values: `MULTIVALUE | WEIGHTED`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DnsConfigChange

A complex type that contains information about changes to the Route 53 DNS records that AWS Cloud Map creates when you register an instance.

## Contents

**DnsRecords**

An array that contains one `DnsRecord` object for each Route 53 record that you want AWS Cloud Map to create when you register an instance.

Type: Array of DnsRecord objects

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DnsProperties

A complex type that contains the ID for the Route 53 hosted zone that AWS Cloud Map creates when you create a namespace.

## Contents

**HostedZoneId**

The ID for the Route 53 hosted zone that AWS Cloud Map creates when you create a namespace.

Type: String

Length Constraints: Maximum length of 64.

Required: No

**SOA**

Start of Authority (SOA) record for the hosted zone.

Type: SOA object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DnsRecord

A complex type that contains information about the Route 53 DNS records that you want AWS Cloud Map to create when you register an instance.

## Contents

**TTL**

The amount of time, in seconds, that you want DNS resolvers to cache the settings for this record.

> **Note**
>
> Alias records don't include a TTL because Route 53 uses the TTL for the AWS resource that an alias record routes traffic to. If you include the `AWS_ALIAS_DNS_NAME` attribute when you submit a RegisterInstance request, the `TTL` value is ignored. Always specify a TTL for the service; you can use a service to register instances that create either alias or non-alias records.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 2147483647.

Required: Yes

**Type**

The type of the resource, which indicates the type of value that Route 53 returns in response to DNS queries. You can specify values for `Type` in the following combinations:

- **`A`**
- **`AAAA`**
- **`A`** and **`AAAA`**
- **`SRV`**
- **`CNAME`**

If you want AWS Cloud Map to create a Route 53 alias record when you register an instance, specify `A` or `AAAA` for `Type`.

You specify other settings, such as the IP address for A and AAAA records, when you register an instance. For more information, see RegisterInstance.

The following values are supported:

A

Route 53 returns the IP address of the resource in IPv4 format, such as 192.0.2.44.

AAAA

Route 53 returns the IP address of the resource in IPv6 format, such as 2001:0db8:85a3:0000:0000:abcd:0001:2345.

CNAME

Route 53 returns the domain name of the resource, such as www.example.com. Note the following:

- You specify the domain name that you want to route traffic to when you register an instance. For more information, see Attributes in the topic RegisterInstance.
- You must specify `WEIGHTED` for the value of `RoutingPolicy`.
- You can't specify both `CNAME` for `Type` and settings for `HealthCheckConfig`. If you do, the request will fail with an `InvalidInput` error.

SRV

Route 53 returns the value for an SRV record. The value for an SRV record uses the following values:

```
priority weight port service-hostname
```

Note the following about the values:

- The values of `priority` and `weight` are both set to 1 and can't be changed.
- The value of `port` comes from the value that you specify for the `AWS_INSTANCE_PORT` attribute when you submit a RegisterInstance request.
- The value of `service-hostname` is a concatenation of the following values:
  - The value that you specify for `InstanceId` when you register an instance.
  - The name of the service.
  - The name of the namespace.

For example, if the value of `InstanceId` is `test`, the name of the service is `backend`, and the name of the namespace is `example.com`, the value of `service-hostname` is the following:

`test.backend.example.com`

If you specify settings for an SRV record, note the following:

- If you specify values for `AWS_INSTANCE_IPV4`, `AWS_INSTANCE_IPV6`, or both in the `RegisterInstance` request, AWS Cloud Map automatically creates `A` and/or `AAAA` records that have the same name as the value of `service-hostname` in the SRV record. You can ignore these records.
- If you're using a system that requires a specific SRV format, such as HAProxy, see the Name element in the documentation about `CreateService` for information about how to specify the correct name format.

Type: String

Valid Values: `SRV | A | AAAA | CNAME`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HealthCheckConfig

*Public DNS and HTTP namespaces only.* A complex type that contains settings for an optional health check. If you specify settings for a health check, AWS Cloud Map associates the health check with the records that you specify in `DnsConfig`.

> **Important**
>
> If you specify a health check configuration, you can specify either `HealthCheckCustomConfig` or `HealthCheckConfig` but not both.

Health checks are basic Route 53 health checks that monitor an AWS endpoint. For information about pricing for health checks, see Amazon Route 53 Pricing.

Note the following about configuring health checks.

A and AAAA records

If `DnsConfig` includes configurations for both `A` and `AAAA` records, AWS Cloud Map creates a health check that uses the IPv4 address to check the health of the resource. If the endpoint tthat's specified by the IPv4 address is unhealthy, Route 53 considers both the `A` and `AAAA` records to be unhealthy.

CNAME records

You can't specify settings for `HealthCheckConfig` when the `DNSConfig` includes `CNAME` for the value of `Type`. If you do, the `CreateService` request will fail with an `InvalidInput` error.

Request interval

A Route 53 health checker in each health-checking AWS Region sends a health check request to an endpoint every 30 seconds. On average, your endpoint receives a health check request about every two seconds. However, health checkers don't coordinate with one another. Therefore, you might sometimes see several requests in one second that's followed by a few seconds with no health checks at all.

Health checking regions

Health checkers perform checks from all Route 53 health-checking Regions. For a list of the current Regions, see Regions.

