

Alibaba Cloud DNS

API Reference

API Reference

Introduction

Introduction

After registering a domain name, you will have the right to use the domain name, but cannot use it to directly access your website or send and receive emails using it as an email address suffix. This is because domain names are only part of an address conversion system that facilitates memorization. To access a server on the Internet, you must use an IP address. Domain name resolution is the process in which domain names are directed to IP addresses. "Domain Name Resolution" is essential for the use of domain names.

An intelligent domain name resolution service provided by the HiChina DNS (Domain Name Service) system designed to upgrade domain names across the network, Alibaba Cloud DNS provides stable, secure, and fast domain name resolution capabilities and can resolve non-HiChina domain names to overseas IP addresses.

Users can use the APIs described herein to resolve domain names.

Before using these interfaces, please ensure that you fully understand the Alibaba Cloud DNS product instructions and usage agreement.

Glossary

Term	Full Name	Description
DNS	Domain Name Service or Domain Name System	DNS provides conversion between host names and IP addresses as well as the relevant email routing information, using TCP/IP application distributed databases.
Resolution	Domain Name Resolution	The process maps domain names into IP addresses through the DNS system.

A Record	A Record	A (Address) records are used to specify IP address records corresponding to host names (or domain names).
CNAME Record	CNAME Record	CNAME (Canonical Name) records allow you to map multiple names onto the same computer. Generally, they are used for computers that provide both www and mail services.
MX Record	MX Record	MX (Mail Exchange) records are used to locate the appropriate email server based on the recipient's address suffix when the email system sends emails.
TXT Record	TXT Record	TXT (Text) records generally describe the settings of certain host names or domain names.
SRV Record	SRV Record	These are generally applications used to set Microsoft activity directories.
AAAA Record	AAAA Record	Resolves a domain name to an IPv6 address.
URL Forward	URL Forward	URL forwarding automatically directs you to a preset address when you access this domain name. This includes explicit and implicit URL forwarding.
Pan Resolution	Pan Resolution	If you resolve the *.domain.com A record to a certain IP address, other visitors who access .domain.com with any prefix are directed to the site you have resolved.
CNNIC Domain	CNNIC Domain	These are CNNIC managed domain names with the suffixes .cn, .中国, .公司, and .网络.
International Domain	International Domain	These are non-CNNIC domain names, with suffixes such as com, net, org, info, biz, mobi, so, co, cc, tv, me, asia, name, and hk.
Chinese Domain	Chinese Domain	Domain names where the main body is presented in Chinese characters.

NameType	NameType	The legal domain name format, e.g. www.abc.com, ftp.staff.abc.com, and other strings composed of letters, (Chinese characters), numbers, hyphens "-", and periods ".".
SLA	Service-Level Agreement	Depending on the version, the Alibaba Cloud DNS service offers different service-level agreements (SLAs) for different paying users.
CDN	Content Delivery Network	Alibaba Cloud DNS is connected to the Alibaba Cloud CDN service and supports domain name acceleration.

Description of Business Restrictions and Type Constraints

When calling DNS APIs, you must use your Alibaba Cloud account.

In the interface description section, whenever there is a conflict with the type constraints given on the official site concerning optional parameter values or available specifications, the information on the official site will prevail.

API overview

Domain name management interface

API	Description
AddDomain	Add domain name
DeleteDomain	Delete domain name
DescribeDomains	Retrieve domain name list
DescribeDomainInfo	Retrieve domain name information
DescribeDomainWhoisInfo	Retrieve domain name Whois information
ModifyHichinaDomainDNS	Modify HiChina DNS
GetMainDomainName	Retrieve primary domain name

DescribeDomainLogs	Retrieve domain name operation logs
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Alibaba Cloud DNS product management interface

API	Description
DescribeDnsProductInstances	Retrieve list of paid Alibaba Cloud DNS product versions
ChangeDomainOfDnsProduct	Change domain name bound to the Alibaba Cloud DNS product
DescribeDnsProductAttributes	Retrieve domain name attributes based on Alibaba Cloud DNS versions

Domain grouping interface

API	Description
AddDomainGroup	Add domain name group
UpdateDomainGroup	Modify domain name group
DeleteDomainGroup	Delete domain name group
ChangeDomainGroup	Change domain name group
DescribeDomainGroups	Retrieve domain name group list

Domain name retrieval interface

API	Description
RetrievalDomainName	Initiate domain name retrieval
ApplyForRetrievalDomainName	Apply for retrieval by administrators
CheckDomainRecord	Check the validity of resolution records

Resolution management interface

API	Description
AddDomainRecord	Add resolution record
DeleteDomainRecord	Delete resolution record
UpdateDomainRecord	Modify resolution record
SetDomainRecordStatus	Set resolution record status

DescribeDomainRecords	Retrieve resolution record list
DescribeDomainRecordInfo	Retrieve resolution record information
DescribeSubDomainRecords	Retrieve subdomain name resolution record list
DeleteSubDomainRecords	Delete resolution records corresponding to host records
DescribeRecordLogs	Retrieve resolution operation logs

Resolution Server Load Balancer interface

API	Description
SetDNSSLBStatus	Enable/disable resolution Server Load Balancer
DescribeDNSSLBSubDomains	Retrieve subdomain name list for resolution Server Load Balancer
UpdateDNSSLBWeight	Modify weights for resolution Server Load Balancer

Update history

- API version: 01/09/2015
- Last update: 12/04/2015

Release Date	Version	Description
2015-12-04	Alibaba Cloud DNS OpenAPI V1.5	<ul style="list-style-type: none"> - Added Alibaba Cloud DNS Enterprise Version product management interfaces - Added domain name and resolution operation log query interfaces
2015-11-13	Alibaba Cloud DNS OpenAPI V1.4	<ul style="list-style-type: none"> - Added domain name group

		<p>management APIs</p> <ul style="list-style-type: none"> - Added resolution Server Load Balancer management APIs - Modified APIs for domain name management involving domain grouping information
2015-09-22	Alibaba Cloud DNS OpenAPI V1.3.2	Added the corresponding error codes for the Alibaba Cloud DNS enterprise version
2015-08-07	Alibaba Cloud DNS OpenAPI V1.3.1	<ul style="list-style-type: none"> - Added an interface to retrieve subdomain name resolution record lists - Added an interface to delete resolution records corresponding to host records
2015-06-30	Alibaba Cloud DNS OpenAPI V1.3	<ul style="list-style-type: none"> - Added an interface to modify HiChina DNS - Added an interface to retrieve primary domain names - Added an interface to check the validity of resolution records - Improved the return values for retrieving domain name Whois information - Added error codes for some interfaces

2015-04-28	Alibaba Cloud DNS OpenAPI V1.2	Improved the efficiency of working with large batches of domain names and resolution records through the interfaces that support batch operations such as delete, add, and modify.
2015-03-24	Alibaba Cloud DNS OpenAPI V1.1	<ul style="list-style-type: none">- Added the domain name retrieval interface- Added the set resolution record status interface (pause/enable)- Supplemented the URL forwarding error codes used for adding and modifying resolutions

Invocation method

Call methods

DNS APIs are called by sending an HTTP POST or GET request to the DNS API server address, with corresponding request parameters included in the request according to the API instructions. The system returns the processing results according to the request processing status.

- Request structure
- Public parameters
- Returned results
- Signature mechanism

Request structure

Service address

The DNS API service access address is `isdns.aliyuncs.com`.

Communication protocol

The system supports requests for communication through HTTP or HTTPS. For enhanced security, we recommend that you send requests through HTTPS.

Request methods

The system supports sending of HTTP GET requests. For this method, the request parameters must be included in the request URL.

Request parameters

You must specify the operation to be performed for each request, that is the Action parameter. For example, `AddDomain`. Each operation must contain the public request parameters and the specific request parameters of the specified operation.

Note:

- When the GET method is used, the request parameters must be included in the request URL.
- When the POST method is used, the request parameters are placed in HEAD.

Character encoding

Requests and returned results are both encoded by using the UTF-8 character set.

Public parameters

Public request parameters

Public request parameters indicates the request parameters required in each API call.

Name	Type	Required?	Description
Format	String	No	Type of returned value. JSON and XML are supported. XML is the default format.
Version	String	Yes	API version. Format: YYYY-MM-DD. The current version is 2015-01-09.
AccessKeyId	String	Yes	ID of the AccessKey that Alibaba Cloud issued to you to access services.
Signature	String	Yes	Signature result. For the signature calculation method, see Signature mechanism.
SignatureMethod	String	Yes	Signature method. HMAC-SHA1 is supported currently.
Timestamp	String	Yes	Request time stamp. The date and time stamp uses the UTC system, and the format complies with ISO8601. The format is YYYY-MM-DDThh:mm:ssZ. For example, 2015-01-09T12:00:00Z indicates 12:00:00, January 9, 2015, Beijing time.
SignatureVersion	String	Yes	Signature algorithm version. The current version is 1.0.
SignatureNonce	String	Yes	A unique random number, which is used to prevent network replay attacks. Different random numbers must be used for different requests.

Example

```
https://dns.aliyuncs.com/  
?Format=xml  
&Version=2015-01-09  
&Signature=Pc5WB8gokVn0xfeu%2FZV%2BiNM1dgI%3D  
&SignatureMethod=HMAC-SHA1  
&SignatureNonce=15215528852396  
&SignatureVersion=1.0  
&AccessKeyId=key-test  
&Timestamp=2015-01-09T12:00:00Z  
...
```

Public return parameters

Each time you send a call request to an API, the system returns a unique RequestId, whether the request is successful or not.

Example

- XML example

```
<?xml version="1.0" encoding="UTF-8"?>  
<!--Result Root Node-->  
<Interface Name+Response>  
<!--Return Request Tag-->  
<RequestId>4C467B38-3910-447D-87BC-AC049166F216</RequestId>  
<!--Return Result Data-->  
</Interface Name+Response>
```

- JSON example

```
{  
  "RequestId": "4C467B38-3910-447D-87BC-AC049166F216"  
  /* Return Result Data*/  
}
```

Returned results

After the API service is called, the returned data adopts a uniform format:

- A returned HTTP status code of 2xx indicates that the call was successful.
- A returned HTTP status code of 4xx or 5xx indicates that the call was unsuccessful.

For successful calls, the supported formats of returned data are XML and JSON. When a request is

sent, an external system can pass in parameters to specify the format of returned data. XML is the default format.

Note: In this document, examples of results returned are formatted in a way that is easier for users to view. The actual results returned are not formatted with line breaks, indentation, and so on.

Successful results

XML example:

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Result Root Node-->
<Interface Name+Response>
<!--Return Request Tag-->
<RequestId>4C467B38-3910-447D-87BC-AC049166F216</RequestId>
<!--Return Result Data-->
</Interface Name+Response>
```

JSON example:

```
{
  "RequestId": "4C467B38-3910-447D-87BC-AC049166F216"
  /* Return Result Data*/
}
```

Error results

When an error is encountered in an interface call, no result data is returned. The caller can pinpoint the cause of the error based on the error codes corresponding to each interface and the public error codes.

When an error occurs in a call, the HTTP request returns an HTTP status code of 4xx or 5xx. The returned message body includes the specific error code and error message. It also contains a globally unique request ID (RequestId) and the ID of the site (HostId) you accessed with this request. If you cannot find the cause of the error, contact Alibaba Cloud customer service and provide the HostId and RequestId to help us to solve the problem as quickly as possible.

XML example:

```
<?xml version="1.0" encoding="UTF-8"?>
<Error>
<RequestId>8906582E-6722-409A-A6C4-0E7863B733A5</RequestId>
<HostId>dns.aliyuncs.com</HostId>
<Code>DomainNotExist</Code>
<Message>The domain name does not exist.</Message>
</Error>
```

JSON example:

```
{
  "RequestId": "8906582E-6722-409A-A6C4-0E7863B733A5",
  "HostId": "dns.aliyuncs.com",
  "Code": "DomainNotExist",
  "Message": "The domain name does not exist."
}
```

Signature mechanism

The DNS service performs authentication on each access request. Therefore, whether sent through HTTP or HTTPS, each request must contain signature information. DNS uses **AccessKey ID** and **AccessKey Secret** symmetric encryption to verify the identity of request senders.

The AccessKey ID and AccessKey Secret are officially issued to visitors by Alibaba Cloud (visitors can apply for and manage them at Alibaba Cloud's official website). The AccessKey ID indicates the identity of the visitor. The AccessKey Secret is the secret key used to encrypt and verify the signature string on the server, and it must be kept strictly confidential and only be known to Alibaba Cloud and the user.

Method

When a user calls an API, the following method is used to sign the request:

The Canonicalized Query String is constructed by using the request parameters.

The request parameters are sorted alphabetically by parameter names. These parameters include public request parameters and custom parameters for the given request interfaces described in this document, but not the signature parameter mentioned in "Public request parameters" .

Note:

- The sorting method is strictly case sensitive.
- When a request is submitted by using the GET method, these parameters are included in the parameter section of the request URI. For example, the section in the URI following "?" and connected by "&" .

The name and value of each request parameter are encoded. The names and values

must be URL encoded by using the UTF-8 character set. The **URL encoding rules** are as follows:

- The characters A-Z, a-z, 0-9, hyphen (-), underscore (_), period (.), and tilde (~) are not encoded.
- Other characters are encoded in “%XY” format, with XY representing the characters’ ASCII code in hexadecimal notation. For example, the English double quotes (”) are encoded as %22.
- Extended UTF-8 characters are encoded in “%XY%ZA...” format.
- The English space is encoded as %20, rather than the plus sign (+).

Note: Generally, libraries that support URL encoding (for example, java.net.URLEncoder in Java) are all encoded according to the rules for the “application/x-www-form-urlencoded” MIME-type. Specifically, the plus signs (+) are replaced with %20, the asterisks (*) with %2A, and %7E with the tilde (~) to generate coded strings that match the preceding encoding rules.

The encoded parameter names and values are connected with the English equal sign (=).

The parameter name and value pairs are sorted in alphabetical order and are connected with ampersand (&) to construct the Canonicalized Query String.

With the Canonicalized Query String constructed, follow these rules to produce the string for signature calculation:

