API Reference

AWS Cloud Map

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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
- DeregisterInstance
- DiscoverInstances
- DiscoverInstancesRevision
- GetInstance
- GetInstancesHealthStatus
- GetNamespace
- GetOperation
- GetService
- ListInstances
- ListNamespaces
- ListOperations
- ListServices
- ListTagsForResource
- RegisterInstance
- TagResource
- UntagResource
- UpdateHttpNamespace
- UpdateInstanceCustomHealthStatus
- UpdatePrivateDnsNamespace
- UpdatePublicDnsNamespace
- UpdateService

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: `^[!-~]{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 Errors.

DuplicateRequest

The operation is 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.

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.

HTTP Status Code: 400

Examples

CreateHttpNamespace Example

This example illustrates one usage of CreateHttpNamespace.

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

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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: `^[!-~]{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 Errors.

DuplicateRequest

The operation is 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.

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.

HTTP Status Code: 400

Examples

CreatePrivateDnsNamespace Example

This example illustrates one usage of CreatePrivateDnsNamespace.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- 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 Errors.

DuplicateRequest

The operation is 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.

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.

HTTP Status Code: 400

Examples

CreatePublicDnsNamespace Example

This example illustrates one usage of CreatePublicDnsNamespace.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- 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 of the namespace that you want to use to create the service. The namespace ID must be specified, but it can be specified either here or in the `DnsConfig` object.

Type: String

Length Constraints: Maximum length of 64.

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,
      "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",
      "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 Errors.

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.

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.

HTTP Status Code: 400

Examples

CreateService Example

This example illustrates one usage of CreateService.

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",
        "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"
    }
```

```
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the namespace that you want to delete.

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 Errors.

DuplicateRequest

The operation is 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 illustrates one usage of DeleteNamespace.

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"
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET

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

DeleteService

Deletes a specified service. 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 of the service that you want to delete.

Type: String

Length Constraints: Maximum length of 64.

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 Errors.

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 illustrates one usage of DeleteService.

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

{}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the service that the instance is associated 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 Errors.

DuplicateRequest

The operation is 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 illustrates one usage of DeregisterInstance.

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"
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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"
   },
   "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. It's 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.

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

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 Errors.

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 illustrates one usage of DiscoverInstances.

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
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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",
   "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. It's found in the `HttpProperties` member of the `Properties` member of the namespace.

Type: String

Length Constraints: Maximum length of 1024.

Required: Yes

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 Errors.

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 illustrates one usage of DiscoverInstancesRevision.

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
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the service that the instance is associated with.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

Response Syntax

```
{
   "Instance": {
```

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

Errors

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

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 illustrates one usage of GetInstance.

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"
```

```
        }
    }
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the service that the instance is associated with.

Type: String

Length Constraints: Maximum length of 64.

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 Errors.

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 illustrates one usage of GetInstancesHealthStatus.

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"
    }
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the namespace that you want to get information about.

Type: String

Length Constraints: Maximum length of 64.

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"
         }
      },
      "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 Errors.

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 illustrates one usage of GetNamespace.

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"
    }
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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"
}
```

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 64.

Required: Yes

Response Syntax

```
{
   "Operation": {
      "CreateDate": number,
      "ErrorCode": "string",
```

```
      "ErrorMessage": "string",
      "Id": "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 Errors.

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 illustrates one usage of GetOperation.

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",
        "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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the service that you want to get settings for.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

Response Syntax

```
{
   "Service": {
      "Arn": "string",
      "CreateDate": number,
      "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",
      "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 Errors.

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 illustrates one usage of GetService.

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"
    }
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the service that you want to list instances for.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

Response Syntax

```
{
   "Instances": [
      {
         "Attributes": {
            "string" : "string"
         },
         "Id": "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.

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.

Errors

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

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 illustrates one usage of ListInstances.

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"
            }
        },
        {
            "Id": "i-abcd1235",
            "Attributes": {
                "AWS_INSTANCE_IPV4": "192.0.2.45",
                "AWS_INSTANCE_PORT": "80",
                "color": "blue",
                "region": "us-west-2",
                "stage": "beta"
            }
        }
    ]
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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.

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"
            }
         },
         "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 Errors.

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 illustrates one usage of ListNamespaces.

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"
        },
        {
            "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"
        },
        {
            "Arn": "arn:aws:servicediscovery:us-west-2:123456789012: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"
        }
    ]
}
```

See Also

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

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

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 illustrates one usage of ListOperations.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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,
         "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",
         "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 Errors.

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 illustrates one usage of ListServices.

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"
        }
    ]
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 Errors.

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 illustrates one usage of ListTagsForResource.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the service that you want to use for settings for the instance.

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 Errors.

DuplicateRequest

The operation is 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 illustrates one usage of RegisterInstance.

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"
}
```

See Also

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

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

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.

HTTP Status Code: 400

Examples

TagResource Example

This example illustrates one usage of TagResource.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 Errors.

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 illustrates one usage of UntagResource.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the namespace that you want to update.

Type: String

Length Constraints: Maximum length of 64.

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 Errors.

DuplicateRequest

The operation is 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

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the service that includes the configuration for the custom health check that you want to change the status for.

Type: String

Length Constraints: Maximum length of 64.

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 Errors.

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 illustrates one usage of UpdateInstanceCustomHealthStatus.

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]

{
    "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
{}
```

See Also

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

- AWS Command Line Interface

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the namespace that you want to update.

Type: String

Length Constraints: Maximum length of 64.

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 Errors.

DuplicateRequest

The operation is 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

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- 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 of the namespace being updated.

Type: String

Length Constraints: Maximum length of 64.

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 Errors.

DuplicateRequest

The operation is 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

See Also

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

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

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 of the service that you want to update.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

Service

A complex type that contains the new settings for the service.

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 Errors.

DuplicateRequest

The operation is 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 illustrates one usage of UpdateService.

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"
}
```

See Also

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

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

> **Important**
>
> The record types of a service can only be changed by deleting the service and recreating it with a new `Dnsconfig`.

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.

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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go

- 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: `^[!-~]{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 Go
- 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 Go
- 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.

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 Go
- 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

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 Go
- 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

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 Go
- 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.

Required: No

Properties

A complex type that contains information that's specific to the type of the namespace.

Type: NamespaceProperties object

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 Go
- 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.

Type: String

Valid Values: `TYPE | NAME | HTTP_NAME`

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`.

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`, 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 Go
- 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 Go
- 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.

Required: No

Properties

The properties of the namespace.

Type: NamespaceProperties object

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 Go

- 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

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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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 Go
- 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

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

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 Go
- 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 Go

- 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 `NAMESPACE_ID`.

Type: String

Valid Values: `NAMESPACE_ID`

Required: Yes

Values

The values that are applicable to the value that you specify for `Condition` to filter the list of services.

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 namespace ID for `Values`. `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 Go
- 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

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

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 Go
- 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 Go
- 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 Go
- 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 Go
- 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*.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

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 Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientTokenId

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 400

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400