Alias records

When you register an instance, if you include the `AWS_ALIAS_DNS_NAME` attribute, AWS Cloud Map creates a Route 53 alias record. Note the following:

- Route 53 automatically sets `EvaluateTargetHealth` to true for alias records. When `EvaluateTargetHealth` is true, the alias record inherits the health of the referenced AWS resource. such as an ELB load balancer. For more information, see EvaluateTargetHealth.
- If you include `HealthCheckConfig` and then use the service to register an instance that creates an alias record, Route 53 doesn't create the health check.

Charges for health checks

Health checks are basic Route 53 health checks that monitor an AWS endpoint. For information about pricing for health checks, see Amazon Route 53 Pricing.

## Contents

### Type

The type of health check that you want to create, which indicates how Route 53 determines whether an endpoint is healthy.

> **Important**
>
> You can't change the value of `Type` after you create a health check.

You can create the following types of health checks:

- **HTTP**: Route 53 tries to establish a TCP connection. If successful, Route 53 submits an HTTP request and waits for an HTTP status code of 200 or greater and less than 400.
- **HTTPS**: Route 53 tries to establish a TCP connection. If successful, 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.

- **TCP**: Route 53 tries to establish a TCP connection.

  If you specify `TCP` for `Type`, don't specify a value for `ResourcePath`.

For more information, see How Route 53 Determines Whether an Endpoint Is Healthy in the *Route 53 Developer Guide*.

Type: String

Valid Values: `HTTP | HTTPS | TCP`

Required: Yes

**FailureThreshold**

The number of consecutive health checks that an endpoint must pass or fail for Route 53 to change the current status of the endpoint from unhealthy to healthy or the other way around. For more information, see How Route 53 Determines Whether an Endpoint Is Healthy in the *Route 53 Developer Guide*.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10.

Required: No

**ResourcePath**

The path that you want Route 53 to request when performing health checks. The path can be any value that your endpoint returns an HTTP status code of a 2xx or 3xx format for when the endpoint is healthy. An example file is `/docs/route53-health-check.html`. Route 53 automatically adds the DNS name for the service. If you don't specify a value for `ResourcePath`, the default value is `/`.

If you specify `TCP` for `Type`, you must *not* specify a value for `ResourcePath`.

Type: String

Length Constraints: Maximum length of 255.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HealthCheckCustomConfig

A complex type that contains information about an optional custom health check. A custom health check, which requires that you use a third-party health checker to evaluate the health of your resources, is useful in the following circumstances:

- You can't use a health check that's defined by `HealthCheckConfig` because the resource isn't available over the internet. For example, you can use a custom health check when the instance is in an Amazon VPC. (To check the health of resources in a VPC, the health checker must also be in the VPC.)
- You want to use a third-party health checker regardless of where your resources are located.

> **Important**
>
> If you specify a health check configuration, you can specify either `HealthCheckCustomConfig` or `HealthCheckConfig` but not both.

To change the status of a custom health check, submit an `UpdateInstanceCustomHealthStatus` request. AWS Cloud Map doesn't monitor the status of the resource, it just keeps a record of the status specified in the most recent `UpdateInstanceCustomHealthStatus` request.

Here's how custom health checks work:

1. You create a service.
2. You register an instance.
3. You configure a third-party health checker to monitor the resource that's associated with the new instance.

   > **Note**
   >
   > AWS Cloud Map doesn't check the health of the resource directly.

4. The third-party health-checker determines that the resource is unhealthy and notifies your application.
5. Your application submits an `UpdateInstanceCustomHealthStatus` request.

6. AWS Cloud Map waits for 30 seconds.
7. If another `UpdateInstanceCustomHealthStatus` request doesn't arrive during that time to change the status back to healthy, AWS Cloud Map stops routing traffic to the resource.

## Contents

### FailureThreshold

*This member has been deprecated.*

> **Important**
>
> This parameter is no longer supported and is always set to 1. AWS Cloud Map waits for approximately 30 seconds after receiving an `UpdateInstanceCustomHealthStatus` request before changing the status of the service instance.

The number of 30-second intervals that you want AWS Cloud Map to wait after receiving an `UpdateInstanceCustomHealthStatus` request before it changes the health status of a service instance.

Sending a second or subsequent `UpdateInstanceCustomHealthStatus` request with the same value before 30 seconds has passed doesn't accelerate the change. AWS Cloud Map still waits `30` seconds after the first request to make the change.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# HttpInstanceSummary

In a response to a DiscoverInstances request, `HttpInstanceSummary` contains information about one instance that matches the values that you specified in the request.

## Contents

**Attributes**

If you included any attributes when you registered the instance, the values of those attributes.

Type: String to string map

Key Length Constraints: Maximum length of 255.

Key Pattern: `^[a-zA-Z0-9!-~]+$`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `^([a-zA-Z0-9!-~][ \ta-zA-Z0-9!-~]*){0,1}[a-zA-Z0-9!-~]{0,1}$`

Required: No

**HealthStatus**

If you configured health checking in the service, the current health status of the service instance.

Type: String

Valid Values: `HEALTHY | UNHEALTHY | UNKNOWN`

Required: No

**InstanceId**

The ID of an instance that matches the values that you specified in the request.

Type: String

Length Constraints: Maximum length of 64.

Required: No

**NamespaceName**

The `HttpName` name of the namespace. It's found in the `HttpProperties` member of the `Properties` member of the namespace.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(?!arn:)[!-~]{1,1024}$`

Required: No

**ServiceName**

The name of the service that you specified when you registered the instance.