```
StringToSign=  
HTTPMethod + "&" +  
percentEncode("/") + "&" +  
percentEncode(CanonicalizedQueryString)
```

Here,

- HTTPMethod is used for request submission. For example, GET.
- percentEncode("/") is the coded value for the character “/” (that is, %2F).
- percentEncode(CanonicalizedQueryString) is the encoded string for the constructed Canonicalized Query String, and is produced by following the URL encoding rules.

As defined in RFC2104, the preceding signature sting is used to calculate the signature’ s HMAC value.

Note: The Key used for calculating the signature is the AccessKey Secret held by the user, ending with the “&” character (ASCII: 38) based on the SHA1 hashing.

According to Base64 encoding rules, the preceding HMAC value is encoded into a string. This is the signature value.

The obtained signature value is added to the request parameters as the "Signature" parameter to sign the request.

Note: When the obtained signature value is submitted to the DNS server as the final request parameter value, the value will be URL encoded like other parameters according to RFC3986 rules.

Example

Take DescribeDomainRecords as an example. The request URL before signing is as follows:

```
http://dns.aliyuncs.com/  
?TimeStamp=2014-08-15T11%3A10%3A07Z  
&Format=xml&AccessKeyId=testid  
&Action=DescribeDomainRecords  
&SignatureMethod=HMAC-SHA1&DomainName=example.com  
&SignatureNonce=1324fd0e-e2bb-4bb1-917c-bd6e437f1710  
&SignatureVersion=1.0  
&Version=2015-01-09
```

Thus, the StringToSign is:

```
GET  
&%2F&AccessKeyId%3Dtestid  
&Action%3DDescribeDomainRecords  
&Format%3Dxml&DomainName%3Dexample.com  
&SignatureMethod%3DHMAC-SHA1  
&SignatureNonce%3D1324fd0e-e2bb-4bb1-917c-bd6e437f1710  
&SignatureVersion%3D1.0  
&TimeStamp%3D2014-08-15T11%253A10%253A07Z  
&Version%3D2015-01-09
```

Assuming that the "AccessKey ID" is "testid", the "AccessKey Secret" is "testsecret", and the Key used for HMAC calculation is "testsecret", then the calculated signature value will be:

```
SmhZuLUnXmqxSEZ/GqyiwGqmf+M=
```

The signed request URL is (note the added Signature parameter):

```
http://dns.aliyuncs.com/?TimeStamp=2014-08-15T11%3A10%3A07Z&Format=xml&AccessKeyId=testid&Action=DescribeDomainRecords&SignatureMethod=HMAC-SHA1&DomainName=example.com&SignatureNonce=1324fd0e-e2bb-4bb1-917c-bd6e437f1710&SignatureVersion=1.0&Version=2015-01-09&Signature=SmhZuLUnXmqxSEZ%2FGqyiwGqmf%2BM%3D
```

Domain name management interface

Add Domain Names

AddDomain

Description

Adds domain name based on input parameters. To determine the legality of a domain name, please refer to the Domain Name Validity.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value:AddDomain
DomainName	String	Yes	Domain name
GroupId	String	No	Domain name group, which is, by default, the GroupId of the "Default Group"

Return Parameters

Public return parameters. For details, see Public Return Parameters.

Name	Type	Description
RequestId	String	The unique request identifier
DomainId	String	Domain name ID
DomainName	String	Domain name

GroupId	String	Domain name group ID
GroupName	String	The name of the domain name group
PunyCode	String	punycode returned only for a Chinese domain name
DnsServers	DnsServerType	The DNS list for the domain name under resolution

Error Codes

For errors common to all interfaces, please refer to the Error Code Table.

Error Code	Description	HTTP Status Code	Language
InvalidDomainName.Format	The format of domain is error.	400	Domain name format error
InvalidDomainName.Suffix	The domain suffix is not supported.	400	The domain name suffix is not supported
InvalidDomainName.Unregistered	The domain name is not registered.	400	The domain name is not registered
InvalidDomainName.Duplicate	The domain name is duplicated in this user's domain list.	400	The domain name already exists in the user's domain list
DomainAddedByOthers	The domain name has been added by other users.	400	This domain name already exists in the domain list of another user
CHNDomainInfoNotMatch	The information of chinese domain does not match with CNNIC.	400	The Chinese domain name does not match the information returned by CNNIC (See Note)
UnabletoGetWhoisInfo	The domain is unable to get information from whois system.	400	Cannot retrieve Whois information
InvalidDomainGroup.NotExist	The domain group name is not exist.	400	The domain name group does not exist

Example

Request Example

```
http://dns.aliyuncs.com/?Action=AddDomain
&DomainName=Chinese.com
&GroupId=2223
&<Public Request Parameters>
```

Return Example

XML Format

```
<AddDomainResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<DomainId>00efd71a-770e-4255-b54e-6fe5659baffe</DomainId>
<DomainName>Chinese.com</DomainName>
<GroupId>2223</GroupId>
<GroupName>MyGroup</GroupName>
<PunyCode>xn--fsq270a.com</PunyCode>
<DnsServers>
<DnsServer>dns1.hichina.com</DnsServer>
<DnsServer>dns2.hichina.com</DnsServer>
</DnsServers>
</AddDomainResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "DomainId": "00efd71a-770e-4255-b54e-6fe5659baffe",
  "DomainName": "Chinese.com",
  "GroupId": "2223",
  "GroupName": "MyGroup",
  "PunyCode": "xn--fsq270a.com",
  "DnsServers": {
    "DnsServer": [
      "ns1.alidns.com",
      "ns2.alidns.com"
    ]
  }
}
```

Deleting Domain Names

DeleteDomain

Description

Deletes the domain name based on input parameters. Given its unique nature, you are not allowed to delete the HiChina domain name in the DNS API. Non-existent domain names include unregistered domain names, domain names non-existent under an account, or malformed domain names in the request parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value:DeleteDomain
DomainName	String	Yes	Domain name

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
DomainName	String	Domain name

Error Codes

For errors common to all interfaces, please refer to the [Error Code Table](#).

Error Code	Description	HTTP Status Code	Meaning
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account
Forbidden.DomainType	The domain is forbidden to operate because it is a hichina domain.	400	The domain name is an HiChina domain name and cannot be deleted

Fobidden.RecordLocked	The domain is forbidden to delete because there are some records have been locked.	400	Locked resolution records exist for the domain name
RecordFobidden.BlackHole	The action could not be completed because there are some recrods have been into black hole.	400	DNS Protection is in the black hole mode
RecordForbidden.DNSChange	The action could not be completed because DNS is changing.	400	This operation is forbidden due to DNS migration

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DeleteDomain
&DomainName=example.com
&<Public Request Parameters>
```

Return Example

XML Format

```
<DeleteDomainResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <DomainName>example.com</DomainName>
</DeleteDomainResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "DomainName": "example.com"
}
```

Retrieving Domain Name Lists

DescribeDomains

Description

Queries the domain name list of this user based on input parameters.

- The page number (PageNumber) and the size of each page (PageSize) may be specified in the query so as to get the list of domain names.
- A key word (KeyWord) of the domain name can be specified in the query to get the list of domain names that contain the key word.
- By default, the domain name list is sorted by time domain names are added, from most to least recent.
- The ID of the domain name group (GroupId) can be specified in the query. The default value is All Groups.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: DescribeDomains
PageNumber	Long	No	Number of the current page, starting from 1 by default
PageSize	Long	No	This sets the number of lines per page for query by pages, up to 100 and 20 by default
KeyWord	String	No	The keyword for searches using the "%KeyWord%" mode, case insensitive
GroupId	String	No	The ID of the domain name group. If not filled in, it is All Groups, by default

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
TotalCount	Long	Total number of domain name lists
PageNumber	Long	Number of the current page
PageSize	Long	The number of domain names retrieved by this query
Domains	DomainType	The list of domains retrieved by this operation

Error Codes

For errors common to all interfaces, please refer to the [Error Code Table](#) .

Error Code	Description	HTTP Status Code	Language
InvalidDomainGroup .NotExist	The domain group name is not exist.	400	The domain name group does not exist

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDomains
&PageNumber=1
&PageSize=20
&KeyWord=com
&GroupId=2223
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDomainsResponse>
  <RequestId>6393C3A8-B611-42F2-AFA6-F080FC45D5D0</RequestId>
  <TotalCount>2</TotalCount>
```

```

<PageNumber>1</PageNumber>
<PageSize>2</PageSize>
<Domains>
  <Domain>
    <DomainId>00efd71a-770e-4255-b54e-6fe5659baffe</DomainId>
    <DomainName>abc.com</DomainName>
    <AliDomain>true</AliDomain>
    <GroupId>2223</GroupId>
    <PunyCode>abc.com</PunyCode>
    <InstanceId>i-7bg</InstanceId>
    <VersionCode>version1</VersionCode>
    <DnsServers>
      <DnsServer>dns1.hichina.com</DnsServer>
      <DnsServer>dns2.hichina.com</DnsServer>
    </DnsServers>
  </Domain>
  <Domain>
    <DomainId>00efd71a-770e-4255-b54e-6fe5659baffe</DomainId>
    <DomainName>Instance.com</DomainName>
    <AliDomain>>false</AliDomain>
    <GroupId>2223</GroupId>
    <PunyCode>xn--fsq270a.com</PunyCode>
    <InstanceId>i-7bk</InstanceId>
    <VersionCode>version2</VersionCode>
    <DnsServers>
      <DnsServer>dns1.hichina.com</DnsServer>
      <DnsServer>dns2.hichina.com</DnsServer>
    </DnsServers>
  </Domain>
</Domains>
</DescribeDomainsResponse>

```

JSON Example

```

{
  "RequestId": "68386699-8B9E-4D5B-BC4C-75A28F6C2A00",
  "TotalCount": 2,
  "PageNumber": 1,
  "PageSize": 2,
  "Domains": {
    "Domain": [
      {
        "DomainId": "00efd71a-770e-4255-b54e-6fe5659baffe",
        "DomainName": "abc.com",
        "AliDomain": "true",
        "GroupId": "2223",
        "PunyCode": "abc.com",
        "InstanceId": "i-7bg",
        "VersionCode": "version1",
        "DnsServers": {
          "DnsServer": [
            "ns1.alidns.com",
            "ns2.alidns.com"
          ]
        }
      }
    ]
  }
}

```

```

    }
  },
  {
    "DomainId": "00efd71a-770e-4255-b54e-6fe5659baffe",
    "DomainName": "Instance.com",
    "AliDomain": "false",
    "GroupId": "2223",
    "PunyCode": "xn--fsq270a.com",
    "InstanceId": "i-7bk",
    "VersionCode": "version2",
    "DnsServers": {
      "DnsServer": [
        "ns1.alidns.com",
        "ns2.alidns.com"
      ]
    }
  }
]
}
}
}
}

```

Retrieving Domain Name Information

DescribeDomainInfo

Description

Queries the information on a specified domain name based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: DescribeDomainInfo
DomainName	String	Yes	Domain name

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
------	------	-------------

RequestId	String	The unique request identifier
DomainId	String	Domain name ID
DomainName	String	Domain name
AliDomain	Boolean	Whether or not it is an Alibaba Cloud HiChina domain name
GroupId	String	Domain name group ID
GroupName	String	The name of the domain name group
InstanceId	String	The Alibaba Cloud DNS product ID, blank if it is the free version
VersionCode	String	The Alibaba Cloud DNS version ID
PunyCode	String	punycode returned only for a Chinese domain name
DnsServers	DnsServerType	The DNS list for a domain name in the resolution system

Error Codes

For errors common to all interfaces, please refer to the Error Code Table .

Error Code	Description	HTTP Status Code	Meaning
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account
InvalidDomainName.NoExist	The domain is not exist in Alibaba Cloud DNS system.	400	The domain name does not exist in the Alibaba Cloud DNS system

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDomainInfo
&DomainName=example.com
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDomainInfoResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <DomainId>00efd71a-770e-4255-b54e-6fe5659baffe</DomainId>
  <DomainName>example.com</DomainName>
  <AliDomain>true</AliDomain>
  <GroupId>2223</GroupId>
  <GroupName>MyGroup</GroupName>
  <InstanceId>i-7bg</InstanceId>
  <VersionCode>version1</VersionCode>
  <PunyCode>example.com</PunyCode>
  <DnsServers>
    <DnsServer>dns1.hichina.com</DnsServer>
    <DnsServer>dns2.hichina.com</DnsServer>
  </DnsServers>
</DescribeDomainInfoResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "DomainId": "00efd71a-770e-4255-b54e-6fe5659baffe",
  "DomainName": "example.com",
  "AliDomain": "true",
  "GroupId": "2223",
  "GroupName": "MyGroup",
  "InstanceId": "i-7bg",
  "VersionCode": "version1",
  "PunyCode": "example.com",
  "DnsServers": {
    "DnsServer": [
      "ns1.alidns.com",
      "ns2.alidns.com"
    ]
  }
}
```

Retrieving Domain Name Whois Information

DescribeDomainWhoisInfo

Description

Queries information on the domain name Whois based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: DescribeDomainWhoisInfo
DomainName	String	Yes	Domain name

Return Parameters

Public return parameters. For details, see Public Return Parameters

Name	Type	Description
RequestId	String	The unique request identifier
StatusList	DomainStatusType	The domain name status list
DnsServers	DnsServerType	The current DNS list for a domain name
RegistrantName	String	Owner
RegistrantEmail	String	Owner's email
Registrar	String	Registration service provider
RegistrationDate	String	Date of registration
ExpirationDate	String	Expiry date

Error Codes

For errors common to all interfaces, please refer to the Error Code Table .

