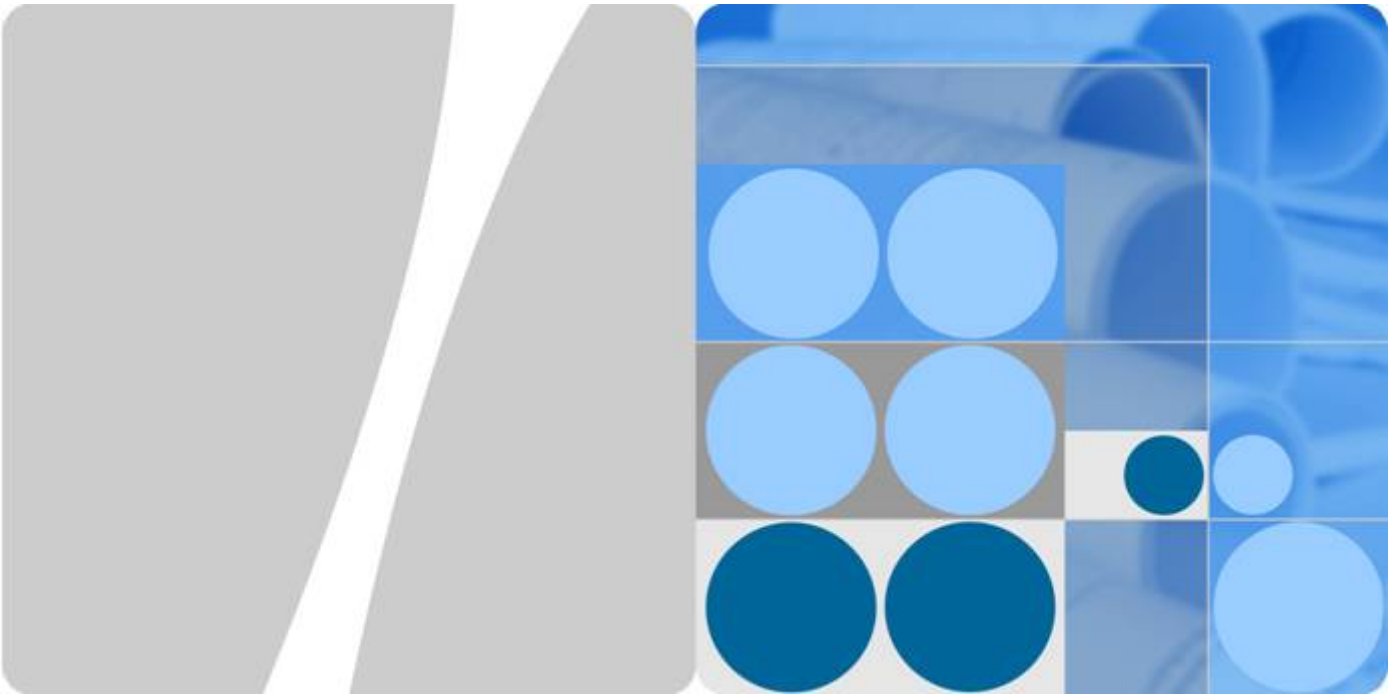

Domain Name Service

API Reference

Date **2021-01-29**

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1 Before You Start

1.1 Overview

Welcome to *Domain Name Service API Reference*. Domain Name Service (DNS) is highly available and scalable authoritative domain resolution service that translates domain names like www.example.com into IP addresses like 192.1.2.3 required for network connection. The DNS service allows users to visit your websites or web applications with domain names.

This document describes how to use APIs to perform operations such as creating, deleting, querying, or modifying DNS resources. For details about all supported operations, see **API Overview**.

Before you access DNS by calling APIs, get yourself familiar with DNS concepts. For details, see "Service Overview" in the *Domain Name Service User Guide*.

1.2 API Calling

DNS supports REST APIs that can be called over HTTPS. For details about API calling, see **Calling APIs**.

1.3 Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. For the endpoints of all services, see **Regions and Endpoints**.

1.4 Notes and Constraints

- The number of DNS resources you can create is determined by quota. To view or increase the quota, see "Quota Adjustment" in the *Domain Name Service User Guide*.
- For more details, see the constraints described in each API.

1.5 Concepts

- Account

  An account is created upon successful registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity, which should not be used directly to perform routine management. To ensure account security, create Identity and Access Management (IAM) users and grant them permissions for routine management.

- User

  An IAM user is created by an account in IAM to use cloud services. Each IAM user has its own identity credentials (password and access keys).

  API authentication requires information such as the account name, username, and password.

- Region

  A region is a geographic area in which cloud resources are deployed. Availability zones (AZs) in the same region can communicate with each other over an intranet, while AZs in different regions are isolated from each other. Deploying cloud resources in different regions can better suit certain user requirements or comply with local laws or regulations.

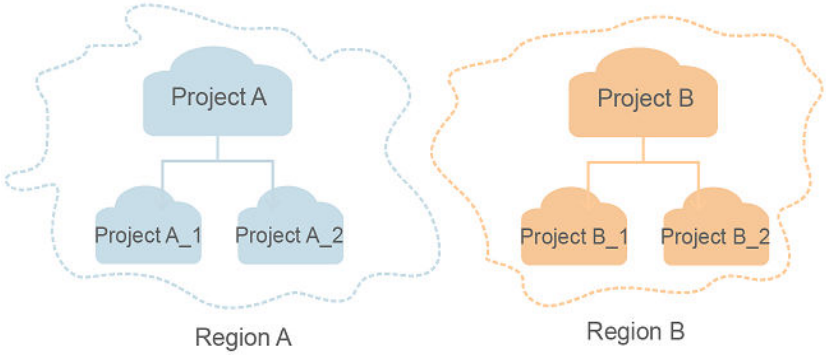
- AZ

  An AZ comprises of one or more physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Computing, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.

- Project

  A project corresponds to a region. Default projects are defined to a group and have physically isolated resources (including computing, storage, and network resources) across regions. Users can be granted permissions in a default project to access all resources in the region under their accounts. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can assign users the permissions required to access only the resources in the specific subprojects.

  Figure 1-1 Project isolation model



2 API Overview

The DNS service provides RESTful APIs.

By calling these APIs, you can use all DNS functions, including creating, querying, modifying, and deleting private zones, and records sets.

Table 2-1 provides an overview of the DNS APIs.

Table 2-1 API overview

Category	Description
Version Management	Query version information of all DNS APIs or a specified API.
Private Zone Management	Create, delete, modify, and query private zones.
Record Set Management	Create, delete, modify, and query record sets in private zones.
Tag Management	Create, delete, modify, and query tags for specified DNS resources.

Version Management

Query DNS API versions.

Table 2-2 Version management APIs

API	Description
Listing All DNS API Versions	Query the versions of all DNS APIs.
Querying the DNS API Version	Queries the version of a specified DNS API.

Private Zone Management

Create, query, delete, and modify private zones.

Table 2-3 Private zone management APIs

API	Description
Creating a Private Zone	Query a private zone.
Associating a Private Zone with a VPC	Associate a private zone with a VPC.
Disassociating a VPC from a Private Zone	Disassociate a VPC from a private zone.
Querying a Private Zone	Query a private zone.
Querying Private Zones	Query private zones.
Querying Name Servers in a Private Zone	Query name servers in a private zone.
Deleting a Private Zone	Delete a private zone.
Modifying a Private Zone	Modify a private zone.

Record Set Management

Create, query, delete, and modify record sets.

Table 2-4 Record set management APIs

API	Description
Creating a Record Set	Create a record set.
Querying a Record Set	Query a record set.
Querying All Record Sets	Query record sets.
Querying Record Sets in a Zone	Query record sets in a specified zone.
Deleting a Record Set	Delete a record set.
Modifying a Record Set	Modify a record set.

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for obtaining a user token as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

Request URI

A request URI is in the following format:

{URI-scheme}://{Endpoint}/{resource-path}?{query-string}

Although a request URI is included in the request header, most programming languages or frameworks require the request URI to be transmitted separately.

Table 3-1 URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Regions and Endpoints**. For example, the endpoint of IAM in the **ru-moscow-1** region is **iam.ru-moscow-1.hc.sbercloud.ru**.
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to obtain a user token is **/v3/auth/tokens**.

Parameter	Description
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "*Parameter name=Parameter value*". For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

NOTE

To simplify the URI display in this document, each API is provided only with a **resource-path** and a request method. The **URI-scheme** of all APIs is **HTTPS**, and the endpoints of all APIs in the same region are identical.

Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server.

Table 3-2 HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.
DELETE	Requests the server to delete specified resources, for example, an object.
HEAD	Same as GET except that the server must return only the response header.
PATCH	Requests the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

For example, in the case of the API used to obtain a user token, the request method is **POST**. The request is as follows:

```
POST https://iam.ru-moscow-1.hc.sbercloud.ru/v3/auth/tokens
```

Request Header

You can also add additional header fields to a request, such as the fields required by a specified URI or HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Common request header fields are as follows.

Table 3-3 Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of *Hostname:Port number*. If the port number is not specified, the default port is used. The default port number for **https** is **443**.	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the type (or format) of the message body. The default value **application/json** is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in **Obtaining a Project ID**.	No	e9993fc787d94b6c886cbaa340f9c0f4
X-Auth-Token	Specifies the user token. It is a response to the API for obtaining a user token (This is the only API that does not require authentication). After the request is processed, the value of **X-Subject-Token** in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

> **NOTE**
>
> In addition to supporting authentication using tokens, APIs support authentication using AK/SK, which uses SDKs to sign a request. During the signature, the **Authorization** (signature authentication) and **X-Sdk-Date** (time when a request is sent) headers are automatically added in the request.
>
> For more details, see "Authentication Using AK/SK" in **Authentication**.

The API used to obtain a user token does not require authentication. Therefore, only the **Content-Type** field needs to be added to requests for calling the API. An example of such requests is as follows:

```
POST https://iam.ru-moscow-1.hc.sbercloud.ru/v3/auth/tokens
Content-Type: application/json
```

(Optional) Request Body

This part is optional. The body of a request is often sent in a structured format as specified in the **Content-Type** header field. The request body transfers content except the request header.

The request body varies between APIs. Some APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

In the case of the API used to obtain a user token, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*, *domainname*, ********* (login password), and *xxxxxxxxxxxxxxxxx* (project name) with the actual values. Obtain a project name from **Regions and Endpoints**.

> **NOTE**
>
> The **scope** parameter specifies where a token takes effect. You can set **scope** to an account or a project under an account. In the following example, the token takes effect only for the resources in a specified project. For more information about this API, see "Obtaining a User Token".

```
POST https://iam.ru-moscow-1.hc.sbercloud.ru/v3/auth/tokens
Content-Type: application/json

{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "*********",
                    "domain": {
                        "name": "domainname"
                    }
                }
            }
        },
        "scope": {
            "project": {
                "name": "xxxxxxxxxxxxxxxxx"
            }
        }
    }
}
```

If all data required for the API request is available, you can send the request to call the API through **curl**, **Postman**, or coding. In the response to the API used to obtain a user token, **x-subject-token** is the desired user token. This token can then be used to authenticate the calling of other APIs.

3.2 Authentication

Requests for calling an API can be authenticated using either of the following methods:

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair. AK/SK-based authentication is recommended because it is more secure than token-based authentication.

Token-based Authentication

NOTE

The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API.

You can obtain a token by calling the Obtaining User Token API. When you call the API, set **auth.scope** in the request body to **project**.

```
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "********",
                    "domain": {
                        "name": "domainname"
                    }
                }
            }
        },
        "scope": {
            "project": {
                "name": "xxxxxxxx"
            }
        }
    }
}
```

After a token is obtained, the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```
POST https://iam.ru-moscow-1.hc.sbercloud.ru/v3/auth/tokens
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.

In AK/SK-based authentication, AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.
- SK: secret access key used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm or using the signing SDK. For details about how to sign requests and use the signing SDK, see **API Request Signing Guide**.

NOTE

The signing SDK is only used for signing requests and is different from the SDKs provided by services.

3.3 Response

Status Code

After sending a request, you will receive a response, including a status code, response header, and response body.

A status code is a group of digits, ranging from 1xx to 5xx. It indicates the status of a request. For more information, see **Status Code**.

For example, if status code **201** is returned for calling the API used to obtain a user token, the request is successful.

Response Header

Similar to a request, a response also has a header, for example, **Content-Type**.

Figure 3-1 shows the response header fields for the API used to obtain a user token. The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

Figure 3-1 Header fields of the response to the request for obtaining a user token

(Optional) Response Body

The body of a response is often returned in structured format as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following is part of the response body for the API used to obtain a user token.

```
{
    "token": {
        "expires_at": "2019-02-13T06:52:13.855000Z",
        "methods": [
            "password"
        ],
        "catalog": [
            {
                "endpoints": [
                    {
                        "region_id": "az-01",
.....
```

If an error occurs during API calling, an error code and a message will be displayed. The following shows an error response body.

```
{
    "error_msg": "The format of message is error",
    "error_code": "AS.0001"
}
```

In the response body, **error_code** is an error code, and **error_msg** provides information about the error.

4 APIs

4.1 Version Management

4.1.1 Listing All DNS API Versions

Function

List all DNS API versions.

To be interconnected with a third-party system, the current DNS version supports 1024- and 2048-bit DH key exchange algorithms, and the 2048-bit algorithm is recommended.

URI

GET /

Request

- Request parameters

  None

- Example request

  List all DNS API versions.

  ```
  GET https://{DNS_Endpoint}/
  ```

Response

- Parameter description

  Table 4-1 Parameter in the response

Parameter	Type	Description
versions	Object	Version object. For details, see **Table 4-2**.

Table 4-2 Description of the **versions** field

Parameter	Type	Description
values	Array of object	Version list. For details, see **Table 4-3**.

Table 4-3 Description of the **values** field

Parameter	Type	Description
status	String	Version status, which can be: • **CURRENT**: widely used version • **SUPPORTED**: earlier version which is still supported • **DEPRECATED**: deprecated version which may be deleted later
id	String	Version number
links	Array of object	URL of the current version. For details, see **Table 4-4**.

Table 4-4 Description of the **links** field

Parameter	Type	Description
href	String	Link address
rel	String	Link marker name

- Example response

```
{
   "versions": {
      "values": [
         {
            "status": "CURRENT",
            "id": "v2",
            "links": [
               {
                  "href": "https://Endpoint/v2",
                  "rel": "self"
               }
            ]
         }
      ]
   }
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.1.2 Querying the DNS API Version

Function

Query a specified DNS API version.

To be interconnected with a third-party system, the current DNS version supports 1024- and 2048-bit DH key exchange algorithms, and the 2048-bit algorithm is recommended.

URI

GET /{version}

For details, see **Table 4-5**.

Table 4-5 Parameter in the URI

Parameter	Mandatory	Type	Description
version	Yes	String	Version to be queried, which starts with **v**, for example, **v2**

Request

- Request parameters

  None

- Example request

  Query information about the v2 API version.