Type: String

Pattern: `((?=^.{1,127}$)^([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9])(\.([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9]))*$)|(^\.$)`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HttpNamespaceChange

Updated properties for the HTTP namespace.

## Contents

### Description

An updated description for the HTTP namespace.

Type: String

Length Constraints: Maximum length of 1024.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HttpProperties

A complex type that contains the name of an HTTP namespace.

## Contents

### HttpName

The name of an HTTP namespace.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[!-~]{1,1024}$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Instance

A complex type that contains information about an instance that AWS Cloud Map creates when you submit a `RegisterInstance` request.

## Contents

### Id

An identifier that you want to associate with the instance. Note the following:

- If the service that's specified by `ServiceId` includes settings for an SRV record, the value of `InstanceId` is automatically included as part of the value for the SRV record. For more information, see DnsRecord > Type.
- You can use this value to update an existing instance.
- To register a new instance, you must specify a value that's unique among instances that you register by using the same service.
- If you specify an existing `InstanceId` and `ServiceId`, AWS Cloud Map updates the existing DNS records. If there's also an existing health check, AWS Cloud Map deletes the old health check and creates a new one.

> **Note**
>
> The health check isn't deleted immediately, so it will still appear for a while if you submit a `ListHealthChecks` request, for example.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

### Attributes

A string map that contains the following information for the service that you specify in `ServiceId`:

- The attributes that apply to the records that are defined in the service.
- For each attribute, the applicable value.

> **Note**
>
> Do not include sensitive information in the attributes if the namespace is discoverable by public DNS queries.

Supported attribute keys include the following:

AWS_ALIAS_DNS_NAME

If you want AWS Cloud Map to create a Route 53 alias record that routes traffic to an Elastic Load Balancing load balancer, specify the DNS name that's associated with the load balancer. For information about how to get the DNS name, see AliasTarget->DNSName in the *Route 53 API Reference*.

Note the following:

- The configuration for the service that's specified by `ServiceId` must include settings for an `A` record, an `AAAA` record, or both.
- In the service that's specified by `ServiceId`, the value of `RoutingPolicy` must be `WEIGHTED`.
- If the service that's specified by `ServiceId` includes `HealthCheckConfig` settings, AWS Cloud Map creates the health check, but it won't associate the health check with the alias record.
- Auto naming currently doesn't support creating alias records that route traffic to AWS resources other than ELB load balancers.
- If you specify a value for `AWS_ALIAS_DNS_NAME`, don't specify values for any of the `AWS_INSTANCE` attributes.

AWS_EC2_INSTANCE_ID

*HTTP namespaces only.* The Amazon EC2 instance ID for the instance. The `AWS_INSTANCE_IPV4` attribute contains the primary private IPv4 address.

AWS_INIT_HEALTH_STATUS

If the service configuration includes `HealthCheckCustomConfig`, you can optionally use `AWS_INIT_HEALTH_STATUS` to specify the initial status of the custom health check, `HEALTHY` or `UNHEALTHY`. If you don't specify a value for `AWS_INIT_HEALTH_STATUS`, the initial status is `HEALTHY`.

AWS_INSTANCE_CNAME

If the service configuration includes a CNAME record, the domain name that you want Route 53 to return in response to DNS queries (for example, example.com).

This value is required if the service specified by ServiceId includes settings for an CNAME record.

AWS_INSTANCE_IPV4

If the service configuration includes an A record, the IPv4 address that you want Route 53 to return in response to DNS queries (for example, 192.0.2.44).

This value is required if the service specified by ServiceId includes settings for an A record. If the service includes settings for an SRV record, you must specify a value for AWS_INSTANCE_IPV4, AWS_INSTANCE_IPV6, or both.

AWS_INSTANCE_IPV6

If the service configuration includes an AAAA record, the IPv6 address that you want Route 53 to return in response to DNS queries (for example, 2001:0db8:85a3:0000:0000:abcd:0001:2345).

This value is required if the service specified by ServiceId includes settings for an AAAA record. If the service includes settings for an SRV record, you must specify a value for AWS_INSTANCE_IPV4, AWS_INSTANCE_IPV6, or both.

AWS_INSTANCE_PORT

If the service includes an SRV record, the value that you want Route 53 to return for the port.

If the service includes HealthCheckConfig, the port on the endpoint that you want Route 53 to send requests to.

This value is required if you specified settings for an SRV record or a Route 53 health check when you created the service.

Type: String to string map

Key Length Constraints: Maximum length of 255.

Key Pattern: ^[a-zA-Z0-9!-~]+$

Value Length Constraints: Maximum length of 1024.

Value Pattern: `^([a-zA-Z0-9!-~][ \ta-zA-Z0-9!-~]*){0,1}[a-zA-Z0-9!-~]{0,1}$`

Required: No

**CreatedByAccount**

The ID of the AWS account that registered the instance. If this isn't your account ID, it's the ID of the account that shared the namespace with your account or the ID of another account with which the namespace has been shared. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**CreatorRequestId**

A unique string that identifies the request and that allows failed `RegisterInstance` requests to be retried without the risk of executing the operation twice. You must use a unique `CreatorRequestId` string every time you submit a `RegisterInstance` request if you're registering additional instances for the same namespace and service. `CreatorRequestId` can be any unique string (for example, a date/time stamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# InstanceSummary

A complex type that contains information about the instances that you registered by using a specified service.

