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ApsaraDB for Redis
API Reference

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Document conventions

Style	Description	Example
 Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
 Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: If the weight is set to 0, the server no longer receives new requests.
 Note	A note indicates supplemental instructions, best practices, tips, and other content.	 Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings> Network> Set network type .
Bold	Bold formatting is used for buttons , menus, page names, and other UI elements.	Click OK .
Courier font	Courier font is used for commands	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

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1.RAM authentication

All instances created by an Alibaba Cloud account are resources owned by that account. By default, an account has the full operation permissions on resources under the account. Resource Access Management (RAM) allows you to grant RAM users permissions to access and management resources owned by an Alibaba Cloud account. If you do not need to use RAM, ignore this topic.

Resource types that can be authorized

Only ApsaraDB for Redis instances can be authorized in RAM.

The following table lists the descriptions of resources when you use RAM to grant permissions.

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

The \$regionid must be a region ID or an asterisk (*). The \$instanceid must be an instance ID or an asterisk (*). Similarly, the \$account-id is the numerical ID of your account, which can be replaced by an asterisk (*).

Actions that can be authorized in RAM

The following actions can be authorized in RAM:

- CreateInstance
- DeleteInstance
- ModifyInstanceSpec
- RenewInstance
- RenewMultilnstance
- ModifyInstanceAttribute
- FlushInstance
- DescribeInstances
- DescribeInstanceAttribute
- ModifyInstanceMaintainTime
- ModifySecurityIps
- SwitchNetwork
- ModifyInstanceNetExpireTime
- CreateBackup
- ModifyBackupPolicy
- DescribeBackupPolicy
- DescribeBackups
- RestoreInstance
- DescribeHistoryMonitorValues
- DescribeInstanceConfig

- `ModifyInstanceConfig`

Authentication rules of API operations

When you call API operations to access resources as a RAM user, ApsaraDB for Redis checks whether the account is granted required permissions by querying RAM.

Each API determines which permission to check based on different resources and the API syntax. The following table lists the authentication rules for each API operation.

Authentication rules

Action	Authentication rule
<code>CreateDBInstance</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>DeleteInstance</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>ModifyInstanceSpec</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>RenewInstance</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>RenewMultiInstance</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>ModifyInstanceAttribute</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>FlushInstance</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>DescribeInstances</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>DescribeInstanceAttribute</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>ModifyInstanceMaintainTime</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>ModifySecurityIps</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>SwitchNetwork</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>ModifyInstanceNetExpireTime</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>CreateBackup</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>ModifyBackupPolicy</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>DescribeBackupPolicy</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>DescribeBackups</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>RestoreInstance</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>DescribeHistoryMonitorValues</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>DescribeInstanceConfig</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>
<code>ModifyInstanceConfig</code>	<code>acs:kvstore:\$regionid:\$accountid:instance/\$instanceid</code>

2.Request structure

ApsaraDB for Redis allows you to send URL-based requests by using the HTTP or HTTPS GET method. You need to add parameters to a request based on the operation description. Then, ApsaraDB for Redis returns the result.

Sample request

The following sample request calls [CreateInstance](#).

```
https://r-kvstore.aliyuncs.com/  
?Action=CreateInstance  
&RegionId=cn-hongkong  
&InstanceClass=redis.master.2xlarge.default  
&InstanceName=apitest  
&<Common request parameters>
```

- https specifies the communications protocol.
- r-kvstore.aliyuncs.com specifies the endpoint of the ApsaraDB for Redis API.
- Action=CreateInstance specifies the operation you want to perform.
- RegionId, InstanceClass and InstanceName are the parameters that you need to specify to call the CreateInstance operation.
- <Common request parameters> contains parameters required by all requests. For more information, see [Common parameters](#).

Endpoints

The following table lists the endpoints of the ApsaraDB for Redis API.

Region	Endpoint
Default	r-kvstore.aliyuncs.com
China (Zhangjiakou)	r-kvstore.cn-zhangjiakou.aliyuncs.com
China (Hohhot)	r-kvstore.cn-huhehaote.aliyuncs.com
China (Chengdu)	r-kvstore.cn-chengdu.aliyuncs.com
Japan (Tokyo)	r-kvstore.ap-northeast-1.aliyuncs.com
Australia (Sydney)	r-kvstore.ap-southeast-2.aliyuncs.com
Malaysia (Kuala Lumpur)	r-kvstore.ap-southeast-3.aliyuncs.com
Indonesia (Jakarta)	r-kvstore.ap-southeast-5.aliyuncs.com
India (Mumbai)	r-kvstore.ap-south-1.aliyuncs.com
UAE (Dubai)	r-kvstore.me-east-1.aliyuncs.com
Germany (Frankfurt)	r-kvstore.eu-central-1.aliyuncs.com

Region	Endpoint
UK (London)	r-kvstore.eu-west-1.aliyuncs.com

Protocols

You can send requests through HTTP or HTTPS. We recommend that you use HTTPS for enhanced security.

Method

The HTTP GET method can be used to send requests. Request parameters must be included in the request URL.

Request parameters

For each request, you must specify the `Action` parameter (such as `CreateInstance`), common request parameters, and parameters specific to the operation.

Encoding

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

3.Common parameters

Common request parameters are the request parameters that every API operation must use.

Common request parameters

Common request parameters

Parameter	Type	Required	Description
Format	String	Yes	The format of the data to return. Valid values: JSON and XML. Default value: XML.
Version	String	Yes	The version number of the API. Specify the version number in the YYYY-MM-DD format. The current version is 2015-01-01.
AccessKeyId	String	Yes	The AccessKey ID that Alibaba Cloud provides for you to access services.
Signature	String	Yes	The signature string. For more information about the signature calculation method, see Digital signature .
SignatureMethod	String	Yes	The signature method. Currently, HMAC-SHA1 is supported.
Timestamp	String	Yes	The timestamp at which you send the request. Specify the time in the ISO 8601 standard in the yyyy-MM-ddTHH:mm:ssZ format. The time must be in UTC. For example, you can set the parameter to 2016-01-01T12:00:00Z, which indicates 20:00:00, January 1, 2016, China Standard Time.
SignatureVersion	String	Yes	The version of the signature algorithm. The current version is 1.0.
SignatureNonce	String	Yes	The unique random number that is used to prevent replay attacks. You must use a different random number for each request.

Example

```
https://r-kvstore.aliyuncs.com/
?Format=json
&Version=2015-01-01
&Signature=Pc5WB8gokVn0xfeu%2FZV%2BiNM1dgI%3D
&SignatureMethod=HMAC-SHA1
&SignatureNonce=15215528852396
&SignatureVersion=1.0
&AccessKeyId=key-test
&Timestamp=2016-01-01T12:00:00Z
```

Common response parameters

When you call an operation, the system returns the globally unique identifier (GUID) of the request through the RequestId parameter, regardless of whether the request is successful.

Example

```
<? xml version="1.0" encoding="utf-8"?>
<!-The root node of the response-->
<API operation name + Response>
<!-The returned request tag-->
<RequestId>4C4fdsf38-3910-447D-87AD-AC078932216</RequestId>
<!-The returned result-->
</API operation name + Response>
```

4.Responses

The response data for called operations is returned in the Extensible Markup Language (XML) or JavaScript Object Notation (JSON) format. You can specify the format of the returned data when sending a request. By default, the returned data uses the XML format. This topic provides the samples of success responses and error responses.

An HTTP status code of `2xx` indicates that the call is successful. An HTTP status code of `4xx` or `5xx` indicates that the call failed.

 **Note** To improve user experience, the sample responses in this topic are formatted. However, the actual responses are not formatted with line breaks or indentation.

Sample success responses

The responses in the XML format include the result of the request and the details of the operation. Example:

```
<? xml version="1.0" encoding="utf-8"?>
<! --The root node of the result-->
<API operation name + Response>
<! --The returned request tag-->
<RequestId>4C4fd3f38-3910-447D-87AD-AC078932216</RequestId>
<! --The returned result-->
</API operation name + Response>
```

JSON format:

```
{
  "RequestId": "4C4fd3f38-3910-447D-87AD-AC078932216",
  /*The returned result*/
}
```

Sample error responses

If an error occurs when you call an API operation, no result is returned. You can locate the cause of the error by referring to the error codes in the appendix. If an error occurs when you call an API operation, an HTTP status code `4xx` or `5xx` is returned. The response body contains the error code, the error message, a globally unique request ID (RequestId), and the ID of the site you accessed with this request (HostId). If you are unable to find the error cause, you can contact Alibaba Cloud customer service and provide the values of HostId and RequestId to fix the issue.

```
<? xml version="1.0" encoding="UTF-8"?>
<Error>
<RequestId>8906582E-6722-409A-A6C4-0E7863B733A5</RequestId>
<HostId>r-kvstore.aliyuncs.com</HostId>
<Code>UnsupportedOperation</Code>
<Message>The specified action is not supported. </Message>
</Error>
```

JSON format:

```
{  
    "RequestId": "7463B73D-35CC-4D19-A010-6B8D65D242EF",  
    "HostId": "r-kvstore.aliyuncs.com",  
    "Code": "UnsupportedOperation",  
    "Message": "The specified action is not supported."  
}
```

5.Digital signature

ApsaraDB for Redis authenticates the sender of each request for calling an application programming interface (API) operation. Therefore, each request must contain signature information, regardless of whether the access request is sent through Hypertext Transfer Protocol (HTTP) or Hypertext Transfer Protocol Secure (HTTPS).

When you send a request, ApsaraDB for Redis authenticates you by using symmetric encryption based on your AccessKey ID and AccessKey secret.

The AccessKey ID and AccessKey secret are issued to you by Alibaba Cloud. You can apply for and manage them on the Alibaba Cloud website. The AccessKey ID indicates your identity. The AccessKey secret is the key used to encrypt a signed string and to verify the signed string on the server. It must be kept confidential and only be known to Alibaba Cloud and you.

Sign a request

When sending a request, perform the following steps to sign the request:

1. Use request parameters to construct a canonicalized query string.
 - i. To construct a canonicalized query string, sort all request parameters by parameter name in alphabetic order. These parameters include common request parameters and customized request parameters of a specified API operation, but do not include the Signature parameter.

 **Notice** If the request is submitted through the GET method, these parameters are placed in the section after a question mark (?) in the request URI and connected with ampersands (&).

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

Parameters names and values are encoded into a uniform resource locator (URL) based on the UTF-8 character set. The URL encoding rules are as follows:

- Uppercase letters (A-Z), lowercase letters (a-z), digits (0-9), hyphens (-), underscores (_), periods (.), and tildes (~) are not encoded.
- Other characters are encoded in the %XY format, where XY is the hexadecimal representation of a character in American Standard Code for Information Interchange (ASCII). For example, double quotation marks ("") are encoded as %22 .
- Extended UTF-8 characters are encoded in the %XY%ZA... format.
- A space is encoded as %20 , rather than the plus sign (+).

 **Notice** Most libraries that support URL encoding, such as java.net.URLEncoder, comply with the Multipurpose Internet Mail Extensions (MIME) encoding rules of application/x-www-form-urlencoded . If this encoding method is used, replace the plus signs (+) in the encoded strings with %20 , the asterisks (*) with %2A , and %7E with a tilde (~) to conform to the encoding rules.

- iii. Connect the encoded parameter names and values with equal signs (=).
 - iv. Sort the parameter name and value pairs connected by equal signs (=) in alphabetical order and connect the pairs with ampersands (&).
2. Use the created canonicalized query string to construct a string for signature calculation based on

the following rules:

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

In the preceding string,

- `HTTPMethod` indicates the HTTP method used to submit the request, such as GET.
 - `percentEncode("/")` is the encoded value ("%2F") of a forward slash (/). The encoding follows the URL encoding rules described in step 1.b.
 - `percentEncode(CanonicalizedQueryString)` is the string constructed by using the canonicalized query string. The encoding follows the URL encoding rules described in step 1.b.
3. Use the string for signature calculation to calculate the hash-based message authentication code (HMAC) value of the signature as defined in RFC 2104.

 **Notice** The key that is used to calculate the signature is the AccessKey secret appended with an ampersand (&) (ASCII: 38). Secure Hash Algorithm 1 (SHA1) is used in the calculation.

4. Use Base64 to encode the HMAC value into a string. This encoded string is the signature.
5. Add the signature as the value of the Signature parameter to the request parameters to complete the request signing process.

 **Notice** When you submit the signature value to the ApsaraDB for Redis instance as the final request parameter value, perform URL encoding on this parameter based on the rules defined in RFC 3986 in the same way as you process other parameters.

Example

DescribeDBInstances is used here as an example. The request URL before signing is:

```
http://r-kvstore.aliyuncs.com/?Timestamp=2013-06-01T10:33:56Z&Format=XML&AccessKeyId=testid&Action=DescribeInstances&SignatureMethod=HMAC-SHA1&RegionId=region1&SignatureNonce=NwDAxvLU6tFE0DVb&Version=2015-01-01&SignatureVersion=1.0
```

The calculated StringToSign for signature calculation is as follows:

```
GET&%2F&AccessKeyId%3Dtestid&Action%3DDescribeInstances&Format%3DXML&RegionId%3Dregion1&SignatureMethod%3DHMAC-SHA1&SignatureNonce%3DNwDAxvLU6tFE0DVb&SignatureVersion%3D1.0&Timestamp%3D2013-06-01T10%253A33%253A56Z&Version%3D2015-01-01
```

This example assumes that the AccessKey ID is `testid`, the AccessKey secret is `testsecret`, and the key used for HMAC calculation is `testsecret&`. The calculated signature is `6XKkvN+66H2NI99rQUkRgefvh8k=`.

The signed request URL with the Signature parameter added is as follows:

```
http://r-kvstore.aliyuncs.com/?Timestamp=2013-06-01T10%3A33%3A56Z&Format=XML&AccessKeyId=testid&Action=DescribeInstances&SignatureMethod=HMAC-SHA1&RegionId=region1&SignatureNonce=NwDAxvLU6tFE0DVb&SignatureVersion=1.0&Version=2015-01-01&Signature=6XKkvN+66H2NI99rQUkRgefvh8k%3D
```

6. List of operations by function

The following tables describe API operations available for use in ApsaraDB for Redis.

Lifecycle management

API	Description
DescribeRegions	Queries the regions where ApsaraDB for Redis instances can be deployed.
DescribeZones	Queries the zones where ApsaraDB for Redis instances can be deployed.
DescribeAvailableResource	Queries the types of instances that can be created in specified zones.
CreateInstance	Creates an ApsaraDB for Redis instance.
CreateInstances	Creates one or more ApsaraDB for Redis instances in each call.
ModifyInstanceSpec	Changes the specifications of an ApsaraDB for Redis instance.
TransformToPrePaid	Changes the billing method of an ApsaraDB for Redis instance from pay-as-you-go to subscription.
DeleteInstance	Releases an ApsaraDB for Redis instance.

Instance management

API	Description
DescribeInstances	Queries information about one or more ApsaraDB for Redis instances.
DescribeInstanceAttribute	Queries detailed information about an ApsaraDB for Redis instance.
DescribeEngineVersion	Queries detailed information about the major version and minor version of an ApsaraDB for Redis instance.
DescribeRoleZoneInfo	Queries information about the roles, type, minor version of specific nodes in an ApsaraDB for Redis instance, and zones where the nodes are deployed.
DescribeTasks	Queries all tasks that are performed by an ApsaraDB for Redis instance within a specified period.
DescribeDBInstanceNetInfo	Queries network information about an ApsaraDB for Redis instance.
ModifyInstanceAttribute	Modifies the attributes of an ApsaraDB for Redis instance, such as the name and password.
ModifyResourceGroup	Modifies the resource group to which an ApsaraDB for Redis instance belongs.

API	Description
DescribeLogicInstanceTopology	Queries the logical topology of an ApsaraDB for Redis instance.
ModifyInstanceMaintainTime	Modifies the maintenance window of an ApsaraDB for Redis instance.
ModifyInstanceMajorVersion	Upgrades the major version of an ApsaraDB for Redis instance.
ModifyInstanceMinorVersion	Upgrades the minor version of an ApsaraDB for Redis instance.
RestartInstance	Restarts a running ApsaraDB for Redis instance.
FlushExpireKeys	Deletes expired keys of an ApsaraDB for Redis instance.
SwitchInstanceHA	Performs a master-replica switchover to switch node roles. This feature is suitable for disaster recovery drills and scenarios in which you require access to applications that are deployed across zones.
FlushInstance	Clears data of an ApsaraDB for Redis instance. The cleared data cannot be restored.
MigrateToOtherZone	Migrates an ApsaraDB for Redis instance to another zone in the same region.