  ```
  GET https://{DNS_Endpoint}/v2
  ```

Response

- Parameter description

  Table 4-6 Parameter in the response

Parameter	Type	Description
version	Object	Version object. For details, see **Table 4-7**.

Table 4-7 Description of the **version** field

Parameter	Type	Description
status	String	Version status, which can be: • **CURRENT**: widely used version • **SUPPORTED**: earlier version which is still supported • **DEPRECATED**: deprecated version which may be deleted later
id	String	Version number, for example, **v2**
updated	String	Time when the API version was released The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
version	String	Maximum micro-version number. If the APIs do not support micro-versions, the value is left blank.
min_version	String	Minimum micro-version number. If the APIs do not support micro-versions, the value is left blank.
links	Array of object	URL of the current version. For details, see **Table 4-8**.

Table 4-8 Description of the **links** field

Parameter	Type	Description
href	String	Link address
rel	String	Link marker name

- Example response

```
{
    "version":
        {
            "status": "CURRENT",
            "id": "v2",
            "links": [
                {
                    "href": "https://Endpoint/v2/",
                    "rel": "self"
                }
            ],
        "min_version": "",
        "updated": "2018-09-18T00:00:00Z",
        "version": ""
        }
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.2 Private Zone Management

4.2.1 Creating a Private Zone

Function

Create a private zone.

URI

POST /v2/zones

Request

- Parameter description

Table 4-9 Parameters in the request

Parameter	Mandatory	Type	Description
name	Yes	String	Domain name of the zone to be created • If a domain name is ended with a dot (.), it cannot exceed 254 characters. • Otherwise, the domain name cannot exceed 253 characters. • Labels of a domain name are separated by dot (.). Each label cannot exceed 63 characters. A domain name is case insensitive. Uppercase letters will also be converted into lowercase letters.
description	No	String	Description of the zone, which cannot exceed 255 characters The value is left blank by default.
zone_type	Yes	String	Zone type The value must be **private**, indicating private zones accessible only to hosts in specified VPCs will be created.

Parameter	Mandatory	Type	Description
email	No	String	Email address of the administrator managing the zone The default value is the service email address.
ttl	No	Integer	Caching period of the SOA record set (in seconds) The value ranges from **1** to **2147483647**. The default value is **300**.
router	Yes	Object	Router information (VPC associated with the private zone) For details, see **Table 4-10**.
tags	No	Array of object	Resource tag. For details, see **Table 4-11**. The value is left blank by default.
enterprise_project_id	No	String	Specifies the ID of the enterprise project associated with the private zone. The value contains a maximum of 36 characters. The default value is **0**.

Table 4-10 Description of the **router** field

Parameter	Mandatory	Type	Description
router_id	Yes	String	ID of the associated VPC
router_region	No	String	Region of the VPC If it is left blank, the region of the project in the token takes effect by default.

Table 4-11 Description of the **tags** field

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. The key contains 36 Unicode characters at most and cannot be blank. It cannot contain the following characters: =*<>\,|/ nor start or end with a space.

Parameter	Mandatory	Type	Description
value	No	String	Tag value. Each value contains 43 Unicode characters at most and can be an empty string. It cannot contain the following characters: =*<>\,|/ nor start or end with a space.

- Example request

  Create a private zone named **example.com**.

```
POST https://{DNS_Endpoint}/v2/zones
{
   "name": "example.com.",
   "description": "This is an example zone.",
   "zone_type": "private",
   "email": "xx@example.org",
   "router": {
      "router_id": "19664294-0bf6-4271-ad3a-94b8c79c6558",
      "router_region": "xx"
   },
   "tags": [
      {
        "key": "key1",
        "value": "value1"
      }
   ]
}
```

Response

- Parameter description

  Table 4-12 Parameters in the response

Parameter	Type	Description
id	String	Zone ID, which is a UUID used to identify the zone
name	String	Zone name
description	String	Zone description
email	String	Email address of the administrator managing the zone
zone_type	String	Zone type. The value is **private**.
ttl	Integer	TTL value of the SOA record set in the zone
serial	Integer	Serial number in the SOA record set in a zone, which identifies the change on the primary DNS server This parameter is not used currently.

Parameter	Type	Description
status	String	Resource status For details, see **Resource Status**.
record_num	Integer	Number of record sets in the zone
pool_id	String	Pool ID of the zone, which is assigned by the system
project_id	String	Project ID of the zone
created_at	String	Time when the zone was created The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
updated_at	String	Time when the zone was updated The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-13**.
masters	Array of strings	Master DNS servers, from which the slave servers get DNS information This parameter is not used currently.
router	Object	Information about the VPC associated with the zone. For details, see **Table 4-14**.

Table 4-13 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

Table 4-14 Description of the **router** field

Parameter	Type	Description
status	String	Resource status For details, see **Resource Status**.
router_id	String	Router ID (VPC ID)

Parameter	Type	Description
router_region	String	Region of the VPC

- Example response

```
{
   "id": "ff8080825b8fc86c015b94bc6f8712c3",
   "name": "example.com.",
   "description": "This is an example zone.",
   "email": "xx@example.com",
   "ttl": 300,
   "serial": 1,
   "masters": [],
   "status": "PENDING_CREATE",
   "links": {
      "self": "https://Endpoint/v2/zones/ff8080825b8fc86c015b94bc6f8712c3"
   },
   "pool_id": "ff8080825ab738f4015ab7513298010e",
   "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c",
   "zone_type": "private",
   "created_at": "2017-04-22T08:17:08.997",
   "updated_at": null,
   "record_num": 0,
   "router": {
      "status": "PENDING_CREATE",
      "router_id": "19664294-0bf6-4271-ad3a-94b8c79c6558",
      "router_region": "xx"
   }
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.2.2 Associating a Private Zone with a VPC

Function

Associate a private zone with a VPC.

URI

POST /v2/zones/{zone_id}/associaterouter

For details, see **Table 4-15**.

Table 4-15 Parameter in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID You can obtain the value by calling the API in **Querying Private Zones**.

Request

- Parameter description

  Table 4-16 Parameters in the request

Parameter	Mandatory	Type	Description
router	Yes	Object	Router information (VPC associated with the zone) For details, see **Table 4-17**.

  Table 4-17 Description of the **router** field

Parameter	Mandatory	Type	Description
router_id	Yes	String	ID of the associated VPC
router_region	No	String	Region of the VPC If it is left blank, the region of the project in the token takes effect by default.

- Example request

  Associate the zone whose ID is ff8080825b8fc86c015b94bc6f8712c3 with a VPC:

```
POST https://{DNS_Endpoint}/v2/zones/ff8080825b8fc86c015b94bc6f8712c3/associaterouter
```

```
{
   "router": {
      "router_id": "f0791650-db8c-4a20-8a44-a06c6e24b15b",
      "router_region": "xx"
   }
}
```

Response

- Parameter description

  Table 4-18 Parameters in the response

Parameter	Type	Description
router_id	String	Router ID (VPC ID)
router_region	String	Region of the VPC
status	String	Resource status For details, see **Resource Status**.

- Example response

```
{
   "status": "PENDING_CREATE",
```

```
    "router_id": "f0791650-db8c-4a20-8a44-a06c6e24b15b",
    "router_region": "xx"
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.2.3 Disassociating a VPC from a Private Zone

Function

Disassociate a VPC from a private zone.

When a private zone is associated with only one VPC, you cannot disassociate it.

URI

POST /v2/zones/{zone_id}/disassociaterouter

For details, see **Table 4-19**.

Table 4-19 Parameter in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID You can obtain the value by calling the API in **Querying Private Zones**.

Request

- Parameter description

  Table 4-20 Parameter in the request

Parameter	Mandatory	Type	Description
router	Yes	Object	Router information (VPC associated with the zone) For details, see **Table 4-21**.

Table 4-21 Description of the **router** field

Parameter	Mandatory	Type	Description
router_id	Yes	String	ID of the associated VPC
router_region	No	String	Region of the VPC If it is left blank, the region of the project in the token takes effect by default.

- Example request

  Disassociate a VPC from the zone whose ID is ff8080825b8fc86c015b94bc6f8712c3:

```
POST https://{DNS_Endpoint}/v2/zones/ff8080825b8fc86c015b94bc6f8712c3/disassociaterouter
{
   "router": {
      "router_id": "f0791650-db8c-4a20-8a44-a06c6e24b15b",
      "router_region": "xx"
   }
}
```

Response

- Parameter description

  Table 4-22 Parameters in the response

Parameter	Type	Description
router_id	String	Router ID (VPC ID)
router_region	String	Region of the router (VPC)
status	String	Resource status For details, see **Resource Status**.

- Example response

```
{
   "status": "PENDING_DELETE",
   "router_id": "f0791650-db8c-4a20-8a44-a06c6e24b15b",
   "router_region": "xx"
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.2.4 Querying a Private Zone

Function

Query a private zone.

URI

GET /v2/zones/{zone_id}

For details, see **Table 4-23**.

Table 4-23 Parameter in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID You can obtain the value by calling the API in **Querying Private Zones**.

Request

- Request parameters

  None

- Example request

  Query the zone whose ID is ff8080825b8fc86c015b94bc6f8712c3:

  ```
  GET https://{DNS_Endpoint}/v2/zones/ff8080825b8fc86c015b94bc6f8712c3
  ```

Response

- Parameter description

  Table 4-24 Parameters in the response

Parameter	Type	Description
id	String	Zone ID, which is a UUID used to identify the zone
name	String	Zone name
description	String	Zone description
email	String	Email address of the administrator managing the zone
zone_type	String	Zone type. The value is **private**.
ttl	Integer	TTL value of the SOA record set in the zone

Parameter	Type	Description
serial	Integer	Serial number in the SOA record set in a zone, which identifies the change on the primary DNS server This parameter is not used currently.
status	String	Resource status For details, see **Resource Status**.
record_num	Integer	Number of record sets in the zone
pool_id	String	Pool ID of the zone, which is assigned by the system
project_id	String	Project ID of the zone
created_at	String	Time when the zone was created The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
updated_at	String	Time when the zone was updated The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-25**.
masters	Array of strings	Master DNS servers, from which the slave servers get DNS information This parameter is not used currently.
routers	Array of object	Routers (VPCs associated with the zone). For details, see **Table 4-26**.

Table 4-25 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

Table 4-26 Description of the **routers** field

Parameter	Type	Description
status	String	Resource status For details, see **Resource Status**.
router_id	String	ID of the associated VPC
router_region	String	Region of the VPC If it is left blank, the region of the project in the token takes effect by default.

- Example response

```
{
   "id": "ff8080825b8fc86c015b94bc6f8712c3",
   "name": "example.com.",
   "description": "This is an example zone.",
   "email": "xx@example.com",
   "ttl": 300,
   "serial": 0,
   "masters": [],
   "status": "ACTIVE",
   "links": {
      "self": "https://Endpoint/v2/zones/ff8080825b8fc86c015b94bc6f8712c3"
   },
   "pool_id": "ff8080825ab738f4015ab7513298010e",
   "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c",
   "zone_type": "private",
   "created_at": "2017-04-22T08:17:08.997",
   "updated_at": "2017-04-22T08:17:09.997",
   "record_num": 2,
   "routers": [
      {
         "status": "ACTIVE",
         "router_id": "19664294-0bf6-4271-ad3a-94b8c79c6558",
         "router_region": "xx"
      },
      {
         "status": "ACTIVE",
         "router_id": "f0791650-db8c-4a20-8a44-a06c6e24b15b",
         "router_region": "xx"
      }
   ]
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.2.5 Querying Private Zones

Function

Query private zones in list.

URI

GET /v2/zones?
type={type}&limit={limit}&marker={marker}&offset={offset}&tags={tags}&name={name}&status={status}&enterprise_project_id={id}

For details, see **Table 4-27**.

Table 4-27 Parameters in the URI

Parameter	Mandatory	Type	Description
type	Yes	String	Zone type The value is **private**, indicating that private zones are queried.
marker	No	String	Start resource ID of pagination query If the parameter is left blank, only resources on the first page are queried. The value is left blank by default.
limit	No	Integer	Number of resources on each page The value ranges from **0** to **500**. Commonly used values are **10**, **20**, and **50**. The default value is **500**.
offset	No	Integer	Start offset of pagination query. The query will start from the next resource of the offset value. The value ranges from **0** to **2147483647**. The default value is **0**. If **marker** is not left blank, the query starts from the resource specified by **marker**.
tags	No	String	Resource tag The format is as follows: **key1,value1|key2,value2**. Multiple tags are separated by vertical bar (|). The key and value of each tag are separated by comma (,). The tags are in AND relationship. The value is left blank by default.
name	No	String	Zone name A fuzzy search will be performed.

Parameter	Mandatory	Type	Description
status	No	String	Resource status For details, see **Resource Status**.
enterprise_project_id	No	String	Specifies the ID of the enterprise project associated with the private zone. The value contains a maximum of 36 characters. The default value is **0**.

Request

- Request parameters

  None

- Example request

  Query the first 10 private zones whose tag is <key1, value1>:

  ```
  GET https://{DNS_Endpoint}/v2/zones?type=private&limit=10&offset=0&tags=key1,value1
  ```

Response

- Parameter description

Table 4-28 Parameters in the response

Parameter	Type	Description
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-31**.
zones	Array of object	Zone list. For details, see **Table 4-29**.
metadata	Object	Total number of resources that meet the filter criteria. For details, see **Table 4-30**.

Table 4-29 Description of the **zones** field

Parameter	Type	Description
id	String	Zone ID, which is a UUID used to identify the zone
name	String	Zone name

Parameter	Type	Description
description	String	Zone description
email	String	Email address of the administrator managing the zone
zone_type	String	Zone type. The value is **private**.
ttl	Integer	TTL value of the SOA record set in the zone
serial	Integer	Serial number in the SOA record set in a zone, which identifies the change on the primary DNS server This parameter is not used currently.
status	String	Resource status For details, see **Resource Status**.
record_num	Integer	Number of record sets in the zone
pool_id	String	Pool ID of the zone, which is assigned by the system
project_id	String	Project ID of the zone
created_at	String	Time when the zone was created The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
updated_at	String	Time when the zone was updated The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-31**.
masters	Array of strings	Master DNS servers, from which the slave servers get DNS information This parameter is not used currently.
routers	Array of object	Routers (VPCs associated with the zone). For details, see **Table 4-32**.
enterprise_project_id	String	Specifies the ID of the enterprise project associated with the private zone. The value contains a maximum of 36 characters.

Table 4-30 Description of the **metadata** field

Parameter	Type	Description
total_count	Integer	Number of resources that meet the filter criteria. The number is irrelevant to **limit** or **offset**.

Table 4-31 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

Table 4-32 Description of the **routers** field

Parameter	Type	Description
status	String	Resource status For details, see **Resource Status**.
router_id	String	ID of the associated VPC
router_region	String	Region of the VPC If it is left blank, the region of the project in the token takes effect by default.