## Contents

### Attributes

A string map that contains the following information:

- The attributes that are associated with the instance.
- For each attribute, the applicable value.

Supported attribute keys include the following:

AWS_ALIAS_DNS_NAME

For an alias record that routes traffic to an Elastic Load Balancing load balancer, the DNS name that's associated with the load balancer.

AWS_EC2_INSTANCE_ID (HTTP namespaces only)

The Amazon EC2 instance ID for the instance. When the `AWS_EC2_INSTANCE_ID` attribute is specified, then the `AWS_INSTANCE_IPV4` attribute contains the primary private IPv4 address.

AWS_INIT_HEALTH_STATUS

If the service configuration includes `HealthCheckCustomConfig`, you can optionally use `AWS_INIT_HEALTH_STATUS` to specify the initial status of the custom health check, `HEALTHY` or `UNHEALTHY`. If you don't specify a value for `AWS_INIT_HEALTH_STATUS`, the initial status is `HEALTHY`.

AWS_INSTANCE_CNAME

For a `CNAME` record, the domain name that Route 53 returns in response to DNS queries (for example, `example.com`).

AWS_INSTANCE_IPV4

For an `A` record, the IPv4 address that Route 53 returns in response to DNS queries (for example, `192.0.2.44`).

AWS_INSTANCE_IPV6

For an AAAA record, the IPv6 address that Route 53 returns in response to DNS queries (for example, `2001:0db8:85a3:0000:0000:abcd:0001:2345`).

AWS_INSTANCE_PORT

For an SRV record, the value that Route 53 returns for the port. In addition, if the service includes `HealthCheckConfig`, the port on the endpoint that Route 53 sends requests to.

Type: String to string map

Key Length Constraints: Maximum length of 255.

Key Pattern: `^[a-zA-Z0-9!-~]+$`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `^([a-zA-Z0-9!-~][ \ta-zA-Z0-9!-~]*){0,1}[a-zA-Z0-9!-~]{0,1}$`

Required: No

**CreatedByAccount**

The ID of the AWS account that registered the instance. If this isn't your account ID, it's the ID of the account that shared the namespace with your account or the ID of another account with which the namespace has been shared. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**Id**

The ID for an instance that you created by using a specified service.

Type: String

Length Constraints: Maximum length of 64.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Namespace

A complex type that contains information about a specified namespace.

## Contents

**Arn**

The Amazon Resource Name (ARN) that AWS Cloud Map assigns to the namespace when you create it.

Type: String

Length Constraints: Maximum length of 255.

Required: No

**CreateDate**

The date that the namespace was created, in Unix date/time format and Coordinated Universal Time (UTC). The value of `CreateDate` is accurate to milliseconds. For example, the value `1516925490.087` represents Friday, January 26, 2018 12:11:30.087 AM.

Type: Timestamp

Required: No

**CreatorRequestId**

A unique string that identifies the request and that allows failed requests to be retried without the risk of running an operation twice.

Type: String

Length Constraints: Maximum length of 64.

Required: No

**Description**

The description that you specify for the namespace when you create it.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**Id**

The ID of a namespace.

Type: String

Length Constraints: Maximum length of 64.

Required: No

**Name**

The name of the namespace, such as `example.com`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[!-~]{1,1024}$`

Required: No

**Properties**

A complex type that contains information that's specific to the type of the namespace.

Type: NamespaceProperties object

Required: No

**ResourceOwner**

The ID of the AWS account that created the namespace. If this isn't your account ID, it's the ID of the account that shared the namespace with your account. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**ServiceCount**

The number of services that are associated with the namespace.

Type: Integer

Required: No

**Type**

The type of the namespace. The methods for discovering instances depends on the value that you specify:

HTTP

Instances can be discovered only programmatically, using the AWS Cloud Map `DiscoverInstances` API.

DNS_PUBLIC

Instances can be discovered using public DNS queries and using the `DiscoverInstances` API.

DNS_PRIVATE

Instances can be discovered using DNS queries in VPCs and using the `DiscoverInstances` API.

Type: String

Valid Values: `DNS_PUBLIC | DNS_PRIVATE | HTTP`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# NamespaceFilter

A complex type that identifies the namespaces that you want to list. You can choose to list public or private namespaces.

## Contents

**Name**

Specify the namespaces that you want to get using one of the following.

- `TYPE`: Gets the namespaces of the specified type.
- `NAME`: Gets the namespaces with the specified name.
- `HTTP_NAME`: Gets the namespaces with the specified HTTP name.
- `RESOURCE_OWNER`: Gets the namespaces created by your AWS account or by other accounts. This can be used to filter for shared namespaces. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Valid Values: `TYPE | NAME | HTTP_NAME | RESOURCE_OWNER`

Required: Yes

**Values**

Specify the values that are applicable to the value that you specify for `Name`.

- `TYPE`: Specify `HTTP`, `DNS_PUBLIC`, or `DNS_PRIVATE`.
- `NAME`: Specify the name of the namespace, which is found in `Namespace.Name`.
- `HTTP_NAME`: Specify the HTTP name of the namespace, which is found in `Namespace.Properties.HttpProperties.HttpName`.
- `RESOURCE_OWNER`: Specify one of `SELF` or `OTHER_ACCOUNTS`. `SELF` can be used to filter namespaces created by you and `OTHER_ACCOUNTS` can be used to filter namespaces shared with you that were created by other accounts.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: Yes

**Condition**

Specify the operator that you want to use to determine whether a namespace matches the specified value. Valid values for `Condition` are one of the following.