Connection management

API	Description
SwitchNetwork	Switches the network type of an ApsaraDB for Redis instance from classic network to Virtual Private Cloud (VPC).
ModifyInstanceNetExpireTime	Extends the retention period of the classic network endpoint when the network type of an ApsaraDB for Redis instance is switched from classic network to VPC.
ModifyDBInstanceConnectionString	Modifies an endpoint of an ApsaraDB for Redis instance.
AllocateInstancePublicConnection	Applies for a public endpoint for an ApsaraDB for Redis instance.
ReleaseInstancePublicConnection	Releases a public endpoint of an ApsaraDB for Redis instance.
AllocateDirectConnection	Applies for a private endpoint for a cluster instance of ApsaraDB for Redis.
ReleaseDirectConnection	Releases the private endpoint of a cluster instance of ApsaraDB for Redis.

Renewal management

API	Description

API	Description
DescribePrice	Queries the fees that are charged when you create, update, and renew ApsaraDB for Redis instances.
RenewInstance	Renews an ApsaraDB for Redis instance.
DescribeInstanceAutoRenewalAttribute	Queries the auto-renewal status of an ApsaraDB for Redis instance.
ModifyInstanceAutoRenewalAttribute	Enables or disables auto-renewal for an ApsaraDB for Redis instance.

Account management

API	Description
DescribeAccounts	Queries all accounts or a specified account of an ApsaraDB for Redis instance.
CreateAccount	Creates an account that has specified permissions on an ApsaraDB for Redis instance.
GrantAccountPrivilege	Modifies the permissions of an account of an ApsaraDB for Redis instance.
ModifyAccountDescription	Modifies the description of an account of an ApsaraDB for Redis instance.
ModifyAccountPassword	Changes the password of a specified account of an ApsaraDB for Redis instance.
ResetAccountPassword	Resets the password of an account of an ApsaraDB for Redis instance.
DeleteAccount	Deletes an account of an ApsaraDB for Redis instance.

Backup and recovery

API	Description
CreateBackup	Backs up an ApsaraDB for Redis instance.
DescribeBackupTasks	Queries the result of the backup task for an ApsaraDB for Redis instance.
DescribeBackupPolicy	Queries the backup policy of an ApsaraDB for Redis instance, such as the backup cycle and the backup time.
ModifyBackupPolicy	Modifies the backup policy of an ApsaraDB for Redis instance.
DescribeBackups	Queries the backup files of an ApsaraDB for Redis instance.

API	Description
RestoreInstance	Restores the data in a backup file to a specified ApsaraDB for Redis instance.

Monitoring management

API	Description
DescribeMonitorItems	Queries the metrics of an ApsaraDB for Redis instance.
DescribeHistoryMonitorValues	Queries the historical monitoring data of an ApsaraDB for Redis instance.

Log management

API	Description
DescribeAuditRecords	Queries the audit log of an ApsaraDB for Redis instance.
DescribeRunningLogRecords	Queries the operational log of an ApsaraDB for Redis instance.
DescribeSlowLogRecords	Queries the slow log of an ApsaraDB for Redis instance within a specified period.

Network security

API	Description
DescribeSecurityIps	Queries IP address whitelists of an ApsaraDB for Redis instance.
ModifySecurityIps	Modifies IP address whitelists of an ApsaraDB for Redis instance.
DescribeSecurityGroupConfiguration	Queries the security groups that are included in the whitelist of an ApsaraDB for Redis instance.
ModifySecurityGroupConfiguration	Modifies the security groups in the whitelist of an ApsaraDB for Redis instance.
DescribeInstanceSSL	Checks whether Secure Socket Layer (SSL) encryption is enabled for an ApsaraDB for Redis instance.
ModifyInstanceSSL	Configures SSL encryption for an ApsaraDB for Redis instance.
ModifyInstanceVpcAuthMode	Enables or disables 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 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.

Parameter management

API	Description
DescribeParameterTemplates	Queries configuration parameters and the default values of an ApsaraDB for Redis instance in different architectures and major versions.
DescribeInstanceConfig	Queries configuration parameters of an ApsaraDB for Redis instance.
DescribeParameters	Queries configuration parameters and operational parameters of an ApsaraDB for Redis instance.
ModifyInstanceConfig	Modifies configuration parameters of an ApsaraDB for Redis instance.

Tag management

API	Description
ListTagResources	Queries ApsaraDB for Redis instances with specified tags or queries the tags that are added to specified ApsaraDB for Redis instances.
TagResources	Adds tags to one or more ApsaraDB for Redis instances.
UntagResources	Removes tags from ApsaraDB for Redis instances.

Cache analytics and hotkey querying

API	Description
Cache analysis and hotkey querying	You can call the API operations of Database Autonomy Service (DAS) to perform a cache analysis task or query hotkeys.

Performance optimization

Note Alibaba Cloud has optimized the cache analysis feature for ApsaraDB for Redis and replaced the following API operations with new API operations. For more information, see [API operations for cache analysis will be upgraded](#).

API	Description
CreateCacheAnalysisTask	Creates a cache analysis task.
DescribeCacheAnalysisReportList	Queries cache analytics reports of an ApsaraDB for Redis instance.
DescribeCacheAnalysisReport	Queries the cache analytics report of an ApsaraDB for Redis instance on a specified date.

O&M task management

API	Description
DescribeActiveOperationTask	Queries the information about operations and maintenance (O&M) tasks for an ApsaraDB for Redis instance.
ModifyActiveOperationTask	Modifies the scheduled switchover time of an O&M task.

7. Lifecycle management

7.1. DescribeRegions

Queries the regions where you can create ApsaraDB for Redis instances.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeRegions	The operation that you want to perform. Set the value to DescribeRegions .
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
AcceptLanguage	String	No	zh-CN	The language used for the value to return. Valid values: <ul style="list-style-type: none">• zh-CN: Chinese.• en-US: English. <div style="background-color: #e1f5fe; padding: 5px; border-radius: 5px; width: fit-content; margin-left: 20px;">? Note Default value: zh-CN.</div>

Response parameters

Parameter	Type	Example	Description
RegionIds	Array of KVStoreRegion		RegionIds is in the array format. Each element consists of RegionId and Zonelids .
KVStoreRegion			
LocalName	String	China (Hangzhou)	The name of the region.
RegionEndpoint	String	r-kvstore.aliyuncs.com	The endpoint of the region.

Parameter	Type	Example	Description
RegionId	String	cn-hangzhou	The ID of the region where the instance is deployed.
ZoneIdList	List	"ZoneId": ["cn-hangzhou-h","cn-hangzhou-MAZ10(h,i)","cn-hangzhou-MAZ9(g,h)","cn-hangzhou-b","cn-hangzhou-d","cn-hangzhou-e","cn-hangzhou-MAZ6(b,f)","cn-hangzhou-f","cn-hangzhou-g"]]	The list of zone IDs. Separate zones with commas (,).
ZoneIds	String	cn-hangzhou-h	The ID of the zone.
RequestId	String	AD425AD3-CC7B-4EE2-A5CB-2F61BA73***	The ID of the request.

Examples

Sample requests

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

Sample success responses

XML format

```
<DescribeRegionsResponse>
  <RegionIds>
    <KVStoreRegion>
      <RegionId>cn-hangzhou</RegionId>
      <ZoneIdList>
        <ZoneId>cn-hangzhou-h</ZoneId>
        <ZoneId>cn-hangzhou-MAZ10(h,i)</ZoneId>
        <ZoneId>cn-hangzhou-MAZ9(g,h)</ZoneId>
        <ZoneId>cn-hangzhou-b</ZoneId>
        <ZoneId>cn-hangzhou-d</ZoneId>
        <ZoneId>cn-hangzhou-e</ZoneId>
        <ZoneId>cn-hangzhou-MAZ6(b,f)</ZoneId>
        <ZoneId>cn-hangzhou-f</ZoneId>
        <ZoneId>cn-hangzhou-g</ZoneId>
      </ZoneIdList>
      <RegionEndpoint>r-kvstore.aliyuncs.com</RegionEndpoint>
      <ZoneIds>cn-hangzhou-h,cn-hangzhou-MAZ10(h,i),cn-hangzhou-MAZ9(g,h),cn-hangzhou-b,cn-hangzhou-d,cn-hangzhou-e,cn-hangzhou-MAZ6(b,f),cn-hangzhou-f,cn-hangzhou-g</ZoneIds>
      <LocalName>China (Hangzhou)</LocalName>
    </KVStoreRegion>
  </RegionIds>
  <RequestId>AD425AD3-CC7B-4EE2-A5CB-2F61BA73****</RequestId>
</DescribeRegionsResponse>
```

JSON format

```
{
  "RegionIds": {
    "KVStoreRegion": [
      {
        "RegionId": "cn-hangzhou",
        "ZoneIdList": {
          "ZoneId": [
            "cn-hangzhou-h",
            "cn-hangzhou-MAZ10(h,i)",
            "cn-hangzhou-MAZ9(g,h)",
            "cn-hangzhou-b",
            "cn-hangzhou-d",
            "cn-hangzhou-e",
            "cn-hangzhou-MAZ6(b,f)",
            "cn-hangzhou-f",
            "cn-hangzhou-g"
          ]
        },
        "RegionEndpoint": "r-kvstore.aliyuncs.com",
        "ZoneIds": "cn-hangzhou-h,cn-hangzhou-MAZ10(h,i),cn-hangzhou-MAZ9(g,h),cn-hangzhou-b,cn-hangzhou-d,cn-hangzhou-e,cn-hangzhou-MAZ6(b,f),cn-hangzhou-f,cn-hangzhou-g",
        "LocalName": "China (Hangzhou)"
      }
    ],
    "RequestId": "AD425AD3-CC7B-4EE2-A5CB-2F61BA73****"
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

7.2. DescribeZones

Queries the zones where ApsaraDB for Redis instances can be deployed.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeZones	The operation that you want to perform. Set the value to DescribeZones .
RegionId	String	No	cn-hangzhou	The ID of the region.
AcceptLanguage	String	No	en-US	<p>The language used for the returned value. Valid values:</p> <ul style="list-style-type: none">• zh-CN: Chinese.• en-US: English. <p> Note Default value: zh-CN.</p>

Response parameters

Parameter	Type	Example	Description
Zones	Array of KVStoreZone		The zones that are returned.
KVStoreZone			
Disabled	Boolean	false	Indicates whether the ApsaraDB for Redis instance can be created in the current zone.
IsRds	Boolean	true	Indicates whether the zone is managed by Relational Database Service (RDS). The value of this parameter is true for ApsaraDB for Redis.

Parameter	Type	Example	Description
RegionId	String	cn-huhehaote	The ID of the region to which the zone belongs.
SwitchNetwork	Boolean	true	Indicates whether the zone allows you to switch the network type of an ApsaraDB for Redis instance from classic network to virtual private cloud (VPC). Valid values: <ul style="list-style-type: none">• true: The network type can be changed from classic network to VPC.• false: The network type cannot be changed from classic network to VPC.
ZoneId	String	cn-huhehaote-b	The ID of the zone.
ZoneName	String	Hohhot Zone B	The name of the zone.
RequestId	String	1D42F072-72FE-4DC4-BB8E-64B1D298****	The ID of the request.

Examples

Sample requests

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

Sample success responses

XML format

```
<DescribeZonesResponse>
  <RequestId>1D42F072-72FE-4DC4-BB8E-64B1D298****</RequestId>
  <Zones>
    <KVStoreZone>
      <ZoneName>Hohhot Zone B</ZoneName>
      <IsRds>true</IsRds>
      <Disabled>false</Disabled>
      <RegionId>cn-huhehaote</RegionId>
      <ZoneId>cn-huhehaote-b</ZoneId>
      <SwitchNetwork>true</SwitchNetwork>
    </KVStoreZone>
    <KVStoreZone>
      <ZoneName>Hohhot Zone A</ZoneName>
      <IsRds>true</IsRds>
      <Disabled>false</Disabled>
      <RegionId>cn-huhehaote</RegionId>
      <ZoneId>cn-huhehaote-a</ZoneId>
      <SwitchNetwork>true</SwitchNetwork>
    </KVStoreZone>
  </Zones>
</DescribeZonesResponse>
```

JSON format

```
{
  "RequestId": "1D42F072-72FE-4DC4-BB8E-64B1D298****",
  "Zones": [
    "KVStoreZone": [
      {
        "ZoneName": "Hohhot Zone B",
        "IsRds": true,
        "Disabled": false,
        "RegionId": "cn-huhehaote",
        "ZoneId": "cn-huhehaote-b",
        "SwitchNetwork": true
      },
      {
        "ZoneName": "Hohhot Zone A",
        "IsRds": true,
        "Disabled": false,
        "RegionId": "cn-huhehaote",
        "ZoneId": "cn-huhehaote-a",
        "SwitchNetwork": true
      }
    ]
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

7.3. DescribeAvailableResource

Queries the types of instances that can be created in specified zones.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeAvailableResource	The operation that you want to perform. Set the value to DescribeAvailableResource .
RegionId	String	Yes	cn-beijing	The ID of the region. You can call the DescribeRegions operation to query region IDs.
ZoneId	String	No	cn-beijing-c	The ID of the zone. You can call the DescribeZones operation to query zone IDs.
InstanceChargeType	String	No	PrePaid	<p>The billing method. Valid values:</p> <ul style="list-style-type: none">• PrePaid: subscription• PostPaid: pay-as-you-go <div style="background-color: #e1f5fe; padding: 5px;"><p>? Note Default value: PrePaid.</p></div>
OrderType	String	No	BUY	<p>The type of the order. Valid values:</p> <ul style="list-style-type: none">• BUY: purchases an instance.• UPGRADE: changes the specification of an instance.• RENEW: renews an instance.
Engine	String	No	Redis	<p>The type of engine. Valid values:</p> <ul style="list-style-type: none">• Redis• Memcache

Parameter	Type	Required	Example	Description
ResourceGroupId	String	No	rg-acfmyiu4e*****	<p>The ID of the resource group. You can call the ListResourceGroups operation to query the ID of the resource group.</p> <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;"> ? Note You can also query the ID of the resource group in the Resource Management console. For more information, see View basic information about a resource group. </div>
InstanceId	String	No	r-bp1zxszhcg*****	<p>The ID of the ApsaraDB for Redis instance.</p> <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;"> ? Note This parameter is required only if you set the OrderType parameter to UPGRADE or RENEW. </div>
AcceptLanguage	String	No	zh-CN	<p>The language of the returned value. Valid values:</p> <ul style="list-style-type: none"> • zh-CN: Chinese. This is the default value. • en-US: English.
ProductType	String	No	OnECS	<p>The type of the service. Valid values:</p> <ul style="list-style-type: none"> • Local: an ApsaraDB for Redis instance with a local disk. • OnECS: an ApsaraDB for Redis instance with a standard disk. This type is available only on the Alibaba Cloud China site.

Response parameters

Parameter	Type	Example	Description
AvailableZones	Array of AvailableZone		The detailed information about the zones that are queried.
AvailableZone			

Parameter	Type	Example	Description
RegionId	String	cn-beijing	The ID of the region.
SupportedEngines	Array of SupportedEngine		The engine types that are supported.
SupportedEngine			
Engine	String	Redis	The engine type of the instance.
SupportedEditionTypes	Array of SupportedEditionType		Instance editions that are supported.
SupportedEditionType			
EditionType	String	Community	The edition of the instance. Valid values: <ul style="list-style-type: none">• Community: indicates a Community Edition instance• Enterprise: indicates an Enhanced Edition instance.
SupportedSeriesTypes	Array of SupportedSeriesType		The series of the instance. Valid values:
SupportedSeriesType			
SeriesType	String	enhanced_performance_type	Series. Valid values: <ul style="list-style-type: none">• enhanced_performance_type: indicates a performance-enhanced instance.• hybrid_storage: indicates a hybrid-storage instance.
SupportedEngineVersions	Array of SupportedEngineVersion		The list of engine versions.
SupportedEngineVersion			
SupportedArchitectureTypes	Array of SupportedArchitectureType		The architecture types that are supported.

Parameter	Type	Example	Description
SupportedArchitectureType			
Architecture	String	cluster	Architecture. Valid values: <ul style="list-style-type: none">• standard: the standard architecture.• cluster: the cluster architecture.• rwsplit: the read/write splitting architecture.
SupportedShardNumbers	Array of SupportedShardNumber		The list of available shards.
SupportedShardNumber			
ShardNumber	String	8	The number of shards.
SupportedNodeTypes	Array of SupportedNodeType		The list of supported node types.
SupportedNodeType			
AvailableResources	Array of AvailableResource		The list of available specifications.
AvailableResource			
InstanceClass	String	redis.logic.sharding.2g.8db.0rodb.8proxy.default	The instance type code. To view the specification information, search for the instance type code in the search box in the Document Center.
InstanceClassRemark	String	16 GB cluster instance (Sharding) (Queries per second (QPS): 2,000,000, number of connections: 80,000)	The description of the instance type.

