

# Alibaba Cloud ApsaraDB for Redis

## API Reference

Issue: 20190910

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# Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 <b>Danger:</b> Resetting will result in the loss of user configuration data.
	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 <b>Warning:</b> Restarting will cause business interruption. About 10 minutes are required to restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 <b>Notice:</b> Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 <b>Note:</b> You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
<b>Bold</b>	It is used for buttons, menus, page names, and other UI elements.	Click <b>OK</b> .
Courier font	It is used for commands.	Run the <code>cd / d C :/ windows</code> command to enter the Windows system folder.
<i>Italics</i>	It is used for parameters and variables.	<code>bae log list --instanceid <i>Instance_ID</i></code>
[ ] or [a b]	It indicates that it is an optional value, and only one item can be selected.	<code>ipconfig [-all -t]</code>

Style	Description	Example
<code>{}</code> or <code>{a b}</code>	It indicates that it is a required value, and only one item can be selected.	<code>swich {stand   slave}</code>



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# 1 RAM authorization

Resource Access Management (RAM) allows you to grant access of resources under an account to RAM users. Skip this section if you do not need to use RAM.

## Resources available for authorization

Only one type of ApsaraDB for Redis resources can be authorized in RAM: Instance.

The following table shows how to describe resources to be authorized in RAM.

Resource type	Resource description in authorization policy
Instance	<pre>acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid  acs : kvstore :\$ regionid :\$ accountid : instance / acs : kvstore :: instance /</pre>

- `$ regionid` describes a region. Replace it with a region ID or an asterisk (\*).
- `$ accountid` describes an account. Replace it with an account ID or an asterisk (\*).
- `$ instanceid` describes an instance. Replace it with an instance ID or an asterisk (\*).

## Authorization rules

When RAM users request access to Redis resources, ApsaraDB for Redis checks for permissions from RAM to make sure the access is allowed by the resource owner. See the following authentication rules for each supported Redis API.

Table 1-1: RAM authorization rules for Redis APIs

Action	Authorization rule
CreateDBInstance	<pre>acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid</pre>
DeleteInstance	<pre>acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid</pre>
ModifyInstanceSpec	<pre>acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid</pre>

Action	Authorization rule
<b>RenewInstance</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>RenewMultiInstance</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>ModifyInstanceAttribute</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>FlushInstance</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>DescribeInstances</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>DescribeInstanceAttribute</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>ModifyInstanceMaintainTime</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>ModifySecurityIps</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>SwitchNetwork</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>ModifyInstanceNetExpireTime</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>CreateBackup</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>ModifyBackupPolicy</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>DescribeBackupPolicy</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>DescribeBackups</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>RestoreInstance</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>DescribeHistoryMonitorValues</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid

Action	Authorization rule
<b>DescribeInstanceConfig</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid
<b>ModifyInstanceConfig</b>	acs : kvstore :\$ regionid :\$ accountid : instance /\$ instanceid

## 2 Request Structure

---

### Endpoint

The service access address of ApsaraDB for Redis APIs is `r - kvstore . aliyuncs . com .`



#### Note:

*example.com* is the project customized access domain address, connect to the Administrator for the domain address.

### Communication protocol

Request communication through HTTP or HTTPS is supported. We recommend that requests be sent through HTTPS for enhanced security.

### Request method

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

### Request parameters

You must specify the operation to be executed, namely, the Action parameter (for example, CreateInstance), for each request, and the public request parameters required for each operation and specific request parameters of the specified operation.

### Character encoding

Requests and responses are encoded using the UTF-8 character set.

## 3 Common Parameters

Public request parameters are request parameter that each interface uses.

### Public parameters

Table 3-1: Public request parameters

Name	Type	Required	Description
Format	String	Yes	Type of the returned value. Values: JSON and XML. Default value: XML.
Version	String	Yes	API version number: Format: YYYY-MM-DD (date). The current version number is 2016-11-01.
AccessKeyId	String	Yes.	Key ID that Alibaba Cloud issues to a user for service access.
Signature	String	Yes	Signature result string. For more information about the signature calculation method, see <a href="#">#unique_6</a> .
SignatureMethod	String	Yes	Signature method. Currently, HMAC-SHA1 is supported.
Timestamp	String	Yes	Timestamp of a request. The date format follows the ISO8601 standard and uses UTC time. Format: <code>YYYY - MM - DDThh : mm : ssZ</code> , for example, 2013-08-15T12:00:00Z (20:00:00, August 15, 2013, Beijing time).
SignatureVersion	String	Yes	The version of the signature algorithm. The current version is 1.0.
SignatureNonce	String	Yes	Unique random number, used to prevent replay attacks. The user must use different random numbers for different requests.

### Example

```

https://r-kvstore.aliyuncs.com/
Format = json
& Version = 2015 - 01 - 01
& Signature = Pc5WB8gokV n0xfeu % 2FZV % 2BiNM1dgI %
3D

```

```
& SignatureM ethod = HMAC - SHA1
& SignatureN once = 1521552885 2396
& SignatureV ersion = 1 . 0
& AccessKeyI d = key - test
& Timestamp = 2016 - 01 - 01T12 : 00 : 00Z
```

## Public return parameters

Each time the user sends a call request to an interface, the system returns a unique identification code (RequestId) to the user, whether the request is successful or not.

## Example

```
<? xml version = " 1 . 0 " encoding = " utf - 8 " ? >
    <!-- Result Root Node -->
    < Interface Name + Response >
    <!-- Return Request Tag -->
    < RequestId > 4C4fdsf38 - 3910 - 447D - 87AD -
AC07893221 6 </ RequestId >
    <!-- Return Result Data -->
    </ Interface Name + Response >
```



## 4 Returns results

---

After APIs are called, data is returned in the unified format. A returned HTTP status code of `2xx` indicates that the call is successful. A returned HTTP status code of `4xx` or `5xx` indicates that the call fails. For successful calls, the primary formats of returned data are XML and JSON. When a request is sent, an external system can input 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 you to read. The actual results returned are not formatted with line breaks, indentation, or other layouts.

### Successful results

XML return results include a message stating if the request is successful and the specific service data. An example is as follows:

```
<? xml version =" 1 . 0 " encoding =" utf - 8 "? >
<!-- Result root node -->
< API name + Response >

< RequestId > 4C4fdsf38 - 3910 - 447D - 87AD - AC07893221 6 </
  RequestId >
<!-- Return result data -->
</ API name + Response >
```

### JSON example:

```
" RequestId ": " 4C4fdsf38 - 3910 - 447D - 87AD - AC07893221 6 ",
/* Returns result data */
```

### Incorrect results

If there is an interface call error, no result data is returned. The caller can locate the cause of the mistake according to the error code in the attached list. If an error is reported in an API call, no result data is returned. The caller can refer to the error code table in the appendix to locate the error cause. When an error occurs in a call, the HTTP request returns an HTTP status code of `4xx` or `5xx`. The returned message body contains the specific error code and error message. The message body also contains a globally unique RequestId and the HostId of the site you accessed with this request. If unable to locate the error cause, the caller can contact Alibaba Cloud

customer service and provide the HostId and RequestId to help solve the problem as quickly as possible.

```
<? xml version = " 1 . 0 " encoding = " UTF - 8 " ? >
< Error >
< RequestId > 8906582E - 6722 - 409A - A6C4 - 0E7863B733 A5 </
  RequestId >
< HostId > r - kvstore . aliyuncs . com </ HostId >
< Code > Unsupporte dOperation </ Code >
< Message > The specified action is not supported .</
  Message >
</ Error >
```

**JSON example:**

```
" RequestId " : " 7463B73D - 35CC - 4D19 - A010 - 6B8D65D242 EF ",
" HostId " : " r - kvstore . aliyuncs . com ",
" Code " : " Unsupporte dOperation ",
" Message " : " The specified action is not supported ."
```

## 5 Signature method

---

ApsaraDB for Redis performs authentication on the sender of each access request. Therefore, no matter whether HTTP or HTTPS is used to submit a request, the request must contain the signature information. ApsaraDB for Redis performs symmetric encryption using the AccessKey ID and AccessKey Secret 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 on the Alibaba Cloud official website ). The Access Key ID indicates the identity of the visitor. The Access Key Secret is the secret key to encrypt the signature string and verify the signature string on the server . It must be kept strictly confidential and must be made only available to Alibaba Cloud and the authenticated visitor.

### Sign an access request

Follow these steps to sign an access request:

1. Use request parameters to construct a canonicalized query string.
  - a. Sort all request parameters alphabetically by parameter names. (The request parameters include the “public request parameters” and the custom parameters for the given request APIs described in this document, but do not include the Signature parameter mentioned in the “public request parameters” .)



Notice:

When a request is submitted using the GET method, these parameters constitute the parameter section of the request URI (that is, the section in the URI following “?” and connected by “&”).

- b. Encode the name and value of each request parameter.

Perform URL encoding on the names and values using the UTF-8 character set.

The URL encoding rules are as follows:

- Do not encode uppercase letters A-Z, lowercase letters a-z, numbers 0-9, and characters including the hyphen (-), underscore (\_), period (.), and tilde (~).
- Encode other characters in the format of % XY , with XY representing the ASCII code in hexadecimal notation of the characters. For example, encode the English double quotes ( “ ) as % 22 .
- Encode extended UTF-8 characters in the format of % XY % ZA ...
- Encode the space ( ) as % 20 rather than the plus sign (+).



Notice:

Generally, libraries supporting the URL encoding (for example, `java.net.URLEncoder` in Java) are all encoded according to the rules for `application/x-www-form-urlencoded` of the MIME type. If this encoding method is used, replace the plus sign (+) in the encoded strings with % 20 , the asterisk (\*) with % 2A , and change % 7E back to the tilde (~) to generate the encoding strings specified by the preceding rules.

- c. Connect the encoded parameter names and values with the equal sign (=).
  - d. Then, sort the parameter name and value pairs connected by equal signs in alphabetical order, and connect them with an ampersand (&) to produce the canonicalized query string.
2. Use the canonicalized query string obtained in the preceding step to construct the string for signature calculation according to the following rules:

```
StringToSi gn =
HTTPMethod + "&" +
percentEnc ode ("/") + "&" +
```

```
percentEnc ode ( Canonicali zedQuerySt ring )
```

Where,

- `HTTPMethod` indicates the HTTP method used to submit a request, for example, GET.
  - `percentEnc ode (“/”)` indicates the encoded value for the character “/” according to the URL encoding rules described in Step 1.ii, namely `% 2F`.
  - `percentEnc ode ( Canonicali zedQuerySt ring )` indicates the encoded string of the canonicalized query string constructed in Step 1, produced by following the URL encoding rules described in Step 1.ii.
3. Based on the RFC2104 definition, use the preceding string used for the signature to calculate the signature HMAC value.



**Notice:**

When the signature is calculated, the key is the Access Key Secret you hold adding the & character (ASCII:38), and the SHA1 hashing algorithm is used.

4. According to the Base64 encoding rules, encode the preceding HMAC value into a string to obtain the signature value.
5. Add the obtained signature value to the request parameters as the Signature parameter. The request signing process is complete.



**Notice:**

When the obtained signature value is submitted to the ApsaraDB for Redis server as the final request parameter value, the URL encoding must be performed for the value in compliance with the RFC3986 rules, which is the same as that for other parameter values.