- `EQ`: When you specify `EQ` for `Condition`, you can specify only one value. `EQ` is supported for `TYPE`, `NAME`, `RESOURCE_OWNER` and `HTTP_NAME`. `EQ` is the default condition and can be omitted.
- `BEGINS_WITH`: When you specify `BEGINS_WITH` for `Condition`, you can specify only one value. `BEGINS_WITH` is supported for `TYPE`, `NAME`, and `HTTP_NAME`.

Type: String

Valid Values: `EQ | IN | BETWEEN | BEGINS_WITH`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# NamespaceProperties

A complex type that contains information that's specific to the namespace type.

## Contents

**DnsProperties**

A complex type that contains the ID for the Route 53 hosted zone that AWS Cloud Map creates when you create a namespace.

Type: DnsProperties object

Required: No

**HttpProperties**

A complex type that contains the name of an HTTP namespace.

Type: HttpProperties object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# NamespaceSummary

A complex type that contains information about a namespace.

## Contents

**Arn**

The Amazon Resource Name (ARN) that AWS Cloud Map assigns to the namespace when you create it.

Type: String

Length Constraints: Maximum length of 255.

Required: No

**CreateDate**

The date and time that the namespace was created.

Type: Timestamp

Required: No

**Description**

A description for the namespace.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**Id**

The ID of the namespace.

Type: String

Length Constraints: Maximum length of 64.

Required: No

**Name**

The name of the namespace. When you create a namespace, AWS Cloud Map automatically creates a Route 53 hosted zone that has the same name as the namespace.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[!-~]{1,1024}$`

Required: No

**Properties**

The properties of the namespace.

Type: NamespaceProperties object

Required: No

**ResourceOwner**

The ID of the AWS account that created the namespace. If this isn't your account ID, it's the ID of the account that shared the namespace with your account. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**ServiceCount**

The number of services that were created using the namespace.

Type: Integer

Required: No

**Type**

The type of the namespace, either public or private.

Type: String

Valid Values: `DNS_PUBLIC | DNS_PRIVATE | HTTP`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Operation

A complex type that contains information about a specified operation.

## Contents

**CreateDate**

The date and time that the request was submitted, in Unix date/time format and Coordinated Universal Time (UTC). The value of `CreateDate` is accurate to milliseconds. For example, the value `1516925490.087` represents Friday, January 26, 2018 12:11:30.087 AM.

Type: Timestamp

Required: No

**ErrorCode**

The code associated with `ErrorMessage`. Values for `ErrorCode` include the following:

- `ACCESS_DENIED`
- `CANNOT_CREATE_HOSTED_ZONE`
- `EXPIRED_TOKEN`
- `HOSTED_ZONE_NOT_FOUND`
- `INTERNAL_FAILURE`
- `INVALID_CHANGE_BATCH`
- `THROTTLED_REQUEST`

Type: String

Required: No

**ErrorMessage**

If the value of `Status` is `FAIL`, the reason that the operation failed.

Type: String

Required: No

**Id**

The ID of the operation that you want to get information about.

Type: String

Length Constraints: Maximum length of 255.

Required: No

**OwnerAccount**

The ID of the AWS account that owns the namespace associated with the operation.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**Status**

The status of the operation. Values include the following:

SUBMITTED

This is the initial state that occurs immediately after you submit a request.

PENDING

AWS Cloud Map is performing the operation.

SUCCESS

The operation succeeded.

FAIL

The operation failed. For the failure reason, see `ErrorMessage`.

Type: String

Valid Values: `SUBMITTED | PENDING | SUCCESS | FAIL`

Required: No

**Targets**

The name of the target entity that's associated with the operation:

NAMESPACE

The namespace ID is returned in the `ResourceId` property.

SERVICE

The service ID is returned in the `ResourceId` property.

INSTANCE

The instance ID is returned in the `ResourceId` property.

Type: String to string map

Valid Keys: `NAMESPACE | SERVICE | INSTANCE`

Value Length Constraints: Maximum length of 64.

Required: No

**Type**

The name of the operation that's associated with the specified ID.

Type: String

Valid Values: `CREATE_NAMESPACE | DELETE_NAMESPACE | UPDATE_NAMESPACE | UPDATE_SERVICE | REGISTER_INSTANCE | DEREGISTER_INSTANCE`

Required: No

**UpdateDate**

The date and time that the value of `Status` changed to the current value, in Unix date/time format and Coordinated Universal Time (UTC). The value of `UpdateDate` is accurate to milliseconds. For example, the value `1516925490.087` represents Friday, January 26, 2018 12:11:30.087 AM.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OperationFilter

A complex type that lets you select the operations that you want to list.

## Contents

**Name**

Specify the operations that you want to get:

- **NAMESPACE_ID**: Gets operations related to specified namespaces.
- **SERVICE_ID**: Gets operations related to specified services.
- **STATUS**: Gets operations based on the status of the operations: `SUBMITTED`, `PENDING`, `SUCCEED`, or `FAIL`.
- **TYPE**: Gets specified types of operation.
- **UPDATE_DATE**: Gets operations that changed status during a specified date/time range.