- Example response

```
{
    "links": {
        "self": "https://Endpoint/v2/zones?type=private&limit=11",
        "next": "https://Endpoint/v2/zones?
type=private&limit=11&marker=ff8080825b8fc86c015b94bc6f8712c3"
    },
    "zones": [
        {
            "id": "ff8080825b8fc86c015b94bc6f8712c3",
            "name": "example.com.",
            "description": "This is an example zone.",
            "email": "xx@example.com",
            "ttl": 300,
            "serial": 0,
            "masters": [],
            "status": "ACTIVE",
            "links": {
                "self": "https://Endpoint/v2/zones/ff8080825b8fc86c015b94bc6f8712c3"
            },
            "pool_id": "ff8080825ab738f4015ab7513298010e",
            "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c",
            "zone_type": "private",
            "created_at": "2017-04-22T08:17:08.997",
            "updated_at": "2017-04-22T08:17:09.997",
```

```
            "record_num": 2,
            "routers": [
                {
                    "status": "ACTIVE",
                    "router_id": "19664294-0bf6-4271-ad3a-94b8c79c6558",
                    "router_region": "xx"
                },
                {
                    "status": "ACTIVE",
                    "router_id": "f0791650-db8c-4a20-8a44-a06c6e24b15b",
                    "router_region": "xx"
                }
            ]
        },
        {
            "id": "ff8080825b95142f015b951f87280029",
            "name": "example.org.",
            "description": "This is an example zone.",
            "email": "xx@example.org",
            "ttl": 300,
            "serial": 0,
            "masters": [],
            "status": "ACTIVE",
            "links": {
                "self": "https://Endpoint/v2/zones/ff8080825b95142f015b951f87280029"
            },
            "pool_id": "ff8080825ab738f4015ab7513298010e",
            "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c",
            "zone_type": "private",
            "created_at": "2017-04-22T08:17:08.997",
            "updated_at": "2017-04-22T08:17:09.997",
            "record_num": 2,
            "routers": [
                {
                    "status": "ACTIVE",
                    "router_id": "19664294-0bf6-4271-ad3a-94b8c79c6558",
                    "router_region": "xx"
                },
                {
                    "status": "ACTIVE",
                    "router_id": "f0791650-db8c-4a20-8a44-a06c6e24b15b",
                    "router_region": "xx"
                }
            ]

        }
    ],
    "metadata": {
        "total_count": 2
    }
}
```


Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.2.6 Querying Name Servers in a Private Zone

Function

Query name servers in a private zone.

URI

GET /v2/zones/{zone_id}/nameservers

For details, see **Table 4-33**.

Table 4-33 Parameter in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID You can obtain the value by calling the API in **Querying Private Zones**.

Request

- Request parameters

  None

- Example request

  Query name servers of the zone whose ID is ff8080825b8fc86c015b94bc6f8712c3:

  ```
  GET https://{DNS_Endpoint}/v2/zones/ff8080825b8fc86c015b94bc6f8712c3/nameservers
  ```

Response

- Parameter description

  Table 4-34 Parameter in the response

Parameter	Type	Description
nameservers	Array of object	Name server list object For details, see **Table 4-35**.

  Table 4-35 Description of the **nameservers** field

Parameter	Type	Description
address	String	IP address of a DNS server
priority	Integer	Priority of a name server For example, if the priority of a DNS server is **1**, it is used to resolve domain names in first priority.

- Example response

  ```
  {
    "nameservers": [
  ```

```
    {
        "priority": 1,
        "address": "100.125.0.81"
    },
    {
        "priority": 2,
        "address": "100.125.0.82"
    }
  ]
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.2.7 Deleting a Private Zone

Function

Delete a private zone.

URI

DELETE /v2/zones/{zone_id}

For details, see **Table 4-36**.

Table 4-36 Parameters in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID You can obtain the value by calling the API in **Querying Private Zones**.

Request

- Request parameters

  None

- Example request

  Delete the zone whose ID is ff8080825b8fc86c015b94bc6f8712c3:

  ```
  DELETE https://{DNS_Endpoint}/v2/zones/ff8080825b8fc86c015b94bc6f8712c3
  ```

Response

- Parameter description

Table 4-37 Parameters in the response

Parameter	Type	Description
id	String	Zone ID, which is a UUID used to identify the zone
name	String	Zone name
description	String	Zone description
email	String	Email address of the administrator managing the zone
zone_type	String	Zone type. The value is **private**.
ttl	Integer	TTL value of the SOA record set in the zone
serial	Integer	Serial number in the SOA record set in a zone, which identifies the change on the primary DNS server This parameter is not used currently.
status	String	Resource status For details, see **Resource Status**.
record_num	Integer	Number of record sets in the zone
pool_id	String	Pool ID of the zone, which is assigned by the system
project_id	String	Project ID of the zone
created_at	String	Time when the zone was created The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
updated_at	String	Time when the zone was updated The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-38**.
masters	Array of strings	Master DNS servers, from which the slave servers get DNS information This parameter is not used currently.
routers	Array of object	Routers (VPCs associated with the zone). For details, see **Table 4-39**.

Table 4-38 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

Table 4-39 Description of the **routers** field

Parameter	Type	Description
status	String	Resource status For details, see **Resource Status**.
router_id	String	ID of the associated VPC
router_region	String	Region of the VPC If it is left blank, the region of the project in the token takes effect by default.

- Example response

```
{
   "id": "ff8080825b8fc86c015b94bc6f8712c3",
   "name": "example.com.",
   "description": "This is an example zone.",
   "email": "xx@example.com",
   "ttl": 300,
   "serial": 1,
   "masters": [],
   "status": "PENDING_DELETE",
   "links": {
      "self": "https://Endpoint/v2/zones/ff8080825b8fc86c015b94bc6f8712c3"
   },
   "pool_id": "ff8080825ab738f4015ab7513298010e",
   "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c",
   "zone_type": "private",
   "created_at": "2017-04-22T10:05:23.110",
   "updated_at": "2017-04-22T10:05:23.959",
   "record_num": 0,
   "routers": [
      {
         "status": "ACTIVE",
         "router_id": "19664294-0bf6-4271-ad3a-94b8c79c6558",
         "router_region": "xx"
      },
      {
         "status": "ACTIVE",
         "router_id": "f0791650-db8c-4a20-8a44-a06c6e24b15b",
         "router_region": "xx"
      }
   ]
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.2.8 Modifying a Private Zone

Function

Modify a private zone.

URI

PATCH /v2/zones/{zone_id}

For details, see **Table 4-40**.

Table 4-40 Parameters in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	ID of the zone to be modified You can obtain the value by calling the API in **Querying Private Zones**.

Request

- Parameter description

  Table 4-41 Parameters in the request

Parameter	Mandatory	Type	Description
description	No	String	Description of the zone, which cannot exceed 255 characters If this parameter is left blank, the value will not be changed. The value is left blank by default.
email	No	String	Email address of the administrator managing the zone If this parameter is left blank, the value will not be changed. The value is left blank by default.
ttl	No	Integer	Caching period of the SOA record set (in seconds) The value ranges from 1 to **2147483647**. If this parameter is left blank, the value will not be changed. The value is left blank by default.

- Example request

  Modify the zone whose ID is 2c9eb155587194ec01587224c9f90149:

```
PATCH https://{DNS_Endpoint}/v2/zones/2c9eb155587194ec01587224c9f90149
{
   "description": "This is an example zone.",
   "email": "xx@example.org",
   "ttl": 300
}
```

Response

- Parameter description

Table 4-42 Parameters in the response

Parameter	Type	Description
id	String	Zone ID, which is a UUID used to identify the zone
name	String	Zone name
description	String	Zone description
email	String	Email address of the administrator managing the zone
zone_type	String	Zone type. The value is **private**.
ttl	Integer	TTL value of the SOA record set in the zone
serial	Integer	Serial number in the SOA record set in a zone, which identifies the change on the primary DNS server This parameter is not used currently.
status	String	Resource status For details, see **Resource Status**.
record_num	Integer	Number of record sets in the zone
pool_id	String	Pool ID of the zone, which is assigned by the system
project_id	String	Project ID of the zone
created_at	String	Time when the zone was created The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.
updated_at	String	Time when the zone was updated The UTC time format is used: YYYY-MM-DDTHH:MM:SSZ.

Parameter	Type	Description
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-43**.
masters	Array of strings	Master DNS servers, from which the slave servers get DNS information This parameter is not used currently.
routers	Array of object	Information about the VPC associated with the zone. For details, see **Table 4-44**.

Table 4-43 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

Table 4-44 Description of the **routers** field

Parameter	Type	Description
status	String	Resource status For details, see **Resource Status**.
router_id	String	ID of the associated VPC
router_region	String	Region of the VPC If it is left blank, the region of the project in the token takes effect by default.

- Example response

```
{
    "id": "ff8080825b8fc86c015b94bc6f8712c3",
    "name": "example.com.",
    "description": "This is an example zone.",
    "email": "xx@example.com",
    "ttl": 300,
    "serial": 1,
    "masters": [],
    "status": "ACTIVE",
    "links": {
        "self": "https://Endpoint/v2/zones/ff8080825b8fc86c015b94bc6f8712c3"
    },
    "pool_id": "ff8080825ab738f4015ab7513298010e",
    "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c",
    "zone_type": "private",
    "created_at": "2017-04-22T08:17:08.997",
```

```
  "updated_at": "2017-04-22T08:17:10.849",
  "record_num": 2,
  "routers": [
    {
        "status": "ACTIVE",
        "router_id": "19664294-0bf6-4271-ad3a-94b8c79c6558",
        "router_region": "xx"
      }
  ]
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.3 Record Set Management

4.3.1 Creating a Record Set

Function

Create a record set.

URI

POST /v2/zones/{zone_id}/recordsets

For details, see **Table 4-45**.

Table 4-45 Parameters in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID Obtain the private zone ID according to **Querying Private Zones**.

Request

- Parameter description

Table 4-46 Parameters in the request

Parameter	Mandatory	Type	Description
name	Yes	String	Fully qualified domain name (FQDN) suffixed with a zone name, which is a complete host name ended with a dot A domain name is case insensitive. Uppercase letters will also be converted into lowercase letters.
description	No	String	(Optional) Description of the domain name The value cannot exceed 255 characters. The value is left blank by default.
type	Yes	String	Record set type The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **SRV**, or **PTR** (only in private zones). For details, see **Record Set Type**.
ttl	No	Integer	Caching period of the record set on a local DNS server If your service address is frequently changed, set TTL to a smaller value. The value ranges from **1** to **2147483647**. The default value is **300**.
records	Yes	Array of strings	Value of the record set. The value format varies depending on record set types. For example, the value of an AAAA record set is the IPv6 address list mapped to the domain name.
tags	No	Array of object	Resource tag. For details, see **Table 4-47**. The value is left blank by default.

Table 4-47 Description of the **tags** field

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. The key contains 36 Unicode characters at most and cannot be blank. It cannot contain the following characters: =*<>\,|/ nor start or end with a space.
value	No	String	Tag value. Each value contains 43 Unicode characters at most and can be an empty string. It cannot contain the following characters: =*<>\,|/ nor start or end with a space.

- Example request

  Add record sets for the zone whose ID is 2c9eb155587194ec01587224c9f90149:

  ```
  POST https://{DNS_Endpoint}/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets
  ```

  - A type

    ```
    {
       "name": "www.example.com.",
       "description": "This is an example record set.",
       "type": "A",
       "ttl": 3600,
       "records": [
          "192.168.10.1",
          "192.168.10.2"
       ],
       "tags": [
          {
            "key": "key1",
            "value": "value1"
          }
       ]
    }
    ```

  - AAAA type

    ```
    {
       "name": "www.example.com.",
       "description": "This is an example record set.",
       "type": "AAAA",
       "ttl": 3600,
       "records": [
          "fe80:0:0:0:202:b3ff:fe1e:8329",
          "ff03:0db8:85a3:0:0:8a2e:0370:7334"
       ],
       "tags": [
          {
            "key": "key1",
            "value": "value1"
          }
       ]
    }
    ```

  - MX type

    ```
    {
       "name": "www.example.com.",
       "description": "This is an example record set.",
       "type": "MX",
    ```

```
  "ttl": 3600,
  "records": [
    "1 mail.example.com"
  ],
  "tags": [
    {
      "key": "key1",
      "value": "value1"
    }
  ]
}
```

- CNAME type

```
{
  "name": "sale.example.com.",
  "description": "This is an example record set.",
  "type": "CNAME",
  "ttl": 3600,
  "records": [
    "server1.example.com"
  ],
  "tags": [
    {
      "key": "key1",
      "value": "value1"
    }
  ]
}
```

- TXT type

```
{
  "name": "server1.example.com.",
  "description": "This is an example record set.",
  "type": "TXT",
  "ttl": 300,
  "records": [
    "\"This host is used for sale.\""
  ],
  "tags": [
    {
      "key": "key1",
      "value": "value1"
    }
  ]
}
```

- SRV type

```
{
  "name": "_sip._tcp.example.com.",
  "description": "This is an example record set.",
  "type": "SRV",
  "ttl": 300,
  "records": [
    "3 60 2176 sipserver.example.com.",
    "10 100 2176 sipserver.example.com."
  ],
  "tags": [
    {
      "key": "key1",
      "value": "value1"
    }
  ]
}
```

- PTR type

```
{
  "name": "1.1.168.192.in-addr.arpa.",
  "description": "This is an example record set.",
  "type": "PTR",
  "ttl": 300,
  "records": [
```

```
        "webserver.example.com."
    ],
    "tags": [
        {
          "key": "key1",
          "value": "value1"
        }
    ]
}
```

Response

- Parameter description

Table 4-48 Parameters in the response

Parameter	Type	Description
id	String	Record set ID
name	String	Record set name
description	String	Record set description
zone_id	String	Zone ID of the record set
zone_name	String	Zone name of the record set
type	String	Record set type The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **SRV**, or **PTR** (only in private zones). For details, see **Record Set Type**.
ttl	Integer	Record set cache duration (in second) on a local DNS server. The longer the duration is, the slower the update takes effect. If your service address is frequently changed, set TTL to a smaller value.
records	Array of strings	Record set value
create_at	String	Time when the record set was created The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
update_at	String	Time when the record set was updated The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
status	String	Resource status For details, see **Resource Status**.

Parameter	Type	Description
default	Boolean	Whether the record set is created by default. A default record set cannot be deleted.
project_id	String	Project ID of the record set
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-49**.

Table 4-49 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

- Example response

```
{
   "id": "2c9eb155587228570158722b6ac30007",
   "name": "www.example.com.",
   "description": "This is an example record set.",
   "type": "A",
   "ttl": 300,
   "records": [
      "192.168.10.1",
      "192.168.10.2"
   ],
   "status": "PENDING_CREATE",
   "links": {
      "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587228570158722b6ac30007"
   },
   "zone_id": "2c9eb155587194ec01587224c9f90149",
   "zone_name": "example.com.",
   "create_at": "2016-11-17T12:03:17.827",
   "update_at": null,
   "default": false,
   "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.3.2 Querying a Record Set

Function

Query a record set.

URI

GET /v2/zones/{zone_id}/recordsets/{recordset_id}

For details, see **Table 4-50**.