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDomainWhoisInfo
&DomainName=example.com
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDomainWhoisInfoResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <RegistrantName>Alibaba Cloud Computing Ltd.</RegistrantName>
  <RegistrantEmail>dnsadmin@hk.alibaba-inc.com</RegistrantEmail>
  <Registrar>MARKMONITOR INC.</Registrar>
  <RegistrationDate>28-sep-2007</RegistrationDate>
  <ExpirationDate>28-sep-2016</ExpirationDate>
  <StatusList>
    <Status>clientDeleteProhibited</Status>
    <Status>clientTransferProhibited</Status>
    <Status>clientUpdateProhibited</Status>
  </StatusList>
  <DnsServers>
    <DnsServer>A.IANA-SERVERS.NET</DnsServer>
    <DnsServer>B.IANA-SERVERS.NET</DnsServer>
  </DnsServers>
</DescribeDomainWhoisInfoResponse>
```

JSON Example

```
{
  "RegistrantName": "Alibaba Cloud Computing Ltd.",
  "RegistrantEmail": "dnsadmin@hk.alibaba-inc.com",
  "Registrar": "MARKMONITOR INC.",
  "RegistrationDate": "28-sep-2007",
  "ExpirationDate": "28-sep-2016",
  "StatusList": {
    "Status": [
      "clientDeleteProhibited",
      "clientTransferProhibited",
      "clientUpdateProhibited"
    ]
  },
  "DnsServers": {
    "DnsServer": [
      "A.IANA-SERVERS.NET",
      "B.IANA-SERVERS.NET"
    ]
  }
}
```

Modifying HiChina DNS

ModifyHichinaDomainDNS

Description

Modifies the DNS of the domain name based on input parameters. This feature is only specific to the DNS of a HiChina domain name. After the modification is successful, the DNS will be changed to the HiChina DNS (ending with hichina.com).

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: ModifyHichinaDomainDNS
DomainName	String	Yes	Domain name

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
OriginalDnsServers	DnsServerType	The original DNS list for a domain name
NewDnsServers	DnsServerType	The modified DNS list for a domain name

Error Codes

For errors common to all interfaces, please refer to the [Error Code Table](#) .

Error Code	Description	HTTP Status Code	Meaning
IncorrectDomainUse	The domain name	400	The domain name

r	does not belong to this user.		does not exist under this account
Forbidden.DomainType	The domain is forbidden to operate because it is NOT a hichina domain.	400	The domain name is not a HiChina domain name

Example

Request Example

```
http://dns.aliyuncs.com/?Action=ModifyHichinaDomainDNS
&DomainName=example.com
&<Public Request Parameters>
```

Return Example

XML Format

```
<ModifyHichinaDomainDNSResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <OriginalDnsServers>
    <DnsServer>NS3.DNSV5.COM</DnsServer>
    <DnsServer>NS4.DNSV5.COM</DnsServer>
  </OriginalDnsServers>
  <NewDnsServers>
    <DnsServer>dns9.hichina.com</DnsServer>
    <DnsServer>dns10.hichina.com</DnsServer>
  </NewDnsServers>
</ModifyHichinaDomainDNSResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "OriginalDnsServers": {
    "DnsServer": [
      "NS3.DNSV5.COM",
      "NS4.DNSV5.COM"
    ]
  },
  "NewDnsServers": {
    "DnsServer": [
      "dns9.hichina.com",
      "dns10.hichina.com"
    ]
  }
}
```

```
}
}
```

Retrieving Primary Domain Names

GetMainDomainName

Description

The primary domain name is obtained through input parameters. For information on the primary domain name and sub-domain levels, please refer to the [Domain Name Level](#). If `www.abc.com` is the input, the output will be `abc.com`.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value: <code>GetMainDomainName</code>
InputString	String	Yes	The string shall have a maximum of 128 characters

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
DomainName	String	Domain name
RR	String	The host record
DomainLevel	Long	The level of the input domain name

Error Codes

For errors common to all interfaces, please refer to the Error Code Table.

Error Code	Description	HTTP Status Code	Meaning
InvalidDomainName.Format	The format of domain is error.	400	Invalid domain name format
QuotaExceeded.StringLength	You Can' t finish this operation because the input string length has been out of MAX count.	400	The string length has exceeded limit

Example

Request Example

```
http://dns.aliyuncs.com/?Action=GetMainDomainName
&InputString=www.example.com
&<Public Request Parameters>
```

Return Example

XML Format

```
<GetMainDomainNameResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <DomainName>example.com</DomainName>
  <RR>www</RR>
  <DomainLevel>2</DomainLevel>
</GetMainDomainNameResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "DomainName": "example.com",
  "RR": "www",
  "DomainLevel": 2
}
```


Retrieving Domain Name Operation Logs

DescribeDomainLogs

Description

Retrieves domain name operation logs based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: DescribeDomainLogs
PageNumber	Long	No	Number of the current page, starting from 1 by default
PageSize	Long	No	This sets the number of lines per page for query by pages, up to 100 and 20 by default
KeyWord	String	No	The keyword for searches using the "%KeyWord%" mode, case insensitive

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
TotalCount	Long	The total number of listed logs
PageNumber	Long	Number of the current page

PageSize	Long	The number of logs retrieved by this query
DomainLogs	DomainLogType	The list of domain name operation logs

Error Codes

For errors common to all interfaces, please refer to the Error Code Table .

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDomainLogs
&PageNumber=1
&PageSize=20
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDomainLogsResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <TotalCount>2</TotalCount>
  <PageNumber>1</PageNumber>
  <PageSize>2</PageSize>
  <DomainLogs>
    <DomainLog>
      <ActionTime>2015-12-12 09:23:44</ActionTime>
      <DomainName>abc.com</DomainName>
      <Action>Add</Action>
      <Message>To DNS list</Message>
      <ClientIp>182.92.253.20</ClientIp>
    </DomainLog>
    <DomainLog>
      <ActionTime>2015-12-12 09:23:40</ActionTime>
      <DomainName>example.com</DomainName>
      <Action>Retrieved successfully</Action>
      <Message>And added to DNS list</Message>
      <ClientIp>182.92.253.20</ClientIp>
    </DomainLog>
  </DomainLogs>
</DescribeDomainLogsResponse>
```

JSON Example

```
{
  "DescribeDomainLogsResponse": {
    "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
    "TotalCount": "2",
    "PageNumber": "1",
    "PageSize": "2",
    "DomainLogs": {
      "DomainLog": [
        {
          "ActionTime": "2015-12-12 09:23:44",
          "DomainName": "abc.com",
          "Action": "Add",
          "Message": "To DNS list",
          "ClientIp": "182.92.253.20"
        },
        {
          "ActionTime": "2015-12-12 09:23:40",
          "DomainName": "example.com",
          "Action": "Retrieved successfully",
          "Message": "And added to DNS list",
          "ClientIp": "182.92.253.20"
        }
      ]
    }
  }
}
```

Alibaba Cloud DNS product management interface

Retrieving List of Paid Alibaba Cloud DNS Product Versions

DescribeDnsProductInstances

Description

Retrieves a list of paid Alibaba Cloud DNS product versions based on input parameters. The query results can be filtered by versions. If the return parameters do not contain domain names, this indicates that this Alibaba Cloud DNS product has not been bound to any domain names.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: DescribeDnsProductInstances
PageNumber	Long	No	Number of the current page, starting from 1 by default
PageSize	Long	No	This sets the number of lines per page for query by pages, up to 100 and 20 by default
VersionCode	String	No	The Alibaba Cloud DNS product version, "All" by default

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
TotalCount	Long	Total number of domain name lists
PageNumber	Long	Number of the current page
PageSize	Long	The number of domain names retrieved by this query
DnsProducts	DnsProductType	The list of Alibaba Cloud DNS products returned by this query

Error Codes

For errors common to all interfaces, please refer to the Error Code Table .

Error Code	Description	HTTP Status Code	Meaning
InvalidVersion	The version of DNS product is not exist.	400	This Alibaba Cloud DNS version does not exist
FreeVersion	The version of DNS product free version.	400	Paid Alibaba Cloud DNS products do not include free versions

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDnsProductInstances
&PageNumber=1
&PageSize=20
&VersionCode=version1
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDnsProductInstancesResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <TotalCount>2</TotalCount>
  <PageNumber>1</PageNumber>
  <PageSize>2</PageSize>
  <DnsProducts>
    <DnsProduct>
      <InstanceId>i-8fj</InstanceId>
      <VersionCode>version1</VersionCode>
      <VersionName>Alibaba Cloud DNS Standard Version</VersionName>
      <StartTime>2015-11-11 09:22:32</StartTime>
      <EndTime>2016-11-10 09:22:32</EndTime>
      <Domain>abc.com</Domain>
    </DnsProduct>
    <DnsProduct>
      <InstanceId>i-7sb</InstanceId>
      <VersionCode>version1</VersionCode>
      <VersionName>Alibaba Cloud DNS Standard Version</VersionName>
      <StartTime>2015-11-11 09:22:32</StartTime>
      <EndTime>2016-11-10 09:22:32</EndTime>
```

```
<Domain>example.com</Domain>
</DnsProduct>
</DnsProducts>
</DescribeDnsProductInstancesResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "TotalCount": "2",
  "PageNumber": "1",
  "PageSize": "2",
  "DnsProducts": {
    "DnsProduct": [
      {
        "InstanceId": "i-8fj",
        "VersionCode": "version1",
        "VersionName": "Alibaba Cloud DNS Standard Version",
        "StartTime": "2015-11-11 09:22:32",
        "EndTime": "2016-11-10 09:22:32",
        "Domain": "abc.com"
      },
      {
        "InstanceId": "i-7sb",
        "VersionCode": "version1",
        "VersionName": "Alibaba Cloud DNS Standard Version",
        "StartTime": "2015-11-11 09:22:32",
        "EndTime": "2016-11-10 09:22:32",
        "Domain": "example.com"
      }
    ]
  }
}
```

Changing domain names bound to Alibaba Cloud DNS

Description

Changes the domain name bound to the Alibaba Cloud DNS.

This interface can be called whether or not the current Alibaba Cloud DNS product is bound to a domain name. This interface can also be called to unbind a domain name by leaving the NewDomain field blank.

Request parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: ChangeDomainOfDnsProduct.
InstanceId	String	Yes	The Alibaba Cloud DNS product ID.
NewDomain	String	No	The domain name to bind. If blank, the product is unbound.

Return parameters

Public return parameters. For more information, see [Public return parameters](#).

Name	Type	Description
RequestId	String	The unique request identifier.
OriginalDomain	String	The original bound domain name. If blank, this indicates the product was bound for the first time.

Error codes

For errors common to all interfaces, see [Error code table](#).

Error code	Description	HTTP status code	Meaning
InvalidDnsProduct	The DNS product is not exist.	400	The Alibaba Cloud DNS product does not exist.
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account.
InvalidBinding.SpecialDomain	The special domain name is invalid to bind on the DNS product.	400	Special domain names cannot be bound.
QuotaExceeded.Binding	The total count of binding domain has been out of range.	400	The number of binding operation exceeds the limit for this version.

InvalidBinding.BoundDomain	The new domain has been bound on other DNS product.	400	The domain name to change to is already bound to a paid cloud DNS product.
----------------------------	---	-----	--

Example

Request example

```
http://dns.aliyuncs.com/?Action=ChangeDomainOfDnsProduct
&InstanceId=i-7sb
&NewDomain=newdomain.com
&<Public Request Parameters>
```

Return example

- XML format

```
<ChangeDomainOfDnsProductResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<OriginalDomain>originaldomain.com</OriginalDomain>
</ChangeDomainOfDnsProductResponse>
```

- JSON format

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "OriginalDomain": "originaldomain.com"
}
```

Retrieving Domain Name Attributes Based on Alibaba Cloud DNS Versions

DescribeDnsProductAttributes

Description

Retrieves the DNS attributes (e.g. lines, types, TTL intervals) corresponding to a Alibaba Cloud DNS version based on the input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: DescribeDnsProductAttributes
VersionCode	String	No	The Alibaba Cloud DNS product version, "Free version" by default

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
RecordTypes	List<Type>	The list of DNS record type names. The type is String type
TtlMinValue	Long	The minimum TTL value
TtlMaxValue	Long	The maximum TTL value
RecordLines	RecordLineType	The list of DNS record line names

Error Codes

For errors common to all interfaces, please refer to the [Error Code Table](#) .