### Example

If `DescribeDBInstances` is used as an example, the request URL before signing is:

```
http :// r - kvstore . aliyuncs . com /? Timestamp = 2013 - 06 -
01T10 : 33 : 56Z & Format = XML & AccessKeyI d = testid & Action =
DescribeIn stances & SignatureM ethod = HMAC - SHA1 & RegionId =
region1 & SignatureN once = NwDaxvLU6t FE0DVb & Version = 2015 - 01
- 01 & SignatureV ersion = 1 . 0
```

The calculated string to be signed `StringToSign` is as follows:

```
GET &% 2F & AccessKeyI d % 3Dtestid & Action % 3DDescribe Instances
& Format % 3DXML & RegionId % 3Dregion1 & SignatureM ethod % 3DHMAC
```

```
- SHA1 & SignatureN once % 3DNwDaxvLU 6tFE0DVb & SignatureV ersion
% 3D1 . 0 & Timestamp % 3D2013 - 06 - 01T10 % 253A33 % 253A56Z &
Version % 3D2015 - 01 - 01
```

It is assumed that 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 `BIPOMlu8LX BeZtLQkJTw 6iFvw1E =.`

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

```
http :// r - kvstore . aliyuncs . com /? Timestamp = 2013 - 06 -
01T10 % 3A33 % 3A56Z & Format = XML & AccessKeyI d = testid & Action
= DescribeIn stances & SignatureM ethod = HMAC - SHA1 & RegionId
= region1 & SignatureN once = NwDaxvLU6t FE0DVb & SignatureV
ersion = 1 . 0 & Version = 2015 - 01 - 01 & Signature = BIPOMlu8LX
BeZtLQkJTw 6iFvw1E % 3D
```

## 6 API overview

---

### Instance lifecycle management APIs

API	Description
CreateInstance	Creates an instance.
DeleteInstance	Releases an instance.
ModifyInstanceSpec	Modifies an instance.
TransformToPrePaid	

### Instance management APIs

API	Description
ModifyInstanceAttribute	Modifies attributes of an instance.
FlushInstance	Clears data of an instance.
DescribeInstances	Queries basic information about an instance.
DescribeInstanceAttribute	Queries details of an instance.
DescribeSecurityIps	Queries the IP whitelists of an instance.
ModifyInstanceMaintainTime	Modifies the maintenance time of an instance.
ModifySecurityIps	Modifies the whitelist of an instance.
DescribeRegions	Queries the region where an instance can be sold.
SwitchNetwork	Modifies the network type.
ModifyInstanceNetExpireTime	Modifies the retention period of a classic network connection address.

### Backup recovery APIs

API	Description
CreateBackup	Create a backup.
ModifyBackupPolicy	Modifies a backup policy.
DescribeBackupPolicy	Queries a backup policy.
DescribeBackups	Displays a backup list.

API	Description
RestoreInstance	Rolls an instance back based on a backup set.

#### Monitoring management APIs

API	Description
DescribeMonitorItems	Views a metric list.
DescribeHistoryMonitorValues	Views the historical monitoring data.

#### Parameter management APIs

API	Description
DescribeInstanceConfig	Views the parameter configuration of an instance.
ModifyInstanceConfig	Modifies the parameter configuration of an instance.



# 7 Lifecycle management

---

## 7.1 CreateInstance


### Description

This API is used to create an instance. For more information about the instance types, see Instance type table.

### Request parameters

Table 7-1: Request parameters

Name	Type	Required	Description
<Public request parameters>	-	Yes	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Operation API name. Value: CreateInstance.
InstanceName	String	No	Instance name. The name is a string of 2 to 128 characters and must start with a letter (uppercase or lowercase) or a Chinese character. Special characters, such as the at sign (@), slash (/), colon (:), equal sign (=), quotation mark ( “), angle brackets (<>), braces ({}), and square brackets ([]) and space, are not supported.

Name	Type	Required	Description
Password	String	No	<p>Instance password. The password is a string of 8 to 30 characters and must contain uppercase letters, lowercase letters, and numbers.</p> <p> <b>Notice:</b> These special characters are not supported now: exclamation mark (!), angle brackets (&lt;&gt;), parentheses (), square brackets ([]), braces ({}), comma (,), backquote (`), tilde (~), period (.), hyphen (-), underscore (_), at sign (@), number sign (#), dollar sign (\$), percent sign (%), caret (^), ampersand (&amp;), and asterisk (*).</p>
InstanceClass	String	Yes	Type of the applied ApsaraDB for Redis instance. For more information, see Instance type table.
RegionId	String	Yes	Region of the applied ApsaraDB for Redis instance . You can use the DescribeRegions function to view available data centers.

Name	Type	Required	Description
ZoneId	String	No	Lower-level zone of the RegionId. You can use the DescribeRegions function to view available zones.
ChargeType	String	No	Billing method. Supported values : PrePaid and PostPaid. Default value: PostPaid.
Period	Long	No	Payment cycle . Required if ChargeType is set to PrePaid. Unit: month. Supported values: 1-9, 12, 24, and 36.
Token	String	No	This parameter is used to guarantee the idempotence of the request. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information , see the section “ How to guarantee idempotence” .
NetworkType	String	No	Network type: <ul style="list-style-type: none"> <li>· Classic</li> <li>· VPC</li> </ul> The default value is CLASSIC.
VpcId	String	No	VPC ID

Name	Type	Required	Description
VSwitchId	String	No	VSwitch ID
PrivateIp	String	No	Private IP address
SrcDBInstanceId	String	No	If an instance created based on a backup set generated by another instance is valid , this parameter indicates the ID of the instance that generates the backup set.
BackupId	String	No	If an instance created based on a backup set generated by another instance is valid , this parameter indicates the ID of the generated backup set. Query the value of BackupId by calling DescribeBackups.
InstanceType	String	No	Instance type . Supported values: Redis and Memcache. Default value: Redis.
EngineVersion	String	No	Engine version. Supported values: 2.8 and 4.0. Default value: 2.8.

## Response parameters

Table 7-2: Response parameters

Name	Parameter type	Description
<Public return parameters >	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>
InstanceId	String	Instance ID (globally unique).
InstanceName	String	Instance name

**Note:**

In consideration of the historical compatibility, some returned fields (such as Config and Region) of the function are not mentioned in this document. Alibaba Cloud will delete these fields gradually in the future. In this case, do not rely on the returned fields not involved in this document when calling the APIs.

## Request example

```
https://r-kvstore.aliyuncs.com
<Common request parameters>
&Action=CreateInstance
&RegionId=cn-hangzhou
&Password=Qa123456
&InstanceClass=redis.master.small.default
```

## Response example

```
"InstanceId": "736538d0a6894665",
"InstanceName": "736538d0a6894665"
```

## 7.2 ModifyInstanceSpec

## Description

This API is used to change the instance type. For more information about the instance types, see Instance specifications.

## Request parameters

Table 7-3: Request Parameters

Name	Type	Required	Description
<Common request parameters>	-	Yes	See <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Operation API name. Value : ModifyInstanceSpec.
InstanceId	String	Yes	Instance ID (globally unique)
InstanceClass	String	Yes	Type of the applied ApsaraDB for Redis instance. For more information, see Instance specifications.

## Response parameters

Table 7-4: Response parameters

Name	Type	Description
<Common return parameters>	-	See <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>
Orderid	String	Order ID.

## Request example

```
https://r-kvstore.aliyuncs.com
<Common request parameters>
&Action=ModifyInstanceSpec
&InstanceId=736538d0a6894665
&InstanceClass=redis.master.mid.default
```

## Response example

```
"OrderId": "201294900260011"
```

```
" RequestId " : " 283746AF - 82B3 - 4BFF - 88CC - BF34CDE273 2 "
```

## 7.3 TransformToPrePaid

You can call this operation to change the billing method of an ApsaraDB for Redis instance from Pay-As-You-Go to subscription.

For more information about how to perform the corresponding operation in the console, see [#unique\\_15](#).



Note:


Currently, you cannot change the billing method of an instance from subscription to Pay-As-You-Go.

### Debugging

Alibaba Cloud provides OpenAPI Explorer to simplify API usage. You can use [OpenAPI Explorer](#) to search for APIs, call APIs, and dynamically generate SDK example code.

### Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	TransformToPrePaid	The operation that you want to perform. Set this parameter to TransformToPrePaid.
InstanceId	String	Yes	r-bp1xxxxxxx xxxxxx	The ID of the instance for which you want to change the billing method.
Period	Long	Yes	12	The subscription period of the instance. Unit: months. Valid values: 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 24, 36.
AccessKeyId	String	No	Lxxxxxxxxx xxxxxx	The AccessKey ID that Alibaba Cloud provides for you to access services.

Parameter	Type	Required	Example	Description
AutoPay	Boolean	No	true	<p>Specifies whether to enable auto renewal. Valid values:</p> <ul style="list-style-type: none"> <li>· true</li> <li>· false</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9;">  <b>Note:</b>                      Default value: true. If you set this parameter to false, please <a href="#">manually renew the instance</a> before the instance expires.                 </div>

Response parameters

Parameter	Type	Example	Description
EndTime	String	2019-01-18T16:00:00Z	The expiration time of the instance after the billing method was changed from Pay-As-You-Go to subscription.
OrderId	String	1111111111111111	The ID of the order.
RequestId	String	426F1356-B6EF-4DAD-A1C3-DE53B9DAF586	The ID of the request.

Examples

Sample request

```
https://r-kvstore.aliyuncs.com/?Action=TransformToPrePaid&InstanceId=r-bp1xxxxxxx&Period=12&<Common request parameters>
```

Sample success response

XML format

```
<TransformToPrePaidResponse>
  <OrderId>1111111111111111</OrderId>
```



```
< RequestId > 426F1356 - B6EF - 4DAD - A1C3 - DE53B9DAF5 86 </
RequestId >
< EndTime > 2019 - 01 - 18T16 : 00 : 00Z </ EndTime >
</ TransformT oPrePaidRe sponse >
```

JSON format

```
{
  " RequestId ":" 426F1356 - B6EF - 4DAD - A1C3 - DE53B9DAF5 86 ",
  " OrderId ":" 1111111111 11111 ",
  " EndTime ":" 2019 - 01 - 18T16 : 00 : 00Z "
}
```

Error codes


[View error codes.](#)

## 7.4 DeleteInstance

Description

Requirements for interface instance call & release are as follows:

- The current status of instance: running.
- Not artificially locked.

 Notice:  
A subscribed instance cannot be deleted. It is only released at expiration.

Request parameters

Table 7-5: Request parameters

Name	Type	Required or not	Description
<Public request parameters>	-	Yes	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value: DeleteInstance.
InstanceId	String	Yes	Instance id (globally unique)

## Response parameters

Table 7-6: Response parameters

Name	Type	Description
<Public return parameters >	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>

## Request example

```
https://r-kvstore.aliyuncs.com
<Public request parameters >
& Action = DeleteInstance
& InstanceId = 657e361a074646d5
```

## Response example

```
"RequestId" : "C2225574-1D93-4F8A-B1D5-39FCBAA40660"
```

## 8 Manage instances

### 8.1 DescribeDBInstanceNetInfo

#### Description

Query the classic network connection address of the instance.