Table 4-50 Parameters in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID Obtain the private zone ID according to **Querying Private Zones**.
recordset_id	Yes	String	Record set ID You can obtain the value by calling the API in **Querying Record Sets in a Zone**.

Request

- Request parameters

  None

- Example request

  Query the record set whose ID is 2c9eb155587228570158722b6ac30007 in the zone whose ID is 2c9eb155587194ec01587224c9f90149:

  ```
  GET https://{DNS_Endpoint}/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/2c9eb155587228570158722b6ac30007
  ```

Response

- Parameter description

  Table 4-51 Parameters in the response

Parameter	Type	Description
id	String	Record set ID
name	String	Record set name
description	String	Record set description
zone_id	String	Zone ID of the record set

Parameter	Type	Description
zone_name	String	Zone name of the record set
type	String	Record set type The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **SOA**, **SRV**, or **PTR** (only in private zones). For details, see **Record Set Type**.
ttl	Integer	Record set cache duration (in second) on a local DNS server. The longer the duration is, the slower the update takes effect. If your service address is frequently changed, set TTL to a smaller value.
records	Array of strings	Record set value
create_at	String	Time when the record set was created The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
update_at	String	Time when the record set was updated The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
status	String	Resource status For details, see **Resource Status**.
default	Boolean	Whether the record set is created by default A default record set cannot be deleted.
project_id	String	Project ID of the record set
links	Object	Link to the current resource or other related resources When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-52**.

Table 4-52 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

- Example response

```
{
    "id": "2c9eb155587228570158722b6ac30007",
    "name": "www.example.com.",
    "description": "This is an example record set.",
    "type": "A",
    "ttl": 300,
    "records": [
        "192.168.10.2",
        "192.168.10.1"
    ],
    "status": "PENDING_CREATE",
    "links": {
        "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587228570158722b6ac30007"
    },
    "zone_id": "2c9eb155587194ec01587224c9f90149",
    "zone_name": "example.com.",
    "create_at": "2016-11-17T12:03:17.827",
    "update_at": "2016-11-17T12:03:18.827",
    "default": false,
    "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.3.3 Querying All Record Sets

Function

Query record sets in list.

URI

GET /v2/recordsets?
zone_type={zone_type}&limit={limit}&marker={marker}&offset={offset}&tags={tags}&status={status}&type={type}&name={name}&id={id}&records={records}&sort_key={sort_key}&sort_dir={sort_dir}

For details, see **Table 4-53**.

Table 4-53 Parameters in the URI

Parameter	Mandatory	Type	Description
zone_type	No	String	Zone type of the record set to be queried, which can be **public** or **private** • **public**: Record sets in public zones are queried. • **private**: Record sets in private zones are queried. If the value is left blank, record sets in public zones are queried by default. A fuzzy search will be performed. The default value is **public**. To query private record sets, set this parameter to **private**.
marker	No	String	Start resource ID of pagination query If the parameter is left blank, only resources on the first page are queried. The value is left blank by default.
limit	No	Integer	Number of resources on each page The value ranges from **0** to **500**. Commonly used values are **10**, **20**, and **50**. The default value is **500**.
offset	No	Integer	Start offset of pagination query. The query will start from the next resource of the offset value. The value ranges from **0** to **2147483647**. The default value is **0**. If **marker** is not left blank, the query starts from the resource specified by **marker**.

Parameter	Mandatory	Type	Description
tags	No	String	Resource tag The format is as follows: **key1,value1|key2,value2**. Multiple tags are separated by vertical bar (|). The key and value of each tag are separated by comma (,). The tags are in AND relationship. An exact match will be performed. If the value starts with an asterisk (*), fuzzy matching will work for the string following the asterisk. The value is left blank by default.
status	No	String	Status of the record sets to be queried The value can be **ACTIVE**, **ERROR**, **DISABLE**, **FREEZE**, **PENDING_CREATE**, **PENDING_UPDATE**, or **PENDING_DELETE**. For details, see **Resource Status**. A fuzzy search will be performed. The value is left blank by default.
type	No	String	Type of the record sets to be queried The value can be **A**, **CNAME**, **MX**, **AAAA**, **TXT**, **SRV**, **NS**, or **PTR**. For details, see **Record Set Type**. An exact match will be performed. The value is left blank by default.
name	No	String	Names of record sets to be queried A fuzzy search will be performed. The value is left blank by default.
id	No	String	IDs of record sets to be queried A fuzzy search will be performed. The value is left blank by default.
records	No	String	Value included in the values of record sets to be queried A fuzzy search will be performed. The value is left blank by default.

Parameter	Mandatory	Type	Description
sort_key	No	String	Sorting condition of the record set list The value can be: • **name**: domain name • **type**: record set type The default value is left blank, indicating that the records are not sorted.
sort_dir	No	String	Sorting order of the record set list The value can be: • **desc**: descending order • **asc**: ascending order The default value is left blank, indicating that the records are not sorted.

Request

- Request parameters

  None

- Example request

  Query A record sets whose name contains **www.example.com** in private zones:

  ```
  GET https://{DNS_Endpoint}/v2/recordsets?
  zone_type=private&type=A&name=www.example.com
  ```

Response

- Parameter description

  Table 4-54 Parameters in the response

Parameter	Type	Description
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-57**.
recordsets	Array of object	Record set list object. For details, see **Table 4-55**.
metadata	Object	Total number of resources that meet the filter criteria. For details, see **Table 4-56**.

Table 4-55 Description of the **recordsets** field

Parameter	Type	Description
id	String	Record set ID
name	String	Record set name
description	String	Record set description
zone_id	String	Zone ID of the record set
zone_name	String	Zone name of the record set
type	String	Record set type The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **SRV**, or **PTR**. For details, see **Record Set Type**.
ttl	Integer	Record set cache duration (in second) on a local DNS server. The longer the duration is, the slower the update takes effect. If your service address is frequently changed, set TTL to a smaller value.
records	Array of strings	Record set value
create_at	String	Time when the record set was created The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
update_at	String	Time when the record set was updated The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
status	String	Resource status For details, see **Resource Status**.
default	Boolean	Whether the record set is created by default A default record set cannot be deleted.
project_id	String	Project ID of the record set

Parameter	Type	Description
links	Object	Link to the current resource or other related resources When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-57**.

Table 4-56 Description of the **metadata** field

Parameter	Type	Description
total_count	Integer	Number of resources that meet the filter criteria. The number is irrelevant to **limit** or **offset**.

Table 4-57 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

- Example response

```
{
    "links": {
        "self": "https://Endpoint/v2/recordsets",
        "next": "https://Endpoint/v2/recordsets?
id=&limit=11&marker=2c9eb155587194ec01587224c9f9014a"
    },
    "recordsets": [
        {
            "id": "2c9eb155587194ec01587224c9f9014a",
            "name": "example.com.",
            "type": "SOA",
            "ttl": 300,
            "records": [
                "ns1.hotrot.de. xx.example.com. (1 7200 900 1209600 300)"
            ],
            "status": "ACTIVE",
            "links": {
                "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587194ec01587224c9f9014a"
            },
            "zone_id": "2c9eb155587194ec01587224c9f90149",
            "zone_name": "example.com.",
            "create_at": "2016-11-17T11:56:03.439",
            "update_at": "2016-11-17T11:56:03.827",
            "default": true,
            "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
        },
        {
```

```
            "id": "2c9eb155587194ec01587224c9f9014c",
            "name": "example.com.",
            "type": "NS",
            "ttl": 172800,
            "records": [
                "ns2.hotrot.de.",
                "ns1.hotrot.de."
            ],
            "status": "ACTIVE",
            "links": {
                "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587194ec01587224c9f9014c"
            },
            "zone_id": "2c9eb155587194ec01587224c9f90149",
            "zone_name": "example.com.",
            "create_at": "2016-11-17T11:56:03.439",
            "update_at": "2016-11-17T11:56:03.827",
            "default": true,
            "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
        },
        {
            "id": "2c9eb15558722857015872299 6ca0002",
            "name": "example.org.",
            "type": "SOA",
            "ttl": 300,
            "records": [
                "ns1.hotrot.de. xx.example.org. (1 7200 900 1209600 300)"
            ],
            "status": "ACTIVE",
            "links": {
                "self": "https://Endpoint/v2/zones/2c9eb15558722857015872299 6c50001/recordsets/
2c9eb15558722857015872299 6ca0002"
            },
            "zone_id": "2c9eb15558722857015872299 6c50001",
            "zone_name": "example.org.",
            "create_at": "2016-11-17T12:01:17.996",
            "update_at": "2016-11-17T12:56:03.827",
            "default": true,
            "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
        },
        {
            "id": "2c9eb15558722857015872299 6ca0004",
            "name": "example.org.",
            "type": "NS",
            "ttl": 172800,
            "records": [
                "ns2.hotrot.de.",
                "ns1.hotrot.de."
            ],
            "status": "ACTIVE",
            "links": {
                "self": "https://Endpoint/v2/zones/2c9eb15558722857015872299 6c50001/recordsets/
2c9eb15558722857015872299 6ca0004"
            },
            "zone_id": "2c9eb15558722857015872299 6c50001",
            "zone_name": "example.org.",
            "create_at": "2016-11-17T12:01:17.996",
            "update_at": "2016-11-17T12:56:03.827",
            "default": true,
            "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
        },
        {
            "id": "2c9eb155587228570158722b6ac30007",
            "name": "www.example.com.",
            "description": "This is an example record set.",
            "type": "A",
            "ttl": 300,
            "records": [
                "192.168.10.2",
```

```
            "192.168.10.1"
        ],
        "status": "ACTIVE",
        "links": {
            "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587228570158722b6ac30007"
        },
        "zone_id": "2c9eb155587194ec01587224c9f90149",
        "zone_name": "example.com.",
        "create_at": "2016-11-17T12:03:17.827",
        "update_at": "2016-11-17T12:56:03.827",
        "default": false,
        "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
    }
  ],
  "metadata": {
     "total_count": 5
  }
}
```


Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.3.4 Querying Record Sets in a Zone

Function

Query all record sets in a specified zone.

URI

GET /v2/zones/{zone_id}/recordsets?
limit={limit}&offset={offset}&marker={marker}&tags={tags}&status={status}&type={type}&name={name}&id={id}&sort_key={sort_key}&sort_dir={sort_dir}

For details, see **Table 4-58**.

Table 4-58 Parameters in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID Obtain the private zone ID according to **Querying Private Zones**.
marker	No	String	Start resource ID of pagination query If the parameter is left blank, only resources on the first page are queried.
limit	No	Integer	Number of resources on each page The value ranges from **0** to **500**. Commonly used values are **10**, **20**, and **50**. The default value is **500**.

Parameter	Mandatory	Type	Description
offset	No	Integer	Start offset of pagination query. The query will start from the next resource of the offset value. The value ranges from **0** to **2147483647**. The default value is **0**. If **marker** is not left blank, the query starts from the resource specified by **marker**.
tags	No	String	Resource tag The format is as follows: **key1,value1|key2,value2**. Multiple tags are separated by vertical bar (|). The key and value of each tag are separated by comma (,). The tags are in AND relationship. An exact match will be performed. If the value starts with an asterisk (*), fuzzy matching will work for the string following the asterisk. The value is left blank by default.
status	No	String	Status of the record sets to be queried The value can be **ACTIVE**, **ERROR**, **DISABLE**, **FREEZE**, **PENDING_CREATE**, **PENDING_UPDATE**, or **PENDING_DELETE**. For details, see **Resource Status**. A fuzzy search will be performed. The value is left blank by default.
type	No	String	Type of the record sets to be queried The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **SRV**, or **PTR**. For details, see **Record Set Type**. An exact match will be performed. The value is left blank by default.
name	No	String	Name of record sets to be queried A fuzzy search will be performed. The value is left blank by default.
id	No	String	ID of record sets to be queried A fuzzy search will be performed. The value is left blank by default.

Parameter	Mandatory	Type	Description
sort_key	No	String	Sorting condition of the record set list The value can be: • **name**: domain name • **type**: record set type The default value is left blank, indicating that the records are not sorted.
sort_dir	No	String	Sorting order of the record set list The value can be: • **desc**: descending order • **asc**: ascending order The default value is left blank, indicating that the records are not sorted.

Request

- Request parameters

  None

- Example request

  Query record sets in the zone whose ID is 2c9eb155587194ec01587224c9f90149:

  ```
  GET https://{DNS_Endpoint}/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets?limit=&offset=
  ```

Response

- Parameter description

  Table 4-59 Parameters in the response

Parameter	Type	Description
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-62**.
recordsets	Array of object	Record set list object. For details, see **Table 4-60**.
metadata	Object	Total number of resources that meet the filter criteria. For details, see **Table 4-61**.

Table 4-60 Description of the **recordsets** field

Parameter	Type	Description
id	String	Record set ID
name	String	Record set name
description	String	Record set description
zone_id	String	Zone ID of the record set
zone_name	String	Zone name of the record set
type	String	Record set type The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **SRV**, or **PTR**. For details, see **Record Set Type**.
ttl	Integer	Record set cache duration (in second) on a local DNS server. The longer the duration is, the slower the update takes effect. If your service address is frequently changed, set TTL to a smaller value.
records	Array of strings	Record set value
create_at	String	Time when the record set was created The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
update_at	String	Time when the record set was updated The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
status	String	Resource status For details, see **Resource Status**.
default	Boolean	Whether the record set is created by default. A default record set cannot be deleted.
project_id	String	Project ID of the record set
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-62**.

Table 4-61 Description of the **metadata** field

Parameter	Type	Description
total_count	Integer	Number of resources that meet the filter criteria. The number is irrelevant to **limit** or **offset**.

Table 4-62 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

- Example response

```
{
    "links": {
        "self": "https://Endpoint/v2/recordsets?
limit=1&marker=&name=&status=&zone_id=2c9eb155587194ec01587224c9f90149",
        "next": "https://Endpoint/v2/recordsets?
limit=11&marker=2c9eb155587194ec01587224c9f9014a&name=&status=&zone_id=2c9eb155587194ec
01587224c9f90149"
    },
    "recordsets": [
        {
            "id": "2c9eb155587194ec01587224c9f9014a",
            "name": "example.com.",
            "type": "SOA",
            "ttl": 300,
            "records": [
                "ns1.hotrot.de. xx.example.com. (1 7200 900 1209600 300)"
            ],
            "status": "ACTIVE",
            "links": {
                "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587194ec01587224c9f9014a"
            },
            "zone_id": "2c9eb155587194ec01587224c9f90149",
            "zone_name": "example.com.",
            "create_at": "2016-11-17T11:56:03.439",
            "update_at": "2016-11-17T12:56:03.827",
            "default": true,
            "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
        },
        {
            "id": "2c9eb155587194ec01587224c9f9014c",
            "name": "example.com.",
            "type": "NS",
            "ttl": 172800,
            "records": [
                "ns2.hotrot.de.",
                "ns1.hotrot.de."
            ],
            "status": "ACTIVE",
            "links": {
                "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587194ec01587224c9f9014c"
            },
```