Error Code	Description	HTTP Status Code	Meaning
InvalidVersion	The version of DNS product is not exist.	400	This Alibaba Cloud DNS version does not exist

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDnsProductAttributes
&VersionCode=version1
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDnsProductAttributesResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <RecordTypes>
    <Type>A</Type>
    <Type>AAAA</Type>
    <Type>CNAME</Type>
    <Type>TXT</Type>
    <Type>MX</Type>
    <Type>SRV</Type>
    <Type>REDIRECT_URL</Type>
    <Type>FORWORD_URL</Type>
    <Type>NS</Type>
  </RecordTypes>
  <TtlMinValue>600</TtlMinValue>
  <TtlMaxValue>86400</TtlMaxValue>
  <RecordLines>
    <RecordLine>
      <LineCode>default</LineCode>
      <LineName>Default</LineName>
    </RecordLine>
    <RecordLine>
      <LineCode>telecom</LineCode>
      <LineName>China Telecom</LineName>
    </RecordLine>
    <RecordLine>
      <LineCode>shanghai-telecom</LineCode>
      <FatherCode>telecom</FatherCode>
      <LineName>Shanghai Telecom</LineName>
    </RecordLine>
    .....
  </RecordLines>
</DescribeDnsProductAttributesResponse>
```

JSON Example

```
{
  "DescribeDnsProductAttributesResponse": {
    "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
    "RecordTypes": {
      "Type": [
```

```
"A",
"AAAA",
"CNAME",
"TXT",
"MX",
"SRV",
"REDIRECT_URL",
"FORWORD_URL",
"NS"
]
},
"TtlMinValue": 600,
"TtlMaxValue": 86400,
"RecordLines": {
  "RecordLine": [
    {
      "LineCode": "default",
      "LineName": "Default"
    },
    {
      "LineCode": "telecom",
      "LineName": "China Telecom"
    },
    {
      "LineCode": "shanghai-telecom",
      "FatherCode": "telecom",
      "LineName": "Shanghai Telecom"
    },
    .....
  ]
}
}
```

Domain grouping interface

Adding Domain Name Groups

AddDomainGroup

Description

Adds domain name group based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value: AddDomainGroup
GroupName	String	Yes	The name of the domain name group

Return Parameters

Public return parameters. For details, see Public Return Parameters.

Name	Type	Description
RequestId	String	The unique request identifier
GroupId	String	Domain name group ID
GroupName	String	The name of the domain name group

Error Codes

For errors common to all interfaces, please refer to the Error Code Table.

Error Code	Description	HTTP Status Code	Language
QuotaExceeded.GroupCount	The domain group count has been out of MAX count (100).	400	The domain name group count has exceeded the limit
QuotaExceeded.GroupNameLength	The domain group name length has been out of MAX count (20).	400	The length of the group name has exceeded the limit
InvalidDomainGroup.Duplicate	The domain group name is duplicated.	400	The group name already exists
InvalidDomainGroup.EmptyName	The domain group name is empty.	400	The group name is empty

Example

Request Example

```
http://dns.aliyuncs.com/?Action=AddDomainGroup
&GroupName=MyGroup
&<Public Request Parameters>
```

Return Example

XML Format

```
<AddDomainGroupResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <GroupId>2223</GroupId>
  <GroupName>NewName</GroupName>
</AddDomainGroupResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "GroupId": "2223",
  "GroupName": "NewName"
}
```

Modifying Domain Name Groups

UpdateDomainGroup

Description

Edits the name of the domain name group based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required

			parameter, value:UpdateDomainGroup
GroupId	String	Yes	ID of the domain name group
NewName	String	Yes	The new name of the domain name group

Return Parameters

Public return parameters. For details, see Public Return Parameters.

Name	Type	Description
RequestId	String	The unique request identifier
GroupId	String	Domain name group ID
GroupName	String	The name of the domain name group

Error Codes

For errors common to all interfaces, please refer to the Error Code Table.

Error Code	Description	HTTP Status Code	Language
QuotaExceeded.GroupNameLength	The domain group name length has been out of MAX count (20).	400	The length of the group name has exceeded the limit
InvalidDomainGroup.Duplicate	The domain group name is duplicated.	400	The group name already exists
InvalidDomainGroup.EmptyName	The domain group name is empty.	400	The group name is empty
InvalidDomainGroup.NotExist	The domain group name is not exist.	400	The domain name group does not exist

Example

Request Example

```
http://dns.aliyuncs.com/?Action=UpdateDomainGroup
&GroupId=2223
```

```
&NewName=NewName
&<Public Request Parameters>
```

Return Example

XML Format

```
<UpdateDomainGroupResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <GroupId>2223</GroupId>
  <GroupName>NewName</GroupName>
</UpdateDomainGroupResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "GroupId": "2223",
  "GroupName": "NewName"
}
```

Deleting Domain Name Groups

DeleteDomainGroup

Description

Deletes the name of the domain name group based on input parameters.

Note: The domain name group may only be deleted if it contains 0 domain name. The default domain name group cannot be deleted.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value:DeleteDomain Group

GroupId	String	Yes	ID of the domain name group
---------	--------	-----	-----------------------------

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#).

Name	Type	Description
RequestId	String	The unique request identifier
GroupName	String	The name of the domain name group

Error Codes

For errors common to all interfaces, please refer to the [Error Code Table](#).

Error Code	Description	HTTP Status Code	Language
InvalidDomainGroup.NotFound	The domain group name is not exist.	400	The domain name group does not exist
Fobidden.DefaultGroup	The default domain group can't be deleted.	400	The default domain name group cannot be deleted
Fobidden.NotEmptyGroup	The domain group can't be deleted because it is not empty.	400	Domain name groups that contain domain names cannot be deleted

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DeleteDomainGroup
&GroupId=2223
&<Public Request Parameters>
```

Return Example

XML Format

```
<DeleteDomainGroupResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
```



```
<GroupName>MyGroup</GroupName>
</DeleteDomainGroupResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "GroupName": "MyGroup"
}
```

Changing Domain Name Groups

ChangeDomainGroup

Description

Changes the domain name from the original group to the new group based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value:AddDomain
DomainName	String	Yes	Domain name
GroupId	String	Yes	The ID of the destination domain name group

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#).

Name	Type	Description
RequestId	String	The unique request identifier
GroupId	String	The ID of the destination

		domain name group
GroupName	String	The name of the destination domain name group

Error Codes

For errors common to all interfaces, please refer to the Error Code Table.

Error Code	Description	HTTP Status Code	Language
InvalidDomainGroup .NotExist	The domain group name is not exist.	400	The domain name group does not exist
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account

Example

Request Example

```
http://dns.aliyuncs.com/?Action=ChangeDomainGroup
&DomainName=abc.com
&GroupId=2223
&<Public Request Parameters>
```

Return Example

XML Format

```
<ChangeDomainGroupResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <GroupId>2223</GroupId>
  <GroupName>MyGroup</GroupName>
</ChangeDomainGroupResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "GroupId": "2223",
  "GroupName": "MyGroup"
}
```

Retrieving Domain Name Group Lists

DescribeDomainGroups

Description

Retrieves all group lists based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value:DescribeDomainGroups
PageNumber	Long	No	Number of the current page, starting from 1 by default
PageSize	Long	No	This sets the number of lines per page for query by pages, up to 100 and 20 by default
KeyWord	String	No	The group name keyword for searches using the "%KeyWord%" mode, case insensitive

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#).

Name	Type	Description
RequestId	String	The unique request identifier

TotalCount	Long	Number of domain name groups
PageNumber	Long	Number of the current page
PageSize	Long	The number of domain name groups obtained from the current query
DomainGroups	DomainGroupType	The hierarchical domain name group list

Error Codes

For errors common to all interfaces, please refer to the Error Code Table.

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDomainGroups
&PageNumber=1
&PangeSize=20
&KeyWord=Group
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDomainGroupsResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <TotalCount>1</TotalCount>
  <PageNumber>1</PageNumber>
  <PageSize>2</PageSize>
  <DomainGroups>
    <DomainGroup>
      <GroupId>2223</GroupId>
      <GroupName>MyGroup</GroupName>
    </DomainGroup>
  </DomainGroups>
</DescribeDomainGroupsResponse>
```

JSON Example

```
{
```

```
"RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
"TotalCount": 1,
"PageNumber": 1,
"PageSize": 2,
"DomainGroups": {
  "DomainGroup": [
    {
      "GroupId": "2223",
      "GroupName": "MyGroup"
    }
  ]
}
```

Domain name retrieval interface

Initiate domain name retrieval

Description

A verification email is sent to your whois email address based on the input parameters. Click the verification link in the whois inbox to jump to the Alibaba Cloud DNS management platform.

Request parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: RetrievalDomainName.
DomainName	String	Yes	Domain name.

Return parameters

Public return parameters. For more information, see [Public return parameters](#).

Name	Type	Description
------	------	-------------

RequestId	String	The unique request identifier.
DomainName	String	Domain name.
WhoisEmail	String	The whois email address to receive the verification code.

Error codes

For errors common to all interfaces, see Error code table.

Error code	Description	HTTP status code	Meaning
InvalidDomainName.Format	The format of domain is error.	400	Domain name format error.
InvalidDomainName.Suffix	The domain suffix is not supported.	400	The domain name suffix is not supported.
InvalidDomainName.Unregistered	The domain name is not registered.	400	The domain name is not registered.
InvalidDomainName.Duplicate	The domain name is duplicated in this user's domain list.	400	The domain name already exists in the user's domain list.
CHNDomainInfoNotMatch	The information of chinese domain does not match with CNNIC.	400	The Chinese domain name does not match the information returned by CNNIC (See Note).
UnabletoGetWhoisInfo	The domain is unable to get information from whois system.	400	Cannot retrieve Whois information.
InvalidDomainName.NoExist	The domain is not exist in Alibaba Cloud DNS system.	400	The domain name does not exist in the Alibaba Cloud DNS system.
UnableToGetWhoisEmail	The domain is unable to get whois email.	400	Whois email address not retrieved.
Forbidden.DomainType	The domain is forbidden to operate because it is a hichina domain.	400	HiChina domain names cannot be retrieved.
Forbidden.TooOfen	The operation is too often in 90 seconds.	400	Forbidden to re-attempt retrieval within 90 seconds.
Forbidden.Protected	The domain is	400	Domain names in

Domain	forbidden to operation because this is a protected domain in white list.		the whitelist cannot be retrieved.
--------	--	--	------------------------------------

Example

Request example

```
http://dns.aliyuncs.com/?Action=RetrievalDomainName
&DomainName=example.com
&<Public Request Parameters>
```

Return example

- XML format

```
<RetrievalDomainNameResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<DomainName>example.com</DomainName>
<WhoisEmail>webmaster@gmail.com</WhoisEmail>
</RetrievalDomainNameResponse>
```

- JSON format

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "DomainName": "example.com",
  "WhoisEmail": "webmaster@gmail.com"
}
```

Apply for retrieval by administrators

Description

If you are unable to retrieve Whois email information (UnableToGetWhoisEmail), you can submit an ticket and the system administrator manually gets it for you.

Request parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: ApplyForRetrievalDomainName.
DomainName	String	Yes	Domain name.

Return parameters

Public return parameters. For more information, see [Public return parameters](#).

Name	Type	Description
RequestId	String	The unique request identifier.
DomainName	String	Domain name.

Error Codes

For errors common to all interfaces, see [Error code table](#).

Error code	Description	HTTP status code	Meaning
InvalidDomainName.Format	The format of domain is error.	400	Domain name format error.
InvalidDomainName.Suffix	The domain suffix is not supported.	400	The domain name suffix is not supported.
InvalidDomainName.Unregistered	The domain name is not registered.	400	The domain name is not registered.
InvalidDomainName.Duplicate	The domain name is duplicated in this user's domain list.	400	The domain name already exists in the user's domain list.
CHNDomainInfoNotMatch	The information of chinese domain does not match with CNNIC.	400	The Chinese domain name does not match the information returned by CNNIC (See Note).
UnabletoGetWhoisInfo	The domain is unable to get information from whois system.	400	Cannot retrieve Whois information.

InvalidDomainName.NoExist	The domain is not exist in aliyun DNS system.	400	The domain name does not exist in the Alibaba Cloud DNS system.
Forbidden.TooOfen	The operation is too ofen in 90 seconds.	400	Forbidden to re-attempt retrieval within 90 seconds.

Example

Request example

```
http://dns.aliyuncs.com/?Action=ApplyForRetrievalDomain
&DomainName=example.com
&<Public Request Parameters>
```

Return example

- XML format

```
<ApplyForRetrievalDomainNameResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<DomainName>example.com</DomainName>
</ApplyForRetrievalDomainNameResponse>
```

- JSON format

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "DomainName": "example.com"
}
```

Check Resolution Record Validity

CheckDomainRecord

Description

Checks whether the specified resolution record exists (is valid) in the authoritative DNS.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: CheckDomainRecord
DomainName	String	Yes	Domain name
Type	String	Yes	Record type
RR	String	Yes	Host record
Value	String	Yes	The record value

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
IsExist	Boolean	Determines whether the resolution record exists.true: exists, false: does not exist.

Error Codes

For errors common to all interfaces, please refer to the [Error Code Table](#) .

Error Code	Description	HTTP Status Code	Meaning
InvalidDomainName.Format	The format of domain is error.	400	Domain name format error
InvalidDomainName.Suffix	The domain suffix isnot been supported.	400	The domain name suffix is not supported
InvalidDomainName.Unregistered	The domain name is not registered.	400	The domain name is not registered
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account

Example

Request Example

```
http://dns.aliyuncs.com/?Action=CheckDomainRecord
&DomainName=example.com
&Type=TXT
&RR=zhaohui
&Value=fd87da3c4528844d45af39200155a905
&<Public Request Parameters>
```

Return Example

XML Format

```
<CheckDomainRecordResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <IsExist>true</IsExist>
</CheckDomainRecordResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "IsExist": false
}
```

Resolution management interface

AddDomainRecord

Description

Resolution records are added based on input parameters. For more information, see [Resolution record type formats](#), [Resolution record type constraints](#), and [Rules for determining conflicting](#)

resolution records.

Request parameters

Name	Type	Required?	Description
Action	String	Yes	AddDomainRecord.
DomainName	String	Yes	Domain name.
RR	String	Yes	Host record. For example, to resolve @.example.com, use @.
Type	String	Yes	Resolution record type. For more information, see Resolution record type formats .
Value	String	Yes	Record value.
TTL	Long	No	Time to live. Default value: 600 seconds (10 minutes). For more information, see TTL definition description .
Priority	Long	No	MX record priority. Value range: [1,10]. This parameter is required when the record type is MX.
Line	String	No	Resolution line. Default value: default. For more information, see Resolution line enumeration .

Return parameters

For more information about public return parameters, see [Public Return Parameters](#).

Name	Type	Description
RequestId	String	Unique request identifier
RecordId	String	Resolution record ID

Error codes

For errors common to all interfaces, see [Error code table](#).

Error Code	Description	HTTP Status Code	Meaning
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account.
DomainRecordDuplicate	The domain record is duplicated.	400	The resolution record does not exist.
DomainRecordConflict	The domain record is conflict with other records.	400	Resolution record conflicts.
QuotaExceeded.Record	You cannot add this domain record because the maximum number of { "Type RR Line" } record (90) is exceeded.	400	The maximum of 90 resolution records per type is exceeded.
QuotaExceeded.ARecord	You cannot add this domain record because the maximum number of { "Type RR Line" } record is exceeded.	400	The maximum number of A(AAAA) record is exceeded.
RecordForbidden.BlackHole	The action cannot be completed because some records are in black holes.	400	Some resolution records are in black holes.
DomainForbidden	The action cannot be completed because the domain name is forbidden.	400	The resolution operation is forbidden on this domain name.
UnknownError	An unknown error occurs.	400	Unknown error.
URLForwardError.PanRecord	The wildcard record is not supported in URL forward record.	400	URL forwarding does not support wildcard resolution records.
URLForwardError.NoDefaultLine	The URL forward record only supports default line.	400	URL forwarding is not default line.
URLForwardError.ChineseChar	The Chinese character is not supported in URL forward record.	400	The target domain name for URL forwarding is a Chinese domain name.
URLForwardError.NoVerifyDomain	The domain name must be verified in	400	The URL forwarding domain name is not

	Hichina in URL forward record.		filed.
QuotaExceeded.URL Record	The maximum number of URL record is exceeded.	400	The URL forwarding quantity exceeds the limit.
QuotaExceeded.Sub Domain	The maximum number of subdomain levels is exceeded.	400	The subdomain name levels exceed the limit.
QuotaExceeded.TTL	TTL parameter is out of range.	400	The TTL time exceeds the limit.
UnsupportedLine	This line is not be supported in the current DNS version.	400	The current version does not support this resolution line.
RecordForbidden.D NSChange	The action cannot be completed because DNS is changing.	400	This operation is forbidden due to DNS migration.

Example

Request example