#### Request parameters

Table 8-1: Request parameters

Name	Type	Required	Description
<Common request parameter>	-	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value : DescribeDBInstanceNetInfo.
InstanceId	String	Yes	Instance ID (globally unique)

#### Response parameters

Table 8-2: Response parameters

Name	Type	Description
<Common return parameters>	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>
NetInfoItems	List	Composed of InstanceNetInfo parameters.

Name	Type	Description
InstanceNetworkType	String	The network type of the instance. <ul style="list-style-type: none"> <li>Private (VPC private network)</li> <li>Classic: Classic Network</li> </ul>

Table 8-3: InstanceNetInfo parameters

Name	Type	Description
ConnectionString	String	DNS connection string
IPAddress	String	IP address of the instance
IPType	String	IP type of the instance: <ul style="list-style-type: none"> <li>Private (VPC private network)</li> <li>Inner (Reserved classic network IP address)</li> </ul>
Port	String	Port information
VPCId	String	VPC ID
VSwitchId	String	VSwitch ID
ExpiredTime	String	Remaining time before expiration of the reserved classic network IP address. In seconds.

## Examples

### Request example

```
https://r-kvstore.aliyuncs.com/?<Common request parameters>
&Action=DescribeDBInstanceNetInfo
&InstanceId=657e361a074646d5
```

### Response example

```
{
  "RequestId": "47651832-5882-4E35-BABF-97D01E06EB",
  "InstanceNetworkType": "VPC",
  "NetInfoItems": {
    "InstanceNetInfo": [{}]
```

```

    " Connection String ": " r - m5e6a11fb9 fd3414 .
redis . rds . aliyuncs . com ",
    " Port ": " 6379 ",
    " DBInstance NetType ": " Inner ",
    " VPCId ": "",
    " IPAddress ": " 10 . 146 . 182 . 164 ",
    " ExpiredTim e ": " 2581948 "
}, {
    " Connection String ": " r - m5e6a11fb9 fd3414983 .
redis . rds . aliyuncs . com ",
    " Port ": " 6379 ",
    " DBInstance NetType ": " Private ",
    " VPCId ": " vpc - m5edrscsr b mda2m46h4c 7 ",
    " IPAddress ": " 192 . 168 . 100 . 29 ",
}]
}
}
}
}
}

```

## 8.2 DescribeInstanceAttribute

You can call DescribeInstanceAttribute to query detailed information of an ApsaraDB for Redis instance.


### Debugging

You can call this operation in OpenAPI Explorer without the need to manually calculate the signature. After you call the operation, OpenAPI Explorer can automatically generate SDK example code.

### Request parameters

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	r-bp1xxxxxxxx xxxxxx	The ID of the instance of which you want to query detailed information.
Action	String	No	DescribeIn stanceAttr ibute	The operation that you want to perform. Set this parameter to DescribeInstanceAttribute.
AccessKeyI d	String	No	Lxxxxxxxx xxxxxw	The AccessKey ID that Alibaba Cloud provides for you to access services.

## Response parameters

Parameter	Type	Example	Description
Instances			The information of the instance.
ArchitectureType	String	standard	The architecture of the instance. Valid values: <ul style="list-style-type: none"> <li>cluster: the cluster edition.</li> <li>standard: the standard edition.</li> <li>SplitRW: the read/write splitting edition.</li> <li>NULL: all editions. This is the default value.</li> </ul>
AuditLogRetention	String	15	The retention period of audit logs.   <b>Note:</b> Currently, the audit log feature is not supported by Alibaba Cloud International Site.
AvailabilityValue	String	100%	The availability metrics in the current month.
Bandwidth	Long	10	The bandwidth of the instance. Unit: MByte/s.
Capacity	Long	1024	The storage capacity of the instance. Unit: MB.
ChargeType	String	PostPaid	The billing method of the instance. Valid values: <ul style="list-style-type: none"> <li>PrePaid: subscription.</li> <li>PostPaid: pay-as-you-go.</li> </ul>

Parameter	Type	Example	Description
Config	String	<pre>{\"EvictionPolicy\": \"volatile-lru\", \"hash-max-ziplist-entries\": 512, \"zset-max-ziplist-entries\": 128, \"zset-max-ziplist-value\": 64, \"set-max-intset-entries\": 512, \"hash-max-ziplist-value\": 64}</pre>	The parameter configuration of the instance, in a JSON string. For more information, see <a href="#">Set parameters</a> .
Connection Domain	String	r-j6cxxxxxxx xxxxxx.redis.rds. aliyuncs.com	The endpoint of the instance.
Connections	Long	10000	The maximum number of connections supported by the instance.
CreateTime	String	2019-03-06T10:42:03Z	The time when the instance was created. The time follows the ISO 8601 standard and it is displayed in UTC. The time is in the yyyy-MM-ddTHH:mm:ssZ format.
EndTime	String	2019-04-06T10:42:03Z	The time when the subscription instance expires. The time follows the ISO 8601 standard and it is displayed in UTC. The time is in the yyyy-MM-ddTHH:mm:ssZ format.
Engine	String	Redis	The engine type of the instance.

Parameter	Type	Example	Description
EngineVersion	String	4.0	The engine version of the instance. Valid values: <ul style="list-style-type: none"> <li>• 2.8</li> <li>• 4.0</li> <li>• 5.0</li> </ul>
HasRenewChangeOrder	String	false	Indicates whether there was an order of renewal with configuration change that had not taken effect. Valid values: <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>
InstanceClass	String	redis.master.small.default	The instance type.
InstanceId	String	r-j6cxxxxxxxxxxxx	The ID of the instance.
InstanceName	String	apitest	The name of the instance.
InstanceStatus	String	Normal	The status of the instance.
InstanceType	String	Redis	The engine type of the instance.
IsRds	Boolean	true	Indicates whether the instance is managed by Relational Database Service (RDS). Valid values: <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>
MaintainEndTime	String	22:00Z	The end time of the maintenance window. The time is in the HH : mmZ format, such as 02 : 00Z .



Parameter	Type	Example	Description
MaintainStartTime	String	18:00Z	The start time of the maintenance window. The time is in the <code>HH : mmZ</code> format, such as <code>02 : 00Z</code> .
NetworkType	String	CLASSIC	The network type of the instance. Valid values: <ul style="list-style-type: none"> <li>CLASSIC</li> <li>VPC</li> </ul>
NodeType	String	double	The node type of the instance. Valid values: <ul style="list-style-type: none"> <li>double</li> <li>single</li> </ul>
NodeType	String	double	The node type of the instance. Valid values: <ul style="list-style-type: none"> <li>double</li> <li>single</li> </ul>
PackageType	String	standard	The type of the package. Valid values: <ul style="list-style-type: none"> <li>standard</li> <li>customized</li> </ul>
Port	Long	6379	The service port of the instance.
PrivateIp	String	xxx.xxx.xxx.222	The internal IP address of the instance.
QPS	Long	100000	The theoretical maximum queries per second (QPS).
RegionId	String	cn-hongkong	The ID of the region.
ReplicaId	String	bls-awxxxxxxxxxxxx	The ID of the replica.

Parameter	Type	Example	Description
ReplicationMode	String	master-slave	The architecture of the instance. <ul style="list-style-type: none"> <li>• master-slave: includes the master-replica edition and Standalone edition.</li> <li>• cluster: includes the read/write splitting edition and cluster edition.</li> </ul>
SecurityIPList	String	127.0.0.1	The IP address whitelists.
Tags			The tags.
Key	String	tagkey	The tag key.
Value	String	tagvalue	The tag value.
VSwitchId	String	vsw-xxxxxxxxxx xxxxxxxxxx	The ID of the VSwitch.
VpcAuthMode	String	Open	Indicates whether password authentication is enabled for access within the VPC. Valid values: <ul style="list-style-type: none"> <li>• Open: Password authentication is enabled.</li> <li>• Close: Password authentication is disabled.</li> </ul>
VpcId	String	vpc-bp1cxxxxxx xxxxxxxxxx	The ID of the VPC.
ZoneId	String	cn-hongkong-b	The ID of the zone. You can call the <a href="#">DescribeRegions</a> operation to query the latest region list.
RequestId	String	CA40C261-EB72-4EDA-AC57-958722162595	The ID of the request.

## Examples

### Sample request

```
https://r-kvstore.aliyuncs.com/
? Action = DescribeInstances
& InstanceId = r-bp1xxxxxxxxxxxxx
&<CommonRequestParameters>
```

### Sample success response

#### XML format

```
<DescribeInstancesResponse>
  <RequestId>5553161D-11B1-43E1-9D95-523B2C82304F</RequestId>
  <Instances>
    <DBInstanceAttribute>
      <Config>{"maxmemory-policy":"volatile-lfu","eviction-policy":"volatile-lru","hash-max-ziplist-entries":512,"zset-max-ziplist-entries":128,"zset-max-ziplist-value":64,"set-max-intset-entries":512,"hash-max-ziplist-value":64,"#no_loose_commands":"flushall,flushdb","lazyfree-lazy-eviction":"yes"}</Config>
      <HasRenewChangeOrder>>false</HasRenewChangeOrder>
      <InstanceId>r-bp1xxxxxxxxxxxx</InstanceId>
      <ArchitectureType>cluster</ArchitectureType>
      <ZoneId>cn-hangzhou-e</ZoneId>
      <PrivateIp>xxx.xxx.xxx.224</PrivateIp>
      <VSwitchId>vsw-bp1xxxxxxxxxxxxxx</VSwitchId>
      <VpcId>vpc-bp1xxxxxxxxxxxxxx</VpcId>
      <Engine>Redis</Engine>
      <NetworkType>VPC</NetworkType>
      <PackageType>standard</PackageType>
      <QPS>200000</QPS>
      <ReplicaId>grr-bp1xxxxxxxxxxxx</ReplicaId>
      <IsRds>true</IsRds>
      <MaintainStartTime>18:00Z</MaintainStartTime>
      <VpcAuthMode>Close</VpcAuthMode>
      <ConnectionDomain>cluster40.redis.rds.aliyuncs.com</ConnectionDomain>
      <EngineVersion>4.0</EngineVersion>
      <InstanceName>cluster40</InstanceName>
      <Bandwidth>96</Bandwidth>
      <ChargeType>PostPaid</ChargeType>
      <AuditLogRetention>30</AuditLogRetention>
      <MaintainEndTime>22:00Z</MaintainEndTime>
      <ReplicationMode>cluster</ReplicationMode>
      <InstanceType>Redis</InstanceType>
      <Tags></Tags>
      <InstanceStatus>Normal</InstanceStatus>
      <Port>6379</Port>
      <InstanceClass>redis.logic.sharding.2g.2db.0rodb.4proxy.default</InstanceClass>
      <AvailabilityValue>100.0%</AvailabilityValue>
      <RegionId>cn-hangzhou</RegionId>
      <NodeType>double</NodeType>
      <CreateTime>2018-11-07T16:49:00Z</CreateTime>
      <Capacity>4096</Capacity>
```

```

    < SecurityIP List > 172 . 0 . 0 . 1 </ SecurityIP List >
    < Connection s > 20000 </ Connection s >
  </ DBInstance Attribute >
</ Instances >
</ DescribeInstanceAttributeResponse >