```
            "zone_id": "2c9eb155587194ec01587224c9f90149",
            "zone_name": "example.com.",
            "create_at": "2016-11-17T11:56:03.439",
            "update_at": "2016-11-17T12:56:03.827",
            "default": true,
            "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
        },
        {
            "id": "2c9eb155587228570158722b6ac30007",
            "name": "www.example.com.",
            "description": "This is an example record set.",
            "type": "A",
            "ttl": 300,
            "records": [
                "192.168.10.2",
                "192.168.10.1"
            ],
            "status": "PENDING_CREATE",
            "links": {
                "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587228570158722b6ac30007"
            },
            "zone_id": "2c9eb155587194ec01587224c9f90149",
            "zone_name": "example.com.",
            "create_at": "2016-11-17T12:03:17.827",
            "update_at": "2016-11-17T12:56:03.827",
            "default": false,
            "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
        }
    ],
    "metadata": {
        "total_count": 3
    }
}
```


Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.3.5 Deleting a Record Set

Function

Delete a record set.

URI

DELETE /v2/zones/{zone_id}/recordsets/{recordset_id}

For details, see **Table 4-63**.

Table 4-63 Parameters in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID Obtain the private zone ID according to **Querying Private Zones**.
recordset_id	Yes	String	ID of the record set to be deleted You can obtain the value by calling the API in **Querying Record Sets in a Zone**.

Request

- Request parameters

  None

- Example request

  Delete the record set whose ID is 2c9eb155587228570158722b6ac30007 in the zone whose ID is 2c9eb155587194ec01587224c9f90149:

  ```
  DELETE https://{DNS_Endpoint}/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/2c9eb155587228570158722b6ac30007
  ```

Response

- Parameter description

  Table 4-64 Parameters in the response

Parameter	Type	Description
id	String	Record set ID
name	String	Record set name
description	String	Record set description
zone_id	String	Zone ID of the record set
zone_name	String	Zone name of the record set
type	String	Record set type The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **SRV**, or **PTR** (only in private zones). For details, see **Record Set Type**.

Parameter	Type	Description
ttl	Integer	Record set cache duration (in second) on a local DNS server. The longer the duration is, the slower the update takes effect. If your service address is frequently changed, set TTL to a smaller value.
records	Array of strings	Record set value
create_at	String	Time when the record set was created The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
update_at	String	Time when the record set was updated The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
status	String	Resource status For details, see **Resource Status**.
default	Boolean	Whether the record set is created by default. A default record set cannot be deleted.
project_id	String	Project ID of the record set
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-65**.

Table 4-65 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

- Example response

```
{
    "id": "2c9eb155587228570158722b6ac30007",
    "name": "www.example.com.",
    "description": "This is an example record set.",
    "type": "A",
    "ttl": 300,
```

```
    "status": "PENDING_DELETE",
    "links": {
        "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587228570158722b6ac30007"
    },
    "zone_id": "2c9eb155587194ec01587224c9f90149",
    "zone_name": "example.com.",
    "create_at": "2016-11-17T12:03:17.827",
    "update_at": "2016-11-17T12:56:03.827",
    "default": false,
    "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.3.6 Modifying a Record Set

Function

Modify a record set.

URI

PUT /v2/zones/{zone_id}/recordsets/{recordset_id}

For details, see **Table 4-66**.

Table 4-66 Parameters in the URI

Parameter	Mandatory	Type	Description
zone_id	Yes	String	Zone ID Obtain the private zone ID according to **Querying Private Zones**.
recordset_id	Yes	String	ID of the record set to be modified You can obtain the value by calling the API in **Querying Record Sets in a Zone**.

Request

- Parameter description

Table 4-67 Parameters in the request

Parameter	Mandatory	Type	Description
name	No	String	Fully qualified domain name (FQDN) suffixed with a zone name, which is a complete host name ended with a dot If it is a record set in a public zone, you can add five labels at most. A domain name is case insensitive. Uppercase letters will also be converted into lowercase letters.
description	No	String	(Optional) Description of the domain name The value cannot exceed 255 characters. If this parameter is left blank, the value will not be changed. The value is left blank by default.
type	No	String	Record set type The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **NS** (only in public zones), **SRV**, **PTR** (only in private zones), and **CAA** (only in public zones). The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **SRV**, or **PTR** (only in private zones). For details, see **Record Set Type**.

Parameter	Mandatory	Type	Description
ttl	No	Integer	Record set cache duration (in second) on a local DNS server. The longer the duration is, the slower the update takes effect. If your service address is frequently changed, set TTL to a smaller value. The value ranges from **1** to **2147483647**. If this parameter is left blank, the value will not be changed. The value is left blank by default.
records	No	Array of strings	Value of the record set. The value format varies depending on record set types. For example, the value of an AAAA record set is the IPv6 address list mapped to the domain name.

- Example request

  Modify the record set whose ID is 2c9eb155587228570158722b6ac30007 in the zone whose ID is 2c9eb155587194ec01587224c9f90149:

  ```
  PUT https://{DNS_Endpoint}/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/2c9eb155587228570158722b6ac30007
  ```

  – A type

  ```
  {
     "description": "This is an example record set.",
     "ttl": 3600,
     "records": [
        "192.168.10.1",
        "192.168.10.2"
     ]
  }
  ```

  – AAAA type

  ```
  {
     "description": "This is an example record set.",
     "ttl": 3600,
     "records": [
        "fe80:0:0:0:202:b3ff:fe1e:8329",
        "ff03:0db8:85a3:0:0:8a2e:0370:7334"
     ]
  }
  ```

  – MX type

  ```
  {
     "description": "This is an example record set.",
     "ttl": 3600,
  ```

```
    "records": [
        "1 mail.example.com"
    ]
}
```

- CNAME type

```
{
    "description": "This is an example record set.",
    "ttl": 3600,
    "records": [
        "server1.example.com"
    ]
}
```

- TXT type

```
{
    "description": "This is an example record set.",
    "ttl": 300,
    "records": [
        "\"This host is used for sale.\""
    ]
}
```

- SRV type

```
{
    "description": "This is an example record set.",
    "ttl": 3600,
    "records": [
        "3 60 2176 sipserver.example.com.",
        "10 100 2176 sipserver.example.com."
    ]
}
```

- PTR type

```
{
    "description": "This is an example record set.",
    "ttl": 3600,
    "records": [
        "host.example.com."

    ]
}
```

Response

- Parameter description

Table 4-68 Parameters in the response

Parameter	Type	Description
id	String	Record set ID
name	String	Record set name
description	String	Record set description
zone_id	String	Zone ID of the record set
zone_name	String	Zone name of the record set

Parameter	Type	Description
type	String	Record set type The value can be **A**, **AAAA**, **MX**, **CNAME**, **TXT**, **SRV**, or **PTR** (only in private zones). For details, see **Record Set Type**.
ttl	Integer	Record set cache duration (in second) on a local DNS server. The longer the duration is, the slower the update takes effect. If your service address is frequently changed, set TTL to a smaller value.
records	Array of strings	Record set value
create_at	String	Time when the record set was created The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
update_at	String	Time when the record set was updated The value format is yyyy-MM-dd'T'HH:mm:ss.SSS.
status	String	Resource status For details, see **Resource Status**.
default	Boolean	Whether the record set is created by default. A default record set cannot be deleted.
project_id	String	Project ID of the record set
links	Object	Link to the current resource or other related resources. When a response is broken into pages, a **next** link is provided to retrieve all results. For details, see **Table 4-69**.

Table 4-69 Parameters in the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

- Example response

```
{
    "id": "2c9eb155587228570158722b6ac30007",
    "name": "www.example.com.",
    "description": "This is an example record set.",
    "type": "A",
    "ttl": 3600,
    "records": [
        "192.168.10.1",
        "192.168.10.2"
    ],
    "status": "PENDING_UPDATE",
    "links": {
        "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587228570158722b6ac30007"
    },
    "zone_id": "2c9eb155587194ec01587224c9f90149",
    "zone_name": "example.com.",
    "create_at": "2016-11-17T12:03:17.827",
    "update_at": "2016-11-17T12:56:03.827",
    "default": false,
    "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.4 Tag Management

4.4.1 Adding Resource Tags

Function

Add tags to a specified resource.

The API is idempotent.

If a to-be-created tag has the same key as an existing tag, the tag will be created and overwrite the existing one.

URI

POST /v2/{project_id}/{resource_type}/{resource_id}/tags

For details, see **Table 4-70**.

Table 4-70 Parameters in the URI

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain it in **Obtaining a Project ID**.

Parameter	Mandatory	Type	Description
resource_type	Yes	String	Resource type, which can be **DNS-public_zone**, **DNS-private_zone**, **DNS-public_recordset**, **DNS-private_recordset**, or **DNS-ptr_record**
resource_id	Yes	String	Resource ID

Request

- Parameter description

  Table 4-71 Parameter in the request

Parameter	Mandatory	Type	Description
tag	Yes	Object	Tag For details, see **Table 4-72**.

  Table 4-72 Parameters in the tag list

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. The key contains 36 Unicode characters at most and cannot be blank. It cannot contain the following characters: =*<>\,|/ nor start or end with a space.
value	No	String	Tag value. Each value contains 43 Unicode characters at most and can be an empty string. It cannot contain the following characters: =*<>\,|/ nor start or end with a space.

- Example request

  Add tags for the private zone whose ID is ff8080825b8fc86c015b94bc6f8712c3:

```
POST https://{DNS_Endpoint}/v2/{project_id}/DNS-private_zone/ff8080825b8fc86c015b94bc6f8712c3/tags
```

```
{
    "tag": {
        "key": "key1",
```

```
        "value": "value1"
    }
}
```

Response

None

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.4.2 Deleting a Resource Tag

Function

Delete a resource tag.

The API is idempotent.

When you delete a tag that does not exist, the system reports that the tag does not exist.

URI

DELETE /v2/{project_id}/{resource_type}/{resource_id}/tags/{key}

For details, see **Table 4-73**.

Table 4-73 Parameters in the URI

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain it in **Obtaining a Project ID**.
resource_type	Yes	String	Resource type, which can be **DNS-public_zone**, **DNS-private_zone**, **DNS-public_recordset**, **DNS-private_recordset**, or **DNS-ptr_record**
resource_id	Yes	String	Resource ID
key	Yes	String	Tag key The key cannot be left blank or be an empty string.

Request

- Parameter description

  None

- Example request

  Delete tags for the private zone whose ID is ff8080825b8fc86c015b94bc6f8712c3:

  ```
  DELETE https://{DNS_Endpoint}/v2/{project_id}/DNS-private_zone/
  ff8080825b8fc86c015b94bc6f8712c3/tags/{key}
  ```

Response

None

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.4.3 Adding or Deleting Resource Tags in Batches

Function

Add or delete tags for a specified resource in batches.

The API is idempotent.

- When you are to create tags, if there are duplicate keys in the request body, an error is reported.

  If a to-be-created tag has the same key as an existing tag, the tag will be created and overwrite the existing one.

- When tags are being deleted and some tags do not exist, the operation is considered successful by default. The character set of the tags will not be checked.

URI

POST /v2/{project_id}/{resource_type}/{resource_id}/tags/action

For details, see **Table 4-74**.

Table 4-74 Parameters in the URI

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain it in **Obtaining a Project ID**.

Parameter	Mandatory	Type	Description
resource_type	Yes	String	Resource type, which can be **DNS-public_zone**, **DNS-private_zone**, **DNS-public_recordset**, **DNS-private_recordset**, or **DNS-ptr_record**
resource_id	Yes	String	Resource ID

Request

- Parameter description

Table 4-75 Parameters in the request

Parameter	Mandatory	Type	Description
tags	Yes	Array of object	Tag list. The tag list structure cannot be empty when you delete tags. For details, see **Table 4-76**.
action	Yes	String	Operation, which can be **create** or **delete** (case sensitive)

Table 4-76 Parameters in the **tags** field

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key, which cannot be left blank or be an empty string. It cannot contain the following characters: =*<>\,|/ nor start or end with a space. • When **action** is set to **create**, the key contains 36 Unicode characters at most. • When **action** is set to **delete**, the key contains 127 Unicode characters at most.

Parameter	Mandatory	Type	Description
value	No	String	Tag value, which can be an empty string. It cannot contain the following characters: =*<>\,|/ nor start or end with a space. • When **action** is set to **create**, the tag value is mandatory and contains 43 Unicode characters at most. • When **action** is set to **delete**, the tag value is optional and contains 255 Unicode characters at most. If you leave it blank, tags are deleted by key.

- Example request

  Add and delete tags for the private zone whose ID is ff8080825b8fc86c015b94bc6f8712c3:

```
POST https://{DNS_Endpoint}/v2/{project_id}/DNS-private_zone/
ff8080825b8fc86c015b94bc6f8712c3/tags/action
```

```
{
   "action": "create",
   "tags": [
      {
         "key": "key1",
         "value": "value1"
      },
      {
         "key": "key2",
         "value": "value2"
      }
   ]
}
or
{
   "action": "delete",
   "tags": [
      {
         "key": "key1",
         "value": "value1"
      },
      {
         "key": "key2",
         "value": "value2"
      }
   ]
}
```

Response

None

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.4.4 Querying Tags of a Resource

Function

Query tags of a specified resource.

URI

GET /v2/{project_id}/{resource_type}/{resource_id}/tags

For details, see **Table 4-77**.

Table 4-77 Parameters in the URI

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain it in **Obtaining a Project ID**.
resource_type	Yes	String	Resource type, which can be **DNS-public_zone**, **DNS-private_zone**, **DNS-public_recordset**, **DNS-private_recordset**, or **DNS-ptr_record**
resource_id	Yes	String	Resource ID

Request

- Parameter description

  None

- Example request

  Query tags of the private zone whose ID is ff8080825b8fc86c015b94bc6f8712c3:

  ```
  GET https://{DNS_Endpoint}/v2/{project_id}/DNS-private_zone/
  ff8080825b8fc86c015b94bc6f8712c3/tags
  ```

Response

- Parameter description

Table 4-78 Parameter in the response

Parameter	Type	Description
tags	Array of object	Tag list. For details, see **Table 7-4**.

- Example response

```
{
   "tags": [
      {
         "key": "key1",
         "value": "value1"
      },
      {
         "key": "key2",
         "value": "value2"
      }
   ]
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.4.5 Querying Tags of a Specified Resource Type

Function

Query all tags of a resource type.

URI

GET /v2/{project_id}/{resource_type}/tags

For details, see **Table 4-79**.

Table 4-79 Parameters in the URI

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain it in **Obtaining a Project ID**.
resource_type	Yes	String	Resource type, which can be **DNS-public_zone**, **DNS-private_zone**, **DNS-public_recordset**, **DNS-private_recordset**, or **DNS-ptr_record**

Request

None

- Parameter description

  None

- Example request

  Query tags of all private zones in a project:

```
GET https://{DNS_Endpoint}/v2/{project_id}/DNS-private_zone/tags
```

Response

- Parameter description

Table 4-80 Parameters in the response

Parameter	Type	Description
tags	Array of object	Tag list. For details, see **Table 4-81**.