Parameter	Type	Example	Description
SupportedNodeType	String	double	The type of the node. Valid values: <ul style="list-style-type: none">• single: the single replica node.• double: the master-replica node.
Version	String	5.0	The engine version of the instance.
ZoneId	String	cn-beijing-c	The ID of the zone.
ZoneName	String	Beijing Zone C	The name of the zone.
RequestId	String	128BD75D-A423-4235-B777-811429BB****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com?Action=DescribeAvailableResource  
&RegionId=cn-beijing  
&ZoneId=cn-beijing-c  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeAvailableResourceResponse>
  <RequestId>5094D428-5CC5-4494-A8B4-59BBBDED****</RequestId>
  <AvailableZones>
    <AvailableZone>
      <ZoneName>Beijing Zone C</ZoneName>
      <ZoneId>cn-beijing-c</ZoneId>
      <SupportedEngines>
        <SupportedEngine>
          <SupportedEditionTypes>
            <SupportedEditionType>
              <EditionType>Community</EditionType>
              <SupportedSeriesTypes>
                <SupportedSeriesType>
                  <SupportedEngineVersions>
                    <SupportedEngineVersion>
                      <SupportedArchitectureTypes>
                        <SupportedArchitectureType>
                          <SupportedShardNumbers>
                            <SupportedShardNumber>
                              <ShardNumber>8</ShardNumber>
                            <SupportedNodeTypes>
                              <SupportedNodeType>
                                <AvailableResources>
                                  <AvailableResource>
                                    <InstanceClass>redis.logic.sharding.2g.8db.0rodb.8proxy
.default</InstanceClass>
                                    <InstanceClassRemark>16 GB cluster instance (Sharding)
(QPS: 2,000,000, number of connections: 80,000)</InstanceClassRemark>
                                  </AvailableResource>
                                </AvailableResources>
                              <SupportedNodeType>double</SupportedNodeType>
                            </SupportedNodeType>
                            </SupportedNodeTypes>
                          </SupportedShardNumbers>
                        <Architecture>cluster</Architecture>
                      </SupportedArchitectureType>
                      </SupportedArchitectureTypes>
                      <Version>5</Version>
                    </SupportedEngineVersion>
                  </SupportedEngineVersions>
                  <SeriesType>enhanced_performance_type</SeriesType>
                </SupportedSeriesType>
                </SupportedSeriesTypes>
              </SupportedEditionType>
            </SupportedEditionTypes>
            <Engine>redis</Engine>
          </SupportedEngine>
        </SupportedEngines>
      </AvailableZone>
    </AvailableZones>
  </DescribeAvailableResourceResponse>
```

JSON format

```
{  
    "RequestId": "5094D428-5CC5-4494-A8B4-59BBBDED****",  
    "AvailableZones": {  
        "AvailableZone": {  
            "ZoneName": "Beijing Zone C",  
            "ZoneId": "cn-beijing-c",  
            "SupportedEngines": {  
                "SupportedEngine": {  
                    "SupportedEditionTypes": {  
                        "SupportedEditionType": {  
                            "EditionType": "Community",  
                            "SupportedSeriesTypes": {  
                                "SupportedSeriesType": {  
                                    "SupportedEngineVersions": {  
                                        "SupportedEngineVersion": {  
                                            "SupportedArchitectureTypes": {  
                                                "SupportedArchitectureType": {  
                                                    "SupportedShardNumbers": {  
                                                        "SupportedShardNumber": {  
                                                            "ShardNumber": 8,  
                                                            "SupportedNodeTypes": {  
                                                                "SupportedNodeType": {  
                                                                    "AvailableResources": {  
                                                                        "AvailableResource": {  
                                                                            "InstanceClass": "redis.logic.sharding.2g.8db.0rodb.8proxy.default",  
                                                                            "InstanceClassRemark": "16 GB cluster instance (Sharding) (QPS: 2,000,000  
, number of connections: 80,000)"  
                                                                        }  
                                                                    }  
                                                                },  
                                                                "SupportedNodeType": "double"  
                                                            }  
                                                        }  
                                                    }  
                                                }  
                                            }  
                                        }  
                                    }  
                                }  
                            }  
                        }  
                    }  
                }  
            }  
        }  
    }  
    "Architecture": "cluster"  
},  
    "Version": 5  
},  
    "SeriesType": "enhanced_performance_type"  
}  
},  
    "Engine": "redis"  
}  
},  
}  
}  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

7.4. CreateInstance

Creates an ApsaraDB for Redis instance.

Before you call this operation, make sure that you understand the billing methods and [pricing](#) of ApsaraDB for Redis.

 **Note** For more information about how to create an instance in the ApsaraDB for Redis console, see [Create an instance](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateInstance	The operation that you want to perform. Set the value to CreateInstance .
RegionId	String	Yes	cn-hangzhou	The ID of the region in which you want to create the ApsaraDB for Redis instance. You can call the DescribeRegions operation to query region IDs.
ZoneId	String	Yes	cn-hangzhou-e	The ID of the primary zone where you want to create the ApsaraDB for Redis instance. You can call the DescribeRegions operation to query zone IDs.
Token	String	No	AAAAAAAAAAAA AAAAAAAAAAAA	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token is case-sensitive. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Parameter	Type	Required	Example	Description
InstanceName	String	No	apitest	The name of the ApsaraDB for Redis instance. The name must be 2 to 128 characters in length. The name cannot contain spaces and the following special characters: @ / := < > { [] } . The name must start with a letter.
Password	String	No	Pass!123456	The password of the ApsaraDB for Redis instance. The password must be 8 to 32 characters in length. The password must contain at least three of the following character types: uppercase letters, lowercase letters, digits, and special characters. Special characters include ! @ # \$ % ^ & * () _ + - = .
Capacity	Long	No	16384	<p>The storage capacity of the ApsaraDB for Redis instance. Unit: MB.</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note You must set at least one of the Capacity and InstanceClass parameters when you call this operation. </div>
InstanceClass	String	No	redis.master.small.default	<p>The instance type. For more information, see Instance types.</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note You must set at least one of the Capacity and InstanceClass parameters when you call this operation. </div>
ChargeType	String	No	PostPaid	<p>The billing method of the ApsaraDB for Redis instance. Valid values:</p> <ul style="list-style-type: none"> • PrePaid: subscription. • PostPaid: pay-as-you-go. <div style="background-color: #e1f5fe; padding: 10px;"> ? Note Default value: PostPaid. </div>

Parameter	Type	Required	Example	Description
NetworkType	String	No	VPC	<p>The network type of the ApsaraDB for Redis instance. Valid values:</p> <ul style="list-style-type: none"> • CLASSIC: The instance runs in a classic network. • VPC: The instance runs in a virtual private cloud (VPC). <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: CLASSIC. </div>
VpcId	String	No	vpc-bp1nme44gek34slf*****	The ID of the VPC.
VSwitchId	String	No	vsw-bp1e7clcw529l773d*****	The ID of the vSwitch.
Period	String	No	12	<p>The subscription period. Valid values: 1 to 9, 12, 24, and 36. Unit: months.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note This parameter is required if the ChargeType parameter is set to PrePaid. </div>
BusinessInfo	String	No	000000000	The ID of the promotion event or the business information.
CouponNo	String	No	youhuiquan_promotion_option_id_for_blank	The coupon code. Default value: youhuiquan_promotion_option_id_for_blank .
SrcDBInstanceId	String	No	r-bp1zxszhcgatnx***	The ID of the source instance. If you want to create an instance based on the backup of a specified instance, you can set this parameter and set the BackupId or RestoreTime parameter to specify the backup.

Parameter	Type	Required	Example	Description
BackupId	String	No	111111111	<p>The ID of the backup file of the source instance. If you want to create an instance based on the backup of a specified instance, you can set this parameter after you set the SrcDBInstanceId parameter. The system creates an instance based on the backup file that is specified by this parameter. You can call the DescribeBackups operation to query the IDs of backup files.</p> <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;"> ? Note After you set the SrcDBInstanceId parameter, you must set the BackupId or RestoreTime parameter to specify the backup. </div>
RestoreTime	String	No	2019-06-19T16:00:00Z	<p>The point in time at which the specified source instance is backed up. If you want to create an instance based on the backup of a specified source instance at a specified point in time in the retention period, you can set this parameter after you set the SrcDBInstanceId parameter. Then, the system creates a new instance based on the backup of the source instance. Specify the time in the ISO 8601 standard in the <i>yyyy-MM-ddTHH:mm:ssZ</i> format. The time must be in UTC.</p> <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;"> ? Note After you set the SrcDBInstanceId parameter, you must set the BackupId or RestoreTime parameter to specify the backup. </div>
InstanceType	String	No	Redis	<p>The engine type of the ApsaraDB for Redis instance. Valid values:</p> <ul style="list-style-type: none"> • Redis • Memcache <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;"> ? Note Default value: Redis. </div>

Parameter	Type	Required	Example	Description
EngineVersion	String	No	4.0	<p>The engine version of the ApsaraDB for Redis instance. Valid values: 2.8, 4.0, and 5.0.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: 5.0. </div>
PrivateIpAddress	String	No	172.16.0.***	<p>The private IP address of the ApsaraDB for Redis instance.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note The private IP address must be in the CIDR block of the vSwitch to which the ApsaraDB for Redis instance belongs. </div>
AutoUseCoupon	String	No	false	<p>Specifies whether to use a coupon. Valid values:</p> <ul style="list-style-type: none"> • true: uses the coupon. • false: does not use the coupon. <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: false </div>
AutoRenew	String	No	true	<p>Specifies whether to enable auto-renewal. Valid values:</p> <ul style="list-style-type: none"> • true: enables auto-renewal. • false: disables auto-renewal. <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: false </div>
AutoRenewPeriod	String	No	3	<p>The cycle of the auto-renewal. Unit: months. Valid values: 1, 2, 3, 6, and 12.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note This parameter is required if AutoRenew is set to true. </div>
ResourceGroupId	String	No	rg-resourcegroupid1	The ID of the resource group.

Parameter	Type	Required	Example	Description
DedicatedHostGroupId	String	No	dhg-uv4fnk6r7zff****	The ID of the dedicated cluster. This parameter is required if you create an ApsaraDB for Redis instance in a dedicated cluster.
GlobalInstanceld	String	No	gr-bp14rkqrhac****	The ID of the distributed instance. This operation is applicable to only the Alibaba Cloud China site.
GlobalInstance	Boolean	No	false	<p>Specifies whether to use the newly created instance as the first child instance of the distributed instance. Valid values:</p> <ul style="list-style-type: none">• true: uses the newly created instance as the first child instance• false: does not use the newly created instance as the first child instance. This is the default value. <div style="background-color: #e1f5fe; padding: 10px; border-radius: 10px;"><p>? Note</p><ul style="list-style-type: none">• If you want to set this parameter to true, you must create a performance-enhanced instance of Enhanced Edition with the major version of Redis 5.0.• This operation is applicable to only the Alibaba Cloud China site.</div>

Parameter	Type	Required	Example	Description
SecondaryZoneId	String	No	cn-hangzhou-h	<p>The ID of the secondary zone to which you want to migrate the ApsaraDB for Redis instance. You can call the DescribeZones operation to query zone IDs.</p> <p>Note If you specify this parameter, the master node and replica node of the instance can be deployed in different zones and disaster recovery is implemented across zones. The instance can withstand failures in data centers.</p>
Port	String	No	6379	The port number. Valid values: 1024 to 65535 . Default value: 6379 .
Tag.N.Key	String	No	testkey	<p>The key of tag N.</p> <p>Note</p> <ul style="list-style-type: none"> N specifies the serial number of the tag. For example, Tag.1.Key specifies the key of the first tag and Tag.2.Key specifies the key of the second tag. If the key of the tag does not exist, the tag is automatically created.
Tag.N.Value	String	No	testvalue	<p>The tag value.</p> <p>Note N specifies the value of the nth tag. For example, Tag.1.Value specifies the value of the first tag. Tag.2.Value specifies the value of the second tag.</p>

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	<p>Specifies whether to precheck the request. Valid values:</p> <ul style="list-style-type: none"> • true: prechecks the request without creating an instance. The system prechecks the required parameters, request format, service limits, and available resources. If the request fails the precheck, the corresponding error message is returned. If the request passes the precheck, the <code>DryRunOperation</code> error code is returned. • false: checks the request. After the request passes the check, an instance is created.

Response parameters

Parameter	Type	Example	Description
Bandwidth	Long	32	The maximum bandwidth specified for the ApsaraDB for Redis instance. Unit: Mbit/s.
Capacity	Long	16384	The storage capacity of the ApsaraDB for Redis instance. Unit: MB.
ChargeType	String	PostPaid	<p>The billing method of the ApsaraDB for Redis instance. Valid values:</p> <ul style="list-style-type: none"> • PrePaid: subscription. • PostPaid: pay-as-you-go.
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 configurations of the ApsaraDB for Redis instance.

Parameter	Type	Example	Description
ConnectionDomain	String	r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com	The internal endpoint of the ApsaraDB for Redis instance.
Connections	Long	10000	The maximum number of connections supported by the ApsaraDB for Redis instance.
EndTime	String	2019-01-18T16:00:00Z	The time when the subscription expires. The time follows the ISO 8601 standard in the yyyy-MM-ddT HH:mm:ssZ format. The time is displayed in UTC.
InstanceID	String	r-bp1zxszhcgatnx****	The globally unique identifier (GUID) of the ApsaraDB for Redis instance.
InstanceName	String	apitest	The name of the ApsaraDB for Redis instance.
InstanceStatus	String	Creating	The status of the ApsaraDB for Redis instance.
NetworkType	String	VPC	The network type of the ApsaraDB for Redis instance. Valid values: <ul style="list-style-type: none">• CLASSIC: The instance runs in a classic network.• VPC: The instance runs in a VPC.
NodeType	String	MASTER_SLAVE	The node type of the ApsaraDB for Redis instance. Valid values: <ul style="list-style-type: none">• STAND_ALONE: standalone• MASTER_SLAVE: master-replica
Port	Integer	6379	The port number of the instance.
PrivateIPAddr	String	172.16.0.10	The internal IP address of the ApsaraDB for Redis instance.
QPS	Long	100000	The expected maximum queries per second (QPS).

Parameter	Type	Example	Description
RegionId	String	cn-hongkong	The region where the ApsaraDB for Redis instance is deployed.
RequestId	String	5DEA3CC9-F81D-4387-8E97-CEA40F09****	The ID of the request.
UserName	String	r-bp1zxszhcgatnx****	The username that is used to connect to the ApsaraDB for Redis instance. By default, ApsaraDB for Redis provides a username that is named after the instance ID.
vSwitchId	String	vsw-bp1e7clcw529l773d****	The ID of the vSwitch to which the ApsaraDB for Redis instance is connected.
VpcId	String	vpc-bp1nme44gek34slfc****	The ID of the VPC.
ZoneId	String	cn-hangzhou-b	The ID of the zone where the ApsaraDB for Redis instance is deployed.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=CreateInstance
&RegionId=cn-hangzhou
&ZoneId=cn-hangzhou-e
&InstanceClass=redis.master.2xlarge.default
&InstanceName=apitest
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateInstanceResponse>
  <ChargeType>PostPaid</ChargeType>
  <Config>{"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}</Config>
  <InstanceId>r-bp1zxszhcgatnx****</InstanceId>
  <UserName>r-bp1zxszhcgatnx****</UserName>
  <ZoneId>cn-hangzhou-b</ZoneId>
  <InstanceStatus>Creating</InstanceStatus>
  <Port>6379</Port>
  <QPS>100000</QPS>
  <RequestId>96132219-F1E6-40AB-8853-C32055B8****</RequestId>
  <RegionId>cn-hangzhou</RegionId>
  <Capacity>16384</Capacity>
  <ConnectionDomain>r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com</ConnectionDomain>
  <InstanceName>apitest</InstanceName>
  <Bandwidth>32</Bandwidth>
  <Connections>10000</Connections>
</CreateInstanceResponse>
```

JSON format

```
{
  "ChargeType": "PostPaid",
  "Config": "{\"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}",
  "InstanceId": "r-bp1zxszhcgatnx****",
  "UserName": "r-bp1zxszhcgatnx****",
  "ZoneId": "cn-hangzhou-b",
  "InstanceStatus": "Creating",
  "Port": 6379,
  "QPS": 100000,
  "RequestId": "96132219-F1E6-40AB-8853-C32055B8****",
  "RegionId": "cn-hangzhou",
  "Capacity": 16384,
  "ConnectionDomain": "r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com",
  "InstanceName": "apitest",
  "Bandwidth": 32,
  "Connections": 10000
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InsufficientBalance	Your account does not have enough balance.	The error message returned because your account does not have a sufficient balance. Recharge your account and try again.

HttpCode	Error code	Error message	Description
403	RealNameAuthenticationError	Your account has not passed the real-name authentication yet.	The error message returned because your account has not passed the real-name verification.
400	QuotaExceed.AfterpayInstance	Living afterpay instances quota exceeded.	The error message returned because the maximum number of instances is reached.
400	InvalidCapacity.NotFound	The Capacity provided does not exist in our records.	The error message returned because the specified capacity is invalid.
400	ResourceNotAvailable	Resource you requested is not available for finance user.	The error message returned because the requested resource is unavailable to users of Alibaba Finance Cloud.
400	PaymentMethodNotFound	No payment method has been registered on the account.	The error message returned because no payment method is specified for your account.
400	IdempotentParameterMismatch	Request uses a client token in a previous request but is not identical to that request.	The error message returned because the current request uses a token that has been used in an earlier request but the two requests are not identical.
400	QuotaNotEnough	Quota not enough in this zone.	The error message returned because the maximum number of instances for this zone is reached.
400	QuotaExceed	Living afterpay instances quota exceed.	The error message returned because the maximum number of instances is reached.
400	IzNotSupportVpcError	Specify iz not support vpc.	The error message returned because the specified iz does not support VPCs.