Type: String

Valid Values: `NAMESPACE_ID | SERVICE_ID | STATUS | TYPE | UPDATE_DATE`

Required: Yes

**Values**

Specify values that are applicable to the value that you specify for `Name`:

- **NAMESPACE_ID**: Specify one namespace ID.
- **SERVICE_ID**: Specify one service ID.
- **STATUS**: Specify one or more statuses: `SUBMITTED`, `PENDING`, `SUCCEED`, or `FAIL`.
- **TYPE**: Specify one or more of the following types: `CREATE_NAMESPACE`, `DELETE_NAMESPACE`, `UPDATE_SERVICE`, `REGISTER_INSTANCE`, or `DEREGISTER_INSTANCE`.
- **UPDATE_DATE**: Specify a start date and an end date in Unix date/time format and Coordinated Universal Time (UTC). The start date must be the first value.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: Yes

**Condition**

The operator that you want to use to determine whether an operation matches the specified value. Valid values for condition include:

- `EQ`: When you specify `EQ` for the condition, you can specify only one value. `EQ` is supported for `NAMESPACE_ID`, `SERVICE_ID`, `STATUS`, and `TYPE`. `EQ` is the default condition and can be omitted.
- `IN`: When you specify `IN` for the condition, you can specify a list of one or more values. `IN` is supported for `STATUS` and `TYPE`. An operation must match one of the specified values to be returned in the response.
- `BETWEEN`: Specify a start date and an end date in Unix date/time format and Coordinated Universal Time (UTC). The start date must be the first value. `BETWEEN` is supported for `UPDATE_DATE`.

Type: String

Valid Values: `EQ | IN | BETWEEN | BEGINS_WITH`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OperationSummary

A complex type that contains information about an operation that matches the criteria that you specified in a ListOperations request.

## Contents

**Id**

The ID for an operation.

Type: String

Length Constraints: Maximum length of 255.

Required: No

**Status**

The status of the operation. Values include the following:

- **SUBMITTED**: This is the initial state immediately after you submit a request.
- **PENDING**: AWS Cloud Map is performing the operation.
- **SUCCESS**: The operation succeeded.
- **FAIL**: The operation failed. For the failure reason, see `ErrorMessage`.

Type: String

Valid Values: `SUBMITTED | PENDING | SUCCESS | FAIL`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PrivateDnsNamespaceChange

Updated properties for the private DNS namespace.

## Contents

**Description**

An updated description for the private DNS namespace.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**Properties**

Properties to be updated in the private DNS namespace.

Type: PrivateDnsNamespacePropertiesChange object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PrivateDnsNamespaceProperties

DNS properties for the private DNS namespace.

## Contents

**DnsProperties**

DNS properties for the private DNS namespace.

Type: PrivateDnsPropertiesMutable object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PrivateDnsNamespacePropertiesChange

Updated properties for the private DNS namespace.

## Contents

### DnsProperties

Updated DNS properties for the private DNS namespace.

Type: PrivateDnsPropertiesMutableChange object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PrivateDnsPropertiesMutable

DNS properties for the private DNS namespace.

## Contents

**SOA**

Fields for the Start of Authority (SOA) record for the hosted zone for the private DNS namespace.

Type: SOA object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PrivateDnsPropertiesMutableChange

Updated DNS properties for the private DNS namespace.

## Contents

**SOA**

Updated fields for the Start of Authority (SOA) record for the hosted zone for the private DNS namespace.

Type: SOAChange object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PublicDnsNamespaceChange

Updated properties for the public DNS namespace.

## Contents

**Description**

An updated description for the public DNS namespace.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**Properties**

Properties to be updated in the public DNS namespace.

Type: PublicDnsNamespacePropertiesChange object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PublicDnsNamespaceProperties

DNS properties for the public DNS namespace.

## Contents

**DnsProperties**

DNS properties for the public DNS namespace.

Type: PublicDnsPropertiesMutable object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PublicDnsNamespacePropertiesChange

Updated properties for the public DNS namespace.

## Contents

### DnsProperties

Updated DNS properties for the hosted zone for the public DNS namespace.

Type: PublicDnsPropertiesMutableChange object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PublicDnsPropertiesMutable

DNS properties for the public DNS namespace.

## Contents

**SOA**

Start of Authority (SOA) record for the hosted zone for the public DNS namespace.

Type: SOA object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PublicDnsPropertiesMutableChange

Updated DNS properties for the public DNS namespace.

## Contents

**SOA**

Updated fields for the Start of Authority (SOA) record for the hosted zone for the public DNS namespace.

Type: SOAChange object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Service

A complex type that contains information about the specified service.

## Contents

**Arn**

The Amazon Resource Name (ARN) that AWS Cloud Map assigns to the service when you create it.

Type: String

Length Constraints: Maximum length of 255.

Required: No

**CreateDate**

The date and time that the service was created, in Unix format and Coordinated Universal Time (UTC). The value of `CreateDate` is accurate to milliseconds. For example, the value `1516925490.087` represents Friday, January 26, 2018 12:11:30.087 AM.

Type: Timestamp

Required: No

**CreatedByAccount**

The ID of the AWS account that created the service. If this isn't your account ID, it is the ID of account of the namespace owner or of another account with which the namespace has been shared. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**CreatorRequestId**

A unique string that identifies the request and that allows failed requests to be retried without the risk of running the operation twice. `CreatorRequestId` can be any unique string (for example, a date/timestamp).