Table 4-81 Description of the **tag** field

Parameter	Type	Description
key	String	Tag key. The key contains 36 Unicode characters at most and cannot be blank. It cannot contain the following characters: =*<> \,|/ nor start or end with a space.
values	Array of strings	Tag value, which contains 43 Unicode characters at most and can be an empty string. It cannot contain the following characters: =*<>\,|/ nor start or end with a space.

- Example response

```
{
   "tags": [
      {
         "key": "key1",
         "values": [
                     "value1",
                     "value2"
                   ]
      },
      {
         "key": "key2",
         "values": [
                     "value1",
                     "value2"
                   ]
      }
   ]
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

4.4.6 Querying Resources by Tag

Function

Query DNS resources by tag.

Resources are sorted by creation time in descending order.

URI

POST /v2/{project_id}/{resource_type}/resource_instances/action

For details, see **Table 4-82**.

Table 4-82 Parameters in the URI

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain it in **Obtaining a Project ID**.
resource_type	Yes	String	Resource type, which can be **DNS-public_zone**, **DNS-private_zone**, **DNS-public_recordset**, **DNS-private_recordset**, or **DNS-ptr_record**

Request

- Parameter description

  Table 4-83 Parameters in the request

Parameter	Mandatory	Type	Description
tags	No	Array of object	Includes specified tags. For details, see **Table 4-84**.
tags_any	No	Array of object	Includes any of the specified tags. For details, see **Table 4-84**.
not_tags	No	Array of object	Excludes specified tags. For details, see **Table 4-84**.

Parameter	Mandatory	Type	Description
not_tags_any	No	Array of object	Excludes any of the specified tags. For details, see Table 4-84.
limit	No	Integer	Number of resources on each page The value range is 1–1000. • If the value of **action** is set to **filter**, the default value is **1000**. • If **action** is set to **count**, this parameter does not take effect.
offset	No	Integer	Start offset of pagination query. The query will start from the next resource of the offset value. The value ranges from **0** to **2147483647**. The default value is 0. • You do not need to specify this parameter when querying resources on the first page. • When you query resources on subsequent pages, set the value of **offset** to the location returned in the response body for the previous query. • If **action** is set to **filter**, this parameter takes effect. Its value can be 0 (default) or a positive integer. • If **action** is set to **count**, this parameter does not take effect.
action	Yes	String	Operation to be performed The value can be: • **filter**: queries resources in pages by filter condition. • **count**: queries the total number of resources.
matches	No	Array of object	Field to be matched. For details, see Table 4-85. This parameter specifies the key-value pair to be matched in the query. If **value** is left blank, an exact match is performed. Otherwise, a fuzzy match is performed.

Table 4-84 Parameters in the **tags** field

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. A key contains 127 Unicode characters and cannot be blank. (This parameter is not verified in the search process.)
values	Yes	Array of strings	Values of the tag. A value contains a maximum of 255 Unicode characters. The asterisk (*) is a reserved character. If the value starts with an asterisk (*), fuzzy matching will work for the string following the asterisk. If this parameter is not specified, any value is matched. The values are in OR relationship.

Table 4-85 Parameters in the **matches** field

Parameter	Mandatory	Type	Description
key	Yes	String	Key to be matched. Currently, it can only be **resource_name**.
value	Yes	String	Value to be matched. It contains a maximum of 255 Unicode characters and cannot contain underscores (_) and percent sign (%).

- Example request

  Query DNS resources by tag.

  ```
  POST https://{DNS_Endpoint}/v2/{project_id}/DNS-private_zone/resource_instances/action
  ```

  The following is a request example when **action** is set to **filter**:

  ```
  {
     "offset": "100",
     "limit": "100",
     "action": "filter",
     "matches": [
        {
           "key": "resource_name",
  ```

```
            "value": "resource1"
        }
    ],
    "not_tags": [
        {
            "key": "key1",
            "values": [
                "*value1",
                "value2"
            ]
        }
    ],
    "tags": [
        {
            "key": "key1",
            "values": [
                "*value1",
                "value2"
            ]
        }
    ],
    "tags_any": [
        {
            "key": "key1",
            "values": [
                "value1",
                "value2"
            ]
        }
    ],
    "not_tags_any": [
        {
            "key": "key1",
            "values": [
                "value1",
                "value2"
            ]
        }
    ]
}
```

The following is a request example when **action** is set to **count**:

```
{
    "action": "count",
    "not_tags": [
        {
            "key": "key1",
            "values": [
                "value1",
                "*value2"
            ]
        }
    ],
    "tags": [
        {
            "key": "key1",
            "values": [
                "value1",
                "value2"
            ]
        },
        {
            "key": "key2",
            "values": [
                "value1",
                "value2"
            ]
        }
    ],
    "tags_any": [
```

```
        {
            "key": "key1",
            "values": [
                "value1",
                "value2"
            ]
        }
    ],
    "not_tags_any": [
        {
            "key": "key1",
            "values": [
                "value1",
                "value2"
            ]
        }
    ],
    "matches": [
        {
            "key": "resource_name",
            "value": "resource1"
        }
    ]
}
```

Response

- Parameter description

Table 4-86 Parameters in the response

Parameter	Type	Description
resources	Array of object	Resource list For details, see **Table 4-87**.
total_count	Integer	Number of resources that meet the filter criteria. The number is irrelevant to **limit** or **offset**.

Table 4-87 Parameters in the **resources** field

Parameter	Type	Description
resource_id	String	Resource ID
resource_detail	String	Resource details. This field is reserved for subsequent extension, and its value defaults to an empty string.
tags	Array of object	List of queried tags. If no tag is matched, an empty array is returned. For details, see **Table 7-4**.
resource_name	String	Resource name. If no resource name is matched, the value is left blank.

- Example response

  The following is a request example when **action** is set to **filter**:

```
{
   "resources": [
      {
         "resource_detail": null,
         "resource_id": "cdfs_cefs_wesas_12_dsad",
         "resource_name": "resouece1",
         "tags": [
            {
               "key": "key1",
               "value": "value1"
            },
            {
               "key": "key2",
               "value": "value1"
            }
         ]
      }
   ],
   "total_count": 1000
}
```

  The following is a request example when **action** is set to **count**:

```
{
   "total_count": 1000
}
```

Returned Value

If the API call returns a code of 2*xx*, for example, 200, 202, or 204, the request is successful.

For details, see **Status Code**.

5 Examples

5.1 Example: Creating a Private Zone

Scenarios

If you want users to access your ECSs using private domain names so that the ECSs are not exposed to the Internet, you can create private zones in the DNS service and add A record sets for the zone.

This section describes how to create a private zone by calling the API in **Creating a Private Zone** and create a record set by calling the API in **Creating a Record Set**. For details about how to call APIs, see **Calling APIs**.

NOTE

The token obtained from IAM is valid for only 24 hours. If you want to use one token for authentication, you can cache it to avoid frequently calling the IAM API.

Prerequisites

You have planned the region where you want to use the private domain names and obtained the endpoint required for API calls. For details, see **Endpoints**.

Involved APIs

You need to obtain a token and add **X-Auth-Token** to the request header of API calls.

- IAM API for obtaining a token
- DNS API for creating a private zone
- DNS API for creating a record set

Procedure

1. Obtain the token by referring to **Authentication**.
2. Add **Content-Type** and **X-Auth-Token** in the request header.

3. Specify the following parameters in the request body:

```
{
   "name": "example.com.",  // Zone name (mandatory, string)
   "description": "This is an example zone.", // Description of the zone (optional, string)
    "zone_type": "private", // Zone type (optional, string)
    "email": "xx@example.com" // Email address of the domain name administrator (optional, string)
   "router": {
      "router_id": "19664294-0bf6-4271-ad3a-94b8c79c6558",   // VPC ID (mandatory, string)
      "router_region": "xx"  // Region of the VPC (optional, string)
    }
}
```

4. Send a request **POST https://DNS endpoint/v2/zones**.
5. Check the request response.

   NOTE

   - The request result may be successful or failed in the response.
   - If the request fails, an error code and error information are returned. For details, see **Error Code**.
   - For details about parameters in the response, see **Creating a Private Zone**.
   - For details about general return codes in the response, see **Status Code**.

   The following is an example response of a successful request:

```
STATUS CODE 200
{
   "id": "ff8080825b8fc86c015b94bc6f8712c3",
   "name": "example.com.",
   "description": "This is an example zone.",
   "email": "xx@example.com",
   "ttl": 300,
   "serial": 1,
   "masters": [],
   "status": "PENDING_CREATE",
   "links": {
      "self": "https://Endpoint/v2/zones/ff8080825b8fc86c015b94bc6f8712c3"
   },
   "pool_id": "ff8080825ab738f4015ab7513298010e",
   "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c",
   "zone_type": "private",
   "created_at": "2017-04-22T08:17:08.997",
   "updated_at": null,
   "record_num": 0,
   "router": {
      "status": "PENDING_CREATE",
      "router_id": "19664294-0bf6-4271-ad3a-94b8c79c6558",
      "router_region": "xx"
   }
}
```

6. Add **Content-Type** and **X-Auth-Token** in the request header.
7. Specify the following parameters in the request body:

```
{
    "name": example.com.", // Record set name (mandatory, string)
   "description": "This is an example record set.", // Description of the record set (optional, string)
    "type": "A", // Record set type (mandatory, string)
   "ttl": 3600, // Caching duration of the record set (optional, integer)
   "records": [
      "192.168.10.1",
      "192.168.10.2"
    ] // Values of the record set (mandatory, list<string>)
}
```

8. Send a request **POST https://DNS endpoint/v2/zones/{zone_id}/recordsets**, where **zone_id** is the ID of the zone to which the record set is to be added.

9. Check the request response.

```
STATUS CODE 200
{
   "id": "2c9eb155587228570158722b6ac30007",
   "name": "example.com.",
   "description": "This is an example record set.",
   "type": "A",
   "ttl": 300,
   "records": [
      "192.168.10.1",
      "192.168.10.2"
   ],
   "status": "PENDING_CREATE",
   "links": {
      "self": "https://Endpoint/v2/zones/2c9eb155587194ec01587224c9f90149/recordsets/
2c9eb155587228570158722b6ac30007"
   },
   "zone_id": "ff8080825b8fc86c015b94bc6f8712c3",
   "zone_name": "example.com.",
   "create_at": "2017-04-22T08:17:08.997",
   "update_at": null,
   "default": false,
   "project_id": "e55c6f3dc4e34c9f86353b664ae0e70c"
}
```

6 Permissions Policies and Supported Actions

6.1 Introduction

This section describes fine-grained permissions management for your DNS resources. Skip this section if your account does not need individual IAM users.

By default, new IAM users do not have any permissions granted. You need to add a user to one or more groups, and assign policies or roles to these groups. The user then inherits permissions from the groups it is a member of. This process is called authorization. After authorization, the user can perform specified operations on BMS based on the permissions.

You can grant users permissions by using roles and policies. Roles are a type of coarse-grained authorization mechanism that defines permissions related to user responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

NOTE

Policy-based authorization is useful if you want to allow or deny the access to an API.

An account has permissions to call all APIs, but IAM users must have the required permissions specifically assigned. The permissions required for calling an API are determined by the actions supported by the API. Only users who have been granted permissions allowing the actions can call the API successfully. For example, if an IAM user queries the public zone list using an API, the user must have been granted permissions that allow the **dns:zone:list** action.

Supported Actions

DNS provides system-defined policies that can be directly used in IAM. You can also create custom policies and use them to supplement system-defined policies, implementing more refined access control. Actions supported by policies are specific to APIs. The following are common concepts related to policies:

- Permission: A statement in a policy that allows or denies certain operations.
- APIs: REST APIs that can be called in a custom policy.
- Actions: added to a custom policy to control permissions for specific operations.
- Related actions: Actions on which a specific action depends to take effect. When assigning permissions for the action to a user, you also need to assign permissions for the dependent actions.
- IAM projects or enterprise projects: Type of projects in which policies can be used to grant permissions. A policy can be applied to IAM projects, enterprise projects, or both. Policies that contain actions supporting both IAM projects and enterprise projects can be assigned to user groups and take effect in both IAM and Enterprise Management. Policies that only contain actions supporting IAM projects can be assigned to user groups and only take effect in IAM. Such policies will not take effect if they are assigned to user groups in Enterprise Management.

NOTE

The check mark (√) indicates that an action takes effect. The cross mark (x) indicates that an action does not take effect.

DNS supports the following actions that can be defined in custom policies:

- **Zone**: contains actions supported by all zone management APIs, such as the API for creating a zone.
- **Record Set**: contains actions supported by all record set management APIs, such as the API for creating a record set.
- **Tag**: contains actions supported by all tag management APIs, such as the API for adding a resource tag.
- **Record Set Importing**: contains actions supported by all record set importing management APIs, such as the API for creating a task for importing private zone record sets.

6.2 Zone

Table 6-1 Zone management

Permission	API	Action	Dependent Permission	IAM Project	Enterprise Project
Create a zone.	POST /v2/zones	dns:zone:create	vpc:*:get* vpc:*:list*	√	×
Query a zone.	GET /v2/zones/{zone_id}	dns:zone:get	-	√	×
List required zones.	GET /v2/zones	dns:zone:list	-	√	×

Permission	API	Action	Dependent Permission	IAM Project	Enterprise Project
Modify a zone.	PATCH /v2/zones/{zone_id}	dns:zone:update	-	√	×
Delete a zone.	DELETE /v2/zones/{zone_id}	dns:zone:delete	ces:remoteChecks:list ces:siteMonitorHealthCheck:get ces:siteMonitorHealthCheck:create ces:siteMonitorRule:delete ces:siteMonitorRule:put	√	×
Associate a private zone with a VPC.	POST /v2/zones/{zone_id}/associaterouter	dns:zone:associaterouter	vpc:*:get* vpc:*:list*	√	×
Disassociate a VPC from a private zone.	POST /v2/zones/{zone_id}/disassociaterouter	dns:zone:disassociaterouter	vpc:*:get* vpc:*:list*	√	×

6.3 Record Set

Table 6-2 Record set management

Permission	API	Action	Dependent Permission	IAM Project	Enterprise Project
Create a record set.	POST /v2/zones/{zone_id}/recordsets	dns:recordset:create	-	√	×
Query a record set.	GET /v2/zones/{zone_id}/recordsets/{recordset_id}	dns:recordset:get	-	√	×

Permission	API	Action	Dependent Permission	IAM Project	Enterprise Project
Query record sets.	GET /v2/zones/{zone_id}/recordsets	dns:recordset:list	-	√	×
	GET /v2/recordsets				
Modify a record set.	PUT /v2/zones/{zone_id}/recordsets/{recordset_id}	dns:recordset:update	-	√	×
Delete a record set.	DELETE /v2/zones/{zone_id}/recordsets/{recordset_id}	dns:recordset:delete	ces:remoteChecks:list ces:siteMonitorHealthCheck:get ces:siteMonitorHealthCheck:create ces:siteMonitorRule:delete ces:siteMonitorRule:put	√	×

6.4 Tag

Table 6-3 Tag management

Permission	API	Action	Dependent Permission	IAM Project (Project)	Enterprise Project
Add a resource tag.	POST /v2/{project_id}/{resource_type}/{resource_id}/tags	dns:tag:set	-	√	×
Add or delete resource tags in batches.	POST /v2/{project_id}/{resource_type}/{resource_id}/tags/action				

Permission	API	Action	Dependent Permission	IAM Project (Project)	Enterprise Project
Delete a resource tag.	DELETE /v2/{project_id}/{resource_type}/{resource_id}/tags/{key}				
Query tags of a resource.	GET /v2/{project_id}/{resource_type}/{resource_id}/tags	dns:tag:get	-	√	×
Query project tags.	GET /v2/{project_id}/{resource_type}/tags				
Query resources by tag.	POST /v2/{project_id}/{resource_type}/resource_instances/action				

6.5 Record Set Importing

Table 6-4 Record set importing

Permission	API	Action	Dependent Permission	IAM Project	Enterprise Project
Create a task to import private zone record sets.	POST /v2/zones/{zone_id}/import/private/recordsets	dns:privateRecordset:createImport	-	√	×
Query a task to import private zone record sets.	GET /v2/zones/{zone_id}/import/private/recordsets	dns:privateRecordset:getImport	-	√	×

Permission	API	Action	Dependent Permission	IAM Project	Enterprise Project
Delete a task to import private zone record sets.	DELETE /v2/zones/{zone_id}/import/private/tasks/{task_id}	dns:privateRecordset:deleteImport	-	√	×

7 Public Parameters

7.1 Status Code

- Normal

  Table 7-1 Return code for successful requests

Returned Value	Description
200	Request succeeded.
202	Request accepted.
204	No content.

- Abnormal

  Table 7-2 Return code for failed requests

Returned Value	Description
400 Bad Request	The server fails to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server cannot find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server is not acceptable to the client.

Returned Value	Description
407 Proxy Authentication Required	You must use the proxy server for authentication.
408 Request Timeout	The request is timed out.
409 Conflict	The request cannot be processed due to a conflict.
413 Payload Too Large	The request is too large.
500 internal Server Error	The request fails because the server is abnormal.
501 Not Implemented	The request fails because the server does not support the requested function.
502 Bad Gateway	The request fails because the returned response is invalid.
503 Service Unavailable	The request fails because the system is abnormal.
504 Gateway Timeout	Gateway times out.

7.2 Error Code

Introduction

When an API call encounters an error, an error structure is returned. This section describes parameters of the DNS error codes.

Error Code Structure Format