```

**JSON format**

```

{
  "RequestId ":" 5553161D - 11B1 - 43E1 - 9D95 - 523B2C8230 4F ",
  "Instances ":{
    "DBInstance Attribute ":[
      {
        "Config ":{"maxmemory - policy ":" volatile - lfu ","
EvictionPolicy ":" volatile - lru ","
hash - max - ziplist -
entries ":" 512 ","
zset - max - ziplist - entries ":" 128 ","
zset
- max - ziplist - value ":" 64 ","
set - max - intset - entries ":"
512 ","
hash - max - ziplist - value ":" 64 ","
"# no_loose_disabled
- commands ":" flushall , flushdb ","
lazyfree - lazy - eviction
":" yes "},
        "HasRenewChangeOrder ":" false ",
        "InstanceId ":" r - bp1xxxxxxxx xxxxxx ",
        "ZoneId ":" cn - hangzhou - e ",
        "ArchitectureType ":" cluster ",
        "PrivateIp ":" xxx . xxx . xxx . 224 ",
        "VSwitchId ":" vsw - bp1xxxxxxxx xxxxxxxxxxxx x ",
        "Engine ":" Redis ",
        "VpcId ":" vpc - bp1xxxxxxxx xxxxxxxxxxxx x ",
        "NetworkType ":" VPC ",
        "QPS ":" 200000 ",
        "PackageType ":" standard ",
        "ReplicaId ":" grr - bp1xxxxxxxx xxxxxx ",
        "IsRds ":" true ",
        "MaintainStartTime ":" 18 : 00Z ",
        "VpcAuthMode ":" Close ",
        "Connection Domain ":" cluster40 . redis . rds . aliyuncs . com
",
        "EngineVersion ":" 4 . 0 ",
        "InstanceName ":" cluster40 ",
        "Bandwidth ":" 96 ",
        "ChargeType ":" PostPaid ",
        "AuditLogRetention ":" 30 ",
        "MaintainEndTime ":" 22 : 00Z ",
        "ReplicationMode ":" cluster ",
        "InstanceType ":" Redis ",
        "InstanceStatus ":" Normal ",
        "Tags ":{
          "Tag ":[]
        },
        "Port ":" 6379 ",
        "InstanceClass ":" redis . logic . sharding . 2g . 2db . 0rodb
. 4proxy . default ",
        "CreateTime ":" 2018 - 11 - 07T16 : 49 : 00Z ",
        "NodeType ":" double ",
        "RegionId ":" cn - hangzhou ",
        "AvailabilityValue ":" 100 . 0 %",
        "Capacity ":" 4096 ",
        "Connections ":" 20000 ",
        "SecurityIP List ":" 172 . 0 . 0 . 1 "
      }
    ]
  }
}

```

```
}

```

## Error codes

For more information, see [Error codes](#).

## 8.3 DescribeInstances

### Description

This API is used to query one or multiple instances under an account.

### Request parameters

Table 8-4: Request parameters

Name	Type	Required	Description
<Common request parameters>	-	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	The API name. Value: DescribeInstances.
InstanceIds	String	No	Instance ID (globally unique). This parameter is required when an instance ID is specified. To query multiple instance IDs, separate the IDs by comma (.). If the parameter value is left blank, all instances under the account are queried by default.

Name	Type	Required	Description
InstanceStatus	String	No	Filter instances to be returned by the instance status: <ul style="list-style-type: none"> <li>· Normal</li> <li>· Creating</li> <li>· Changing</li> <li>· Inactive</li> </ul>
ChargeType	String	No	Filter instances to be returned by the payment options: <ul style="list-style-type: none"> <li>· PrePaid</li> <li>· PostPaid</li> </ul>
RegionId	String	Yes	Call DescribeRegions to query the RegionId.
InstanceType	String	No	Filter instances by the engine type: <ul style="list-style-type: none"> <li>· Memcache</li> <li>· Redis</li> </ul>
PageNumber	Integer	No	Page number of the instance status list . Initial value: 1. Default value: 1.
PageSize	Integer	No	Number of lines per page in paging query. Maximum value: 50. Default value: 10.
NetworkType	String	No	Filter instances by network type: <ul style="list-style-type: none"> <li>· CLASSIC</li> <li>· VPC</li> </ul>

## Response parameters

Table 8-5: Response parameters

Name	Type	Description
<Common response parameters>	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>
Instances	List	Array composed of Instances
TotalCount	Integer	Total number of instances
PageNumber	Integer	Page number of the instance list
PageSize	Integer	Number of lines per page set during input

## Instance parameter structure

Name	Type	Description
InstanceId	String	Instance ID (globally unique)
InstanceName	String	Instance name
Capacity	Long	Capacity of the applied ApsaraDB for Redis instance. Unit: MB.
InstanceClass	String	Instance type
Bandwidth	Long	Instance bandwidth limit. Unit: Mbit/s.
Connections	Long	Instance connection quantity limit. Unit: count.
ConnectionDomain	String	Instance connection domain (only Intranet access supported).
Port	Int	Connection port
Username	String	Connection user name
RegionId	String	Region of the applied ApsaraDB for Redis instance

Name	Type	Description
ZoneId	String	Lower-level zone ID of the RegionId
InstanceStatus	String	Instance status: <ul style="list-style-type: none"> <li>· Normal</li> <li>· Creating</li> <li>· Changing</li> <li>· Inactive</li> <li>· Transforming</li> <li>· BackupRecovering</li> <li>· MinorVersionUpgrading</li> </ul>
ChargeType	String	Billing method. Supported values: PrePaid and PostPaid.
CreateTime	String	Instance creation time. The time format follows the ISO8601 notation, and the UTC time is used in the format of <code>YYYY - MM - DDThh : mm : ssZ</code> .
EndTime	String	Expiration time for a pre-paid instance. The time format follows the ISO8601 notation, and the UTC time is used in the format of <code>YYYY - MM - DDThh : mm : ssZ</code> .
NetworkType	String	Network type. Supported values: CLASSIC and VPC.
VpcId	String	VPC ID
VSwitchId	String	VSwitch ID
Privateipaddr	String	Private IP address

**Notice:**

In consideration of the historical compatibility, some returned fields (such as Config) of the function are not mentioned in this document. Alibaba Cloud will delete these



fields gradually in the future. In this case, do not rely on the returned fields not involved in this document when calling the APIs.

#### Request example

```
https://r-kvstore.aliyuncs.com.com/
<Common request parameters>
&Action=DescribeInstances
&PageNumber=1
&PageSize=10
&InstanceId=de5d88e34d004211
```

#### Response example

```
{
  "Instances": {
    "Instance": [
      {
        "Bandwidth": 128,
        "Capacity": 512,
        "ConnectionDomain": "de5d88e34d004211.m.cn-hzalicm1-0pub001.r-kvstore.aliyuncs.com.com",
        "Connections": 300,
        "ZoneId": "cn-qingdao-b",
        "InstanceId": "de5d88e34d004211",
        "InstanceName": "wl123456",
        "InstanceStatus": "Available",
        "InstanceClass": "redis.master.mid.default",
        "Port": 11211,
        "RegionId": "cn-qingdao",
        "UserName": "de5d88e34d004211",
        "NetworkType": "CLASSIC",
        "ChargeType": "PostPaid"
      }
    ]
  },
  "PageNumber": 1,
  "PageSize": 10,
  "TotalCount": 1,
  "RequestId": "969D0A1D-C91A-4837-9F70-49785DF9BDCE"
}
```

## 8.4 FlushInstance

### Description

This API is used to irrecoverably clear data stored in an instance.

Operations of this API are asynchronous. After you call this API, the result is immediately returned, and data of the instance is cleared in the back-end.

## Request parameters

Table 8-6: Request parameters

Name	Type	Required	Description
<Common request parameters>	-	-	See <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value: FlushInstance.
InstanceId	String	Yes	Instance ID (globally unique)

## Response parameters

Table 8-7: Response Parameters

Name	Type	Description
<Common return parameters>	-	See <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>

## Request example

```
https://r-kvstore.aliyuncs.com
<Common request parameters>
&Action=FlushInstance
&InstanceId=657e361a074646d5
```

## Response example

```
"RequestId": "96893674-E50C-495D-AB0E-2F12C1E0FD45"
```

## 8.5 ModifyInstanceAttribute


## Description

This API is used to modify the attributes of an instance, including the name or password.

## Request parameters

Table 8-8: Request parameters

Name	Type	Required	Description
<Common request parameters>	-	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	The API name. Value: ModifyInstanceAttribute.
InstanceId	String	Yes	Instance id, globally unique.
InstanceName	String	No	Modified instance name. The name is a string of 2 to 128 characters and must start with a letter (uppercase or lowercase) or a Chinese character. Special characters, such as the at sign (@), slash (/), colon (:), equal sign (=), quotation mark ( “), angle brackets (<>), braces ({}), and square brackets ([]) and space, are not supported.

Name	Type	Required	Description
NewPassword	String	No	<p>Instance password. The password is a string of 8 to 30 characters and must contain uppercase letters, lowercase letters, and numbers.</p> <div style="background-color: #f0f0f0; padding: 5px;">  <b>Notice:</b> The following special characters are not supported now: The following special characters are not supported now: Exclamation mark (!), angle brackets (&lt;&gt;), parentheses (()), square brackets ([]), braces ({}), comma (,), backquote (`), tilde (~), period (.), hyphen (-), underscore (_), at sign (@), number sign (#), dollar sign (\$), percent sign (%), caret (^), ampersand (&amp;), and asterisk (*).                 </div>

Response parameters

Table 8-9: Response parameters

Name	Type	Description
<Common response parameters>	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>

### Request example

```
https://r-kvstore.aliyuncs.com
<Common request parameters>
&Action=ModifyInstanceMaintainTime
&InstanceId=657e361a074646d5
&NewPassword=Qa12345678
&InstanceName=TestInstance
```

### Response example

```
"RequestId": "E3B35BEA-9EB0-402C-88CF-C46CCCC1EE59"
```

## 8.6 ModifyInstanceMaintainTime

You can call this operation to modify the maintenance window of an ApsaraDB for Redis instance. Alibaba Cloud maintains the ApsaraDB for Redis instance in the specified maintenance window.


For more information about how to perform the corresponding operation in the console, see [Set a maintenance window](#).

### Debugging

Alibaba Cloud provides OpenAPI Explorer to simplify API usage. You can use [OpenAPI Explorer](#) to search for APIs, call APIs, and dynamically generate SDK example code.

### Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceMaintainTime	The operation that you want to perform. Set this parameter to ModifyInstanceMaintainTime.
InstanceId	String	Yes	r-bp1xxxxxxx xxxxxx	The ID of the instance for which you want to modify the maintenance window.

Parameter	Type	Required	Example	Description
MaintainStartTime	String	Yes	03:00Z	The start time of the maintenance window. The time must be in the <code>HH : mmZ</code> format.
MaintainEndTime	String	Yes	02:00Z	The end time of the maintenance window. The time must be in the <code>HH : mmZ</code> format.   <b>Note:</b> The interval between the start time and the end time must be one hour. For example, if the value of the <code>MaintainStartTime</code> parameter is <code>01 : 00Z</code> , the value of the <code>MaintainEndTime</code> parameter must be <code>02 : 00Z</code> .
AccessKeyId	String	No	Lxxxxxxxxxxxxxxw	The AccessKey ID that Alibaba Cloud provides for you to access services.