Type: String

Length Constraints: Maximum length of 64.

Required: No

**Description**

The description of the service.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**DnsConfig**

A complex type that contains information about the Route 53 DNS records that you want AWS Cloud Map to create when you register an instance.

> **Important**
>
> The record types of a service can only be changed by deleting the service and recreating it with a new `Dnsconfig`.

Type: DnsConfig object

Required: No

**HealthCheckConfig**

*Public DNS and HTTP namespaces only.* A complex type that contains settings for an optional health check. If you specify settings for a health check, AWS Cloud Map associates the health check with the records that you specify in `DnsConfig`.

For information about the charges for health checks, see Amazon Route 53 Pricing.

Type: HealthCheckConfig object

Required: No

**HealthCheckCustomConfig**

A complex type that contains information about an optional custom health check.

> **Important**
>
> If you specify a health check configuration, you can specify either `HealthCheckCustomConfig` or `HealthCheckConfig` but not both.

Type: HealthCheckCustomConfig object

Required: No

**Id**

The ID that AWS Cloud Map assigned to the service when you created it.

Type: String

Length Constraints: Maximum length of 64.

Required: No

**InstanceCount**

The number of instances that are currently associated with the service. Instances that were previously associated with the service but that are deleted aren't included in the count. The count might not reflect pending registrations and deregistrations.

Type: Integer

Required: No

**Name**

The name of the service.

Type: String

Pattern: `((?=^.{1,127}$)^([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9])(\.([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9]))*$)|(^\.$)`

Required: No

**NamespaceId**

The ID of the namespace that was used to create the service.

Type: String

Length Constraints: Maximum length of 64.

Required: No

**ResourceOwner**

The ID of the AWS account that created the namespace with which the service is associated. If this isn't your account ID, it is the ID of the account that shared the namespace with your account. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**Type**

Describes the systems that can be used to discover the service instances.

DNS_HTTP

The service instances can be discovered using either DNS queries or the `DiscoverInstances` API operation.

HTTP

The service instances can only be discovered using the `DiscoverInstances` API operation.

DNS

Reserved.

Type: String

Valid Values: `HTTP | DNS_HTTP | DNS`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ServiceAttributes

A complex type that contains information about attributes associated with a specific service.

## Contents

**Attributes**

A string map that contains the following information for the service that you specify in `ServiceArn`:

- The attributes that apply to the service.
- For each attribute, the applicable value.

You can specify a total of 30 attributes.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 255.

Value Length Constraints: Maximum length of 1024.

Required: No

**ResourceOwner**

The ID of the AWS account that created the namespace with which the service is associated. If this isn't your account ID, it is the ID of the account that shared the namespace with your account. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**ServiceArn**

The ARN of the service that the attributes are associated with.

Type: String

Length Constraints: Maximum length of 255.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ServiceChange

A complex type that contains changes to an existing service.

## Contents

**Description**

A description for the service.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**DnsConfig**

Information about the Route 53 DNS records that you want AWS Cloud Map to create when you register an instance.

Type: DnsConfigChange object

Required: No

**HealthCheckConfig**

*Public DNS and HTTP namespaces only.* Settings for an optional health check. If you specify settings for a health check, AWS Cloud Map associates the health check with the records that you specify in `DnsConfig`.

Type: HealthCheckConfig object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# ServiceFilter

A complex type that lets you specify the namespaces that you want to list services for.

## Contents

**Name**

Specify the services that you want to get using one of the following.

- `NAMESPACE_ID`: Gets the services associated with the specified namespace.
- `RESOURCE_OWNER`: Gets the services associated with the namespaces created by your AWS account or by other accounts. This can be used to filter for services created in a shared namespace. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Valid Values: `NAMESPACE_ID | RESOURCE_OWNER`

Required: Yes

**Values**

The values that are applicable to the value that you specify for `Condition` to filter the list of services.

- **NAMESPACE_ID**: Specify one namespace ID or ARN. Specify the namespace ARN for namespaces that are shared with your AWS account.
- **RESOURCE_OWNER**: Specify one of `SELF` or `OTHER_ACCOUNTS`. `SELF` can be used to filter services associated with namespaces created by you and `OTHER_ACCOUNTS` can be used to filter services associated with namespaces that were shared with you.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: Yes

**Condition**

The operator that you want to use to determine whether a service is returned by `ListServices`. Valid values for `Condition` include the following:

- EQ: When you specify EQ, specify one value. EQ is the default condition and can be omitted.

Type: String

Valid Values: `EQ | IN | BETWEEN | BEGINS_WITH`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ServiceSummary

A complex type that contains information about a specified service.

## Contents

**Arn**

The Amazon Resource Name (ARN) that AWS Cloud Map assigns to the service when you create it.

Type: String

Length Constraints: Maximum length of 255.

Required: No

**CreateDate**

The date and time that the service was created.

Type: Timestamp

Required: No

**CreatedByAccount**

The ID of the AWS account that created the service. If this isn't your account ID, it is the account ID of the namespace owner or of another account with which the namespace has been shared. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**Description**

The description that you specify when you create the service.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**DnsConfig**

Information about the Route 53 DNS records that you want AWS Cloud Map to create when you register an instance.