```
http://dns.aliyuncs.com/?Action=AddDomainRecord
&DomainName=example.com
&RR=www
&Type=A
&Value=202.106.0.20
&TTL=600
&Line=default
&<Public Request Parameters>
```

Return example

- XML format

```
<AddDomainRecordResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<RecordId>9999985</RecordId>
</AddDomainRecordResponse>
```

- JSON example

```
{
```

```
"RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",  
"RecordId": "9999985"  
}
```

Deleting Resolution Records

DeleteDomainRecord

Description

Resolution records are deleted based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value:DeleteDomain Record
RecordId	String	Yes	The resolution record ID

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
RecordId	String	The resolution record ID

Error Codes

Error Code	Description	HTTP Status Code	Language
DomainRecordNotBelongToUser	The domain record does not belong to	400	The resolution record does not

	this user.		exist under this account
DomainForbidden	The action could not be completed because the domain has been forbidden.	400	The resolution operation is forbidden on this domain name
DomainRecordLocked	The domain record has been locked.	400	The resolution record is locked
RecordForbidden.BlackHole	The action could not be completed because there are some records have been into black hole.	400	Protection of the domain name resolution has entered a black hole
RecordForbidden.DNSChange	The action could not be completed because DNS is changing.	400	This operation is forbidden due to DNS migration

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DeleteDomainRecord
&RecordId=9999985
&<Public Request Parameters>
```

Return Example

XML Format

```
<DeleteDomainRecordResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <RecordId>9999985</RecordId>
</DeleteDomainRecordResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "RecordId": "9999985"
}
```


UpdateDomainRecord

Description

Resolution records are modified based on input parameters.

Request parameters

Name	Type	Required?	Description
Action	String	Yes	UpdateDomainRecord
RecordId	String	Yes	Resolution record ID.
RR	String	Yes	Host record. For example, to resolve @.example.com, use @.
Type	String	Yes	Resolution record type. For more information, see Resolution record type formats.
Value	String	Yes	Record value.
TTL	Long	No	Time to live. Default value: 600 seconds (10 minutes). For more information, see TTL definition description.
Priority	Long	No	MX record priority. Value range: [1,10]. This parameter is required when the record type is MX.
Line	String	No	Resolution line. Default value: default. For more information, see Resolution line enumeration.

Return parameters

For more information about public return parameters, see Public Return Parameters.

Name	Type	Description
RequestId	String	The unique request identifier
RecordId	String	Resolution record ID

Error codes

For errors common to all interfaces, see Error code table.

Error Code	Description	HTTP Status Code	Meaning
DomainRecordNotBelongToUser	The domain record does not belong to this user.	400	The resolution record does not exist under this account.
DomainRecordDuplicate	The domain record is duplicated.	400	The resolution record does not exist.
DomainRecordConflict	The domain record is conflict with other records.	400	Resolution records conflict.
DomainForbidden	The action cannot be completed because the domain is forbidden.	400	The resolution operation is forbidden on this domain name.
DomainRecordLocked	The domain record is locked.	400	The resolution record is locked.
UnknownError	An unknown error occurs.	400	Unknown error.
QuotaExceeded.Record	You cannot add this domain record because the { "Type RR Line" } record is out of MAX count (90).	400	The maximum of 90 resolution records per type is exceeded.
QuotaExceeded.ARecord	You cannot add this domain record because the { "Type RR Line" } record is out of MAX count.	400	The maximum number of A(AAAA) record type is exceeded.
RecordForbidden.BlackHole	The action cannot be completed because some records are in black holes.	400	Some resolution records are in black holes.
URLForwardError.PanRecord	The wildcard-record is not supported in URL forward record.	400	URL forwarding does not support wildcard resolution

			records.
URLForwardError.NoDefaultLine	The URL forward record only supports default line.	400	URL forwarding is not default line.
URLForwardError.ChineseChar	The Chinese character is not supported in URL forward record.	400	The target domain name for URL forwarding is a Chinese domain name.
URLForwardError.NoVerifyDomain	The domain name must be verified in Hichina in URL forward record.	400	The URL forwarding domain name is not filed.
QuotaExceeded.URLRecord	The URL record is out of MAX count.	400	The URL forwarding quantity exceeds the limit.
QuotaExceeded.SubDomain	The subdomain level is out of MAX count.	400	The subdomain name level exceeds the limit.
QuotaExceeded.TTL	TTL parameter is out of range.	400	The TTL time exceeds the limit.
UnsupportedLine	This line is not be supported in the current DNS version.	400	The current version does not support this resolution line.
RecordForbidden.DNSChange	The action cannot be completed because DNS is changing.	400	This operation is forbidden due to DNS migration.

Example

Request example

```
http://dns.aliyuncs.com/?Action=UpdateDomainRecord
&RecordId=9999985
&RR=www
&Type=A
&Value=202.106.0.20
&TTL=600
&Line=default
&<Public Request Parameters>
```

Return example

- XML Format

```
<UpdateDomainRecordResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<RecordId>9999985</RecordId>
</UpdateDomainRecordResponse>
```

- JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "RecordId": "9999985"
}
```

Setting Resolution Record Status

SetDomainRecordStatus

Description

Resolution record status is retrieved and set based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: SetDomainRecordStatus
RecordId	String	Yes	The resolution record ID
Status	String	Yes	Enable: enable resolution; Disable: disable resolution

Return Parameters

Public return parameters. For details, see Public Return Parameters

Name	Type	Description
RequestId	String	The unique request identifier
RecordId	String	The resolution record ID
Status	String	The current resolution record status

Error Codes

For errors common to all interfaces, please refer to the Error Code Table .

Error Code	Description	HTTP Status Code	Meaning
DomainRecordNotBelongToUser	The domain record does not belong to this user.	400	The resolution record does not exist under this account
DomainForbidden	The action could not be completed because the domain has been forbidden.	400	The resolution operation is forbidden on this domain name
DomainRecordLocked	The domain record has been locked.	400	The resolution record is locked
InvalidStatus	The domain record status is invalid.	400	Invalid status
RecordForbidden.BlackHole	The action could not be completed because there are some records have been into black hole.	400	DNS Protection is in the black hole mode
RecordForbidden.DNSChange	The action could not be completed because DNS is changing.	400	This operation is forbidden due to DNS migration

Example

Request Example

```
http://dns.aliyuncs.com/?Action=SetDomainRecordStatus
&RecordId=9999985
&Status=Disable
&<Public Request Parameters>
```

Return Example

XML Format

```
<SetDomainRecordStatusResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <RecordId>9999985</RecordId>
  <Status>Disable</Status>
</SetEnableDomainRecordStatusResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "RecordId": "9999985",
  "Status": "Disable"
}
```

Retrieving Resolution Record Lists

DescribeDomainRecords

Description

Resolution record lists are retrieved based on input parameters.

When querying, the user can specify the domain name (DomainName), page number (PageNumber), and number of records per page (PageSize) to retrieve a domain name resolution record list.

When querying, the user can specify a host record keyword (RRKeyWord), resolution type keyword (TypeKeyWord), or record value keyword (ValueKeyWord) to query a list of resolution records that contain the specified keyword.

By default, the resolution list is sorted by time added, from most to least recent.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface

			name, required parameter, value:DescribeDomainRecords
DomainName	String	Yes	Domain name
PageNumber	Long	No	Number of the current page, starting from 1 by default
PageSize	Long	No	When querying by page, this parameter sets the number of lines per page. Maximum value: 500, default value: 20
RRKeyWord	String	No	The host record keyword for "%RRKeyWord%" mode searches, case insensitive
TypeKeyWord	String	No	The resolution type keyword for full match searches, case insensitive
ValueKeyWord	String	No	The record value keyword for "%ValueKeyWord%" mode searches, case insensitive

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
TotalCount	Long	Total number of resolution records
PageNumber	Long	Number of the current page
PageSize	Long	Number of resolution records retrieved by this query
DomainRecords	RecordType	The resolution record list

Error Codes

For errors common to all interfaces, please refer to the Error Code Table.

Error Code	Description	HTTP Status Code	Meaning
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDomainRecords
&DomainName=example.com
&PageNumber=1
&PageSize=20
&RRKeyword=www
&TypeKeyword=MX
&ValueKeyword=com
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDomainRecordsResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <TotalCount>2</TotalCount>
  <PageNumber>1</PageNumber>
  <PageSize>2</PageSize>
  <DomainRecords>
    <Record>
      <DomainName>example.com</DomainName>
      <RecordId>9999985</RecordId>
      <RR>www</RR>
      <Type>MX</Type>
      <Value>mail1.hichina.com</Value>
      <Line>default</Line>
      <Priority>5</Priority>
      <TTL>600</TTL>
      <Status>Enable</Status>
      <Locked>>false</Locked>
    </Record>
    <Record>
      <DomainName>example.com</DomainName>
      <RecordId>9999986</RecordId>
```



```
<RR>www</RR>
<Type>MX</Type>
<Value>mail2.hichina.com</Value>
<Line>default</Line>
<Priority>10</Priority>
<TTL>600</TTL>
<Status>Enable</Status>
<Locked>>false</Locked>
</Record>
</DomainRecords>
</DescribeDomainRecordsResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "TotalCount": 2,
  "PageNumber": 1,
  "PageSize": 2,
  "DomainRecords": {
    "Record": [
      {
        "DomainName": "example.com",
        "RecordId": "9999985",
        "RR": "www",
        "Type": "MX",
        "Value": "mail1.hichina.com",
        "Line": "default",
        "Priority": 5,
        "TTL": 600,
        "Status": "Enable",
        "Locked": false
      },
      {
        "DomainName": "example.com",
        "RecordId": "9999986",
        "RR": "www",
        "Type": "MX",
        "Value": "mail2.hichina.com",
        "Line": "default",
        "Priority": 10,
        "TTL": 600,
        "Status": "Enable",
        "Locked": false
      }
    ]
  }
}
```

Retrieving Resolution Record Information

DescribeDomainRecordInfo

Description

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: DescribeDomainRecordInfo
RecordId	String	Yes	The resolution record ID

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
RecordId	String	The resolution record ID
RR	String	Resolution type
Type	String	Record type
Value	String	Record value
TTL	Long	Time to live
Priority	Long	MX record priority
Line	String	Resolution line
Status	String	Resolution record status, Enable/Disable
Locked	Boolean	Resolution record lock status, true/false

Error Codes

For errors common to all interfaces, please refer to the [Error Code Table](#).