### Response parameters

Parameter	Type	Example	Description
RequestId	String	8D0C0AFC-E9CD-47A4-8395-5C31BF9B3E76	The ID of the request.

### Examples

#### Sample request

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceMaintenanceTime&InstanceId=r-bp1xxxxxxxxxxxx
```

```
& MaintainSt artTime = 02 : 00Z
& MaintainEn dTime = 03 : 00Z
<& Common request parameters >
```

### Sample success response

#### XML format

```
< ModifyInst anceMainta inTimeResp onse >
  < RequestId > 8D0C0AFC - E9CD - 47A4 - 8395 - 5C31BF9B3E 76 </
    RequestId >
</ ModifyInst anceMainta inTimeResp onse >
```

#### JSON format

```
{
  " RequestId ":" 8D0C0AFC - E9CD - 47A4 - 8395 - 5C31BF9B3E 76 "
}
```

### Error codes

HTTP status code	Error code	Error message	Description
400	InvalidEndTime.Format	Specified end time is not valid.	The error message returned because the verification of the end time failed.

[View error codes.](#)

## 8.7 ModifyInstanceNetExpireTime

### Description

If an instance has been switched from a classic network to a VPC and the classic network connection address is retained, this API can be called to prolong the retention period of the classic network connection address.

## Request parameters

Table 8-10: Request parameters

Name	Type	Required	Description
<Common request parameters>	-	Yes	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value : ModifyInstanceNetExpireTime .
InstanceId	String	Yes	Instance ID ( globally unique)
ConnectionString	String	Yes	Domain name used to access the classic network
ClassicExpiredDays	String	Yes	Retention period. Supported values: 14, 30, 60, and 120.

## Response parameters

Table 8-11: Response parameters

Name	Type	Description
<Common response parameters>	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>

## Request example

```
https://r-kvstore.aliyuncs.com
<Common request parameters>
&Action=ModifyInstanceNetExpireTime
&ConnectionString=fdafas32323ed.redis.rds.aliyuncs.com
&InstanceId=fdafas32323ed
&ClassicExpiredDays=120
```

## Response example



```
" RequestId " : " AAAF99B1 - 69ED - 4E80 - 8CD5 - 272C09E46A CF "
```

## 8.8 ModifyDBInstanceConnectionString

You can call this operation to modify an endpoint of an ApsaraDB for Redis instance.

For more information about how to perform the corresponding operation in the console, see [Modify connection addresses](#).

### Debugging

Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to search for APIs, call APIs, and dynamically generate SDK example code.

### Request parameters

Parameter	Type	Required	Example	Description
DBInstanceId	String	Yes	r-bp1xxxxxxx xxxxxx	The ID of the instance for which you want to modify an endpoint.
CurrentConnectionString	String	Yes	r-bp1xxxxxxx xxxxxx.redis. rds.aliyuncs. com	The current endpoint of the ApsaraDB for Redis instance.
NewConnectionString	String	Yes	standardredis	The prefix of the new endpoint. The new endpoint of the ApsaraDB for Redis instance is in the <code>&lt; Prefix &gt;.redis . rds . aliyuncs . com</code> format. The prefix of the endpoint must start with a lowercase letter and can contain lowercase letters and digits. The prefix can be 8 to 64 characters in length.

Parameter	Type	Required	Example	Description
Action	String	No	ModifyDBInstanceConnectionString	The operation that you want to perform. Set this parameter to ModifyDBInstanceConnectionString.
IPType	String	No	Public	The network type of the new endpoint. Value values: <ul style="list-style-type: none"> <li>Private: internal network.</li> <li>Public: public network.</li> </ul>
Port	String	No	6379	The service port of the instance. If the IPType parameter is set to <code>Public</code> , you can specify a custom port by using this parameter. Valid values: 1024 to 65535.
AccessKeyId	String	No	LXXXXXXXXXX XXXXXXW	The AccessKey ID that Alibaba Cloud provides for you to access services.

### Response parameters

Parameter	Type	Example	Description
RequestId	String	1790D68A-465C-44E3-BC24-9732652961F9	The ID of the request.

### Examples

#### Sample request

```
https://r-kvstore.aliyuncs.com/?Action=ModifyDBInstanceConnectionString&DBInstanceId=r-bp1xxxxxxxxxxxxx&CurrentConnectionString=r-bp1xxxxxxxxxxxxx.redis.rds.aliyuncs.com&NewConnectionString=standardredis
```

&< Common request parameters >

### Sample success response

#### XML format

```
< ModifyDBInstanceConnctionStringResponse >
  < RequestId > 1790D68A - 465C - 44E3 - BC24 - 9732652961 F9 </
    RequestId >
</ ModifyDBInstanceConnctionStringResponse >
```

#### JSON format

```
{
  "RequestId ":" 1790D68A - 465C - 44E3 - BC24 - 9732652961 F9 "
}
```

### Error codes

For more information, see [Error codes](#).

## 8.9 SwitchNetwork

You can call SwitchNetwork to switch the network type of an ApsaraDB for Redis instance. from classic network to VPC.



For more information about how to perform the corresponding operation in the console, see [#unique\\_28](#).

### Debugging

Alibaba Cloud provides OpenAPI Explorer to simplify API usage. You can use [OpenAPI Explorer](#) to search for APIs, call APIs, and dynamically generate SDK example code.

### Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SwitchNetwork	The operation that you want to perform. Set this parameter to SwitchNetwork.
InstanceId	String	Yes	r-j6cxxxxxxx xxxxxxx	The ID of the instance for which you want to switch the network type.

Parameter	Type	Required	Example	Description
AccessKeyId	String	No	LXXXXXXXXXX XXXXXXW	The AccessKey ID that Alibaba Cloud provides for you to access services.
ClassicExpiredDays	String	No	30	<p>The retention period of the connection address of the classic network. Unit: days. Valid values: 14, 30, 60, and 120. This parameter must be specified if RetainClassic is set to True.</p> <div style="background-color: #f0f0f0; padding: 5px;">  <b>Note:</b>                      For more information about how to modify the retention period after the network type is switched to VPC, see <a href="#">#unique_29</a>.                 </div>
RetainClassic	String	No	True	<p>Specifies whether to retain the connection address of the classic network.</p> <ul style="list-style-type: none"> <li>· True</li> <li>· False</li> </ul> <div style="background-color: #f0f0f0; padding: 5px;">  <b>Note:</b>                      Default value: False.                 </div>
TargetNetworkType	String	No	VPC	The network type to which you want to switch. Currently, you can only switch from classic network to VPC. Set this parameter to VPC.

Parameter	Type	Required	Example	Description
VSwitchId	String	No	vsw- sdrxxxxxxx xxxxxxxxxxx	The ID of the VSwitch in the VPC after you switch the network type of the instance to VPC. This parameter must be specified if the VpcId parameter is set.
VpcId	String	No	vpc- bp1xxxxxxx xxxxxxxxxxx	The ID of the VPC where the instance is located after you switch the network type of the instance to VPC.

### Response parameters

Parameter	Type	Example	Description
RequestId	String	F0997EE8-F4C2- -4503-9168- 85177ED78C70	The ID of the request.

### Examples

#### Sample request

```
https://r-kvstore.aliyuncs.com
? Action = SwitchNetwork
& InstanceId = r-j6cxxxxxxxxxxxxx
& TargetNetworkType = VPC
& VpcId = vpc-bp1xxxxxxxxxxxxxxx
& VSwitchId = vsw-sdrxxxxxxxxxxxxxxx
& RetainClassic = True
& ClassicExpiredDays = 30
&< Common request parameters >
```

#### Sample success response

##### XML format

```
< SwitchNetworkResponse >
  < requestId > F0997EE8 - F4C2 - 4503 - 9168 - 85177ED78C 70 </
  requestId >
```

```
</ SwitchNetw orkRespons e >
```

JSON format

```
{
  "requestId ":" F0997EE8 - F4C2 - 4503 - 9168 - 85177ED78C 70 "
}
```

Error codes

[View error codes.](#)

## 8.10 ModifyInstanceMajorVersion

You can call this operation to upgrade the major version of an ApsaraDB for Redis instance.


For more information about how to perform the corresponding operation in the console, see [Upgrade the major version](#).

Debugging

Alibaba Cloud provides OpenAPI Explorer to simplify API usage. You can use [OpenAPI Explorer](#) to search for APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	r-bp1xxxxxxx xxxxxx	The ID of the instance for which you want to upgrade the major version.
MajorVersion	String	Yes	4.0	The target major version. Currently, 4.0 is supported.
Action	String	No	ModifyInstanceMajorVersion	The operation that you want to perform. Set this parameter to ModifyInstanceMajorVersion.

Parameter	Type	Required	Example	Description
AccessKeyId	String	No	Lxxxxxxxxxxxxxx	The AccessKey ID that Alibaba Cloud provides for you to access services.
EffectTime	String	No	0	<p>The time when the major version is upgraded. Valid values:</p> <ul style="list-style-type: none"> <li>0: upgrades the major version immediately.</li> <li>1: upgrades the major version in the maintenance window.</li> </ul> <p> <b>Note:</b> Default value: 0.</p>

### Response parameters

Parameter	Type	Example	Description
RequestId	String	AA587FB2-2593-4DFE-BE13-2494C2DF0CBF	The ID of the request.

### Examples

#### Sample request

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceMajorVersion&InstanceId=r-bplxxxxxxxxxxxx&MajorVersion=4.0&EffectTime=0&<Common request parameters>
```

#### Sample success response

##### XML format

```
<ModifyInstanceMajorVersionResponse>
  <RequestId>AA587FB2-2593-4DFE-BE13-2494C2DF0CBF</RequestId>
```

```
</ ModifyInstanceMajorVersionResponse >
```

**JSON format**

```
{  
  "RequestId": "AA587FB2 - 2593 - 4DFE - BE13 - 2494C2DF0C BF "  
}
```

**Error codes**

[View error codes.](#)



## 9 Backup and recovery

---

### 9.1 ModifyBackupPolicy

#### Description

This API is used to query a backup policy.

#### Request parameters

Name	Type	Required	Description
<Common request parameters>	-	Yes	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value : ModifyBackupPolicy.
InstanceId	String	Yes	Instance ID
PreferredBackupTime	String	Yes	Backup time, in the format of <code>HH : mmZ - HH : mmZ</code>
PreferredBackupPeriod	String	Yes	Backup cycle: <ul style="list-style-type: none"> <li>· Monday</li> <li>· Tuesday</li> <li>· Wednesday</li> <li>· Thursday</li> <li>· Friday</li> <li>· Saturday</li> <li>· Sunday</li> </ul>

Response parameters

Table 9-1: Response parameters

Name	Type	Description
<Common return parameters>	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>

Request example

```
https://r-kvstore.aliyuncs.com,
<Common request parameters>
&Action=ModifyBackupPolicy
&InstanceId=de5d88e34d004211
&PreferredBackupTime=00:00Z-04:00Z
&PreferredBackupPeriod=Saturday
```

Response example

```
"RequestId": "5C97648D-C85F-4D58-A71F-7B6750856BF7"
```

## 9.2 DescribeBackupPolicy

Description

This API is used to query a backup policy you set. You can query the backup cycle, backup time, and other details of an instance.