For a list of error codes, visit the [API Error Center](#).

7.5. CreateInstances

Creates one or more ApsaraDB for Redis instances.

Before you call this operation, make sure that you understand the billing methods and [pricing](#) of ApsaraDB for Redis.

 **Note** For more information about how to create an instance in the ApsaraDB for Redis console, see [Create an instance](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateInstances	The operation that you want to perform. Set the value to <code>CreateInstances</code> .
Instances	String	Yes	[{"RegionId": "cn-hangzhou", "izNo": "cn-hangzhou-b", "quantity": 2, "instanceType": "Redis", "instanceClass": "redis.master.small.default", "EngineVersion": "5.0", "ChargeType": "PostPaid"}]	The configurations of the instance that you want to create in the JSON format. For more information, see Description of the Instances parameter .
RegionId	String	No	cn-hangzhou	The ID of the region where you want to create the ApsaraDB for Redis instance. You can call the DescribeRegions operation to query region IDs.
Token	String	No	ETnLlblczshOTUbOCz***	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token is case-sensitive. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Parameter	Type	Required	Example	Description
AutoPay	Boolean	No	true	<p>Specifies whether to enable automatic payment. Valid values:</p> <ul style="list-style-type: none"> • true: enables automatic payment. This is the default value. • false: enables manual payment. In the top navigation bar, choose Expenses > Renewal Management. In the left-side navigation pane, click Orders. Find and pay for the order. <div style="background-color: #e1f5fe; padding: 10px; margin-top: 10px;"> ? Note If the value of the ChargeType field in the Instances parameter is set to PrePaid, this parameter is valid. </div>
BusinessInfo	String	No	000000000	The ID of the promotion event or the business information.
CouponNo	String	No	youhuiquan_promotion_option_id_for_blank	The coupon code. Default value: <code>vouhuiquan_promotion_option_id_for_blank</code> .
EngineVersion	String	No	5.0	<p>The major version of the ApsaraDB for Redis instance. Valid values: 2.8, 4.0, and 5.0.</p> <div style="background-color: #e1f5fe; padding: 10px; margin-top: 10px;"> ? Note Default value: 5.0. </div>
RebuildInstance	Boolean	No	false	<p>Specifies whether to restore the source instance from the recycle bin. Valid values:</p> <ul style="list-style-type: none"> • true: recreates the source instance from the recycle bin. • false: does not recreate the source instance from the recycle bin. This is the default value. <div style="background-color: #e1f5fe; padding: 10px; margin-top: 10px;"> ? Note If the <code>SrcDBInstanceId</code> field in the Instances parameter is set, this parameter is valid. </div>

Parameter	Type	Required	Example	Description
AutoRenew	String	No	false	<p>Specifies whether to enable auto-renewal. Valid values:</p> <ul style="list-style-type: none"> • true: enables auto-renewal. • false: disables auto-renewal. This is the default value. <div style="background-color: #e1f5fe; padding: 10px;"> ? Note If the value of the ChargeType field in the Instances parameter is set to PrePaid, this parameter is valid. </div>

Response parameters

Parameter	Type	Example	Description
InstanceIds	List	{ "InstanceId": ["r-bp16e70a4338****", "r-bp178c19293a****"] }	The IDs of instances that are created.
OrderId	String	20905403119***	The ID of the order.
RequestId	String	561AFBF1-BE20-44DB-9BD1-6988B53E***	The ID of the request.

Examples

Sample requests

```
http(s)://r-kvstore.aliyuncs.com/?Action=CreateInstances
&Instances=[{ "RegionId": "cn-hangzhou", "izNo": "cn-hangzhou-b", "quantity": 2, "instanceType": "Redis", "instanceClass": "redis.master.small.default", "EngineVersion": "5.0", "ChargeType": "PostPaid"}]
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateInstancesResponse>
<RequestId>561AFBF1-BE20-44DB-9BD1-6988B53E****</RequestId>
<OrderId>20905403119****</OrderId>
<InstanceIds>
    <InstanceId>r-bp16e70a4338****</InstanceId>
    <InstanceId>r-bp178c19293a****</InstanceId>
</InstanceIds>
</CreateInstancesResponse>
```

JSON format

```
{
    "RequestId": "561AFBF1-BE20-44DB-9BD1-6988B53E****",
    "OrderId": "20905403119****",
    "InstanceIds": {
        "InstanceId": [
            "r-bp16e70a4338****",
            "r-bp178c19293a****"
        ]
    }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidToken.Malformed	The Specified parameter "Token" is not valid.	The error message returned because the token is invalid.
400	InvalidInstanceName.Malformed	The Specified parameter "InstanceName" is not valid.	The error message returned because the instance name is invalid.
400	InvalidPassword.Malformed	The Specified parameter "Password" is not valid.	The error message returned because the password is invalid.
400	InvalidInstances.Malformed	The Specified parameter "Instances" is not valid.	The error message returned because the Instances parameter is invalid.
400	InsufficientBalance	Your account does not have enough balance.	The error message returned because your account does not have a sufficient balance. Top up your account and try again.
403	RealNameAuthenticationError	Your account has not passed the real-name authentication yet.	The error message returned because your account has not passed the real-name verification.

HttpCode	Error code	Error message	Description
400	QuotaExceed.AfterpayInstance	Living afterpay instances quota exceeded.	The error message returned because the number of instances that you created exceeds the quota.
400	InvalidCapacity.NotFound	The Capacity provided does not exist in our records.	The error message returned because the specified capacity is invalid.
400	ResourceNotAvailable	Resource you requested is not available for finance user.	The error message returned because the requested resource is unavailable to users of Alibaba Finance Cloud.
400	PaymentMethodNotFound	No payment method has been registered on the account.	The error message returned because no payment method is specified for your account.
400	IdempotentParameterMismatch	Request uses a client token in a previous request but is not identical to that request.	The error message returned because the current request uses a token that is used in an earlier request and the two requests are not identical.
400	QuotaNotEnough	Quota not enough in this zone.	The error message returned because the number of instances that you created exceeds the quota for this zone.
400	QuotaExceed	Living afterpay instances quota exceed.	The error message returned because the number of instances that you created exceeds the quota.
400	IzNotSupportVpcError	Specify iz not support vpc.	The error message returned because the specified iz does not support VPCs.

For a list of error codes, visit the [API Error Center](#).

7.6. ModifyInstanceStateSpec

Changes the type of an ApsaraDB for Redis instance.

- For more information about instance types, see [Instance types](#).
- For more information about how to perform the corresponding operation in the console, see [Change specifications](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceSpec	The operation that you want to perform. Set the value to ModifyInstanceSpec .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
InstanceClass	String	No	redis.master.small.default	<p>The instance type after the specifications change. For more information about the values of the InstanceClass parameter for different instance types, see Instance types.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note To downgrade a subscription instance, you must set the OrderType parameter to DOWNGRADE. </div>
BusinessInfo	String	No	000000000	The ID of the promotion or the business information.
CouponNo	String	No	youhuquan_promotion_option_id_for_blank	The coupon code. Default value: <code>youhuquan_promotion_option_id_for_blank</code> .

Parameter	Type	Required	Example	Description
ForceUpgrade	Boolean	No	true	<p>Specifies whether to forcibly change the type. Valid values:</p> <ul style="list-style-type: none">• false: The system does not forcibly change the type.• true: The system forcibly changes the type. <p>? Note Default value: true.</p>
EffectiveTime	String	No	Immediately	<p>Specifies when the type is changed. Valid values:</p> <ul style="list-style-type: none">• Immediately: immediately changes the type.• MaintainTime: changes the type within the maintenance window. <p>Default value: Immediately.</p>
AutoPay	Boolean	No	true	<p>Specifies whether to enable automatic renewal. Valid values:</p> <ul style="list-style-type: none">• true: enables automatic renewal.• false: manual payment. If you set this parameter to false, you must manually renew the instance before the instance expires. For more information, see Manual renewal. <p>? Note Default value: true.</p>

Parameter	Type	Required	Example	Description
OrderType	String	No	DOWNGRADE	<p>Specifies a change type when you change the configuration of a subscription instance. Valid values:</p> <ul style="list-style-type: none">• UPGRADE: upgrades the configuration of a subscription instance. This is the default value.• DOWNGRADE: downgrades the configuration of a subscription instance. <p>Note</p> <ul style="list-style-type: none">• If you change the configuration of a pay-as-you-go instance, this parameter is not required.• To downgrade a subscription instance, you must set this parameter to DOWNGRADE.• If the price increases after specifications are changed, it is an upgrade configuration. If the price decreases, it is a downgrade configuration. For example, the price of an 8 GB read/write splitting instance with five read replicas is higher than that of a 16 GB cluster instance. If you want to change a 16 GB cluster instance to an 8 GB read/write splitting instance with five read replicas, you must upgrade the instance.
MajorVersion	String	No	5.0	When you change the configuration, you can upgrade the major version of an instance by setting this parameter to and the major version to which you want to upgrade. Valid values: 4.0 and 5.0 .

Parameter	Type	Required	Example	Description
ClientToken	String	No	ETnLkblzczshOTUbOCz****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

Parameter	Type	Example	Description
OrderId	String	20722623431****	The ID of the order.
RequestId	String	0DA1D7EF-C80D-432C-8758-7D225182626B	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceSpec
&InstanceId=r-bp1zxszhcgatnx****
&InstanceClass=redis.master.small.default
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyInstanceSpecResponse>
<RequestId>A4828C10-AF0A-4CD7-8FBE-737C6CC1193E</RequestId>
<OrderId>20722623431****</OrderId>
</ModifyInstanceSpecResponse>
```

JSON format

```
{
  "RequestId": "A4828C10-AF0A-4CD7-8FBE-737C6CC1193E",
  "OrderId": "20722623431****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	PaymentMethodNotFound	No payment method has been registered on the account.	The error message returned because no payment method has been registered for your account.
400	HasRenewChangeOrder	This instance has a renewChange order.	The error message returned because an order of renewal with specifications change already exists.

For a list of error codes, visit the [API Error Center](#).

7.7. TransformToPrePaid

Changes the billing method of an ApsaraDB for Redis instance from pay-as-you-go to subscription.

For more information about how to change the billing method in the ApsaraDB for Redis console, see [Switch to subscription](#).

 **Note** You cannot change the billing method of an ApsaraDB for Redis instance from subscription to pay-as-you-go.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	TransformToPrePaid	The operation that you want to perform. Set the value to TransformToPrePaid .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance.
Period	Long	Yes	12	The subscription duration of the instance. Unit: months. Valid values: 1 to 9, 12, 24, and 36.

Parameter	Type	Required	Example	Description
AutoPay	Boolean	No	true	<p>Specifies whether to enable automatic payment. Valid values:</p> <ul style="list-style-type: none"> • true: enables automatic payment. • false: disables automatic payment. You can manually pay for the ApsaraDB for Redis instance. <p>Default value: true.</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note If you set this parameter to false, you must manually renew the instance in the console before the instance expires. For more information, see Manual renewal. </div>
RegionId	String	No	cn-hangzhou	The region ID of the instance.

Response parameters

Parameter	Type	Example	Description
EndTime	String	2019-01-18T16:00:00Z	The expiration date of the ApsaraDB for Redis instance after the billing method is 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 requests

```
https://r-kvstore.aliyuncs.com/?Action=TransformToPrePaid
&InstanceId=r-bp1zxszhcgatnx****
&Period=12
&<Common request parameters>
```

Sample success responses

XML format

```
<TransformToPrePaidResponse>
  <OrderId>1111111111111111</OrderId>
  <RequestId>426F1356-B6EF-4DAD-A1C3-DE53B9DAF586</RequestId>
  <EndTime>2019-01-18T16:00:00Z</EndTime>
</TransformToPrePaidResponse>
```

JSON format

```
{
  "OrderId": "1111111111111111",
  "RequestId": "426F1356-B6EF-4DAD-A1C3-DE53B9DAF586",
  "EndTime": "2019-01-18T16:00:00Z"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParam	Period is invalid	The error message returned because the specified subscription duration is invalid.
403	AlreadyPrePaid	This instance is already prepaid	The error message returned because the instance is already billed on a subscription basis.
400	ResourceNotAvailable	Resource you requested is not available for finance user.	The error message returned because the requested resource is unavailable to users of Alibaba Finance Cloud.
400	InsufficientBalance	Your account does not have enough balance.	The error message returned because your account does not have a sufficient balance. Top up your account and try again.
403	RealNameAuthenticationError	Your account has not passed the real-name authentication yet.	The error message returned because your account has not completed real-name verification.

For a list of error codes, visit the [API Error Center](#).

7.8. DeleteInstance

Releases an ApsaraDB for Redis instance.

For more information about how to perform the corresponding operation in the console, see [Release an instance](#).

Before you call this operation, make sure that the following requirements are met:

- The instance is in the running state.

- The instance is charged on a pay-as-you-go basis.

Note You cannot call this operation to release a subscription instance, which is automatically released when it expires. To release a subscription instance before it expires, submit a ticket.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteInstance	The operation that you want to perform. Set the value to DeleteInstance .
InstanceId	String	Yes	r-bp1zxszhcgatnx****	The ID of the instance that you want to release.
GlobalInstanceId	String	No	gr-bp14rkqrhac****	The ID of the distributed instance to which the instance belongs. This parameter is applicable to only China site (aliyun.com).

Response parameters

Parameter	Type	Example	Description
RequestId	String	5D622714-AEDD-4609-9167-F5DDD3D190D2	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DeleteInstance
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<DeleteInstanceResponse>
  <RequestId>5D622714-AEDD-4609-9167-F5DDD3D190D2</RequestId>
</DeleteInstanceResponse>
```

JSON format

```
{  
    "RequestId": "5D622714-AEDD-4609-9167-F5DDD3D190D2"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.Instance management

8.1. DescribeInstances

Queries information about one or more ApsaraDB for Redis instances.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeInstances	The operation that you want to perform. Set the value to DescribeInstances .
RegionId	String	Yes	cn-hangzhou	The region ID of the ApsaraDB for Redis instance.
InstanceIds	String	No	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance. Note You can specify multiple instance IDs. Separate instance IDs with commas (,).

Parameter	Type	Required	Example	Description
InstanceStatus	String	No	Normal	<p>The state of the instance. Valid values:</p> <ul style="list-style-type: none"> • Normal: The instance runs as expected. • Creating: The instance is being created. • Changing: The configurations of the instance are being changed. • Inactive: The instance is disabled. • Flushing: The instance is being cleared. • Released: The instance is released. • Transforming: The instance is being transformed. • Unavailable: The service is suspended. • Error: The instance failed to be created. • Migrating: The instance is being migrated. • BackupRecovering: The backup is being restored. • MinorVersionUpgrading: The minor version is being upgraded. • NetworkModifying: The network is being modified. • SSLModifying: The SSL certificate is being modified. • MajorVersionUpgrading: The major version is being upgraded and the service is available.
ChargeType	String	No	PostPaid	<p>The billing method of the instance. Valid values:</p> <ul style="list-style-type: none"> • PrePaid: subscription • PostPaid: pay-as-you-go
NetworkType	String	No	CLASSIC	<p>The network type of the instance. Valid values:</p> <ul style="list-style-type: none"> • CLASSIC: The instance runs in a classic network. • VPC: The instance runs in a virtual private cloud (VPC).

Parameter	Type	Required	Example	Description
EngineVersion	String	No	4.0	The engine version of the instance. Valid values: 2.8, 4.0, and 5.0.
InstanceClass	String	No	redis.master.small.default	The instance type. For more information, see Instance types .
VpcId	String	No	vpc-bp1nme44gek34slf*****	The ID of the VPC in which the instance is deployed.
VSwitchId	String	No	vsw-bp1e7clcw529l773d*****	The ID of the vSwitch associated with the specified VPC.
PageNumber	Integer	No	1	The number of the page to return. Pages start from page 1. Default value: 1
PageSize	Integer	No	10	The number of entries to return on each page. Maximum value: 50. Default value: 10.
InstanceType	String	No	Redis	The type of engine. Valid values: <ul style="list-style-type: none"> • Redis • Memcache
SearchKey	String	No	apitest	The names of the instances.
ArchitectureType	String	No	standard	The architecture. Valid values: <ul style="list-style-type: none"> • cluster: the cluster architecture. • standard: the standard architecture. • rwsplit: the read/write splitting architecture.
Expired	String	No	false	Specifies whether the instances are expired. Valid values: <ul style="list-style-type: none"> • true: The instances are expired. • false: The instances are not expired.