Error Code	Description	HTTP Status Code	Meaning
------------	-------------	------------------	---------

IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account
---------------------	---	-----	---

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDomainRecordInfo
&RecordId=9999985
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDomainRecordInfoResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <DomainName>example.com</DomainName>
  <RecordId>9999985</RecordId>
  <RR>@</RR>
  <Type>MX</Type>
  <Value>mail.hichina.com</Value>
  <Line>default</Line>
  <Priority>5</Priority>
  <TTL>600</TTL>
  <Status>Enable</Status>
  <Locked>>false</Locked>
</DescribeDomainRecordInfoResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "DomainName": "example.com",
  "RecordId": "9999985",
  "RR": "@",
  "Type": "MX",
  "Value": "mail.hichina.com",
  "Line": "default",
  "Priority": 5,
  "TTL": 600,
  "Status": "Enable",
  "Locked": false
}
```

Retrieving Subdomain Name Resolution Record Lists

DescribeSubDomainRecords

Description

Subdomain name resolution record lists are retrieved based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value:DescribeSubDomainRecords
SubDomain	String	Yes	The subdomain name, e.g. www.abc.com. If you enter abc.com, this is viewed as @.abc.com
PageNumber	Long	No	Number of the current page, starting from 1 by default
PageSize	Long	No	When querying by page, this parameter sets the number of lines per page. Maximum value: 500, default value: 20
Type	String	No	If this parameter is not specified, the system will return all resolution record types corresponding to the subdomain

			name. Resolution record types include (case insensitive): A, MX, CNAME, TXT, REDIRECT_URL, FORWARD_URL, NS, AAAA, and SRV
--	--	--	---

Return Parameters

Public return parameters. For details, see Public Return Parameters

Name	Type	Description
RequestId	String	The unique request identifier
TotalCount	Long	Total number of resolution records
PageNumber	Long	Number of the current page
PageSize	Long	Number of resolution records retrieved by this query
DomainRecords	RecordType	The resolution record list

Error Codes

For errors common to all interfaces, please refer to the Error Code Table.

Error Code	Description	HTTP Status Code	Meaning
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeSubDomainRecords
&SubDomain=www.abc.com
&PageNumber=1
&PageSize=20
&Type=CNAME
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeSubDomainRecordsResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <TotalCount>2</TotalCount>
  <PageNumber>1</PageNumber>
  <PageSize>2</PageSize>
  <DomainRecords>
    <Record>
      <DomainName>example.com</DomainName>
      <RecordId>9999985</RecordId>
      <RR>www</RR>
      <Type>CNAME</Type>
      <Value>mail1.hichina.com</Value>
      <Line>default</Line>
      <TTL>600</TTL>
      <Status>Enable</Status>
      <Locked>>false</Locked>
      <Weight>10</Weight>
    </Record>
    <Record>
      <DomainName>example.com</DomainName>
      <RecordId>9999986</RecordId>
      <RR>www</RR>
      <Type>CNAME</Type>
      <Value>mail2.hichina.com</Value>
      <Line>default</Line>
      <TTL>600</TTL>
      <Status>Enable</Status>
      <Locked>>false</Locked>
      <Weight>10</Weight>
    </Record>
  </DomainRecords>
</DescribeSubDomainRecordsResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "TotalCount": 2,
  "PageNumber": 1,
  "PageSize": 2,
  "DomainRecords": {
    "Record": [
      {
        "DomainName": "example.com",
        "RecordId": "9999985",
        "RR": "www",
        "Type": "CNAME",
        "Value": "mail1.hichina.com",
```

```

    "Line": "default",
    "TTL": 600,
    "Status": "Enable",
    "Locked": false,
    "Weight": 10
  },
  {
    "DomainName": "example.com",
    "RecordId": "9999986",
    "RR": "www",
    "Type": "CNAME",
    "Value": "mail2.hichina.com",
    "Line": "default",
    "TTL": 600,
    "Status": "Enable",
    "Locked": false,
    "Weight": 10
  }
]
}
}

```

Deleting Resolution Records Corresponding to Host Records

DeleteSubDomainRecords

Description

Resolution records corresponding to host records are deleted based on input parameters. Locked resolutions in the resolution records you want to delete will not be deleted.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value:DeleteSubDomainRecords
DomainName	String	Yes	Domain name

RR	String	Yes	A host record. To resolve @.example.com, you must add "@" to the host record. It cannot be blank
Type	String	No	If this parameter is not specified, the system will return all resolution record types corresponding to the subdomain name. Resolution record types include (case insensitive): A, MX, CNAME, TXT, REDIRECT_URL, FORWARD_URL, NS, AAAA, and SRV

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#)

Name	Type	Description
RequestId	String	The unique request identifier
RR	String	The host record
TotalCount	String	Total number of resolution records to be deleted

Error Codes

For errors common to all interfaces, please refer to the [Error Code Table](#).

Error Code	Description	HTTP Status Code	Meaning
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account
DomainForbidden	The action could not be completed because the domain has been forbidden.	400	The resolution operation is forbidden on this domain name
RecordForbidden.BlackHole	The action could not be completed because there are some records have been into black hole.	400	Protection of the domain name resolution has entered a black hole

RecordForbidden.DNSChange	The action could not be completed because DNS is changing.	400	This operation is forbidden due to DNS migration
---------------------------	--	-----	--

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DeleteSubDomainRecords
&DomainName=abc.com
&RR=www
&Type=CNAME
&<Public Request Parameters>
```

Return Example

XML Format

```
<DeleteSubDomainRecordsResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <RR>www</RR>
  <TotalCount>1</TotalCount>
</DeleteSubDomainRecordsResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "RR": "www",
  "TotalCount": "1"
}
```

Retrieving DNS Operation Logs

DescribeRecordLogs

Description

Retrieves DNS operation logs based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operation interface name, required parameter. Value: DescribeRecordLogs
DomainName	String	Yes	Domain name
PageNumber	Long	No	Number of the current page, starting from 1 by default
PageSize	Long	No	This sets the number of lines per page for query by pages, up to 100 and 20 by default
KeyWord	String	No	The keyword for searches using the "%KeyWord%" mode, case insensitive

Return Parameters

Public return parameters. For details, see Public Return Parameters

Name	Type	Description
RequestId	String	The unique request identifier
TotalCount	Long	The total number of listed logs
PageNumber	Long	Number of the current page
PageSize	Long	The number of logs retrieved by this query
RecordLogs	RecordLogType	The list of domain name operation logs

Error Codes

For errors common to all interfaces, please refer to the Error Code Table .

Error Code	Description	HTTP Status Code	Meaning
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeRecordLogs
&DomainName=example.com
&PageNumber=1
&PageSize=20
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeRecordLogsResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <TotalCount>2</TotalCount>
  <PageNumber>1</PageNumber>
  <PageSize>2</PageSize>
  <RecordLogs>
    <RecordLog>
      <ActionTime>2015-12-12 09:23:44</ActionTime>
      <Action>Suspend Resolution Record</Action>
      <Message>MX record mail default xxx.top. ( TTL: 600)</Message>
      <ClientIp>182.92.253.20</ClientIp>
    </RecordLog>
    <RecordLog>
      <ActionTime>2015-12-12 09:23:40</ActionTime>
      <Action>New Resolution Record</Action>
      <Message>MX record mail default xxx.top. ( TTL: 600)</Message>
      <ClientIp>182.92.253.20</ClientIp>
    </RecordLog>
  </RecordLogs>
</DescribeRecordLogsResponse>
```

JSON Example

```

{
  "DescribeRecordLogsResponse": {
    "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
    "TotalCount": "2",
    "PageNumber": "1",
    "PageSize": "2",
    "RecordLogs": {
      "RecordLog": [
        {
          "ActionTime": "2015-12-12 09:23:44",
          "Action": "Suspend Resolution Record",
          "Message": "MX record mail default xxxx.top. ( TTL: 600)",
          "ClientIp": "182.92.253.20"
        },
        {
          "ActionTime": "2015-12-12 09:23:40",
          "Action": "New Resolution Record",
          "Message": "MX record mail default xxxx.top. ( TTL: 600)",
          "ClientIp": "182.92.253.20"
        }
      ]
    }
  }
}

```

Resolution Server Load Balancer interface

Enable/Disable Resolution SLB

SetDNSSLBStatus

Description

Resolution SLB is enabled/disabled based on input parameters.

Request Parameters

Name	Type	Required?	Description
------	------	-----------	-------------

Action	String	Yes	Operator interface name, required parameter, value:SetDNSSLBStatus
SubDomain	String	Yes	The required SLB subdomain name, wherein aliyun.com is incorrect. Please use @.aliyun.com
Open	Boolean	No	true= enable, false= disable, default value: true

Return Parameters

Public return parameters. For details, see [Public Return Parameters](#).

Name	Type	Description
RequestId	String	The unique request identifier
RecordCount	Long	Number of compliant A records
Open	Boolean	The latest resolution SLB status

Error Codes

For errors common to all interfaces, please refer to the [Error Code Table](#).

Error Code	Description	HTTP Status Code	Language
DomainForbidden	The action could not be completed because the domain has been forbidden.	400	The resolution operation is forbidden on this domain name
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account
RecordForbidden.BlackHole	The action could not be completed because there are some records have been into black hole	400	Domain name resolution protects against entry into black holes
RecordForbidden.DNSChange	The action could not be completed because DNS is changing.	400	This operation is forbidden due to DNS migration

Example

Request Example

```
http://dns.aliyuncs.com/?Action=SetDNSSLBStatus
&SubDomain=www.abc.com
&Open=true
&<Public Request Parameters>
```

Return Example

XML Format

```
<SetDNSSLBStatusRecordsResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <RecordCount>8</RecordCount>
  <Open>true</Open>
</SetDNSSLBStatusRecordsResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "RecordCount": 8,
  "Open": true
}
```

Retrieve Resolution SLB Subdomain Name Lists

DescribeDNSSBLSubDomains

Description

Resolution SLB subdomain name lists are retrieved based on input parameters.

Request Parameters

Name	Type	Required?	Description
Action	String	Yes	Operator interface name, required parameter, value:DescribeDNSSubDomains
DomainName	String	Yes	Domain name
PageNumber	Long	No	Number of the current page, starting from 1 by default
PageSize	Long	No	This sets the number of lines per page for query by pages, up to 100 and 20 by default

Return Parameters

Public return parameters. For details, see Public Return Parameters.

Name	Type	Description
RequestId	String	The unique request identifier
TotalCount	Long	Number of domain name groups
PageNumber	Long	Number of the current page
PageSize	Long	Number of subdomain names retrieved by this query
SlbSubDomains	SLBSubDomainType	Subdomain name SLB structure list

Error Codes

For errors common to all interfaces, please refer to the Error Code Table.

Error Code	Description	HTTP Status Code	Language
IncorrectDomainUser	The domain name does not belong to this user.	400	The domain name does not exist under this account

Example

Request Example

```
http://dns.aliyuncs.com/?Action=DescribeDNSSLBSubDomains
&DomainName=example.com
&PageNumber=1
&PageSize=20
&<Public Request Parameters>
```

Return Example

XML Format

```
<DescribeDNSSLBSubDomainsResponse>
  <RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
  <TotalCount>1</TotalCount>
  <PageNumber>1</PageNumber>
  <PageSize>1</PageSize>
  <SlbSubDomains>
    <SlbSubDomain>
      <SubDomain>www.example.com</SubDomain>
      <RecordCount>3</RecordCount>
      <Open>true</Open>
    </SlbSubDomain>
  </SlbSubDomains>
</DescribeDNSSLBSubDomainsResponse>
```

JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "TotalCount": 1,
  "PageNumber": 1,
  "PageSize": 1,
  "SlbSubDomains": {
    "SlbSubDomain": [
      {
        "SubDomain": "www.example.com",
        "RecordCount": 3,
        "Open": true
      }
    ]
  }
}
```


UpdateDNSSLBWeight

Description

Resolution SLB weights are modified based on input parameters.

Request parameters

Name	Type	Required?	Description
Action	String	Yes	UpdateDNSSLBWeight
RecordId	String	Yes	The resolution record ID
Weight	Integer	Yes	The expected weight. The range is [1-100]

Return parameters

For more information about public return parameters, see [Public Return Parameters](#).

Name	Type	Description
RequestId	String	The unique request identifier
RecordId	String	The resolution record ID
Weight	Integer	The weight after modification

Error codes

For errors common to all interfaces, see [Error code table](#).

Error Code	Description	HTTP Status Code	Language
DomainRecordNotBelongToUser	The domain record does not belong to this user.	400	The resolution record does not exist under this account.
DomainForbidden	The action could not be completed because the domain	400	The resolution operation is forbidden on this

	has been forbidden.		domain name.
DomainRecordLocked	The domain record is locked.	400	The resolution record is locked.
DomainRecordDisable	The domain record is disabled.	400	The resolution record is disabled.
PanDomainRecord	The domain record is a wildcard domain record.	400	Wildcard resolution does not support weight modification
RecordForbidden.BlackHole	The action could not be completed because some records are in black holes.	400	Domain name resolution protects against entry in black holes.
RecordForbidden.DNSChange	The action could not be completed because DNS is changing.	400	This operation is forbidden due to DNS migration.
DisableDNSSLB	The subdomain's DNS SLB status is closed.	400	SLB is disabled for the sub-domain name.
InvalidWeight	The weight value is invalid.	400	Invalid weight.

Example

Request example

```
http://dns.aliyuncs.com/?Action=UpdateDNSSLBWeight
&RecordId=9999985
&Weight=2
&<Public Request Parameters>
```

Return example

- XML Format

```
<UpdateDNSSLBWeightResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<RecordId>9999985</RecordId>
<Weight>2</Weight>
</UpdateDNSSLBWeightResponse>
```

- JSON Example