Request parameters

Table 9-2: Request Parameters

Name	Type	Required	Description
<Common request parameter>	-	Yes	See <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value: DescribeBackupPolicy.
InstanceId	String	Yes	Instance ID

## Response parameters

Table 9-3: Response Parameters

Name	Type	Description
<Common return parameter>	-	See <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>
BackupRetentionPeriod	String	Backup retention period
PreferredBackupTime	String	Backup time, in the format of HH:mmZ- HH:mm Z
PreferredBackupPeriod	String	Backup cycle: <ul style="list-style-type: none"> <li>· Monday</li> <li>· Tuesday</li> <li>· Wednesday</li> <li>· Thursday</li> <li>· Friday</li> <li>· Saturday</li> <li>· Sunday</li> </ul>
PreferredNextBackupTime	String	Next backup time

## Example

```

Https://r-kvstore.aliyuncs.com
<Common request parameter>
&Action=DescribeBackupPolicy
&InstanceId=de5d88e34d004211

```

## Response example

```

"BackupRetentionPeriod": "7"
"PreferredBackupTime": "06:00Z - 07:00Z"
"PreferredNextBackupTime": "2017-10-19T06:16Z"
"PreferredBackupPeriod": "Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday"
"RequestId": "5C97648D-C85F-4D58-A71F-7B6750856BF7"

```

## 9.3 DescribeBackups

### Description

This API is used to query the details of a backup file, including the backup start time, file size, backup mode, download address, and other information.

Request parameters

Table 9-4: Request Parameters

Name	Type	Required	Description
<Common request parameters>	-	Yes	see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value: DescribeBackups.
InstanceId	String	Yes	Instance ID
BackupId	String	No	Backup set ID
PagSize	String	Yes	Number of records per page. Supported values: 30, 50, and 100.
PageNumber	String	Yes	Page number. It must be greater than 0 and cannot exceed the maximum value of the given Integer.
StarTime	String	Yes	Query start time
EndTime	String	Yes	Query end time

Response parameters

Table 9-5: Response parameters

Name	Type	Description
<Common return parameter>	-	See <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>
Backups	List	An array composed of Backups
PageNumber	Integer	Page number
TotalCount	Integer	Total number of backups
PageSize	Integer	Number of records per page

## Backup parameter structure

Table 9-6: Backup parameter structure

Name	Type	Description
BackupId	String	Backup set ID
BackupDBNames	String	Backup database name
BackupStatus	String	Backup set status: <ul style="list-style-type: none"> <li>· Success</li> <li>· Failed</li> </ul>
BackupStartTime	String	Backup start time
BackupEndTime	String	Backup end time
BackupType	String	Backup Type: <ul style="list-style-type: none"> <li>· Fullbackup</li> <li>· IncrementalBackup</li> </ul>
BackupMode	String	Backup mode: <ul style="list-style-type: none"> <li>· Automated</li> <li>· Manual</li> </ul>
BackupMethod	String	Backup method: <ul style="list-style-type: none"> <li>· Logical</li> <li>· Physical</li> </ul>
BackupDownloadURL	String	Download address of the backup file
BackupSize	String	Backup size

## Example

```

Https :// r - kvstore . aliyuncs . com
?< Common request parameter >
& Action = DescribeBackups
& InstanceId = de5d88e34d 004211
& Pagenumber = 1
& Pagesize = 10
& InstanceId = de5d88e34d 004211

```

## Response example

```

" Backups " : {
  " Backup " : [{

```

```


        " BackupId ":" 187709043 ",
        " BackupDBNames ":" all ",
        " BackupStatus ":" Success ",
        Backuptype : fullbackup ",
" BackupStartTime ":" 2017 - 10 - 18T10 : 34 : 52Z ",
" BackupEndTime ":" 2017 - 10 - 18T10 : 36 : 06Z ",
" BackupMode ":" Manual ",
" BackupMethod ":" Physical ",
" BackupDownloadURL ":" https :// rdsbak - st - v2 . oss - cn
- shenzhen . aliyuncs . com / custins458 8367 / hins340258
1_data_201 7101818340 8 . rdb ? OSSAccessKeyID = AAAAAAAAAA
AAAAAA & Expires = 1508409386 & Signature = rYyFYVdMOh hTJ0TAPafG
c6oJSuk % 3D ",
" BackupSize ":" 1024 "

" PageNumber " : 1 ,
" PageSize " : 10 ,
" TotalCount " : 1 ,
" RequestId " : " 5C97648D - C85F - 4D58 - A71F - 7B6750856B F7 "
    
```

## 9.4 RestoreInstance

### Description

This API is used to recover data to the master instance based on a backup set.

 **Notice:**  
 This operation may have a high risk because the backup data will cover the instance data.

### Request parameters

Table 9-7: Request parameters

Name	Type	Required	Description
<Common request parameters>	-	Yes	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value: RestoreInstance.
InstanceId	String	Yes	Instance ID
BackupId	String	Yes	Backup result set ID

## Response parameters

Table 9-8: Response parameters

Name	Type	Description
<Common return parameters>	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>

## Request example

```
https://r-kvstore.aliyuncs.com
<Common request parameters>
&Action=RestoreInstance
&InstanceId=de5d88e34d004211
&BackupId=fdafasf111
```

## Response example

```
"RequestId": "AFA391BF-808F-4DA6-80A2-A382108A0945"
```

# 10 Monitoring Management

## 10.1 DescribeMonitorItems

### Description

This API is used to query the list of available monitoring parameters. The results are returned in the format of <parameter:unit>.

### Request parameters

Table 10-1: Request parameters

Name	Type	Required or not	Description
<Common request parameters>	-	Yes	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value : DescribeMonitorItems.

### Response parameters

Table 10-2: Response parameters

Name	Type	Description
<Common return parameters>	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>
MonitorItems	List	List of each monitoring parameter that can be viewed.

### Request example

```
https://r-kvstore.aliyuncs.com
<Common request parameters>
```



```
& Action = DescribeMonitorItems
```

Response example

```
" MonitorItems " : {
  " MonitorItem " : [{
    " MonitorKey " : " GetQ ",
    " Unit " : " Counts / s "

    " MonitorKey " : " Flush ",
    " Unit " : " Counts / s "

    " MonitorKey " : " UsedMemCache ",
    " Unit " : " Bytes "

    " MonitorKey " : " ReplaceQ ",
    " Unit " : " Counts / s "

  }

  " RequestId " : " B906A893 - 58A3 - 4644 - AC2D - A2C9B08706 C1 "
```

## 10.2 DescribeHistoryMonitorValues

Description

This API is used to view the historical monitoring data of an instance.

Request parameters


Table 10-3: Request parameters

Name	Type	Required	Description
<Common request parameters>	-	Yes	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value : DescribeHistoryMonitorValues .
InstanceId	String	Yes	Instance ID

Name	Type	Required	Description
StartTime	String	Yes	Start time of the historical monitoring data. The time format follows the ISO8601 notation, , and the UTC time is used in the format of YYYY - MM - DDThh : mm : ssZ .
EndTime	String	Yes	End time of the historical monitoring data. The time format follows the ISO8601 notation, and the UTC time is used in the format of YYYY - MM - DDThh : mm : ssZ . The value of EndTime must be greater than or equal to that of StartTime.
IntervalForHistor	String	Yes	The interval between historical monitoring data. Unit: m (minutes). Value: 01m, 05m, 15m, or 60m.
MonitorKeys	String	No	Metric key. The value of this parameter is queried using the DescribeMonitorItems function .

Response parameters

Table 10-4: Response parameters

Name	Type	Description
<Common return parameters>	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>
MonitorHistory	String	Monitoring information returned in JSON format. For more information about returned metrics, see <a href="#">View a metric list</a> .   <b>Notice:</b> To improve the data transmission efficiency, only metrics whose values are not 0 are returned. Metrics not displayed are all set to the default value 0.

Request example

```
https://r-kvstore.aliyuncs.com,
<Public request parameters>
&Action=DescribeHistoryMonitorValues
&InstanceId=de5d88e34d004211
&EndTime=2014-11-27T12:00:00Z
&StartTime=2014-11-27T12:00:00Z
&IntervalForHistory=01m
```

Response example

```
"MonitorHistory":
[{"2014-11-27T12:00:00Z":{"IsConnectControl":false,
"IsFlowControl":false,"ItemCount":1,"QuotaConnection":500,
"QuotaFlow":15360,"QuotaMemCache":1073741824,"QuotaQps":9000,
"UsedMemCache":14},
{"2014-11-27T12:01:00Z":{"IsConnectControl":false,
"IsFlowControl":false,"ItemCount":1,"QuotaConnection":500,
"QuotaFlow":15360,"QuotaMemCache":1073741824,"QuotaQps":9000,
"UsedMemCache":14},
{"2014-11-27T12:02:00Z":{"IsConnectControl":false,
"IsFlowControl":false,"ItemCount":1,"QuotaConnection":500,
"QuotaFlow":15360,"QuotaMemCache":1073741824,"QuotaQps":9000,
"UsedMemCache":14}}
```

```
": 500 ," QuotaFlow ": 15360 ," QuotaMemCache ": 1073741824 ,"  
QuotaQps ": 9000 ," UsedMemCache ": 14 }  
" RequestId " : " 5C97648D - C85F - 4D58 - A71F - 7B6750856B F7 "
```

# 11 Network security

## 11.1 ModifySecurityIps

### Description

Set the instance's IP whiteable list, and you can select the allowed ECs IP Access instance.

### Request parameters

Table 11-1: Request parameters

Name	Type	Required	Description
<Common request parameters>	-	Yes	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value: ModifySecurityIps.
InstanceId	String	Yes	Instance ID (globally unique)
SecurityIps	String	Yes	IP address whitelist to be modified
SecurityIpGroupName	String	Yes	Whitelist group

### Response parameters

Table 11-2: Response parameters

Name	Type	Description
<Common return parameters>	-	For more information, see <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>

### Request example

```
https://r-kvstore.aliyuncs.com
```

```
< Common request parameters >
& Action = ModifySecurityIps
& InstanceId = 657e361a074646d5
& SecurityIps = 1.1.1.1, 2.2.2.2
& SecurityIpGroupName = testgroup
```

### Response example

```
" RequestId " : " AAAF99B1 - 69ED - 4E80 - 8CD5 - 272C09E46A CF "
```

## 11.2 ModifyInstanceVpcAuthMode

You can call this operation to enable or disable password-free access for an ApsaraDB for Redis instance. When the password-free access feature is enabled, Elastic Compute Service (ECS) instances in the same Virtual Private Cloud (VPC) can access the ApsaraDB for Redis instance without the password. You can also use the username and password to access the ApsaraDB for Redis instance.


For more information about how to perform the corresponding operation in the console, see [#unique\\_43](#).

### Debugging

Alibaba Cloud provides OpenAPI Explorer to simplify API usage. You can use [OpenAPI Explorer](#) to search for APIs, call APIs, and dynamically generate SDK example code.

### Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceVpcAuthMode	The operation that you want to perform. Set this parameter to ModifyInstanceVpcAuthMode.
InstanceId	String	Yes	r-bp1xxxxxxx xxxxxx	The ID of the instance for which you want to enable or disable password-free access.