Parameter	Type	Required	Example	Description
ZoneId	String	No	cn-hongkong-b	The ID of the zone.
Tag.N.Key	String	No	{"key1":"value1", "key2":"value2"}	The key of the tag. The key-value pair of a tag consists of a key and a value. The value of this parameter must be in the {"key1":"value1","key2":"value2"} format. <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;">? Note You can specify up to five key-value pairs at a time.</div>
Tag.N.Value	String	No	{"key1":"value1", "key2":"value2"}	The value of the tag. The key-value pair of a tag consists of a key and a value.
ResourceGroupId	String	No	rg-acfmyiu4ekp***	The ID of the resource group. <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;">? Note You can call the ListResourceGroups operation or log on to the console to check the IDs of resource groups. For more information, see View basic information about a resource group.</div>
GlobalInstance	Boolean	No	true	Specifies whether to filter out child instances in the distributed architecture. Valid values: <ul style="list-style-type: none">• true: Only information about child instances are returned.• false: Information about child instances is not returned.
EditionType	String	No	Enterprise	The engine type of the instance. Valid values: <ul style="list-style-type: none">• Community: Community Edition.• Enterprise: Enterprise Edition.
PrivateIp	String	No	172.16.49.***	The internal IP address of the instance.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	1	The total number of instances that were queried.
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	30	The number of entries returned per page.
Instances	Array of KVStoreInstance		The information about the instances that were queried.
KVStoreInstance			
ArchitectureType	String	cluster	The architecture. Valid values: <ul style="list-style-type: none">• cluster: the cluster architecture.• standard: the standard architecture.• SplitRW: the read/write splitting architecture.• NULL: all architectures. This is the default value.
Bandwidth	Long	96	The bandwidth of the instance. Unit: Mbit/s.
Capacity	Long	4096	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">• PrePaid: subscription• PostPaid: pay-as-you-go

Parameter	Type	Example	Description
Config	String	{"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_lose_disabled-commands": ["flushall", "flushdb"], "lazy-free-lazy-eviction": "yes"}	The parameter configuration of the instance. For more information, see Set parameters .
ConnectionDomain	String	r-bp1zxszhcgatnx***.redis.rds.aliyuncs.com	The internal endpoint of the instance.
ConnectionMode	String	Standard	The connection mode of the instance. Valid values: <ul style="list-style-type: none">• Standard: the standard mode.• Safe: the proxy mode.
Connections	Long	20000	The maximum number of connections supported by the instance.
CreateTime	String	2018-11-07T08:49:00Z	The time when the instance was created.
DestroyTime	String	2019-04-28T10:03:01Z	The time when the instance was deleted.
EndTime	String	2019-06-13T16:00:00Z	The expiration date of the subscription instance.
EngineVersion	String	4.0	The engine version of the instance. Valid values: 2.8, 4.0, and 5.0.

Parameter	Type	Example	Description
HasRenewChangeOrder	Boolean	false	Indicates whether the Alibaba Cloud account has pending renewal or scaling orders. Valid values: <ul style="list-style-type: none">• true• false
InstanceClass	String	redis.logic.sharding.2g.2db.0rodb.4proxy.default	The specifications of the instance.
InstanceId	String	r-bp1zxszhcgatnx****	The ID of the instance.
InstanceName	String	apitest	The name of the instance.
InstanceStatus	String	Normal	The state 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">• true• false
NetworkType	String	CLASSIC	The network type. Valid values: <ul style="list-style-type: none">• CLASSIC: The instance runs in a classic network.• VPC: The instance runs in a VPC.
NodeType	String	double	The type of node. Valid values: <ul style="list-style-type: none">• double: master and replica nodes• single: master node only (phased out)
PackageType	String	standard	The plan type. Valid values: <ul style="list-style-type: none">• standard: the standard plan.• customized: the custom plan.
Port	Long	6379	The service port of the ApsaraDB for Redis instance.

Parameter	Type	Example	Description
PrivateIp	String	172.16.49.***	The internal IP address of the instance.
QPS	Long	100000	The queries per second (QPS) supported by the instance.
RegionId	String	cn-hongkong	The region ID of the ApsaraDB for Redis instance.
ReplicatId	String	grr-bp11381ebc16****	The logical ID of the replica instance.
ResourceGroupId	String	rg-acfmyiu4ekp****	The ID of the resource group to which the instance belongs.
SearchKey	String	apitest	The instance ID or description keyword that is used for fuzzy match.
ShardCount	Integer	3	<p>The number of data nodes in the instance.</p> <div style="background-color: #e1f5fe; padding: 5px; border-radius: 5px;"> ? Note If a cluster instance of ApsaraDB for Redis uses an Alibaba Cloud disk, this parameter is returned. </div>
Tags	Array of Tag		The details of tags.
Tag			
Key	String	key1	The key of the tag.
Value	String	value1	The value of the tag.
UserName	String	r-bp1zxszhcgatnx****	The username that is used to connect to the instance. By default, The username that is named after the instance ID is returned.
vSwitchId	String	vsw-bp1e7clcw529l773d****	The ID of the vSwitch.
VpcId	String	vpc-bp1nme44gek34slfc****	The ID of the VPC.

Parameter	Type	Example	Description
-----------	------	---------	-------------

ZoneId	String	cn-hongkong-b	The ID of the zone.
RequestId	String	1E83311F-0EE4-4922-A3BF-730B312B****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeInstances  
&RegionId=cn-hangzhou  
&<Common Request Parameters>
```

Sample success responses

XML format

```
<DescribeInstancesResponse>
  <Instances>
    <KVStoreInstance>
      <Connections>10000</Connections>
      <ResourceGroupId>rg-acfmyiu4ekp****</ResourceGroupId>
      <Config>{"EvictionPolicy":"volatile-lru","hash-max-ziplist-entries":512,"zset-max-ziplist-entries":128,"list-max-ziplist-entries":512,"list-max-ziplist-value":64,"zset-max-ziplist-value":64,"set-max-intset-entries":512,"hash-max-ziplist-value":64}</Config>
      <Port>6379</Port>
      <HasRenewChangeOrder>false</HasRenewChangeOrder>
      <ConnectionDomain>r-bp1wcw2rlw76acc5k****.redis.rds.aliyuncs.com</ConnectionDomain>
      <Capacity>1024</Capacity>
      <QPS>80000</QPS>
      <PrivateIp>172.16.49.***</PrivateIp>
      <InstanceState>Normal</InstanceState>
      <NetworkType>VPC</NetworkType>
      <Bandwidth>10</Bandwidth>
      <PackageType>standard</PackageType>
      <InstanceType>Redis</InstanceType>
      <Tags>
        <Tag>
          <Value>Community Edition</Value>
          <Key>Type</Key>
        </Tag>
      </Tags>
      <ArchitectureType>standard</ArchitectureType>
      <UserName>r-bp1wcw2rlw76ac****</UserName>
      <EngineVersion>5.0</EngineVersion>
      <ZoneId>cn-hangzhou-f</ZoneId>
      <InstanceId>r-bp1wcw2rlw76ac****</InstanceId>
      <VSwitchId>vsw-bp1w9ouei2nm66qlz****</VSwitchId>
      <CreateTime>2020-03-31T06:56:22Z</CreateTime>
      <InstanceClass>redis.master.small.default</InstanceClass>
      <IsRds>true</IsRds>
      <InstanceName>CommunityEditionMasterReplica50</InstanceName>
      <VpcId>vpc-bp1opxu1zkhn00gzb****</VpcId>
      <ChargeType>PostPaid</ChargeType>
      <NodeType>double</NodeType>
      <RegionId>cn-hangzhou</RegionId>
    </KVStoreInstance>
  </Instances>
  <TotalCount>1</TotalCount>
  <RequestId>78DDAA9A-B09E-4BE0-AEAE-10A22924****</RequestId>
  <PageSize>30</PageSize>
  <PageNumber>1</PageNumber>
</DescribeInstancesResponse>
```

JSON format

```
{  
    "Instances": [  
        {  
            "KVStoreInstance": [  
                {  
                    "Connections": 10000,  
                    "ResourceGroupId": "rg-acfmyiu4ekp****",  
                    "Config": "{\"EvictionPolicy\":\"volatile-lru\",\"hash-max-ziplist-entries\":512,\"zset-max-ziplist-entries\":128,\"list-max-ziplist-entries\":512,\"list-max-ziplist-value\":64,\"zset-max-ziplist-value\":64,\"set-max-intset-entries\":512,\"hash-max-ziplist-value\":64}",  
                    "Port": 6379,  
                    "HasRenewChangeOrder": false,  
                    "ConnectionDomain": "r-bp1wcw2rlw76acc5k****.redis.rds.aliyuncs.com",  
                    "Capacity": 1024,  
                    "QPS": 80000,  
                    "PrivateIp": "172.16.49.***",  
                    "InstanceState": "Normal",  
                    "NetworkType": "VPC",  
                    "Bandwidth": 10,  
                    "PackageType": "standard",  
                    "InstanceType": "Redis",  
                    "Tags": [  
                        {"Tag": [  
                            {"Value": "Community Edition",  
                             "Key": "Type"}  
                        ]},  
                        {"ArchitectureType": "standard",  
                         "UserName": "r-bp1wcw2rlw76ac****",  
                         "EngineVersion": "5.0",  
                         "ZoneId": "cn-hangzhou-f",  
                         "InstanceId": "r-bp1wcw2rlw76ac****",  
                         "VSwitchId": "vsw-bp1w9ouei2nm66qlz****",  
                         "CreateTime": "2020-03-31T06:56:22Z",  
                         "InstanceClass": "redis.master.small.default",  
                         "IsRds": true,  
                         "InstanceName": "CommunityEditionMasterReplica50",  
                         "VpcId": "vpc-bp1opxu1zkhn00gqv****",  
                         "ChargeType": "PostPaid",  
                         "NodeType": "double",  
                         "RegionId": "cn-hangzhou"}  
                    ]},  
                    {"TotalCount": 1,  
                     "RequestId": "78DDAA9A-B09E-4BE0-AEAE-10A22924****",  
                     "PageSize": 30,  
                     "PageNumber": 1  
                }  
            ]  
        }  
    ]  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.2. DescribeInstanceAttribute

Queries detailed information of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeInstanceAttribute	The operation that you want to perform. Set the value to DescribeInstanceAttribute .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the ApsaraDB for Redis instance is deployed.

Response parameters

Parameter	Type	Example	Description
Instances	Array of DBInstanceAttribute		The information about the ApsaraDB for Redis instance.
DBInstanceAttribute			
ArchitectureType	String	standard	The architecture of the ApsaraDB for Redis instance. Valid values: <ul style="list-style-type: none">• cluster: indicates a cluster instance.• standard: indicates a standard instance.• rwsplit: indicates a read/write splitting instance.

Parameter	Type	Example	Description
AuditLogRetention	String	15	The retention period of the audit log. Unit: days. A value of 0 indicates that the audit log feature is disabled. For more information, see Activate audit logs .
AvailabilityValue	String	100%	The availability metric of the current month.
Bandwidth	Long	10	The bandwidth of the instance in Mbit/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">• PrePaid: subscription• PostPaid: pay-as-you-go
Config	String	{"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}	The parameter configurations of the instance in the JSON format. For more information, see Parameter descriptions .
ConnectionDomain	String	r-bp1d72gwl41z7f***.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 is displayed in the <i>yyyy-MM-ddT HH:mm:ssZ</i> format. The time must be in UTC.

Parameter	Type	Example	Description
EndTime	String	2019-04-06T10:42:03Z	The time when the subscription expires. The time is displayed in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time must be in UTC.
Engine	String	Redis	The database type. The returned value is Redis .
EngineVersion	String	4.0	The database version. Valid values: 2.8 , 4.0 , and 5.0 .
GlobalInstanceId	String	gr-bp14rkqrhac****	<p>The ID of the distributed instance.</p> <div style="background-color: #e0f2ff; padding: 5px;"> ? Note This parameter is returned only if the ApsaraDB for Redis instance is a child instance of the distributed instance. </div>
HasRenewChangeOrder	String	false	<p>Indicates whether the Alibaba Cloud account has pending renewal or configuration updating orders. Valid values:</p> <ul style="list-style-type: none"> • true • false
InstanceClass	String	redis.master.small.default	The instance type.
InstanceId	String	r-bp1d72gwl41z7f***	The ID of the ApsaraDB for Redis instance.
InstanceName	String	apitest	The name of the ApsaraDB for Redis instance.
InstanceReleaseProtection	Boolean	false	<p>Indicates whether the release protection feature is enabled for the instance. Valid values:</p> <ul style="list-style-type: none"> • true: The release protection feature is enabled. • false: The release protection feature is disabled.

Parameter	Type	Example	Description
InstanceStatus	String	Normal	The status of the cluster.
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">• true• false
MaintainEndTime	String	22:00Z	The end time of the maintenance window. The time is displayed in the <i>HH:mmZ</i> format.
MaintainStartTime	String	18:00Z	The start time of the maintenance window. The time is displayed in the <i>HH:mmZ</i> format.
NetworkType	String	CLASSIC	The network type. Valid values: <ul style="list-style-type: none">• CLASSIC: The instance runs in a classic network.• VPC: The instance runs in a virtual private cloud (VPC).
NodeType	String	double	The type of the node. Valid values: <ul style="list-style-type: none">• double: a master-replica instance.• single: a standalone instance. The instance type is phased out.
PackageType	String	standard	The plan type. Valid values: <ul style="list-style-type: none">• standard: a standard plan.• customized: a custom plan. The plan type is phased out.
Port	Long	6379	The service port of the ApsaraDB for Redis instance.
PrivateIp	String	xxx.xxx.xxx.222	The internal IP address of the instance.
QPS	Long	100000	The expected maximum queries per second (QPS).

Parameter	Type	Example	Description
RegionId	String	cn-hongkong	The ID of the region where the instance is deployed.
ReplicaId	String	bls-awxxxxxxxxxxxxxx	The ID of the replica.
ReplicationMode	String	master-slave	<p>The replication architecture. Valid values:</p> <ul style="list-style-type: none"> • master-slave: the standard master-replica architecture. • cluster: the cluster architecture, which includes the read/write splitting or cluster instances.
ResourceGroupId	String	rg-acfmyiu4ekp****	The ID of the resource group to which the ApsaraDB for Redis instance belongs.
SecondaryZoneId	String	cn-hongkong-h	<p>The ID of the secondary zone.</p> <div style="background-color: #e0f2f1; padding: 5px;"> ? Note If the instance does not have a secondary zone, this parameter is not returned. </div>
SecurityIPList	String	127.0.0.1	The IP address whitelist.
ShardCount	Integer	2	The number of shards. This parameter applies only to the Alibaba Cloud China site.
Tags	Array of Tag		The details of tags.
Tag			
Key	String	tagkey	The tag key.
Value	String	tagvalue	The tag value.
vSwitchId	String	VSW-bp1e7clcw529l773d****	The ID of the vSwitch to which the ApsaraDB for Redis instance is connected.