```
{
  "RequestId": "536E9CAD-DB30-4647-AC87-AA5CC38C5382",
  "RecordId": "9999985",
  "Weight": 2
}
```

Data type

DnsServerType

DnsServerType

Description

Lists the types of DNS list for domain names in the resolution system.

Node Name

DnsServer

Subnode

Name	Type	Description
DnsServer	String	DNS server name, e.g. dns1.hichina.com

DomainType

DomainType

Description

The types of domain name information.

Node Name

Domain

Subnode

Name	Type	Description
DomainId	String	Domain name ID
DomainName	String	Domain name
AliDomain	Boolean	Whether or not it is an Alibaba Cloud HiChina domain name
GroupId	String	Domain name group ID
InstanceId	String	The Alibaba Cloud DNS product ID
VersionCode	String	The Alibaba Cloud DNS version code
PunyCode	String	The punycode for Chinese domain names, blank for English domain names
DnsServers	DnsServerType	The DNS list for a domain name in the resolution system

DomainLogType

DomainLogType

Description

Types of domain name operation log information.

Node Name

DomainLog

Subnode

Name	Type	Description
ActionTime	DateTime	The operation time
DomainName	String	Domain name
Action	String	The operation action
Message	String	Operation message
ClientIp	String	The operator's IP

DnsProductType

DnsProductType

Description

The types of Alibaba Cloud DNS product information.

Node Name

DnsProduct

Subnode

Name	Type	Description
InstanceId	String	The Alibaba Cloud DNS product ID
VersionCode	String	The Alibaba Cloud DNS product version ID
VersionName	String	The Alibaba Cloud DNS product version name
StartTime	DateTime	The time of purchase
EndTime	DateTime	The expiration time
Domain	String	The bound domain name

DomainGroupType

DomainGroupType

Description

The structure of domain name grouping information

Node Name

DomainGroup

Subnode

Name	Type	Description
GroupId	String	Domain name group ID
GroupName	String	The name of the domain name group

DomainStatusType

DomainStatusType

Description

Lists domain name status types.

Node Name

Status

Subnode

Name	Type	Description
Status	String	The status name

RecordType

RecordType

Description

Lists types of domain name resolution record information.

Node Name

Record

Subnode

Name	Type	Description
DomainName	String	Domain name
RecordId	String	The resolution record ID
RR	String	The host record
Type	String	Record type
Value	String	Record value
TTL	Long	Time to live
Priority	Long	MX record priority
Line	String	Resolution line
Status	String	Resolution record status, Enable/Disable
Locked	Boolean	Resolution record lock status, true/false
Weight	Long	SLB weight

RecordLineType

RecordLineType

Description

The structure of resolution line information.

Node Name

RecordLine

Subnode

Name	Type	Description
LineCode	String	The line code
FatherCode	String	The father line code, blank if there is no father line
LineName	String	The line name

RecordLogType

RecordLogType

Description

Types of resolution operation log information.

Node Name

RecordLog

Subnode

Name	Type	Description
ActionTime	DateTime	The operation time
Action	String	The operation action
Message	String	Operation message
ClientIp	String	The operator's IP

SLBSubDomainType

SLBSubDomainType

Description

Types of subdomain name SLB structure.

Node Name

SLBSubDomain

Subnode

Name	Type	Description
SubDomain	String	Subdomain name
RecordCount	Long	Number of resolution records
Open	Boolean	Resolution SLB status

BatchFailResultType

BatchFailResultType

Description

Lists the types of batch operation error messages.

Node Name

FailResult

Subnode

Name	Type	Description
BatchIndex	String	The unique ID for each batch operation, i.e. the index value in the JSON content of each
ErrorCode	String	The operation error code

Enumeration type

Resolution Record Type Formats

Resolution Record Type Formats

Type Name	Type Value	Type Definition	Type Description
A Record	A	Reference standard. The RR value can be blank, i.e. @ resolution. Underlines are not allowed.	IPv4 address format
NS Record	NS	Reference standard. The RR value cannot be blank. Underlines are allowed. Wizard DNS resolution is not supported.	NameType format
MX Record	MX	Reference standard. The RR value can be blank, i.e. @ resolution. Underlines are not allowed.	NameType format, cannot be an IP address. Priority: 1-10, with 1 being the highest
TXT Record	TXT	Reference standard. In addition to letters, numbers, and "-", "_", is a valid value. The	A string with a length less than 253. Legal characters: Upper and

		RR value can be blank, i.e. @ resolution. Underlines are allowed. Wizard DNS resolution is not supported	lowercase letters, numbers, spaces, and the following characters: - _ ~ = ; / . @ + ^ ! *
CNAME Record	CNAME	Reference standard. In addition to letters, numbers, and "-", "_" is a valid value. The RR value cannot be blank (i.e. @). Underlines are allowed	NameType format, cannot be an IP
SRV Record	SRV	This is a name and may contain "-" and ".". Underlines are allowed. It can be blank (i.e. @). Wizard DNS resolution is not supported	Priority: a number from 0 to 65535. Weight: a number from 0 to 65535. Port: the port number that provides service, ranging from 0 to 65535. Target: the target address to which service is provided. In NameType format. The address must exist. Refer to: http://en.wikipedia.org/wiki/SRV_record http://www.rfc-editor.org/rfc/rfc2782.txt
AAAA Record	AAAA	Reference standard. The RR value can be blank, i.e. @ resolution. Underlines are not allowed.	IPv6 address format
Explicit URL Forwarding	REDIRECT_URL	Reference standard, the RR value can be blank, i.e. @ resolution	NameType or URL address (case sensitive), max length: 500. Here, a domain name, e.g. a.com, is required and is not case sensitive. Protocol: optional, e.g. http, https. Default http port: optional, e.g. 81 (80 by default). Path: optional, case sensitive, e.g.

			/path/to/, / by default. File name: optional, case sensitive, e.g. file.php, None by default. Parameter: optional, case sensitive, e.g. ?user=my*, None by default.
Implicit URL Forwarding	FORWARD_URL	Reference standard, the RR value can be blank, i.e. @ resolution	NameType or URL address (case sensitive), max length: 500. Here, a domain name, e.g. a.com, is required and is not case sensitive. Protocol: optional, e.g. http, https. Default http port: optional, e.g. 81, 80 by default. Path: optional, case sensitive, e.g. /path/to/, / by default. File name: optional, case sensitive, e.g. file.php, None by default. Parameter: optional, case sensitive, e.g. ?user=my*, None by default.

TTL Definition Description

TTL Definition Description

TTL, or Time to Life, is the effective resolution time.

Alibaba Cloud DNS Version	Value Range	Description
Alibaba Cloud DNS free version	[600 - 86400]	In seconds, positive integer
Alibaba Cloud DNS basic	[120 - 86400]	In seconds, paid version

version		
Alibaba Cloud DNS standard version	[60 - 86400]	In seconds, paid version
Alibaba Cloud DNS flagship version	[10 - 86400]	In seconds, paid version
Alibaba Cloud DNS exclusive version	[1 - 86400]	In seconds, paid version

Resolution Line Enumeration

Resolution Line Enumeration

Line Value	Line Description	Remarks	Supported Alibaba Cloud DNS Versions
default	Default	Default line	All versions
telecom	Telecom	Carrier line	All versions
unicom	China Unicom	Carrier line	All versions
mobile	China Mobile	Carrier line	All versions
oversea	Overseas	Overseas region line	All versions
edu	Education network	Education network line	All versions
google	Google	Search engine line	All versions
baidu	Baidu	Search engine line	All versions
biying	Bing	Search engine line	All versions
youdao	Youdao	Search engine line	Alibaba Cloud DNS flagship version, Alibaba Cloud DNS exclusive version
yahoo	Yahoo	Search engine line	Alibaba Cloud DNS flagship version, Alibaba Cloud DNS exclusive version

Appendix

Error code table

Client errors

Error Code	Description	HTTP Status Code	Meaning
MissingParameter	The input parameter "<parameter name>" that is mandatory for processing this request is not supplied	400	A parameter is missing.
InvalidParameter	The specified value of parameter "<parameter name>" is not valid.	400	Invalid parameter value.
UnsupportedOperation	The specified action is not supported.	400	Invalid interface.
NoSuchVersion	The specified version does not exist.	400	Invalid version.
Throttling	Request was denied due to request throttling.	400	The operation was rejected by the throttling controller.
InvalidAccessKeyId.NotFound	The Access Key ID provided does not exist in our records.	400	Invalid AccessKey.
Forbidden	User not authorized to operate on the specified resource.	403	The operation is not permitted.
Forbidden.RiskControl	This operation is forbidden by Aliyun Risk Control system.	403	The operation is forbidden by the risk control system.
SignatureDoesNotMatch	The signature we calculated does not match the one you provided. Please refer to the API	403	Invalid signature.

	reference about authentication for details.		
Forbidden.UserVerification	Your user account is not verified by Aliyun.	403	No real-name verification.

Server errors

Error Code	Description	HTTP Status Code	Meaning
InternalServerError	The request processing has failed due to some unknown error, exception, or failure.	500	The server cannot process the request.
ServiceUnavailable	The request has failed due to a temporary failure of the server.	503	The server cannot process the request for the moment.

Domain Name Validity

Domain Name Validity

- Domain names are case-insensitive and do not distinguish between simplified and traditional Chinese characters;
- A valid domain name must contain 1-63 characters (excluding the suffix).
- Suffixes not supported by DNS API include: sh, tel, and some country domain names.
- A valid English domain name may include a-z, 0-9, and "-" (not at the beginning or end and not in both the third and fourth places).
- In addition to valid English characters, a Chinese domain name must contain at least one Chinese character (simplified or traditional). The length of a Chinese domain name is measured in punycode after conversion.
- Request parameters starting with "xn—" (punycode) are not supported. Please use a Chinese domain name as the request parameter.

Simplified and Traditional Chinese Domain Name Equivalence Problem

Simplified and Traditional Chinese Domain Name Equivalence Problem

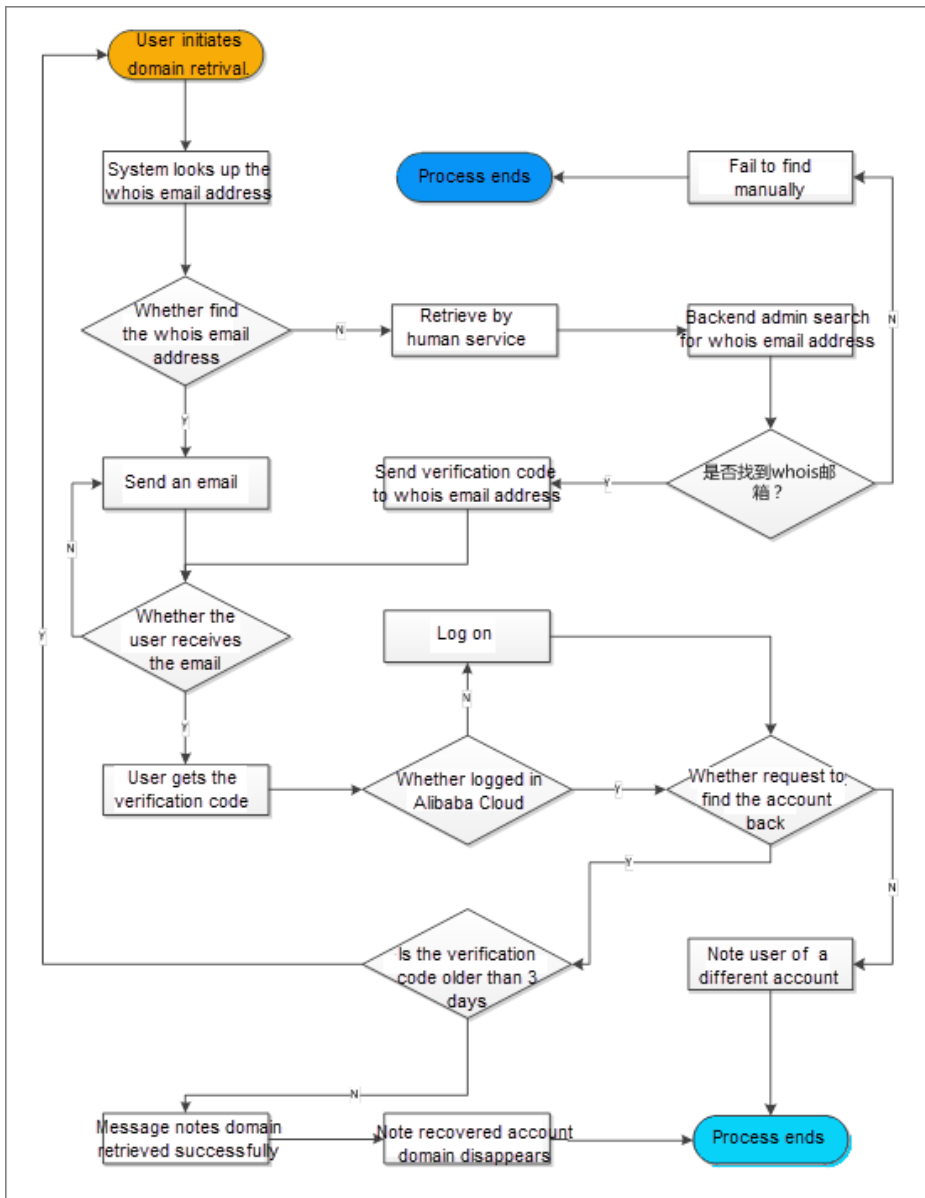
A domain name in either simplified or traditional Chinese is considered as the same domain name. A domain name containing all simplified or traditional Chinese characters can be successfully added. However, if a domain name contains a mix of simplified and traditional characters, the system will display an error message that "The Chinese domain name does not match information returned by the registration office".

For example, both domain names "测试.cn" and "測試.cn" can be added successfully. However, if the user adds a domain name that contains both simplified and traditional characters, such as "測試.cn" or "测试.cn", the domain name will be viewed as incorrect and the system will return an error accordingly.

Domain Name Retrieval Process

Domain Name Retrieval Process

A single domain name can only exist in one account. When an account attempts to add a domain name that already exists in another account, the user must use the "Domain Name Retrieval" function to retrieve the domain name. Below is the flow chart for domain name retrieval.



Domain Name Level

Domain Name Level

Cloud resolution defines .com, .net, .cn, .gov.cn, etc. as top-level domains.

It defines abc.com, example.cn, beijing.gov.cn, etc. as level 1 or primary domain names.

It defines www.abc.com, news.example.cn, www.beijing.gov.cn, etc. as level 2 domain names. For

example, the subdomain names of level 1 domain names are level 2 domain names.

Therefore, subdomain name levels are defined as follows:

Level 3 subdomain names: **a**.**www**.abc.com or **a**.**www**.beijing.com.cn.

Level 4 subdomain names: **b.a**.**www**.abc.com or **b.a**.**www**.beijing.com.cn.

Level 5 subdomain names: **c.b.a**.**www**.abc.com or **c.b.a**.**www**.beijing.com.cn.

.....

The free cloud resolution version supports up to 5 subdomain name levels.

Resolution Record Type Constraints

Resolution Record Type Constraints

- The DNS API supports the following resolution types: Supported resolution record types: A, CNAME, NS, MX, TXT, SRV, AAAA, and URL forwarding (implicit and explicit).
- All RR values may only contain letters, numbers, "-", ".", "*", "@", and "Chinese characters". Some records may be blank, i.e. the "@" symbol. The letters are not case sensitive. "-" cannot be placed at the beginning or end. "." is used as a separator and two periods cannot be placed successively. "." separates strings of up to 63 characters. The total length of the RR value (including ".") cannot exceed 253 characters.
- The IP address is a legal IP address. Private IP addresses are also allowed. IPv4 is expressed in dotted decimal format, where "." is used to separate 4 sets of numbers, with each set no greater than 255 and not beginning with 0. For example, 1.1.1.1 is a legal IPv4 address, but 1.2.03.300 is not.
- IPv6 uses 16 digits as a group and ":" to separate the value into 8 groups of 4 hexadecimal digits.
For example, xxxx: xxxx: xxxx: xxxx: xxxx: xxxx: xxxx: xxxx. Here, x has the possible values including 0-9, a, b, c, d, e, and f (case-insensitive).
In addition, IPv6 addresses can be written in a simplified format where groups of consecutive 0s are omitted and replaced with "::", regardless of how many groups are omitted in this way. For example, 2001:DB8:2de:0:0:0:e13 can be simplified as 2001:DB8:2de::e13.
- URL forwarding does not support pan resolution, only the default line.
- The target domain name for URL forwarding cannot be a Chinese domain name.
- As required by the Ministry of Industry's policy concerning domain jump services, the URL forwarding function currently only supports websites with an ICP license number and that use HiChina as their access service provider. Other websites are not supported at the

moment.

Judgment Rules for Conflicting Resolution Records

Rules for Determining Conflicting Resolution Records

	NS	CNAME	A	URL	MX	TXT	AAAA	SRV
NS	Repeatable	X	X	X	X	X	X	X
CNAME	X	X	X	X	X	X	X	X
A	X	X	Repeatable	X	Unrestricted	Unrestricted	Unrestricted	Unrestricted
URL	X	X	X	X	Unrestricted	Unrestricted	X	Unrestricted
MX	X	X	Unrestricted	Unrestricted	Repeatable	Unrestricted	Unrestricted	Unrestricted
TXT	X	X	Unrestricted	Unrestricted	Unrestricted	Repeatable	Unrestricted	Unrestricted
AAAA	X	X	Unrestricted	X	Unrestricted	Unrestricted	Repeatable	Unrestricted
SRV	X	X	Unrestricted	Unrestricted	Unrestricted	Unrestricted	Unrestricted	Repeatable

Several different types of resolutions with the same RR value and line may not coexist (X indicates not permitted):

- X: Resolution records of different types with the same RR value and line may not coexist. For example: A user who has set an A record for www.example.com may not set a CNAME record for www.example.com.
- Unrestricted: Resolution records of different types with the same RR value and line may coexist. For example: A user who has set an A record for www.example.com is also allowed to set an MX record for www.example.com.
- Repeatable: This indicates that multiple identical RR value records can be set under the same

type and line. For example: A user who has set an A record for www.example.com is also allowed to set another A record for www.example.com.

Notifications

Notifications

The following operations require text and email notifications:

- Resolution record modification (email)
- Resolution record deletion (email)
- Domain name retrieval success/failure notification (email/text)
- Notification to the original account after successful domain name retrieval (email/text)
-

Getting started example

Retrieve a domain name list

When retrieving a domain name list (DescribeDomains), you can use the following optional parameters: page number (PageNumber), number of domain names per page (PageSize), and keywords (KeyWord).

Request example