Parameter	Type	Required	Example	Description
VpcAuthMode	String	Yes	Close	<p>Specifies whether to enable password authentication for access within the VPC. Valid values:</p> <ul style="list-style-type: none"> <li>Open: enables password authentication.</li> <li>Close: disables password authentication.</li> </ul> <div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;">  <b>Note:</b> Default value: Open.         </div>
AccessKeyId	String	No	LXXXXXXXXXX XXXXXXW	The AccessKey ID that Alibaba Cloud provides for you to access services.

### Response parameters

Parameter	Type	Example	Description
RequestId	String	ABAF95F6-35C1-4177-AF3A-70969EBDF623	The ID of the request.

### Examples

#### Sample request

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceVpcAuthMode&InstanceId=r-bp1xxxxxxxxxxxxx&VpcAuthMode=Close&<Common request parameters>
```

#### Sample success response

##### XML format

```
<ModifyInstanceVpcAuthModeResponse>
  <RequestId>ABAF95F6-35C1-4177-AF3A-70969EBDF623</RequestId>
```

```
</ ModifyInst anceVpcAut hModeRespo nse >
```

**JSON format**

```
{  
  "RequestId ":" ABAF95F6 - 35C1 - 4177 - AF3A - 70969EBDF6 23 "  
}
```

**Error codes**

[View error codes.](#)



# 12 Parameter Management

## 12.1 ModifyInstanceConfig

### Description

This API is used to change the configuration parameters of an instance.

### Request parameters

Table 12-1: Request parameters

Name	Type	Required	Description
<Public request parameter>	-	Yes	See <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value : ModifyInstanceConfig.
InstanceId	String	Yes	Instance ID
Config	String	Yes	Instance configuration parameter (JSON String). For more information, see <a href="#">#unique_46</a> .

### Response parameters

Table 12-2: Response parameters

Name	Type	Description
<Public return parameter>	-	See also.

### Request example

```
https://r-kvstore.aliyuncs.com
<Common request parameters>
&Action=ModifyInstanceConfig
&InstanceId=de5d88e34d004211
```

```
& Config ={" hash - max - ziplist - entries ":" 512 "}
```

Response example

```
" RequestId ":" 59A58517 - F8FF - 44E5 - B90F - F386DB3E4A B8 "
```

## 12.2 DescribeInstanceConfig

Description

This API is used to view the configuration parameters of an instance.

Request parameters

Table 12-3: Request parameters

Name	Type	Required	Description
<Common request parameters>	-	Yes	See <a href="#">#unique_12/unique_12_Connect_42_section</a>
Action	String	Yes	Required parameter. Value : DescribeInstanceConfig.
InstanceId	String	Yes	Instance ID

Response parameters

Table 12-4: Response parameters

Name	Type	Description
<Common return parameters>	-	See <a href="#">#unique_12/unique_12_Connect_42_section_rjr_zg</a>
Config	String	Configuration parameters for the instance. See <a href="#">#unique_46</a> .

Request example

```
https :// r - kvstore . aliyuncs . com
< Common request parameters >
& Action = DescribeInstanceConfig
```

```
& InstanceId = de5d88e34d 004211
```

### Response example

```
" Config ":{" EvictionPo licy ":" volatile - lru "," hash - max -  
ziplist - entries ": 512 ,  
" hash - max - ziplist - value ": 64 ," list - max - ziplist - entries  
": 512 ,  
" list - max - ziplist - value ": 64 ," set - max - intset - entries  
": 512 ,  
" zset - max - ziplist - entries ": 128 ," zset - max - ziplist -  
value ": 64 } ,  
" RequestId ":" 59A58517 - F8FF - 44E5 - B90F - F386DB3E4A B8 "
```

# 13 Appendix

## 13.1 Instance types

This topic describes the types and parameters of all ApsaraDB for Redis editions and the method of testing queries per second (QPS). To call the APIs related to a type of instance, use the `InstanceClass` parameter for the corresponding type described in this topic.



Note:

The maximum internal network bandwidth in below tables includes the maximum upstream bandwidth and the maximum downstream bandwidth. If network resources are sufficient, the bandwidth is unlimited for ApsaraDB for Redis instances. However, if network resources are insufficient, the maximum bandwidth takes effect for the instances.

### Standard dual-replica edition



Note:

A 256 MB master-replica instance uses the subscription billing method only.

Type	InstanceClass (used in API operations)	Maximum concurrent connections	Maximum internal network bandwidth (MB)	CPU processing capacity	QPS reference value	Description
256 MB master-replica	redis.master.micro.default	10,000	10	Single-core	80,000	Master-replica instance
1 GB master-replica	redis.master.small.default	10,000	10	Single-core	80,000	Master-replica instance

Type	InstanceClass (used in API operations)	Maximum concurrent connections	Maximum internal network bandwidth (MB)	CPU processing capacity	QPS reference value	Description
2 GB master-replica	redis.master.mid.default	10,000	16	Single-core	80,000	Master-replica instance
4 GB master-replica	redis.master.stand.default	10,000	24	Single-core	80,000	Master-replica instance
8 GB master-replica	redis.master.large.default	10,000	24	Single-core	80,000	Master-replica instance
16 GB master-replica	redis.master.2xlarge.default	10,000	32	Single-core	80,000	Master-replica instance
32 GB master-replica	redis.master.4xlarge.default	10,000	32	Single-core	80,000	Master-replica instance
64 GB master-replica	redis.master.8xlarge.default	10,000	48	Single-core	80,000	Master-replica instance

#### Standard zone-disaster recovery edition



#### Note:

To create a zone-disaster recovery instance, you have to select the region and zone that support zone-disaster recovery, such as China (Hangzhou) and Hangzhou Zones B and F.

Type	InstanceClass (used in API operations)	Maximum concurrent connections	Maximum internal network bandwidth (MB)	CPU processing capacity	QPS reference value	Description
Zone-disaster recovery 1 GB	redis.logic.sharding.drredisdb1g.1db.0rodb.4proxy.default	40,000	10	Single-core	80,000	Master-replica zone-disaster recovery instance
Zone-disaster recovery 2 GB	redis.logic.sharding.drredisdb2g.1db.0rodb.4proxy.default	40,000	16	Single-core	80,000	Master-replica zone-disaster recovery instance
Zone-disaster recovery 4 GB	redis.logic.sharding.drredisdb4g.1db.0rodb.4proxy.default	40,000	24	Single-core	80,000	Master-replica zone-disaster recovery instance
Zone-disaster recovery 8 GB	redis.logic.sharding.drredisdb8g.1db.0rodb.4proxy.default	40,000	24	Single-core	80,000	Master-replica zone-disaster recovery instance

Type	InstanceClass (used in API operations)	Maximum concurrent connections	Maximum internal network bandwidth (MB)	CPU process capacity	QPS reference value	Description
Zone-disaster recovery 16 GB	redis.logic.sharding.drredisdb16g.1db.0rodb.4proxy.default	40,000	32	Single-core	80,000	Master-replica zone-disaster recovery instance
Zone-disaster recovery 32 GB	redis.logic.sharding.drredisdb32g.1db.0rodb.4proxy.default	40,000	32	Single-core	80,000	Master-replica zone-disaster recovery instance
Zone-disaster recovery 64 GB	redis.logic.sharding.drredisdb64g.1db.0rodb.4proxy.default	40,000	48	Single-core	80,000	Master-replica zone-disaster recovery instance

### Zone-disaster recovery cluster edition



#### Note:

To create a zone-disaster recovery instance, you have to select the region and zone that support zone-disaster recovery, such as China (Hangzhou) and Hangzhou Zones B and F.

Type	InstanceClass (used in API operations)	Number of nodes	Maximum concurrent connections	Maximum internal network bandwidth (MB)	CPU processing capacity	QPS reference value	Description
Zone-disaster recovery 16 GB cluster	redis.logic.sharding.drredisfdb.16g.8db.0rodb.8proxy.default	8	80,000	768	8-core	800,000	Zone-disaster recovery cluster instance
Zone-disaster recovery 32 GB cluster	redis.logic.sharding.drredisfdb.32g.8db.0rodb.8proxy.default	8	80,000	768	8-core	800,000	Zone-disaster recovery cluster instance
Zone-disaster recovery 64 GB cluster	redis.logic.sharding.drredisfdb.64g.8db.0rodb.8proxy.default	8	80,000	768	8-core	800,000	Zone-disaster recovery cluster instance
Zone-disaster recovery 128 GB cluster	redis.logic.sharding.drredisfdb.128g.16db.0rodb.16proxy.default	16	160,000	1,536	16-core	1,600,000	Zone-disaster recovery cluster instance



Type	InstanceClass (used in API operations)	Number of nodes	Maximum concurrent connections	Maximum internal network bandwidth (MB)	CPU processing capacity	QPS reference value	Description
Zone-disaster recovery 256 GB cluster	redis.logic.sharding.drredisinstance.256g.16db.0rodb.16proxy.default	16	160,000	1,536	16-core	1,600,000	Zone-disaster recovery cluster instance
Zone-disaster recovery 512 GB cluster	redis.logic.sharding.drredisinstance.512g.32db.0rodb.32proxy.default	32	320,000	3,072	32-core	3,200,000	Zone-disaster recovery cluster instance
Zone-disaster recovery 1 TB cluster	redis.logic.sharding.drredisinstance.1024g.64db.0rodb.64proxy.default	64	640,000	6,144	64-core	6,400,000	Zone-disaster recovery cluster instance
Zone-disaster recovery 2 TB cluster	redis.logic.sharding.drredisinstance.2048g.128db.0rodb.128proxy.default	128	1,280,000	12,288	128-core	12,800,000	Zone-disaster recovery cluster instance

Type	InstanceClass (used in API operations)	Number of nodes	Maximum concurrent connections	Maximum internal network bandwidth (MB)	CPU processing capacity	QPS reference value	Description
Zone-disaster recovery 4 TB cluster	redis.logic.sharding.drredisdb.4096g.256db.0rodb.256proxy.default	256	2,560,000	24,576	256-core	25,600,000	Zone-disaster recovery cluster instance

QPS performance reference

QPS performance

Type	Maximum concurrent connections	Maximum internal network bandwidth (MB)	CPU processing capacity	QPS reference value
8 GB	10,000	24	Single-core	80,000



Note:

QPS reference values of non-cluster instances range from 80,000 to 100,000. QPS reference values of cluster instances are the number of nodes multiplied by the value from 80,000 to 100,000.

QPS testing method

Figure 13-1: Network topology

ECS instance type

Operating system	CPU	Memory	Region	Quantity
Ubuntu 14.04 64-bit	1	2,048 MB	China (Shenzhen)	3

## Procedure

### 1. Download the source code package for redis-2.8.19 to three ECS instances.

```
$ wget http://download.redis.io/releases/redis-2.8.19.tar.gz
$ tar xzf redis-2.8.19.tar.gz
$ cd redis-2.8.19
$ make
$ make install
```

### 2. Run the following command on these ECS instances at the same time.