Parameter	Type	Example	Description
VpcAuthMode	String	Open	The VPC authentication mode. Valid values: <ul style="list-style-type: none">• Open: enables password authentication.• Close: disables password authentication. The password-free access mode is enabled.
VpcCloudInstanceld	String	r-bp1d72gwl41z7f*** *	The ID of the VPC where the instance is deployed.
VpcId	String	vpc-bp1nme44gek34slfc****	The ID of the VPC.
ZoneId	String	cn-hongkong-b	The ID of the zone to which the instance belongs.
ZoneType	String	singlezone	The type of zones. Valid values: <ul style="list-style-type: none">• singlezone: one zone in a region.• doublezone: two zones in a region.
RequestId	String	CA40C261-EB72-4EDA-AC57-958722162595	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeInstanceAttribute  
&InstanceId=r-bp1zxszhcgatnx***  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeInstanceAttributeResponse>
  <Instances>
    <DBInstanceAttribute>
      <Connections>10000</Connections>
      <ResourceGroupId>rg-acfmyiu4ekp****</ResourceGroupId>
      <Config>{"EvictionPolicy":"volatile-lru","hash-max-ziplist-entries":512,"zset-max-ziplist-entries":128,"list-max-ziplist-entries":512,"list-max-ziplist-value":64,"zset-max-ziplist-value":64,"set-max-intset-entries":512,"hash-max-ziplist-value":64}</Config>
      <Port>6379</Port>
      <HasRenewChangeOrder>false</HasRenewChangeOrder>
      <ZoneType>singlezone</ZoneType>
      <ConnectionDomain>r-bp1wcw2rlw76acc5k****.redis.rds.aliyuncs.com</ConnectionDomain>
      <MaintainEndTime>22:00Z</MaintainEndTime>
      <Capacity>1024</Capacity>
      <QPS>100000</QPS>
      <PrivateIp>172.16.49.***</PrivateIp>
      <SecurityIPList>127.0.0.1</SecurityIPList>
      <InstanceState>Normal</InstanceState>
      <NetworkType>VPC</NetworkType>
      <Bandwidth>10</Bandwidth>
      <PackageType>standard</PackageType>
      <InstanceReleaseProtection>false</InstanceReleaseProtection>
      <InstanceType>Redis</InstanceType>
      <AvailabilityValue>100.0%</AvailabilityValue>
      <Engine>Redis</Engine>
      <MaintainStartTime>18:00Z</MaintainStartTime>
      <Tags>
        <Tag>
          <Value>Community Edition</Value>
          <Key>Type</Key>
        </Tag>
      </Tags>
      <ArchitectureType>standard</ArchitectureType>
      <EngineVersion>5.0</EngineVersion>
      <ZoneId>cn-hangzhou-f</ZoneId>
      <InstanceId>r-bp1wcw2rlw76ac****</InstanceId>
      <VSwitchId>vsw-bp1w9ouei2nm66qlz****</VSwitchId>
      <CreateTime>2020-03-31T14:56:22Z</CreateTime>
      <InstanceClass>redis.master.small.default</InstanceClass>
      <AuditLogRetention>7</AuditLogRetention>
      <IsRds>true</IsRds>
      <ReplicationMode>master-slave</ReplicationMode>
      <InstanceName>CommunityEditionMasterReplica50</InstanceName>
      <VpcId>vpc-bp1opxu1zkhn00gqv****</VpcId>
      <ChargeType>PostPaid</ChargeType>
      <VpcAuthMode>Open</VpcAuthMode>
      <NodeType>double</NodeType>
      <VpcCloudInstanceId>r-bp1wcw2rlw76ac****</VpcCloudInstanceId>
      <RegionId>cn-hangzhou</RegionId>
    </DBInstanceAttribute>
  </Instances>
  <RequestId>D67A69DF-C1FC-4B01-B239-B17888CCFD2A</RequestId>
</DescribeInstanceAttributeResponse>
```

JSON format

```
{  
  "Instances":{  
    "DBInstanceAttribute": [  
      {  
        "Connections": 10000,  
        "ResourceGroupId": "rg-acfmyiu4ekp****",  
        "Config": "{\"EvictionPolicy\":\"volatile-lru\",\"hash-max-ziplist-entries\":512,\"zset-max-ziplist-entries\":128,\"list-max-ziplist-entries\":512,\"list-max-ziplist-value\":64,\"zset-max-ziplist-value\":64,\"set-max-intset-entries\":512,\"hash-max-ziplist-value\":64}",  
        "Port": 6379,  
        "HasRenewChangeOrder": "false",  
        "ZoneType": "singlezone",  
        "ConnectionDomain": "r-bp1wcw2rlw76acc5k****.redis.rds.aliyuncs.com",  
        "MaintainEndTime": "22:00Z",  
        "Capacity": 1024,  
        "QPS": 100000,  
        "PrivateIp": "172.16.49.***",  
        "SecurityIPList": "127.0.0.1",  
        "InstanceState": "Normal",  
        "NetworkType": "VPC",  
        "Bandwidth": 10,  
        "PackageType": "standard",  
        "InstanceReleaseProtection": false,  
        "InstanceType": "Redis",  
        "AvailabilityValue": "100.0%",  
        "Engine": "Redis",  
        "MaintainStartTime": "18:00Z",  
        "Tags": {  
          "Tag": [  
            {  
              "Value": "Community Edition",  
              "Key": "Type"  
            }  
          ]  
        },  
        "ArchitectureType": "standard",  
        "EngineVersion": "5.0",  
        "ZoneId": "cn-hangzhou-f",  
        "InstanceId": "r-bp1wcw2rlw76ac****",  
        "VSwitchId": "vsw-bp1w9ouei2nm66qlz****",  
        "CreateTime": "2020-03-31T14:56:22Z",  
        "InstanceClass": "redis.master.small.default",  
        "AuditLogRetention": "7",  
        "IsRds": true,  
        "ReplicationMode": "master-slave",  
        "InstanceName": "CommunityEditionMasterReplica50",  
        "VpcId": "vpc-bp1opxu1zkhn00gsv****",  
        "ChargeType": "PostPaid",  
        "VpcAuthMode": "Open",  
        "NodeType": "double",  
        "VpcCloudInstanceld": "r-bp1wcw2rlw76ac****",  
        "RegionId": "cn-hangzhou"  
    ]  
  }  
}
```

```
    }
]
},
"RequestId": "D67A69DF-C1FC-4B01-B239-B17888CCFD2A"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.3. DescribeEngineVersion

Queries the major version and minor version of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer automatically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeEngineVersion	The operation that you want to perform. Set the value to DescribeEngineVersion .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance. You can call the DescribeInstances operation to obtain it.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query IDs of available regions.

Response parameters

Parameter	Type	Example	Description
-----------	------	---------	-------------

Parameter	Type	Example	Description
EnableUpgradeMajorVersion	Boolean	false	<p>Indicates whether the major version can be upgraded. Valid values:</p> <ul style="list-style-type: none"> • true: the major version can be upgraded. • false: the major version is the latest version and cannot be upgraded. <div style="background-color: #e1f5fe; padding: 10px;"> ? Note To upgrade the major version, call the ModifyInstanceMajorVersion operation. </div>
EnableUpgradeMinorVersion	Boolean	true	<p>Indicates whether the minor version can be upgraded. Valid values:</p> <ul style="list-style-type: none"> • true: the minor version can be upgraded. • false: the minor version is the latest version and cannot be upgraded. <div style="background-color: #e1f5fe; padding: 10px;"> ? Note To upgrade the minor version, call the ModifyInstanceMinorVersion operation. </div>
Engine	String	redis	The database engine. Valid values: redis and memcache .
IsLatestVersion	Boolean	false	<p>Indicates whether the minor version is the latest version. Valid values:</p> <ul style="list-style-type: none"> • true: the minor version is the latest one. • false: the minor version is not the latest one.
MajorVersion	String	5.0	The major version of the ApsaraDB for Redis instance.
MinorVersion	String	redis-5.0-enterprise_1.4.8	The minor version of the ApsaraDB for Redis instance.
RequestId	String	A52974D1-9D57-4805-86CC-92E6EDE8****	The ID of the request.

Examples

Sample requests

<https://r-kvstore.aliyuncs.com/?Action=DescribeEngineVersion>

Sample success responses

XML format

```
<DescribeEngineVersionResponse>
  <MajorVersion>5.0</MajorVersion>
  <IsLatestVersion>false</IsLatestVersion>
  <RequestId>A52974D1-9D57-4805-86CC-92E6EDE8****</RequestId>
  <MinorVersion>redis-5.0-enterprise_1.4.8</MinorVersion>
  <Engine>redis</Engine>
  <EnableUpgradeMinorVersion>true</EnableUpgradeMinorVersion>
  <EnableUpgradeMajorVersion>false</EnableUpgradeMajorVersion>
</DescribeEngineVersionResponse>
```

JSON format

```
{
  "MajorVersion": "5.0",
  "IsLatestVersion": false,
  "RequestId": "A52974D1-9D57-4805-86CC-92E6EDE8****",
  "MinorVersion": "redis-5.0-enterprise_1.4.8",
  "Engine": "redis",
  "EnableUpgradeMinorVersion": true,
  "EnableUpgradeMajorVersion": false
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.4. DescribeRoleZoneInfo

Queries information about the type, minor version, and bandwidth of specific nodes in an ApsaraDB for Redis instance, and zones where the nodes are deployed.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeRoleZoneInfo	The operation that you want to perform. Set the value to DescribeRoleZoneInfo .

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	r-t4nlenc2p04uvb**	The ID of the instance. You can call the DescribeInstances operation to query instance IDs.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query region IDs.
QueryType	Integer	No	0	The type of node to query. Valid values: <ul style="list-style-type: none">• 0: proxy node.• 1: data node. This is the default value.
PageNumber	Integer	No	1	The number of the page to return. The value must be an integer that is greater than 0 and less than or equal to the maximum value supported by the integer data type. Default value: 1 .
PageSize	Integer	No	10	The number of entries to return on each page. Valid values: 10 , 20 , and 50 . Default value: 10 .

Response parameters

Parameter	Type	Example	Description
Node	Array of NodeInfo		Details about each node in an ApsaraDB for Redis instance.
NodeInfo			

Parameter	Type	Example	Description
CurrentBandwidth	Long	100	<p>The current bandwidth of the node. Unit: Mbit/s. The bandwidth consists of the default bandwidth and the increased bandwidth.</p> <div style="background-color: #e1f5fe; padding: 10px;"> <p>? Note</p> <ul style="list-style-type: none"> • You can call the EnableAdditionalBandwidth operation to increase the bandwidth. • You can also use this parameter to calculate the increased bandwidth. For example, if the default bandwidth of the node is 96 Mbit/s, and the returned value of this parameter is 100, then, the increased bandwidth is 4 Mbit/s. </div>
CurrentMinorVersion	String	redis-5.0_0.3.10	The minor version of the node.
CustinstId	String	30381****	This parameter is used only for internal maintenance of ApsaraDB for Redis instances.
DefaultBandwidth	Long	96	The default bandwidth of the node. Unit: Mbit/s.
InsName	String	r-t4nlenc2p04uvb****	The ID of the node.
InsType	Integer	3	<p>Indicates whether the node is a read replica. If the node is a read replica, 3 is returned.</p> <div style="background-color: #e1f5fe; padding: 10px;"> <p>? Note If the node is not a read replica, no value is returned.</p> </div>

Parameter	Type	Example	Description
IsLatestVersion	Integer	1	<p>Indicates whether the minor version is the latest version. Valid values:</p> <ul style="list-style-type: none"> • 0: no • 1: yes <div style="background-color: #e0f2f1; padding: 5px;"> ? Note To upgrade the minor version, call the ModifyInstanceMinorVersion operation. </div>
IsOpenBandwidthService	Boolean	true	<p>Indicates whether the bandwidth of the node is increased. Valid values:</p> <ul style="list-style-type: none"> • true: The bandwidth of the node is not increased. • false: The bandwidth of the node is increased.
NodeId	String	10065****	This parameter is used only for internal maintenance of ApsaraDB for Redis instances.
NodeType	String	normal	<p>The type of node. Valid values:</p> <ul style="list-style-type: none"> • db: data node. • proxy: proxy node. • normal: This value indicates that the instance runs in a standard architecture.
Role	String	master	<p>The role of the node. Valid values:</p> <ul style="list-style-type: none"> • master: master node • slave: replica node
ZoneId	String	cn-hangzhou-b	The ID of the zone to which the instance belongs.
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	224B97FB-A275-4EAC-86E9-8922FEA2****	The ID of the request.

Parameter	Type	Example	Description
TotalCount	Integer	2	The total number of entries.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeRoleZoneInfo
&InstanceId=r-t4nlenc2p04uvb****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeRoleZoneInfoResponse>
  <TotalCount>2</TotalCount>
  <RequestId>224B97FB-A275-4EAC-86E9-8922FEA2****</RequestId>
  <PageSize>10</PageSize>
  <PageNumber>1</PageNumber>
  <Node>
    <NodeInfo>
      <Role>slave</Role>
      <IsLatestVersion>1</IsLatestVersion>
      <ZoneId>cn-hangzhou-b</ZoneId>
      <NodeType>normal</NodeType>
      <IsOpenBandWidthService>true</IsOpenBandWidthService>
      <NodeId>10065****</NodeId>
      <CurrentMinorVersion>redis-5.0_0.3.10</CurrentMinorVersion>
      <CustInsId>30381****</CustInsId>
      <DefaultBandWidth>96</DefaultBandWidth>
      <InsName>r-t4nlenc2p04uvb****</InsName>
      <CurrentBandWidth>100</CurrentBandWidth>
    </NodeInfo>
    <NodeInfo>
      <Role>master</Role>
      <IsLatestVersion>1</IsLatestVersion>
      <ZoneId>cn-hangzhou-b</ZoneId>
      <NodeType>normal</NodeType>
      <IsOpenBandWidthService>true</IsOpenBandWidthService>
      <NodeId>10065****</NodeId>
      <CurrentMinorVersion>redis-5.0_0.3.10</CurrentMinorVersion>
      <CustInsId>30381****</CustInsId>
      <DefaultBandWidth>96</DefaultBandWidth>
      <InsName>r-t4nlenc2p04uvb****</InsName>
      <CurrentBandWidth>100</CurrentBandWidth>
    </NodeInfo>
  </Node>
</DescribeRoleZoneInfoResponse>
```

JSON format

```
{  
    "TotalCount": 2,  
    "RequestId": "224B97FB-A275-4EAC-86E9-8922FEA2****",  
    "PageSize": 10,  
    "PageNumber": 1,  
    "Node": [  
        {"NodeInfo": [  
            {  
                "Role": "slave",  
                "IsLatestVersion": 1,  
                "ZoneId": "cn-hangzhou-b",  
                "NodeType": "normal",  
                "IsOpenBandWidthService": true,  
                "NodeId": "10065****",  
                "CurrentMinorVersion": "redis-5.0_0.3.10",  
                "CustInsId": "30381****",  
                "DefaultBandWidth": 96,  
                "InsName": "r-t4nlenc2p04uvb****",  
                "CurrentBandWidth": 100  
            },  
            {  
                "Role": "master",  
                "IsLatestVersion": 1,  
                "ZoneId": "cn-hangzhou-b",  
                "NodeType": "normal",  
                "IsOpenBandWidthService": true,  
                "NodeId": "10065****",  
                "CurrentMinorVersion": "redis-5.0_0.3.10",  
                "CustInsId": "30381****",  
                "DefaultBandWidth": 96,  
                "InsName": "r-t4nlenc2p04uvb****",  
                "CurrentBandWidth": 100  
            }  
        ]  
    ]  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.5. DescribeTasks

Queries all tasks that are performed by an ApsaraDB for Redis instance within a specified period of time.

You can call this operation to query the progress of a task when you perform time-consuming operations. You can also log on to the ApsaraDB for Redis console and click the Tasks icon in the upper-right corner of the **Instance Information** page to view the progress of the current task.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer automatically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeTasks	The operation that you want to perform. Set the value to DescribeTasks .
StartTime	String	Yes	2020-11-20T01:00Z	The beginning of the time range to query. Specify the time in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time must be in UTC.
EndTime	String	Yes	2020-11-26T01:00Z	The end of the time range to query. Specify the time in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time must be in UTC.
Status	String	Yes	2	<p>The status of the task. Separate multiple values with commas (,). Valid values:</p> <ul style="list-style-type: none"> • 0: The task is pending. • 1: The task is running. • 2: The task is complete. • 4: The task is closed. • 7: The task is paused. • 8: The task is interrupted.
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance. You can call the DescribeInstances operation to query instance IDs.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query region IDs.
PageSize	Integer	No	30	The number of entries to return on each page. Valid values: 30, 50, and 100. Default value: 30.

Parameter	Type	Required	Example	Description
PageNumber	Integer	No	1	The number of the page to return. The value must be an integer that is greater than 0 and does not exceed the maximum value of the Integer data type. Default value: 1 .

Response parameters

Parameter	Type	Example	Description
Items	Array of TaskProgressInfo		The details of the task.
BeginTime	String	2020-11-13T06:16:54Z	The beginning time of the task. The time follows the <i>yyyy-MM-ddTHH:mm:ssZ</i> format. The time is displayed in UTC.
CurrentStepName	String	init_redis	The name of the subtask.
FinishTime	String	2020-11-13T06:17:18Z	The end time of the task. The time follows the <i>yyyy-MM-ddTHH:mm:ssZ</i> format. The time is displayed in UTC.
Progress	Float	100	The progress of the task. Unit: %.
Remain	Integer	60	<p>The estimated remaining duration of the task. Unit: seconds.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note If the task is not running, this parameter is not returned or the returned value is 0. </div>
Status	String	2	<p>The status of the task. Valid values:</p> <ul style="list-style-type: none"> • 0: The task is pending. • 1: The task is running. • 2: The task is complete. • 4: The task is closed. • 7: The task is paused. • 8: The task is interrupted.

Parameter	Type	Example	Description
StepProgressInfo	String	3/3	<p>The progress of the subtask.</p> <div style="background-color: #e0f2ff; padding: 5px;"> ? Note If the subtask does not exist, this parameter is not returned. </div>
StepsInfo	String	[{"remain":0,"name":"init_instance","progress":100}, {"remain":107,"name":"init_redis","progress":12.3}, {"remain":1881,"name":"init_config","progress":0}]	<p>The information about the subtask in the JSON format. This includes the expected remaining duration (remain), the name of the subtask (name), and the task progress (progress).</p> <div style="background-color: #e0f2ff; padding: 5px;"> ? Note If the subtask does not exist, this parameter is not returned. </div>
TaskAction	String	ModifyDBInstanceParameter	The identifier of the task.
TaskId	String	32302****	The ID of the task.
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	30	The number of entries returned on each page.
RequestId	String	608FAEC9-485E-4C65-82DE-2E5B955E****	The ID of the request.
TotalRecordCount	Integer	2	The total number of entries.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeTasks
&StartTime=2020-11-20T01:00Z
&EndTime=2020-11-26T01:00Z
&Status=2
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeTasksResponse>
  <TotalRecordCount>1</TotalRecordCount>
  <RequestId>5E064E50-5577-4059-BA11-8DCA20DB****</RequestId>
  <PageSize>30</PageSize>
  <PageNumber>1</PageNumber>
  <Items>
    <Status>2</Status>
    <StepProgressInfo>3/3</StepProgressInfo>
    <Progress>100</Progress>
    <TaskId>326497463</TaskId>
    <Remain>0</Remain>
    <FinishTime>2020-11-25T08:48:00Z</FinishTime>
    <TaskAction>CreateDBInstance</TaskAction>
    <StepsInfo>[{"remain":0,"name":"init_instance","progress":100}, {"remain":0,"name":"init_redis","progress":100}, {"remain":0,"name":"init_config","progress":100}]</StepsInfo>
    <BeginTime>2020-11-25T08:40:07Z</BeginTime>
  </Items>
</DescribeTasksResponse>
```