Type: DnsConfig object

Required: No

**HealthCheckConfig**

*Public DNS and HTTP namespaces only.* Settings for an optional health check. If you specify settings for a health check, AWS Cloud Map associates the health check with the records that you specify in `DnsConfig`.

Type: HealthCheckConfig object

Required: No

**HealthCheckCustomConfig**

Information about an optional custom health check. A custom health check, which requires that you use a third-party health checker to evaluate the health of your resources, is useful in the following circumstances:

- You can't use a health check that's defined by `HealthCheckConfig` because the resource isn't available over the internet. For example, you can use a custom health check when the instance is in an Amazon VPC. (To check the health of resources in a VPC, the health checker must also be in the VPC.)
- You want to use a third-party health checker regardless of where your resources are located.

> **Important**
>
> If you specify a health check configuration, you can specify either `HealthCheckCustomConfig` or `HealthCheckConfig` but not both.

Type: HealthCheckCustomConfig object

Required: No

**Id**

The ID that AWS Cloud Map assigned to the service when you created it.

Type: String

Length Constraints: Maximum length of 64.

Required: No

**InstanceCount**

The number of instances that are currently associated with the service. Instances that were previously associated with the service but that are deleted aren't included in the count. The count might not reflect pending registrations and deregistrations.

Type: Integer

Required: No

**Name**

The name of the service.

Type: String

Pattern: `((?=^.{1,127}$)^([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9])(\.([a-zA-Z0-9_][a-zA-Z0-9-_]{0,61}[a-zA-Z0-9_]|[a-zA-Z0-9]))*$)|(^\.$)`

Required: No

**ResourceOwner**

The ID of the AWS account that created the namespace with which the service is associated. If this isn't your account ID, it is the ID of the account that shared the namespace with your account. For more information about shared namespaces, see Cross-account AWS Cloud Map namespace sharing in the *AWS Cloud Map Developer Guide*.

Type: String

Length Constraints: Fixed length of 12.

Required: No

**Type**

Describes the systems that can be used to discover the service instances.

DNS_HTTP

The service instances can be discovered using either DNS queries or the `DiscoverInstances` API operation.

HTTP

The service instances can only be discovered using the `DiscoverInstances` API operation.

DNS

Reserved.

Type: String

Valid Values: `HTTP | DNS_HTTP | DNS`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SOA

Start of Authority (SOA) properties for a public or private DNS namespace.

## Contents

### TTL

The time to live (TTL) for purposes of negative caching.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 2147483647.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SOAChange

Updated Start of Authority (SOA) properties for a public or private DNS namespace.

## Contents

**TTL**

The updated time to live (TTL) for purposes of negative caching.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 2147483647.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Tag

A custom key-value pair that's associated with a resource.

## Contents

**Key**

The key identifier, or name, of the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**Value**

The string value that's associated with the key of the tag. You can set the value of a tag to an empty string, but you can't set the value of a tag to null.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signing AWS API requests in the *IAM User Guide*.

**X-Amz-Algorithm**

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

**X-Amz-Credential**

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

For more information, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

**X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Elements of an AWS API request signature in the *IAM User Guide*.

Type: string

Required: Conditional

**X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see AWS services that work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

**X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

**X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

# Common Error Types

This section lists common error types that this AWS service may return. Not all services return all error types listed here. For errors specific to an API action for this service, see the topic for that API action.

**AccessDeniedException**

You don't have permission to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 403

**ExpiredTokenException**

The security token included in the request has expired. Request a new security token and try again.

HTTP Status Code: 403

**IncompleteSignature**

The request signature doesn't conform to AWS standards. Verify that you're using valid AWS credentials and that your request is properly formatted. If you're using an SDK, ensure it's up to date.

HTTP Status Code: 403

**InternalFailure**

The request can't be processed right now because of an internal server issue. Try again later. If the problem persists, contact AWS Support.

HTTP Status Code: 500

**MalformedHttpRequestException**

The request body can't be processed. This typically happens when the request body can't be decompressed using the specified content encoding algorithm. Verify that the content encoding header matches the compression format used.

HTTP Status Code: 400

**NotAuthorized**

You don't have permissions to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 401

**OptInRequired**

Your AWS account needs a subscription for this service. Verify that you've enabled the service in your account.

HTTP Status Code: 403

**RequestAbortedException**

The request was aborted before a response could be returned. This typically happens when the client closes the connection.

HTTP Status Code: 400

**RequestEntityTooLargeException**

The request entity is too large. Reduce the size of the request body and try again.

HTTP Status Code: 413

**RequestTimeoutException**

The request timed out. The server didn't receive the complete request within the expected time frame. Try again.

HTTP Status Code: 408

**ServiceUnavailable**

The service is temporarily unavailable. Try again later.

HTTP Status Code: 503

**ThrottlingException**

Your request rate is too high. The AWS SDKs automatically retry requests that receive this exception. Reduce the frequency of requests.

HTTP Status Code: 400

**UnknownOperationException**

The action or operation isn't recognized. Verify that the action name is spelled correctly and that it's supported by the API version you're using.

HTTP Status Code: 404

**UnrecognizedClientException**

The X.509 certificate or AWS access key ID you provided doesn't exist in our records. Verify that you're using valid credentials and that they haven't expired.

HTTP Status Code: 403

**ValidationError**

The input doesn't meet the required format or constraints. Check that all required parameters are included and that values are valid.

HTTP Status Code: 400