```
{
    "code": "DNS.0001",
    "message": "Internal error."
}
```

Error Code Description

Category	Status Code	Error Code	Message	Description	Handling Measure
General	500	DNS.0000	The system is busy. Try again later.	Unknown error.	Retry the operation. If the error persists, contact customer service.

Category	Status Code	Error Code	Message	Description	Handling Measure
	500	DNS.0001	Internal error.	Internal error.	Retry the operation. If the error persists, contact customer service.
	400	DNS.0002	Invalid request.	Invalid request.	Check whether the request parameter is empty or invalid.
	500	DNS.0003	The system is busy. Try again later.	DB exception.	Retry the operation. If the error persists, contact customer service.
	404	DNS.0004	No record sets found.	No record sets found.	Check whether the resource is available.
	401	DNS.0005	Authentication required.	Authentication required.	1. When calling an API, check whether the token is valid. 2. Check whether you have operation permission on the requested resources.
	400	DNS.0006	The limit parameter is invalid.	The **limit** parameter is invalid.	Check the value of **limit** in the request.
	400	DNS.0007	The marker parameter is invalid.	The **marker** parameter is invalid.	Check the value of **marker** in the request.
	400	DNS.0008	The zone of this type is not supported now.	The zone of this type is not supported now.	Check the zone type and try again.
	400	DNS.0009	The startTime parameter is invalid.	The **startTime** parameter is invalid.	Check the value of **startTime** in the request.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.0010	The endTime parameter is invalid.	The **endTime** parameter is invalid.	Check the value of **endTime** in the request.
	400	DNS.0011	The Start parameter is invalid.	The **start** parameter is invalid.	Check the value of **start** in the request.
	500	DNS.0012	An error occurred when the VPC service is called.	An error occurred when the VPC service is called.	Retry the operation. If the error persists, contact customer service.
	403	DNS.0013	You do not have the permission to perform this operation using the API.	You do not have the permission to perform this operation using the API.	The project of the requested resource may be frozen. Log in to the IAM console with the domain account and check whether the project status is normal.
	403	DNS.0014	Request forbidden by flow control.	Request forbidden by flow control.	Try again some time later.
	500	DNS.0015	An error occurred when the IAM service is called.	An error occurred when the IAM service is called.	Retry the operation. If the error persists, contact customer service.
	400	DNS.0016	This record already exists or conflicts with another record.	This record already exists.	Check the record.
	400	DNS.0017	The offset parameter is invalid.	The **offset** parameter is invalid.	Check the value of **offset** in the request.
	409	DNS.0021	Could not acquire the lock, please try again later.	Failed to obtain the lock.	Try again later.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400/500	DNS.0022	An error occurred when the Cloud Eye service is called.	An error occurred when Cloud Eye is called.	Retry the operation. If the error persists, contact customer service.
	500	DNS.0023	An error occurred when the Cloud Eye service is called. Cloud Eye service response: Read timed out.	An error occurred when the Cloud Eye service is called (Read timed out).	Retry the operation. If the error persists, contact customer service.
	500	DNS.0024	An error occurred when the Cloud Eye service is called. Connect to Cloud Eye service failed: Connection refused.	An error occurred when the Cloud Eye service is called (Connection refused).	Retry the operation. If the error persists, contact customer service.
	500	DNS.0025	An error occurred when the Cloud Eye service is called. Connect to Cloud Eye service failed: connect timed out.	An error occurred when the Cloud Eye service is called (Read timed out).	Retry the operation. If the error persists, contact customer service.
	500	DNS.0026	Invalid CES endpoint configuration.	Invalid Cloud Eye endpoint configuration.	Retry the operation. If the error persists, contact customer service.
	413	DNS.0027	Warning: upload file too large.	The file to be uploaded is oversized.	The request body is too large.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.0028	Invalid version.	Invalid version number.	Retry the operation. If the error persists, contact customer service.
	400	DNS.0029	Invalid record.	The **record** parameter is invalid.	Check the value of **offset** in the request.
	403	DNS.0030	Operation not allowed for this resource.	This operation is not allowed for the requested resource.	Check whether you have operation permission on the requested resources.
	403	DNS.0031	User not allowed.	You do not have permission to perform this operation.	1. When calling an API, check whether the token is valid. 2. Check whether you have operation permission on the requested resources.
	400	DNS.0032	Invalid sort key.	The **sort key** parameter is invalid.	Check the value of **sort key** in the request.
	400	DNS.0033	Invalid sort dir.	The **sort dir** parameter is invalid.	Check the value of **sort dir** in the request.
	400/404/500	DNS.0034	An error occurred when the bss service is called.	The system fails to call the BSS service.	Retry the operation. If the error persists, contact customer service.
	400/404/500	DNS.0035	An error occurred when the Cloudsite service is called.	The system fails to call CloudSite.	Retry the operation. If the error persists, contact customer service.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.0036	An error occurred when the neutron service is called.	The system fails to call the Neutron service.	Retry the operation. If the error persists, contact customer service.
	403	DNS.0037	Feature not supported now.	This function is not available currently.	This function is not available currently.
	400	DNS.0038	The show detail parameter is invalid.	The **show detail** parameter is invalid.	Check the value of **show detail** in the request.
Pool	400	DNS.0101	Invalid pool name.	Invalid pool name.	Check the pool name in the request.
	400	DNS.0102	Invalid pool description.	Invalid pool description.	Check the pool description in the request.
	400	DNS.0103	Invalid pool type.	Invalid pool type.	Check whether the pool type you specify is supported or valid.
	400	DNS.0104	Invalid server configuration in the pool.	Invalid server configuration in the pool.	Check the host configuration in the pool.
	400	DNS.0105	Invalid name server configuration in the pool.	Invalid name server configuration in the pool.	Check the name server configuration.
	400	DNS.0106	Invalid pool region.	Invalid region for parameter **pool**.	Check the region configuration.
	400	DNS.0107	Invalid pool ID.	Invalid pool ID.	Check the pool ID in the request.
	404	DNS.0108	This pool does not exist.	This pool does not exist.	Check whether the pool is available.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.0109	This pool is in use.	This pool is in use.	A pool in use cannot be deleted. Contact customer service.
Zone	400	DNS.0201	The email address of the zone is invalid.	The email address of the zone is invalid.	Check the email address in the request.
	400	DNS.0202	Invalid zone name.	Invalid zone name.	1. Check whether the zone name format is correct. 2. Ensure that the zone name cannot be a top-level or public second-level domain name.
	400	DNS.0203	Invalid zone TTL value. The value ranges from %s to %s.	Invalid zone TTL value. The value ranges from **{minTTL}** to **{maxTTL}**.	Check the TTL value in the request. If the limit does not meet your requirements, contact customer service.
	400	DNS.0204	Invalid zone type.	Invalid zone type.	Check whether the zone type you specify is supported.
	404/500	DNS.0205	No pools available.	No pools available.	Contact customer service.
	400	DNS.0206	Invalid zone description. The description can contain a maximum of 255 characters.	Invalid zone description. The description can contain a maximum of 255 characters.	Check the zone description in the request.
	500	DNS.0207	No views available in the pool.	No views available.	Contact customer service.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.0208	This zone already exists.	This zone already exists.	Check whether the requested zone already exists.
	400/409/500	DNS.0209	The zone is not in the Normal state.	The zone is not in the normal state.	The zone status is not stable. Try again later.
	400	DNS.0210	The zone name is used by the system.	The zone name is used by the system.	Check the zone name in the request.
	400	DNS.0211	The zone name is used by another tenant.	The zone name is used by another tenant.	Check the zone name in the request.
	400/409	DNS.0212	This VPC has already been associated with the zone.	This VPC has already been associated with the zone.	Check whether that the VPC has been associated with the private zone.
	400	DNS.0213	The zone is disabled.	The domain name has been suspended.	Check the zone status.
Record set	400	DNS.0301	Invalid zone ID.	Invalid zone ID.	Check the zone ID in the request.
	400/404	DNS.0302	This zone does not exist.	This zone does not exist.	Check the zone of the requested record set.
	400	DNS.0303	Invalid record set TTL value.	Invalid record set TTL value.	Check the TTL value in the request.
	400	DNS.0304	Invalid record set name.	Invalid record set name.	Check whether the record set name is a valid domain name ended with the zone name.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.0305	Invalid record set description. The description can contain a maximum of 255 characters.	Invalid record set description. The description can contain a maximum of 255 characters.	Check the record set description in the request.
	400	DNS.0307	Invalid record set type.	Invalid record set type.	Check whether the record set type you specify is supported.
	400	DNS.0308	Invalid record set value.	Invalid record set value.	Check whether the record set value you specify is well-formatted.
	400	DNS.0309	Invalid record set ID.	Invalid record set ID.	Check the record set ID in the request.
	400/403	DNS.0310	Invalid tenant ID.	Invalid tenant ID.	Check whether the tenant ID is empty or in incorrect format.
	400/403	DNS.0311	Invalid domain ID.	Invalid domain ID.	Check whether the domain ID is empty or in incorrect format.
	400	DNS.0312	This record set name already exists.	This record set already exists.	Check whether the record set name already exists.
	404	DNS.0313	This record set does not exist.	This record set does not exist.	Check the requested record set.
	400/409	DNS.0314	The record set is not in a steady state.	The record set is not in a steady state.	Check the record set status. If it is not stable, you cannot perform operations.
	400	DNS.0315	Invalid status.	Invalid status.	Check the status in the request.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400/409	DNS.0317	This record set is a default one and cannot be deleted.	This record set is a default one and cannot be deleted.	Check whether the record set to be deleted is created by default.
	400/409	DNS.0318	This record set is a default one and cannot be updated.	This record set is a default one and cannot be updated.	Check whether the record set to be updated is created by default.
	400	DNS.0319	The TTL parameter has been out of range.	The TTL value is out of range. The value ranges from **{minTTL}** to **{maxTTL}**.	Check the TTL value in the request. If the limit does not meet your requirements, contact customer service.
	400	DNS.0320	The Zone name levels have been out of MAX count. The maximum is %s.	The zone name levels have been out of MAX count. The maximum is **{maxLevel}**.	Check the domain name level in the request.
	400	DNS.0321	The sub domain levels have been out of MAX count.	The subdomain levels have been out of MAX count. The maximum is **{maxLevel}**.	Check the subdomain name in the request.
	400	DNS.0322	The number of weighted record sets with the same name, type, and resolution line has reached the limit %s.	The number of record sets of the same name, type, and resolution line exceeds the limit.	If the limit does not meet your requirements, contact customer service.
	400	DNS.0323	The weight must range from %s to %s.	The weight must range from 0 to 100.	Change the weight value.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.0324	This record set is a default one and cannot be operated.	You cannot perform this operation on a default record set.	You cannot perform this operation on a default record set.
	400	DNS.0325	The resolution line for record sets in this type of zones must be 'default_view'.	The resolution line for record sets in this type of zones must be **default_view**.	Change the resolution line in the request.
	400	DNS.0326	The batch number has been out of MAX count. The maximum is %s.	The batch number has been out of MAX count.	Modify the request parameter.
	400	DNS.0327	The batch number has been out of MAX count. The maximum is %s.	The batch number has been out of MAX count.	Modify the request parameter.
	400	DNS.0328	Cannot create this record set because the same one already exists but is not weighted. Specify a weight for the previous record set first.	Specify a weight for the previous record set first.	Specify a weight for the previous record set first.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.0329	The batch number has been out of MAX count. The maximum is %s.	The number of requested resources has exceeded the limit.	Modify the request parameter.
	400	DNS.0330	Invalid alias resource type.	The resource type of parameter **alias** is invalid.	Check the resource type of the alias.
	400	DNS.0331	Invalid alias resource domain name.	The domain name of parameter **alias** is invalid.	Check the value of **alias** in the request.
	400	DNS.0332	The alias must be a domain name of a cloud resource.	The alias domain name must be hosted on the DNS server.	Check the value of **alias** in the request.
	400	DNS.0333	The alias is not supported now.	Alias records are not supported.	Contact customer service.
Quota	400	DNS.0401	Invalid quota type.	Invalid quota type.	Check the quota type in the request.
	400	DNS.0402	Invalid quota value.	Invalid quota value.	The quota value exceeds the limit. Contact customer service.
	403	DNS.0403	Insufficient record set quota.	Insufficient record set quota.	The number of record sets exceeds the quota limit. If the limit does not meet your requirements, contact customer service.

Category	Status Code	Error Code	Message	Description	Handling Measure
	403	DNS.0404	Insufficient zone quota.	Insufficient zone quota.	The number of zones exceeds the quota limit. If the limit does not meet your requirements, contact customer service.
	403	DNS.0405	Insufficient PTR record quota.	Insufficient PTR record quota.	The number of PTR records exceeds the quota limit. If the limit does not meet your requirements, contact customer service.
	403	DNS.0406	Insufficient inbound endpoint quota.	Insufficient inbound rule quota.	The number of inbound endpoints has reached the upper limit. If the limit does not meet your requirements, contact customer service.
	403	DNS.0407	Insufficient outbound endpoint quota.	Insufficient outbound rule quota.	The number of outbound endpoints has reached the upper limit. If the limit does not meet your requirements, contact customer service.
	403	DNS.0408	Insufficient custom line quota.	Insufficient custom line quota.	The number of custom lines has reached the limit. If the limit does not meet your requirements, contact customer service.

Category	Status Code	Error Code	Message	Description	Handling Measure
	403	DNS.0409	Insufficient line group quota.	Insufficient line group quota.	The number of line groups has reached the limit. If the limit does not meet your requirements, contact customer service.