JSON format

```
{
  "TotalRecordCount": 1,
  "RequestId": "5E064E50-5577-4059-BA11-8DCA20DB****",
  "PageSize": 30,
  "PageNumber": 1,
  "Items": [
    {
      "Status": "2",
      "StepProgressInfo": "3/3",
      "Progress": 100,
      "TaskId": "326497463",
      "Remain": 0,
      "FinishTime": "2020-11-25T08:48:00Z",
      "TaskAction": "CreateDBInstance",
      "StepsInfo": "[{\\"remain\\":0,\\\"name\\\":\"init_instance\\\",\\\"progress\\\":100}, {\\"remain\\":0,\\\"name\\\":\"init_redis\\\",\\\"progress\\\":100}, {\\"remain\\":0,\\\"name\\\":\"init_config\\\",\\\"progress\\\":100}]",
      "BeginTime": "2020-11-25T08:40:07Z"
    }
  ]
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.6. DescribeDBInstanceNetInfo

Queries the network information about an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeDBInstanceNetInfo	The operation that you want to perform. Set the value to DescribeDBInstanceNetInfo .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
InstanceNetworkType	String	CLASSIC	The network type. Valid values: <ul style="list-style-type: none"> • CLASSIC: The instance runs in a classic network. • VPC: The instance runs in a virtual private cloud (VPC).
NetInfoItems	Array of InstanceNetInfo		The list of network information about the instance.
InstanceNetInfo			
ConnectionString	String	r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com	The endpoint of the instance.
DBInstanceNetType	String	1	The network type of the endpoint. Valid values: <ul style="list-style-type: none"> • 0: the Internet. • 1: classic network. • 2: VPC.

Parameter	Type	Example	Description
DirectConnection	Integer	0	Indicates whether the address is a private endpoint. Valid values: <ul style="list-style-type: none">• 0: no.• 1: yes.
ExpiredTime	String	5183779	The expiration time of the classic network address of an ApsaraDB for Redis instance. Unit: seconds.
IPAddress	String	172.16.49.***	The IP address.
IPType	String	Inner	The network type of the IP address. Valid values: <ul style="list-style-type: none">• Public: Internet.• Inner: classic network.• Private: VPC.
Port	String	6379	The service port of the ApsaraDB for Redis instance.
Upgradeable	String	0	The remaining validity period of the endpoint of the classic network. Unit: seconds. <div style="background-color: #e0f2f1; padding: 5px; border-radius: 5px;">? Note A value of 0 indicates that the endpoint never expires.</div>
VPCId	String	vpc-bp1nme44gek34slfc****	The ID of the VPC where the instance is deployed.
VPCInstanceId	String	r-bp1ky7j6qc7umk****	The ID of the instance.
vSwitchId	String	vsw-bp1e7clcw529l773d****	The ID of the vSwitch.
RequestId	String	FC77D4E1-2A7C-4F0B-A4CC-CE0B9C314B9B	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeDBInstanceNetInfo  
&InstanceId=r-bp1zxszhcgatnx****  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeDBInstanceNetInfoResponse>  
  <NetInfoItems>  
    <InstanceNetInfo>  
      <IPType>Private</IPType>  
      <VPCInstanceId>r-bp1ky7j6qc7umk****</VPCInstanceId>  
      <VPCId>vpc-bp1opxu1zkhn00gzb****</VPCId>  
      <DBInstanceNetType>2</DBInstanceNetType>  
      <Port>6379</Port>  
      <DirectConnection>0</DirectConnection>  
      <Upgradeable>0</Upgradeable>  
      <ConnectionString>r-bp1ky7j6qc7umk****.redis.rds.aliyuncs.com</ConnectionString>  
      <IPAddress>172.16.49. ***</IPAddress>  
    </InstanceNetInfo>  
  </NetInfoItems>  
  <RequestId>500F0FD3-5065-4A1D-A27C-BBC567956068</RequestId>  
  <InstanceNetworkType>VPC</InstanceNetworkType>  
</DescribeDBInstanceNetInfoResponse>
```

JSON format

```
{  
  "NetInfoItems": {  
    "InstanceNetInfo": [  
      {  
        "IPType": "Private",  
        "VPCInstanceId": "r-bp1ky7j6qc7umk****",  
        "VPCId": "vpc-bp1opxu1zkhn00gzb****",  
        "DBInstanceNetType": "2",  
        "Port": "6379",  
        "DirectConnection": 0,  
        "Upgradeable": "0",  
        "ConnectionString": "r-bp1ky7j6qc7umk****.redis.rds.aliyuncs.com",  
        "IPAddress": "172.16.49. ***"  
      }  
    ]  
  },  
  "RequestId": "500F0FD3-5065-4A1D-A27C-BBC567956068",  
  "InstanceNetworkType": "VPC"  
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidEndTime.Malformed	The Specified parameter EndTime is not valid.	The error message returned because the format of the end time is invalid. The time must be in GMT. Example: 2011-06-11T16:00Z.

For a list of error codes, visit the [API Error Center](#).

8.7. ModifyInstanceAttribute

Modifies the attributes of an ApsaraDB for Redis instance, such as the name, password, and status of release protection.

You can also modify the attributes in the ApsaraDB for Redis console. For more information, see [Change the password](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceAttribute	The operation that you want to perform. Set the value to ModifyInstanceAttribute .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
InstanceName	String	No	newinstancename	The new name of the instance. The name must be 2 to 128 characters in length. The name must start with a letter and cannot contain spaces and the following special characters: @ / : = " < > { [] } .

Parameter	Type	Required	Example	Description
NewPassword	String	No	uW8+nsrp	The new password of the instance. The password must be 8 to 32 characters in length. It can contain at least three of the following characters: uppercase letters, lowercase letters, digits, and special characters. Special characters include ! # \$ % ^ & * () _ + - = .
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
InstanceReleaseProtection	Boolean	No	true	The protection status of the instance. Valid values: <ul style="list-style-type: none">• true: The protection is enabled.• false: The protection is disabled.

Response parameters

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

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceAttribute
&InstanceId=r-bp1zxszhcgatnx****
&InstanceName=demo
&NewPassword=uW8+nsrp
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyInstanceAttributeResponse>
  <RequestId>8D0C0AFC-E9CD-47A4-8395-5C31BF9B3E76</RequestId>
</ModifyInstanceAttributeResponse>
```

JSON format

```
{  
    "RequestId": "EFC9161F-15E3-4A6E-8A99-C09916D1F464"  
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidInstanceName.Malformed	The Specified parameter "InstanceName" is not valid.	The error message returned because the instance name is invalid.
400	InvalidPassword.Malformed	The Specified parameter "NewPassword" is not valid.	The error message returned because the verification of the new password failed.

For a list of error codes, visit the [API Error Center](#).

8.8. ModifyResourceGroup

Modifies the resource group of an ApsaraDB for Redis instance.

You can use resource groups to sort resources that belong to your Alibaba Cloud account into groups. This simplifies how you manage resources that belong to your Alibaba Cloud account and control access to these resources. For more information, see [What is resource management?](#)

 **Note** For more information about resource group API operations, see [Resource management API overview](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyResourceGroup	The operation that you want to perform. Set the value to ModifyResourceGroup .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the instance is deployed.

Parameter	Type	Required	Example	Description
ResourceGroupId	String	Yes	rg-acfmyiu4ekp****	<p>The ID of the resource group.</p> <p>Note</p> <ul style="list-style-type: none">You can call the ListResourceGroups operation or log on to the console to query the IDs of the resource groups. For more information, see View basic information about resource groups.Before you modify the resource group to which an instance belongs, you can call the ListResources operation to view the resource group.
ClientToken	String	No	ETnLKLbzczshOTUbOCz****	The client token that is used to ensure the idempotency of requests. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5D622714-AEDD-4609-9167-F5DDD3D1****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyResourceGroup
&InstanceId=r-bp1zxszhcgatnx****
&RegionId=cn-hangzhou
&ResourceGroupId=rg-acfmyiu4ekp****
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyResourceGroupResponse>
  <RequestId>5D622714-AEDD-4609-9167-F5DDD3D1****</RequestId>
</ModifyResourceGroupResponse>
```

JSON format

```
{
  "RequestId": "5D622714-AEDD-4609-9167-F5DDD3D1****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.9. DescribeLogicInstanceTopology

Queries the logical topology of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeLogicInst anceTopology	The operation that you want to perform. Set the value to DescribeLogicInstanceTopology .
InstanceId	String	Yes	r- bp1zxszhcgatnx* ***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
InstanceId	String	r- bp1zxszhcgatnx****	The ID of the instance.
RedisProxyList	Array of NodeInfo		The detailed proxy information, including information about proxy nodes.

Parameter	Type	Example	Description
NodeInfo			
Bandwidth	String	96	The bandwidth throttling of the node. Unit: MB/s.
Capacity	String	5120	The storage capacity of the node. Unit: MB.
Connection	String	320000	The maximum number of connections.
NodeId	String	r-bp10noxlhcoim2****-proxy-3#542****	The ID of the node.
NodeType	String	proxy	The type of node. Valid values: <ul style="list-style-type: none">• proxy: indicates a proxy node.• db: indicates a data node.
RedisShardList	Array of NodeInfo		The detailed shard information, including node information such as NodeInfo.
NodeInfo			
Bandwidth	String	96	The bandwidth throttling of the node. Unit: MB/s.
Capacity	String	2048	The storage capacity of the node. Unit: MB.
Connection	String	10000	The maximum number of connections.
NodeId	String	r-bp10noxlhcoim2****-db-0#688****	The ID of the node.
NodeType	String	db	The type of node. Valid values: <ul style="list-style-type: none">• proxy: indicates a proxy node.• db: indicates a data node.
RequestId	String	794120D1-E0CF-4713-BAE4-EBAEA04506AF	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeLogicInstanceTopology  
&InstanceId=r-bp1zxszhcgatnx****  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeLogicInstanceTopologyResponse>  
  <RedisShardList>  
    <NodeInfo>  
      <Capacity>2048</Capacity>  
      <Bandwidth>96</Bandwidth>  
      <NodeType>db</NodeType>  
      <NodeId>r-bp10noxlhcoim2****-db-0#14965569</NodeId>  
      <Connection>30000</Connection>  
    </NodeInfo>  
    <NodeInfo>  
      <Capacity>2048</Capacity>  
      <Bandwidth>96</Bandwidth>  
      <NodeType>db</NodeType>  
      <NodeId>r-bp10noxlhcoim2****-db-1#14965575</NodeId>  
      <Connection>30000</Connection>  
    </NodeInfo>  
  </RedisShardList>  
  <RequestId>B5250FA2-CB49-4B68-9263-721099AC928A</RequestId>  
  <InstanceId>r-bp10noxlhcoim2****</InstanceId>  
  <RedisProxyList>  
    <NodeInfo>  
      <Capacity>5120</Capacity>  
      <Bandwidth>96</Bandwidth>  
      <NodeType>proxy</NodeType>  
      <NodeId>r-bp10noxlhcoim2****-proxy-0#14965583</NodeId>  
      <Connection>20000</Connection>  
    </NodeInfo>  
    <NodeInfo>  
      <Capacity>5120</Capacity>  
      <Bandwidth>96</Bandwidth>  
      <NodeType>proxy</NodeType>  
      <NodeId>r-bp10noxlhcoim2****-proxy-1#14965585</NodeId>  
      <Connection>20000</Connection>  
    </NodeInfo>  
    <NodeInfo>  
      <Capacity>5120</Capacity>  
      <Bandwidth>96</Bandwidth>  
      <NodeType>proxy</NodeType>  
      <NodeId>r-bp10noxlhcoim2****-proxy-2#14965587</NodeId>  
      <Connection>20000</Connection>  
    </NodeInfo>  
    <NodeInfo>  
      <Capacity>5120</Capacity>  
      <Bandwidth>96</Bandwidth>
```

```
<NodeType>proxy</NodeType>
<NodeId>r-bp10noxlhcoim2****-proxy-3#14965589</NodeId>
<Connection>20000</Connection>
</NodeInfo>
<NodeInfo>
<Capacity>5120</Capacity>
<Bandwidth>96</Bandwidth>
<NodeType>proxy</NodeType>
<NodeId>r-bp10noxlhcoim2****-proxy-4#14965591</NodeId>
<Connection>20000</Connection>
</NodeInfo>
<NodeInfo>
<Capacity>5120</Capacity>
<Bandwidth>96</Bandwidth>
<NodeType>proxy</NodeType>
<NodeId>r-bp10noxlhcoim2****-proxy-5#14965571</NodeId>
<Connection>20000</Connection>
</NodeInfo>
</RedisProxyList>
</DescribeLogicInstanceTopologyResponse>
```

JSON format

```
{
  "RedisShardList": {
    "NodeInfo": [
      {
        "Capacity": "2048",
        "Bandwidth": 96,
        "NodeType": "db",
        "NodeId": "r-bp10noxlhcoim2****-db-0#14965569",
        "Connection": "30000"
      },
      {
        "Capacity": "2048",
        "Bandwidth": 96,
        "NodeType": "db",
        "NodeId": "r-bp10noxlhcoim2****-db-1#14965575",
        "Connection": "30000"
      }
    ]
  },
  "RequestId": "B5250FA2-CB49-4B68-9263-721099AC928A",
  "InstanceId": "r-bp10noxlhcoim2****",
  "RedisProxyList": {
    "NodeInfo": [
      {
        "Capacity": "5120",
        "Bandwidth": 96,
        "NodeType": "proxy",
        "NodeId": "r-bp10noxlhcoim2****-proxy-0#14965583",
        "Connection": "20000"
      },
      {
        {
          "Capacity": "5120",
          "Bandwidth": 96,
          "NodeType": "proxy",
          "NodeId": "r-bp10noxlhcoim2****-proxy-1#14965584",
          "Connection": "20000"
        }
      }
    ]
  }
}
```

```
"Capacity": "5120",
"Bandwidth": 96,
"NodeType": "proxy",
"NodeId": "r-bp10noxlhcoim2****-proxy-1#14965585",
"Connection": "20000"
},
{
"Capacity": "5120",
"Bandwidth": 96,
"NodeType": "proxy",
"NodeId": "r-bp10noxlhcoim2****-proxy-2#14965587",
"Connection": "20000"
},
{
"Capacity": "5120",
"Bandwidth": 96,
"NodeType": "proxy",
"NodeId": "r-bp10noxlhcoim2****-proxy-3#14965589",
"Connection": "20000"
},
{
"Capacity": "5120",
"Bandwidth": 96,
"NodeType": "proxy",
"NodeId": "r-bp10noxlhcoim2****-proxy-4#14965591",
"Connection": "20000"
},
{
"Capacity": "5120",
"Bandwidth": 96,
"NodeType": "proxy",
"NodeId": "r-bp10noxlhcoim2****-proxy-5#14965571",
"Connection": "20000"
}
]
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.10. ModifyInstanceMaintainTime

Modifies the maintenance window of an ApsaraDB for Redis instance. Alibaba Cloud maintains ApsaraDB for Redis instances in the specified maintenance window.

You can also modify the maintenance window of an instance in the ApsaraDB for Redis console. For more information, see [Set a maintenance window](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceM aintainTime	The operation that you want to perform. Set the value to ModifyInstanceMaintainTime .
InstanceId	String	Yes	r- bp1zxszhcgatnx* ***	The ID of the instance.
MaintainStartTime	String	Yes	03:00Z	The start time of the maintenance window. Specify the time in the <i>HH:mmZ</i> format. The time must be in UTC. For example, if the maintenance window starts at 01:00 (UTC+8), you must set this parameter to 17:00Z . After you call the API operation, you can view the actual time in the ApsaraDB for Redis console. For more information, see Set a maintenance window .
MaintainEndTime	String	Yes	04:00Z	The end time of the maintenance window. Specify the time in the <i>HH:mmZ</i> format. The time must be in UTC. For example, if the maintenance ends at 02:00 (UTC+8), you must set this parameter to 18:00Z . <div style="background-color: #e1f5fe; padding: 10px; margin-top: 10px;"> Note The end time must be one hour later than the start time. For example, if the value of the MaintainStartTime parameter is 17:00Z, the value of the MaintainEndTime parameter must be 18:00Z. </div>
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

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

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceMaintainTime
&InstanceId=r-bp1zxszhcgatnx****
&MaintainStartTime=17:00Z
&MaintainEndTime=18:00Z
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyInstanceMaintainTimeResponse>
  <RequestId>8D0C0AFC-E9CD-47A4-8395-5C31BF9B3E76</RequestId>
</ModifyInstanceMaintainTimeResponse>
```