```
http://dns.aliyuncs.com/?Action=DescribeDomains
&PageNumber=1
&PageSize=20
&KeyWord=com
&<Public Request Parameters>
```

Return example

```
<DescribeDomainsResponse>
```

```
<RequestId>6393C3A8-B611-42F2-AFA6-F080FC45D5D0</RequestId>
<TotalCount>2</TotalCount>
<PageNumber>1</PageNumber>
<PageSize>2</PageSize>
<Domains>
<Domain>
<DomainId>00efd71a-770e-4255-b54e-6fe5659baffe</DomainId>
<DomainName>abc.com</DomainName>
<PunyCode>abc.com</PunyCode>
<DnsServers>
<DnsServer>dns1.hichina.com</DnsServer>
<DnsServer>dns2.hichina.com</DnsServer>
</DnsServers>
</Domain>
<Domain>
<DomainId>00efd71a-770e-4255-b54e-6fe5659baffe</DomainId>
<DomainName>Instance.com</DomainName>
<PunyCode>xn--fsq270a.com</PunyCode>
<DnsServers>
<DnsServer>dns1.hichina.com</DnsServer>
<DnsServer>dns2.hichina.com</DnsServer>
</DnsServers>
</Domain>
</Domains>
</DescribeDomainsResponse>
```

Add domains

To add domains (AddDomain), you must specify the expected domain names (DomainName).

Request example

```
http://dns.aliyuncs.com/?Action=AddDomain
&DomainName=example.com
&<Public Request Parameters>
```

Return example

```
<AddDomainResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<DomainId>00efd71a-770e-4255-b54e-6fe5659baffe</DomainId>
<DomainName>example.com</DomainName>
<PunyCode>example.com</PunyCode>
<DnsServers>
<DnsServer>dns1.hichina.com</DnsServer>
<DnsServer>dns2.hichina.com</DnsServer>
</DnsServers>
</AddDomainResponse>
```

Retrieve the resolution records list

To retrieve the resolution records list (DescribeDomainRecords), you must specify the expected domain name (DomainName). You can also use the following optional parameters: page number (PageNumber), domain names per page (PageSize), host record keywords (RRKeyWord), resolution type keywords (TypeKeyWord), and record value keywords (ValueKeyWord).

Request example

```
http://dns.aliyuncs.com/?Action=DescribeDomainRecords
&DomainName=example.com
&PageNumber=1
&PageSize=20
&RRKeyWord=www
&TypeKeyWord=MX
&ValueKeyWord=com
&<Public Request Parameters>
```

Return example

```
<DescribeDomainRecordsResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<TotalCount>2</TotalCount>
<PageNumber>1</PageNumber>
<PageSize>2</PageSize>
<DomainRecords>
<Record>
<DomainName>example.com</DomainName>
<RecordId>9999985</RecordId>
<RR>www</RR>
<Type>MX</Type>
<Value>mail1.hichina.com</Value>
<Line>default</Line>
<Priority>5</Priority>
<TTL>600</TTL>
</Record>
<Record>
<DomainName>example.com</DomainName>
<RecordId>9999986</RecordId>
<RR>www</RR>
<Type>MX</Type>
<Value>mail2.hichina.com</Value>
<Line>default</Line>
<Priority>10</Priority>
<TTL>600</TTL>
</Record>
</DomainRecords>
</DescribeDomainRecordsResponse>
```

Add resolution records

To add resolution records (AddDomainRecord), you must specify the following parameters: domain name (DomainName), host record (RR), record type (Type), and record value (Value). You can also use the following optional parameters: resolution line (Line), MX priority (Priority), and TTL.

Request example

```
http://dns.aliyuncs.com/?Action=AddDomainRecord
&DomainName=example.com
&RR=www
&Type=A
&Value=202.106.0.20
&TTL=600
&Line=default
&<Public Request Parameters>
```

Return example

```
<AddDomainRecordResponse>
<RequestId>536E9CAD-DB30-4647-AC87-AA5CC38C5382</RequestId>
<RecordId>9999985</RecordId>
</AddDomainRecordResponse>
```

Call Illustration

Call Illustration

This example uses the DescribeDomainRecords interface (the following sample code uses Java; for more complete sample programs and examples in other development languages, refer to the Alibaba Cloud Developers Forum).

The corresponding Action is DescribeDomainRecords and the required parameter is DomainName. After all the public request parameters (except Signature) are added, the request URL will be (for ease of reading, this is the URL before URL encoding):

```
http://dns.aliyuncs.com/?TimeStamp=2015-01-
09T11:10:07Z&Format=xml&AccessKeyId=testid&Action=DescribeDomainRecords&SignatureMethod=HMAC-
```



```
SHA1&DomainName=example.com&SignatureNonce=1324fd0e-e2bb-4bb1-917c-
bd6e437f1710&SignatureVersion=1.0&Version=2015-01-09
```

According to the signature calculation rules, the Canonicalized Query String is constructed first, as shown below:

```
http://dns.aliyuncs.com/?TimeStamp=2015-01-
09T11:10:07Z&Format=xml&AccessKeyId=testid&Action=DescribeDomainRecords&SignatureMethod=HMAC-
SHA1&DomainName=example.com&SignatureNonce=1324fd0e-e2bb-4bb1-917c-
bd6e437f1710&SignatureVersion=1.0&Version=2015-01-09
```

Then, StringToSign is constructed as a signature string with a value:

```
GET&%2F&AccessKeyId%3Dtestid&Action%3DDescribeDomainRecords&Format%3Dxml&DomainName%3Dexam
ple.com&SignatureMethod%3DHMAC-SHA1&SignatureNonce%3D1324fd0e-e2bb-4bb1-917c-
bd6e437f1710&SignatureVersion%3D1.0&TimeStamp%3D2015-01-09T11%253A10%253A07Z&Version%3D2015-
01-09
```

The following Java sample code demonstrates how to add public request parameters, how to construct the Canonicalized Query String from the request parameters, and how to construct the StringToSign. This example assumes that all request parameters are placed in a Map<String, String> object and the Access Key ID is "testid" .

```
final String HTTP_METHOD = "GET";

Map<String, String> parameters = new HashMap<String, String>();
// Add public request parameters
parameters.put("Action", "DescribeDomainRecords");
parameters.put("DomainName", "example.com");
parameters.put("Version", "2015-01-09");
parameters.put("AccessKeyId", "testid");
parameters.put("TimeStamp", formatIso8601Date(new Date()));
parameters.put("SignatureMethod", "HMAC-SHA1");
parameters.put("SignatureVersion", "1.0");
parameters.put("SignatureNonce", UUID.randomUUID().toString());
parameters.put("Format", "XML");

// Sort the parameters, and note they are strictly case-sensitive
String[] sortedKeys = parameters.keySet().toArray(new String[]{});
Arrays.sort(sortedKeys);

final String SEPARATOR = "&";

// Generate the stringToSign
StringBuilder stringToSign = new StringBuilder();
stringToSign.append(HTTP_METHOD).append(SEPARATOR);
stringToSign.append(percentEncode("/")).append(SEPARATOR);

StringBuilder canonicalizedQueryString = new StringBuilder();
for(String key : sortedKeys) {
// Be sure to encode the key and value
```

```

canonicalizedQueryString.append("&")
.append(percentEncode(key)).append("=")
.append(percentEncode(parameters.get(key)));
}

// Be sure to encode the canonicalizedQueryString
stringToSign.append(percentEncode(canonicalizedQueryString.toString().substring(1)));

```

In this example, please note that the TimeStamp parameter must comply with ISO8601 norms. Furthermore, please note that UTC time is used. Otherwise, the request will encounter an error. The following sample code demonstrates how a compliant TimeStamp string is generated:

```

private static final String ISO8601_DATE_FORMAT = "yyyy-MM-dd'T'HH:mm:ss'Z'";

private static String formatIso8601Date(Date date) {
    SimpleDateFormat df = new SimpleDateFormat(ISO8601_DATE_FORMAT);
    df.setTimeZone(new SimpleTimeZone(0, "GMT"));
    return df.format(date);
}

```

When generating a Canonicalized Query String (the canonicalizedQueryString variable in the example) and StringToSign, both must be encoded. The encoding rules are described in detail in the signature mechanism section. The following sample code demonstrates how to use the java.net.URLEncoder class for encoding:

```

private static final String ENCODING = "UTF-8";

private static String percentEncode(String value)
throws UnsupportedOperationException{
    return value != null ?
    URLEncoder.encode(value, ENCODING).replace("+", "%20")
    .replace("*", "%2A").replace("%7E", "~")
    : null;
}

```

If we assume the "Access Key ID" is "testid", the "Access Key Secret" is "testsecret", and the Key used for HMAC calculation is "testsecret&", the calculated signature value is:

```
SmhZuLUUnXmqxSEZ/GqyiwGqmf+M=
```

Sample code for signature calculation (Java):

```

// The following is a sample code for signature calculation
final String ALGORITHM = "HmacSHA1";
final String ENCODING = "UTF-8";
key = "testsecret&";

Mac mac = Mac.getInstance(ALGORITHM);
mac.init(new SecretKeySpec(

```

```
key.getBytes(ENCODING), ALGORITHM));
byte[] signData = mac.doFinal(
stringToSign.getBytes(ENCODING));

String signature =
new String(Base64.encodeBase64(signData));
```

After adding the Signature parameter, please perform URL encoding according to the RFC3986 rules and the following message appears:

```
http://dns.aliyuncs.com/?TimeStamp=2015-01-
09T11%3A10%3A07Z&Format=xml&AccessKeyId=testid&Action=DescribeDomainRecords&SignatureMethod=HM
AC-SHA1&DomainName=example.com&SignatureNonce=1324fd0e-e2bb-4bb1-917c-
bd6e437f1710&SignatureVersion=1.0&Version=2015-01-
09&Signature=SmhZuLUnXmqxSEZ%2FGqyiwGqmf%2BM%3D
```

Next, send an HTTP request to the above URL and a response to the request will be received from the DNS server, as shown below:

```
<DescribeDomainRecordsResponse>
<PageNumber>1</PageNumber>
<DomainRecords>
<Record>
<DomainName>example.com</DomainName>
<Line>default</Line>
<Priority>1</Priority>
<RR>2222</RR>
<RecordId>51542601</RecordId>
<TTL>600</TTL>
<Type>MX</Type>
<Value>hichina.com</Value>
</Record>
<Record>
<DomainName>example.com</DomainName>
<Line>default</Line>
<RR>234234</RR>
<RecordId>51542600</RecordId>
<TTL>600</TTL>
<Type>SRV</Type>
<Value>3 0 2176 example-server.2.google.com</Value>
</Record>
<Record>
<DomainName>example.com</DomainName>
<Line>default</Line>
<RR>2222</RR>
<RecordId>51542068</RecordId>
<TTL>600</TTL>
<Type>A</Type>
<Value>3.4.5.6</Value>
</Record>
</DomainRecords>
<PageSize>3</PageSize>
<TotalCount>3</TotalCount>
```

```
<RequestId>F3440766-E1C5-4110-8285-5F53F6750560</RequestId>  
</DescribeDomainRecordsResponse>
```

By parsing this XML result, the user obtains a list of all resolution records under the domain name. If the Format parameter is specified as JSON to submit a request, the result will also be returned in the JSON format.