PTR record	400	DNS.0501	Invalid PTR ID.	Invalid PTR record ID.	Check whether the PTR record ID is empty or in incorrect format.
	404	DNS.0502	This EIP address does not exist.	The EIP does not exist.	Check whether the EIP is available.
	409	DNS.0503	The PTR record is not in a steady state.	The PTR record is not in a steady state.	Check the PTR record status. If it is not stable, you cannot perform operations.
	400/500	DNS.0504	Invalid EIP address ID.	Invalid EIP ID.	Check whether the EIP ID is empty or in incorrect format.
	400	DNS.0505	Invalid domain name in the PTR record.	Invalid domain name in the PTR record.	Check the domain name in the PTR record.
	400	DNS.0506	Invalid PTR TTL value. The value must range from %s to %s.	Invalid PTR record TTL value. The value ranges from **1** to **2147483647**.	Check whether the PTR record TTL value exceeds the limit.
	404	DNS.0507	This PTR record does not exist.	This PTR record does not exist.	Check the requested PTR record.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.0508	Invalid PTR description. The description can contain a maximum of 255 characters.	Invalid PTR record description. The description can contain a maximum of 255 characters.	Check whether the PTR record description in the request exceeds 255 characters.
	400	DNS.0601	Invalid region.	Invalid region.	Check the value of **region** in the request.
	400	DNS.0602	Invalid floating IP address.	Invalid floating IP address.	Check the floating IP address in the request.
	400	DNS.0603	Invalid request.	Invalid input.	Check whether the request parameter is empty.
	400	DNS.0604	The interval parameter is invalid.	The **interval** parameter is invalid.	Check the value of **interval** in the request.
	400	DNS.0608	This resource is in use.	This resource is in use.	Check whether the resource is in use.
Associating or disassociating a VPC from a private zone	400	DNS.0701	Invalid VPC.	Invalid VPC.	Check the VPC ID and region in the request.
	400	DNS.0704	The VPC is not in a steady state.	The VPC is not in a steady state.	Check whether the zone and VPC are normally associated.
	400	DNS.0705	No VPCs are associated with this zone.	No VPCs are associated with this zone.	Associate the zone with a VPC and try again.

Category	Status Code	Error Code	Message	Description	Handling Measure
	403	DNS.0706	You are not allowed to disassociate this VPC because this is the last VPC associated with this zone.	You are not allowed to disassociate this VPC because this is the last VPC associated with this zone.	Associate another VPC with the zone and then disassociate the previous one.
	400	DNS.0707	The VPC is not associated with the zone.	The VPC is not associated with the zone.	Check whether the zone is associated with the VPC.
	400	DNS.0708	This VPC cannot be disassociated because it is being associated with the zone.	This VPC cannot be disassociated because it is being associated with the zone.	Check the association status between the zone and VPC. Disassociate them when the status is stable.
	403	DNS.0709	This VPC cannot be disassociated because this is the only normal VPC associated with this zone.	This VPC cannot be disassociated because this is the only normal VPC associated with this zone.	Check whether other VPCs are normally associated with the zone. If no, perform the following operations: 1. Disassociate VPCs in abnormal association state. 2. Associate another VPC. 3. Disassociate the required VPC.
	500	DNS.0710	Invalid VPC URL configuration.	Invalid VPC endpoint configuration.	Check the region in the request. If the region is correct, contact customer service.

Category	Status Code	Error Code	Message	Description	Handling Measure
	404	DNS.0711	This VPC could not be found.	This VPC could not be found.	Log in to the VPC console and check whether the VPC exists.
	400	DNS.0712	This port parameter is invalid.	The port ID is invalid.	Check whether the port ID in the request is empty.
	400/500	DNS.0805	Failed to check the VPC validity.	Failed to check the VPC validity.	Retry the operation. If the error persists, contact customer service.
Name server	404	DNS.0901	The name server does not exist.	The name server does not exist.	Contact customer service.
Tag	400	DNS.1001	Insufficient tag quota.	Insufficient tag quota.	The number of tags reaches the quota limit. If the limit does not meet your requirements, contact customer service.
	400	DNS.1002	Invalid resource type.	Invalid resource type.	Check the resource type in the request.
	400	DNS.1003	Invalid tag.	Invalid tag.	Check the tag in the request.
Health check	400	DNS.1101	Health check is currently not supported.	Health check is currently not supported.	Health check is currently not supported.
	400	DNS.1102	Invalid health check ID.	Invalid health check ID.	Change the health check ID in the request.
	400	DNS.1103	This health check is disabled.	This health check is disabled.	1. Check whether the health check is disabled. 2. Enable the health check.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.1104	This record set has already been associated with a health check.	This record set has already been associated with a health check.	One record set can be associated with only one health check.
	404	DNS.1105	No health check is associated with this record set.	No health check is associated with this record set.	No health check is associated with this record set.
	404	DNS.1106	Cannot find the health check.	Cannot find the health check.	Change the health check ID in the request.
	400	DNS.1107	Insufficient health check quota. Contact customer service to increase quotas.	Insufficient health check quota.	Contact customer service.
	400	DNS.1108	Cannot associate the health check with the record set because its network plane does not match the zone type of the record set.	Cannot associate the health check with the record set because its network plane does not match the zone type of the record set.	Change the ID of the health check to be associated.
	400	DNS.1109	This health check is in detecting status and not available currently.	This health check is in detecting status and not available currently.	Try again later.
	500	DNS.1110	Invalid CES health check region configuration.	Invalid health check region configuration.	Contact customer service.

Category	Status Code	Error Code	Message	Description	Handling Measure
Importing and exporting record sets	400	DNS.1301	Failed to parse this upload file.	Failed to obtain data from the uploaded file.	Check the uploaded file.
	400	DNS.1302	Empty upload file.	The uploaded file is empty.	Check the uploaded file.
	400	DNS.1303	Only .xlsx files are supported.	Only .xlsx files are supported.	Check the uploaded file.
	400	DNS.1304	Invalid task ID.	Invalid task ID.	Check the task ID.
	400	DNS.1305	Invalid record set type.	Invalid record set type.	Check the task ID.
	400	DNS.1306	Stop export: too many row exceed max limit.	The number of exported record sets exceeds the maximum.	Contact customer service.
Endpoint	400	DNS.1501	Invalid endpoint name.	Invalid endpoint name.	Check the endpoint name.
	400	DNS.1502	Invalid subnet id.	Invalid subnet ID.	Check the subnet ID.
	400	DNS.1503	Invalid endpoint direction.	Invalid endpoint direction.	Check the endpoint direction.
	400	DNS.1504	Endpoint name exists.	The endpoint name already exists.	Change the endpoint name.
	400	DNS.1505	Ip is not in this subnet.	The IP address is not in the subnet.	Enter an IP address within the subnet.
	400	DNS.1506	Ip is repeated.	The IP address already exists.	The IP address already exists. Change the IP address you entered.
	400	DNS.1507	Ip has been used.	The IP address has been used.	Change the IP address.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.1508	Subnets are in the different vpc.	The subnets do not belong to the same VPC.	Check the subnet information.
	400	DNS.1509	Invalid endpoint id.	Invalid endpoint ID.	Enter a correct endpoint ID.
	404	DNS.1510	Endpoint not exist.	The endpoint does not exist.	Check the endpoint ID.
	404	DNS.1511	Ipaddress not exist.	The IP address does not exist.	Change the IP address you entered.
	400	DNS.1514	Invalid number of ipaddress.	Invalid IP address quantity.	Check whether the number of IP addresses is in the range of 2 to 6.
	400	DNS.1515	Ip address is invalid.	Invalid IP address.	Check the IP address you entered.
	400	DNS.1516	Ip address is broadcast ipaddress or network ipaddress.	The IP address is a network address or broadcast address.	Check whether the IP address you entered is a broadcast address or network address.
Resolution line	400	DNS.0806	This line is not be supported in this DNS version.	This line is not supported in this DNS version.	Check the resolution line name in the request.
	409	DNS.0807	This line is a default one and cannot be operated.	This line is a default one and cannot be operated.	Check the resolution line name in the request.
	400	DNS.1601	Invalid line ID.	Invalid resolution line ID.	Check the resolution line ID in the request.
	400	DNS.1602	Invalid line name.	Invalid resolution line name.	Check the resolution line name in the request.

Category	Status Code	Error Code	Message	Description	Handling Measure
	400	DNS.1603	The line name already exists.	The resolution line name has been used.	Change the resolution line name in the request.
	404	DNS.1604	The line does not exist.	The resolution line does not exist.	Check the resolution line in the request.
	400	DNS.1605	Invalid IP address range.	Invalid IP address range.	Check the IP address range in the request.
	400	DNS.1606	The IP address range overlaps with that in another line.	The IP address ranges overlap.	1. Check whether the IP address ranges in the request overlap each other. 2. Check whether the IP address ranges overlap those in other lines.
	409	DNS.1607	This line is not in a steady state.	The resolution line is in the unstable state.	Retry the operation. If the error persists, contact customer service.
	400	DNS.1608	The IP segments has been out of MAX count.	The number of IP address ranges exceeds the maximum.	Check the number of IP address ranges in the request.
Fine-grained policy	500	DNS.1801	An error occurred when the IAM PDP service is called.	The IAM PDP service cannot be properly called.	Retry the operation. If the error persists, contact customer service.
	403	DNS.1802	Policy doesn't allow {action} to be performed.	You do not have permission to perform this operation.	Check the permission of the user group.
Enterprise project	403	DNS.1900	Enterprise project is not supported.	Enterprise projects are not supported.	Contact customer service.

Category	Status Code	Error Code	Message	Description	Handling Measure
	500	DNS.1901	Invalid EPS endpoint configuration.	Invalid EPS endpoint configuration.	Contact customer service.
	500	DNS.1902	An error occurred when the EPS service is called.	The system fails to call the EPS service.	Retry the operation. If the error persists, contact customer service.
	400	DNS.1903	Cannot associate the enterprise project.	The selected enterprise project cannot be associated.	1. Check whether the enterprise project is in normal status. 2. Check whether you have permission of the enterprise project.
	400	DNS.1904	This enterprise project is disabled.	The enterprise project is disabled.	Check the enterprise project.
	400	DNS.1905	Invalid enterprise project ID.	Invalid enterprise project ID.	Check the enterprise project ID.
	404	DNS.1906	The enterprise project does not exist.	The enterprise project does not exist.	Check the enterprise project.
Quota management	500	DNS.2000	Invalid Quota Manage service endpoint configuration.	Invalid endpoint configuration of the quota management service.	Contact customer service.
	500	DNS.2001	An error occurred when the Quota Manage service is called.	An exception occurred when the quota management service is called.	Contact customer service.

Category	Status Code	Error Code	Message	Description	Handling Measure
	403	DNS.2002	Insufficient domain quota.	Insufficient tenant resource quota.	The number of resources has reached the quota limit. If the limit does not meet your requirements, contact customer service.

7.3 Enumeration Values

Resource Status

Parameter	Description
ACTIVE	Normal
PENDING_CREATE	Creating
PENDING_DELETE	Deleting
PENDING_UPDATE	Updating
FREEZE	Frozen
PENDING_DISABLE	Disabling
DISABLE	Disabled
ERROR	Failed

Record Set Type

Type	Description
A	Map domains to IPv4 addresses.
CNAME	Map one domain to another. CNAME record sets are usually used to map multiple domain names to the same host.
MX	Map domains to email servers.
AAAA	Map domains to IPv6 addresses.
TXT	Specify text records.

Type	Description
SRV	Record servers providing specific services.
NS	Delegate subdomains to other name servers.
SOA	Specify the master authoritative DNS server for a domain name. The SOA record set is created by the system and cannot be manually added.
PTR	Map IP addresses to domains.

7.4 Data Structure

Table 7-3 Description of the **links** field

Parameter	Type	Description
self	String	Link to the current resource
next	String	Link to the next page

Table 7-4 Description of the **tag** field

Parameter	Type	Description
key	String	Tag key. The key contains 36 Unicode characters at most and cannot be blank. It cannot contain the following characters: =*<>\,|/ nor start or end with a space.
value	String	Tag value. Each value contains 43 Unicode characters at most and can be an empty string. It cannot contain the following characters: =*<>\,|/ nor start or end with a space.

Table 7-5 Description of the **routers** field

Parameter	Type	Description
router_id	String	ID of the associated VPC You can obtain the VPC ID using the following methods: • On the VPC console, obtain the VPC ID on the VPC details page.

Parameter	Type	Description
router_region	String	Region of the VPC If it is left blank, the region of the project in the token takes effect by default.

Table 7-6 Description of the **alias_target** field

Parameter	Type	Description
resource_type	String	Service that support domain name aliases The value can be **cloudsite** or **waf** (Web Application Firewall).
resource_domain_name	String	Domain name of the target service

7.5 Obtaining a Project ID

Scenarios

A project ID is required for some URLs when an API is called. Therefore, you need to obtain a project ID in advance. Two methods are available:

- **Obtain the Project ID by Calling an API**
- **Obtain the Project ID from the Console**

Obtain the Project ID by Calling an API

You can obtain the project ID by calling the IAM API used to query project information based on the specified criteria.

The API used to obtain a project ID is GET https://{Endpoint}/v3/projects. {Endpoint} is the IAM endpoint and can be obtained from **Regions and Endpoints**. For details about API authentication, see **Authentication**.

The following is an example response. The value of **id** is the project ID.

```
{
    "projects": [
        {
            "domain_id": "65382450e8f64ac0870cd180d14e684b",
            "is_domain": false,
            "parent_id": "65382450e8f64ac0870cd180d14e684b",
            "name": "project_name",
            "description": "",
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
            },
            "id": "a4a5d4098fb4474fa22cd05f897d6b99",
            "enabled": true
```

```
        }
    ],
    "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```

Obtain a Project ID from the Console

To obtain a project ID from the console, perform the following operations:

1. Log in to the management console.
2. Click the username and select **My Credentials** from the drop-down list.

   On the **My Credentials** page, view the project ID (value in the **Project ID** column).

A Change History

Date	Description
2021-01-29	This issue incorporates the following changes: Modified the description of the parameter **zone_type** in section **Querying All Record Sets**.
2020-02-26	This issue is the first official release.