```
redis-benchmark -h *****.m.cnsza.kvstore.aliyuncs.com -p 6379 -a password -t set -c 50 -d 128 -n 25000000 -r 5000000
```

### 3. Summarize the testing data on these ECS instances. The total QPS is the sum of the QPS on each ECS instance.

## 13.2 Error code table

Error code description	Code	message	httpStatusCode
The API called by the subaccount is unauthorized.	Forbidden.RAM	User not authorized to operate on the specified resource, or this API doesn't support RAM.	403
The operation is unavailable in RAM mode.	Forbidden.NotSupportRAM	This action does not support accessed by RAM mode.	403
An exception or error occurs on the server.	ServiceUnavailable	The request has failed due to a temporary failure of the server.	503
The input instance status does not exist.	InvalidStatus.NotFound	The Status provided does not exist in our records.	404

Error code description	Code	message	statusCode
The input parameter is invalid.	InvalidParameter	The specified parameter InstanceName is not valid.	400
A common user calls on management APIs.	Forbidden. NotAdminUser	User not authorized to operate on the specified API as you are not the administrator.	403
The parameter is missing.	MissingParameter	Specified parameter is missing.	400
At least one of the InstanceName and NewPassword is included.	MissingParameter	InstanceName /NewPassword at least one is mandatory for this action.	400
No OwnerId is specified when this API is called.	MissingParameter	The input parameter OwnerId , OwnerAccount that is mandatory for processing this request is not supplied.	403
The specified Token is invalid.	InvalidToken. Malformed	The Specified parameter "Token" is not valid.	400
The specified InstanceName is invalid.	InvalidInstanceName. Malformed	The Specified parameter " InstanceName" is not valid.	400
The specified Password is invalid.	InvalidPassword. Malformed	The Specified parameter " Password" is not valid."	400

Error code description	Code	message	statusCode
The specified Instances is invalid.	InvalidInstances.Malformed	The Specified parameter "Instances" is not valid.	400
The specified StartTime is invalid.	InvalidStartTime.Malformed	The Specified parameter "StartTime" is not valid.	400
The specified EndTime is invalid.	InvalidEndTime.Malformed	The Specified parameter "EndTime" is not valid.	400
The specified InstanceIds is invalid.	InvalidInstanceIds.Malformed	The Specified parameter "InstanceIds" is not valid.	400
The balance is insufficient.	InsufficientBalance	Your account does not have enough balance.	400
You have not performed real-name authentication.	RealNameAuthenticationError	Your account has not passed the real-name authentication yet.	403
The purchase quantity has exceeded the limit.	QuotaExcee	Living afterpay instances quota exceeded.	400
The capacity configuration is invalid.	InvalidCapacity.NotFound	The Capacity provided does not exist in our records.	400
A used client token is used for the request. However, the content of the request is different from that of the previous request with the used token.	IdempotentParameterMismatch	Request uses a client token in a previous request but is not identical to that request.	400

Error code description	Code	message	statusCode
The storage in the specified zone is insufficient.	QuotaNotEnough	Quota not enough in this zone.	400
You are not authorized to call the order-class APIs .	Forbidden.SubUser	The specified action is not available for you.	403
Access is denied by the Alibaba Cloud risk control system.	Forbidden.RiskControl	This operation is forbidden by Aliyun Risk Control system.	403
The specified Region does not exist.	InvalidRegion.NotFound	The RegionId or ZoneId provided does not exist in our records.	404
The specified ZoneId is invalid.	InvalidZoneId.NotFound	The ZoneId provided is invalid.	400
The instance ID does not exist.	InvalidInstanceId.NotFound	The InstanceId provided does not exist in our records.	404
The password is incorrect.	IncorrectPassword	The Password provided is not correct.	400
The service is unavailable.	ServiceNotSupported	The specified service is not supported.	400
A renewal and configuration change order does not take effect.	HasRenewChangeOrder	This instance has a renewChange order .	400
An internal error occurs.	InternalError	The request processing has failed due to some unknown error.	500
The backup time is invalid.	InvalidPreferredBackupTime	Specified preferred backup time is not valid.	400

Error code description	Code	message	statusCode
The input backup type is invalid.	InvalidBackupType.Format	Specified backup type is not valid.	400
The input backup method is invalid.	InvalidBackupMethod.Format	Specified backup method is not valid.	400
A backup job already exists , which is not supported.	BackupJobExists	A backup job already exists in the specified DB instance.	400
The number of backup times exceeds the limit.	BackupTimesExceeded	Exceeding the daily backup times of this DB instance.	400
Input at least one parameter.	ParameterLeastAssociate	Must input at least one optional parameter.	400
The input backup retention period is invalid.	InvalidBackupRetentionPeriod.Malformed	Specified backup retention period is not valid.	400
The input next backup time is invalid.	InvalidPreferredBackupTime.Format	Specified preferred backup time is not valid.	400
The input backup cycle is invalid.	InvalidPreferredBackupPeriod.Malformed	Specified backup period is not valid.	400
The current instance type does not support this operation.	IncorrectDBInstanceType	Current DB instance type does not support this operation	400
The input key is invalid.	InvalidKey.Malformed	Specified key is not valid.	400
The signature is used.	SignatureNonceUsed	Specified signature nonce was used already.	400
No virtual IP address can be assigned.	AllocateVpcIp.NotEnough	Ip resource is not enough	400

Error code description	Code	message	statusCode
Instances of the specified type cannot be created in the zone.	Zone.NotSupport	Specified zone does not support creating with instance class.	400
The specification code is invalid.	MissingClassCode	Capacity or InstanceClass is mandatory for this action.	400
The specified instance type is not supported.	InvalidDBInstanceClass.NotFound	Specified DB instance class is not found.	404
The instance is locked.	IncorrectDBInstanceLockMode	Current DB instance lock mode does not support this operation.	400
The backup set ID does not exist.	InvalidBackupSetID.NotFound	Specified backup set ID does not exist.	400
The instance status does not support this operation.	IncorrectDBInstanceState	Current DB instance state does not support this operation.	400
The resources are insufficient.	InsufficientResourceCapacity	There is insufficient capacity available for the requested instance.	400
The input end time is invalid.	InvalidEndTime.Format	Specified end time is not valid.	400
The input duration for reserving a classic IP address is invalid.	InvalidClassicExpiredDays.Format	The specified classicExpiredDays format is not valid.	400
The backup set status does not support this operation.	IncorrectBackupSetState	Current backup set state does not support operations.	400



Error code description	Code	message	statusCode
The whitelist format is invalid.	InvalidSecurityIPList.Format	Specified security IP list format is not valid.	400

### 13.3 Instance configurations table

Table 13-1: The following table describes parameter configuration of ApsaraDB for Redis instances.

Parameter	Meaning	Parameter value
maxmemory-policy	The eviction policy when the memory exceeds the threshold value. ApsaraDB for Redis supports six data eviction policies.	<ul style="list-style-type: none"> <li>• <b>VolatileLRU:</b> Original data is evicted based on the LRU algorithm , but only data with an expiration time is evicted.</li> <li>• <b>VolatileTTL:</b> Only data with an expiration time is evicted based on the TTL values in ascending order.</li> <li>• <b>AllKeysLRU:</b> Original data is evicted based on the LRU algorithm.</li> <li>• <b>VolatileRandom:</b> Original data is evicted randomly, but only data with an expiration time is evicted.</li> <li>• <b>AllKeysRandom:</b> Original data is evicted randomly.</li> <li>• <b>NoEviction:</b> No data is evicted, and an error message is returned when new data is written.</li> </ul>

Parameter	Meaning	Parameter value
hash-max-ziplist-entries	<p>A hash object uses ziplist encoding only if the hash object meets both of the following conditions:</p> <ul style="list-style-type: none"> <li>• The number of key-value pairs stored in the hash object is smaller than or equal to the value of list-max-ziplist-entries.</li> <li>• The string lengths of keys and values in all key-value pairs stored in the hash object are smaller than or equal to the value of list-max-ziplist-value.</li> </ul>	Default value: 512
hash-max-ziplist-value	<p>A hash object uses ziplist encoding only if the hash object meets both of the following conditions:</p> <ul style="list-style-type: none"> <li>• The number of key-value pairs stored in the hash object is smaller than or equal to the value of list-max-ziplist-entries.</li> <li>• The string lengths of keys and values in all key-value pairs stored in the hash object are smaller than or equal to the value of list-max-ziplist-value.</li> </ul>	Default value: 64

Parameter	Meaning	Parameter value
<b>list-max-ziplist-entries</b>	<p>A list object uses ziplist encoding only if the list object meets both of the following conditions:</p> <ul style="list-style-type: none"> <li>• The number of key-value pairs stored in the list object is smaller than or equal to the value of list-max-ziplist-entries.</li> <li>• The string lengths of keys and values in all key-value pairs stored in the list object are smaller than or equal to the value of list-max-ziplist-value.</li> </ul>	Default value: 512
<b>list-max-ziplist-value</b>	<p>A list object uses ziplist encoding only if the list object meets both of the following conditions:</p> <ul style="list-style-type: none"> <li>• The number of key-value pairs stored in the list object is smaller than or equal to the value of list-max-ziplist-entries.</li> <li>• The string lengths of keys and values in all key-value pairs stored in the list object are smaller than or equal to the value of list-max-ziplist-value.</li> </ul>	Default value: 64

Parameter	Meaning	Parameter value
set-max-intset-entries	When a set object meets the conditions that the number of entries is smaller than or equal to the value of set-max-intset-entries and all entries are decimal integers, the set object uses intset encoding.	Default value: 512
zset-max-ziplist-entries	A zset object uses ziplist encoding only if the zset object meets both of the following conditions: <ul style="list-style-type: none"> <li>• The number of key-value pairs stored in the zset object is smaller than or equal to the value of zset-max-ziplist-entries.</li> <li>• The string lengths of keys and values in all key-value pairs stored in the zset object are smaller than or equal to the value of zset-max-ziplist-value.</li> </ul>	Default value: 128

Parameter	Meaning	Parameter value
<b>zset-max-ziplist-value</b>	<p>A zset object uses ziplist encoding only if the zset object meets both of the following conditions:</p> <ul style="list-style-type: none"><li>• The number of key-value pairs stored in the zset object is smaller than or equal to the value of <b>zset-max-ziplist-entries</b>.</li><li>• The string lengths of keys and values in all key-value pairs stored in the zset object are smaller than or equal to the value of <b>zset-max-ziplist-value</b>.</li></ul>	<b>Default value: 64</b>

Parameter	Meaning	Parameter value
notify-keyspace-events	<p>The keyspace notifications allow clients to subscribe to channels or modes to receive events modifying Redis datasets in some way</p> <ul style="list-style-type: none"> <li>.</li> </ul>	<ul style="list-style-type: none"> <li>• - <b>K</b>: The keyspace notifications. All notifications are prefixed with <code>\_keyspace\_@\_ \_ \_</code>.</li> <li>• - <b>E</b>: The keyevent notifications. All notifications are prefixed with <code>\_keyevent @ \_ \_</code>.</li> <li>• - <b>g</b>: The notifications about general commands that are non-type specific, such as DEL, EXPIRE, and RENAME.</li> <li>• - <b>\$</b>: The string command notifications.</li> <li>• - <b>l</b>: The list command notifications.</li> <li>• - <b>s</b>: The set command notifications.</li> <li>• - <b>h</b>: The hash command notifications.</li> <li>• - <b>z</b>: The sorted set command notifications.</li> <li>• - <b>x</b>: The expired events. An expired event is sent when an expired key is deleted.</li> <li>• - <b>e</b>: The evicted events. An evicted event is sent when a key is evicted for maxmemory.</li> <li>• - <b>A</b>: The alias for g\$lshzxe.</li> </ul>