JSON format

```
{
  "RequestId": "8D0C0AFC-E9CD-47A4-8395-5C31BF9B3E76"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidEndTimeFormat	Specified end time is not valid.	The error message returned because the specified end time is invalid.

For a list of error codes, visit the [API Error Center](#).

8.11. ModifyInstanceMajorVersion

Upgrades 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

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceMajorVersion	The operation that you want to perform. Set the value to ModifyInstanceMajorVersion .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
MajorVersion	String	Yes	5.0	The major version to which you want to upgrade the instance. Valid values: 4.0 and 5.0 .
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
EffectiveTime	String	No	Immediately	<p>The time when the minor version is upgraded. Valid values:</p> <ul style="list-style-type: none">• Immediately: immediately upgrades the minor version. This is the default value.• MaintainTime: upgrades the minor version in the maintenance window. <div style="background-color: #e0f2ff; padding: 10px; border-radius: 5px;"><p>Note You can call the ModifyInstanceMaintainTime operation to modify the maintenance window of an ApsaraDB for Redis instance.</p></div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	AA587FB2-2593-4DFE-BE13-2494C2DF***	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceMajorVersion  
&InstanceId=r-bp1zxszhcgatnx****  
&MajorVersion=5.0  
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyInstanceMajorVersionResponse>  
  <RequestId>AA587FB2-2593-4DFE-BE13-2494C2DF****</RequestId>  
</ModifyInstanceMajorVersionResponse>
```

JSON format

```
{  
  "RequestId":"AA587FB2-2593-4DFE-BE13-2494C2DF****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.12. ModifyInstanceMinorVersion

Upgrades the minor version of an ApsaraDB for Redis instance.

You can also upgrade the minor version in the ApsaraDB for Redis console. For more information, see [Upgrade the minor version](#).

The method and time required to upgrade the minor version vary based on the architecture of an instance:

- If you are using cluster instances, read/write splitting instances, or standard instances, use cross-server migration to upgrade the kernel versions of the instances. The upgrade duration depends on the amount of data. The instance may be disconnected for less than 30 seconds and become read-only for less than 60 seconds.
- For the standard instances that do not support disaster recovery, the instances are upgraded on the local server. The upgrade takes effect within five minutes and has no impact on the ApsaraDB for Redis service. If the resources of local servers are insufficient, cross-server migration is required to upgrade the kernel version. In this scenario, the impact of the upgrade is the same as that for the cluster instances.

 **Note** We recommend that you upgrade the version of an instance during off-peak hours and ensure that your application supports automatic reconnection.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceMinorVersion	The operation that you want to perform. Set the value to ModifyInstanceMinorVersion .
InstanceId	String	Yes	r-bp1zxszhcgatnx****	The ID of the instance.
Minorversion	String	No	latest_version	The minor version to which you want to upgrade the instance. Default value: latest_version .
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
EffectiveTime	String	No	Immediately	<p>The time when the minor version is upgraded. Valid values:</p> <ul style="list-style-type: none">• Immediately: immediately upgrades the minor version. This is the default value.• MaintainTime: upgrades the minor version in the maintenance window. <p>Note You can call the ModifyInstanceMaintainTime to modify the maintenance window of an ApsaraDB for Redis instance.</p>

Response parameters

Parameter	Type	Example	Description
RequestId	String	28761557-0B33-41DF-AEEB-322DFF96****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceMinorVersion  
&InstanceId=r-bp1zxszhcgatnx****  
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyInstanceMinorVersionResponse>
  <RequestId>28761557-0B33-41DF-AEEB-322DFF96****</RequestId>
</ModifyInstanceMinorVersionResponse>
```

JSON format

```
{
  "RequestId": "28761557-0B33-41DF-AEEB-322DFF96****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.13. RestartInstance

Restarts a running ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	RestartInstance	The operation that you want to perform. Set the value to RestartInstance .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
EffectiveTime	String	No	Immediately	<p>The time when you want to restart the instance. Valid values:</p> <ul style="list-style-type: none">• Immediately: immediately restarts the instance.• MaintainTime: restarts the instance in the maintenance window. <p>Note Default value: Immediately.</p>

Parameter	Type	Required	Example	Description
UpgradeMinorVersion	Boolean	No	true	<p>Specifies whether to upgrade to the latest minor version after the instance is restarted. Valid values:</p> <ul style="list-style-type: none">• true: upgrades the minor version.• false: do not upgrade the minor version. <p>? Note Default value: true.</p>
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
InstanceId	String	r-bp1zxszhcgatnx****	The ID of the instance.
TaskId	String	11111****	The ID of the task.
RequestId	String	EFC9161F-15E3-4A6E-8A99-C3331****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=RestartInstance
&InstanceId=r-bp1zxszhcgatnx****
&EffectiveTime=Immediately
&<Common request parameters>
```

Sample success responses

XML format

```
<RestartInstanceResponse>
  <RequestId>EFC9161F-15E3-4A6E-8A99-6661****</RequestId>
  <InstanceId>r-bp1zxszhcgatnx****</InstanceId>
  <TaskId>11111****</TaskId>
</RestartInstanceResponse>
```

JSON format

```
{  
    "RequestId": "EFC9161F-15E3-4A6E-8A99-6661****",  
    "Instanceld": "r-bp1zxszhcgatnx****",  
    "TaskId": "11111****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.14. FlushExpireKeys

Deletes the expired keys of an ApsaraDB for Redis instance.

For more information about how to clear the expired keys in the ApsaraDB for Redis console, see [Clear data](#).

 **Note** Expired keys cannot be recovered after they are deleted. Exercise caution when you call this operation.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	FlushExpireKeys	The operation that you want to perform. Set the value to FlushExpireKeys .
Instanceld	String	Yes	r-bp1zxszhcgatnx* ***	The ID of the instance.

Parameter	Type	Required	Example	Description
EffectiveTime	String	No	Immediately	<p>The time when the minor version is upgraded. Valid values:</p> <ul style="list-style-type: none"> • Immediately: immediately deletes expired keys. • MaintainTime: deletes expired key in the maintenance window. <div style="background-color: #e1f5fe; padding: 10px;"> ? Note You can call the ModifyInstanceMaintainTime operation to modify the maintenance window of an ApsaraDB for Redis instance. </div>
RegionId	String	No	cn-hangzhou	The region ID of the instance.

Response parameters

Parameter	Type	Example	Description
InstanceId	String	r-bp1zxszhcgatnx****	The ID of the instance.
RequestId	String	82E30AB7-E3A4-46AC-88A0-3E4DCDC5****	The ID of the request.
TaskId	String	21986****	The ID of the task.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=FlushExpireKeys
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<FlushExpireKeysResponse>
<InstanceId>r-bp1zxszhcgatnx****</InstanceId>
<RequestId>82E30AB7-E3A4-46AC-88A0-3E4DCDC5****</RequestId>
<TaskId>21986****</TaskId>
</FlushExpireKeysResponse>
```

JSON format

```
{  
    "Instanceld": "r-bp1zxszhcgatnx****",  
    "RequestId": "82E30AB7-E3A4-46AC-88A0-3E4DCDC5****",  
    "TaskId": "21986****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.15. FlushInstance

Clears the data of an ApsaraDB for Redis instance. The cleared data cannot be recovered.

You can also clear the data of an instance in the ApsaraDB for Redis console. For more information, see [Clear data](#).

 **Note** Before you call this operation, back up the data or make sure that the data does not need to be backed up.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	FlushInstance	The operation that you want to perform. Set the value to FlushInstance .
Instanceld	String	Yes	r-bp1zxszhcgatnx* ***	The ID of the instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	8D0C0AFC-E9CD-47A4-8395-5C31BF9B3E7	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=FlushInstance  
&InstanceId=r-bp1zxszhcgatnx****  
&<Common request parameters>
```

Sample success responses

XML format

```
<FlushInstanceResponse>  
  <RequestId>8D0C0AFC-E9CD-47A4-8395-5C31BF9B3E76</RequestId>  
</FlushInstanceResponse>
```

JSON format

```
{  
  "RequestId": "8D0C0AFC-E9CD-47A4-8395-5C31BF9B3E7"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.16. SwitchInstanceHA

Performs a master-replica switchover to switch node roles. This feature is applicable to disaster recovery drills and nearby access to applications that are deployed across zones.

 **Note** For more information about nearby access to applications that are deployed across zones, see [Switch node roles](#).

To call this operation, the ApsaraDB for Redis instance must be of Community Edition or Enhanced Edition ([performance-enhanced instances](#) or [hybrid-storage instances](#)).

After you call this operation:

- The data nodes may change to the read-only state and become disconnected for a few seconds. Make sure that your applications are configured to automatically reconnect to the instance.
- If an instance enters the Switching state, you cannot manage this instance. For example, you cannot modify the instance configurations or migrate the instance to another zone.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
-----------	------	----------	---------	-------------

Parameter	Type	Required	Example	Description
Action	String	Yes	SwitchInstanceHA	The operation that you want to perform. Set the value to SwitchInstanceHA .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance. You can call the DescribeInstances operation to obtain instance IDs.
SwitchType	String	Yes	AvailablePriority	<p>The switching mode. Valid values:</p> <ul style="list-style-type: none">• AvailablePriority: prioritizes availability.• ReliabilityPriority: prioritizes reliability.• DataConsistency: prioritizes data consistency. <p>Note You must evaluate the requirements for data and services based on your business scenarios, and select a switching mode.</p>
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query region IDs.

Parameter	Type	Required	Example	Description
Nodeld	String	No	r- bp1zxszhcgatnx* ***db-0,r- bp1zxszhcgatnx* ***db-1	<p>The ID of the data node. Separate multiple IDs with commas (,).</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note <ul style="list-style-type: none"> This parameter is available only for read/write splitting instances or cluster instances of ApsaraDB for Redis. You can call the DescribeLogicInstanceTopology operation to query node IDs. Remove the number sign (#) and the content that follows the queried data node ID. For example, keep only r-bp10noxlhcoim2****-db-0 . </div>
SwitchMode	Integer	No	0	<p>The time when the switchover is performed. Valid values:</p> <ul style="list-style-type: none"> 0: immediately switches the roles. This is the default value. 1: switches over the roles during a maintenance window. <div style="background-color: #e1f5fe; padding: 10px;"> ? Note You can call the ModifyInstanceMaintainTime operation to modify the maintenance window of an ApsaraDB for Redis instance. </div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	5D622714-AEDD-4609-9167-F5DDD3D1***	The ID of the request.

Examples

Sample requests

```
http(s)://r-kvstore.aliyuncs.com/?Action=SwitchInstanceHA  
&InstanceId=r-bp1zxszhcgatnx****  
&SwitchType=AvailablePriority  
&<Common request parameters>
```

Sample success responses

XML format

```
<DeleteShardingNodeResponse>  
  <RequestId>5D622714-AEDD-4609-9167-F5DDD3D1****</RequestId>  
</DeleteShardingNodeResponse>
```

JSON format

```
{  
  "RequestId": "5D622714-AEDD-4609-9167-F5DDD3D1****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8.17. MigrateToOtherZone

Migrates an ApsaraDB for Redis instance to another zone in the same region.

For more information about how to migrate an instance across zones in the ApsaraDB for Redis console, see [Migrate an instance across zones](#).

Note

- If the network type of an ApsaraDB for Redis instance is switched from classic network to Virtual Private Cloud (VPC), and the endpoint of the classic network is retained, you can migrate the instance across zones only after the classic network endpoint is released upon expiration.
- After the data is migrated, the endpoint of an instance remains unchanged. However, the virtual IP address (VIP) is changed. We recommend that you use the endpoint instead of the VIP to connect to the instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
-----------	------	----------	---------	-------------

Parameter	Type	Required	Example	Description
Action	String	Yes	MigrateToOtherZone	The operation that you want to perform. Set the value to MigrateToOtherZone .
DBInstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance.
ZoneId	String	Yes	cn-hangzhou-g	The ID of the destination primary zone. You can call the DescribeZones operation to query zone IDs.
RegionId	String	No	cn-hangzhou	The region ID of the ApsaraDB for Redis instance.
VSwitchId	String	No	vsw-bp1e7clcw529l773d****	<p>The ID of the vSwitch.</p> <div style="background-color: #e1f5fe; padding: 10px;"> <p>? Note</p> <ul style="list-style-type: none"> The vSwitch must be deployed in the zone that is specified by the ZoneId parameter. If the network type of the instance is VPC, this parameter is required. </div>
EffectiveTime	String	No	Immediately	<p>Specifies the time when the database is switched after data is migrated. Valid values:</p> <ul style="list-style-type: none"> Immediately: immediately switched after the data is migrated. MaintainTime: switched within the maintenance window. <div style="background-color: #e1f5fe; padding: 10px;"> <p>? Note Default value: Immediately.</p> </div>

Parameter	Type	Required	Example	Description
SecondaryZoneId	String	No	cn-hangzhou-h	<p>The ID of the destination secondary zone. You can call the DescribeZones operation to query zone IDs.</p> <p>Note You can specify this parameter to deploy the master node and replica node in different zones to implement zone-disaster recovery. This helps withstand data center-level breakdowns.</p>

Response parameters

Parameter	Type	Example	Description
RequestId	String	29B0BF34-D069-4495-92C7-FA6D9452****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=MigrateToOtherZone  
&DBInstanceId=r-bp1zszhcgatnx****  
&ZoneId=cn-hangzhou-g  
&<Common request parameters>
```

Sample success responses

XML format

```
<MigrateToOtherZoneResponse>  
  <RequestId>29B0BF34-D069-4495-92C7-FA6D9452****</RequestId>  
</MigrateToOtherZoneResponse>
```

JSON format

```
{  
  "RequestId": "29B0BF34-D069-4495-92C7-FA6D9452****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

9.Connection management

9.1. SwitchNetwork

Switches the network type of an ApsaraDB for Redis instance from classic network to Virtual Private Cloud (VPC).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SwitchNetwork	The operation that you want to perform. Set the value to SwitchNetwork .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance. You can call the DescribeInstances operation to query instance IDs.
VpcId	String	Yes	vpc-bp1nme44gek34sifc****	The ID of the VPC to which that you want to switch. You can call the DescribeVpcs operation to query VPC IDs. <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;">Note<ul style="list-style-type: none">The VPC and the ApsaraDB for Redis instance must be deployed in the same region.After you set this parameter, you must also set the VSwitchId parameter.</div>

Parameter	Type	Required	Example	Description
VSwitchId	String	Yes	vsw-bp1e7clcw529l773d***	<p>The ID of the vSwitch that belongs to the VPC to which you want to switch. You can call the DescribeVpcs operation to query VPC IDs.</p> <p>Note The vSwitch and the ApsaraDB for Redis instance must belong to the same zone.</p>
TargetNetworkType	String	No	VPC	<p>The network type to which you want to switch. Set the value to VPC.</p>
RetainClassic	String	No	True	<p>Specifies whether to retain the original endpoint for the classic network after you switch the instance from classic network to VPC. Valid values:</p> <ul style="list-style-type: none"> • True: retains the original endpoint. • False: does not retain the original endpoint. This is the default value. <p>Note This parameter can be used only when the network type of the instance is classic network.</p>
ClassicExpiredDays	String	No	30	<p>The retention period of the endpoint for the classic network. Valid values: 14, 30, 60, and 120. Unit: days.</p> <p>Note</p> <ul style="list-style-type: none"> • This parameter is required when RetainClassic is set to True. • After you complete the switchover operation, you can also call the ModifyInstanceNetExpireTime operation to modify the retention period of the endpoint for the classic network.

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region to which the instance belongs. You can call the DescribeInstances operation to query region IDs.

Response parameters

Parameter	Type	Example	Description
TaskId	String	578678678	The ID of the task.
RequestId	String	F0997EE8-F4C2-4503-9168-85177ED78C70	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com?Action=SwitchNetwork
&InstanceId=r-bp1zxszhcgatnx****
&TargetNetworkType=VPC
&VpcId=vpc-bp1nme44gek34slfc****
&VSwitchId=vsw-bp1e7clcw529l773d****
&RetainClassic=True
&ClassicExpiredDays=30
&<Common request parameters>
```

Sample success responses

XML format

```
<SwitchNetworkResponse>
  <TaskId>578678678</TaskId>
  <requestId>F0997EE8-F4C2-4503-9168-85177ED78C70</requestId>
</SwitchNetworkResponse>
```

JSON format

```
{
  "TaskId": "578678678",
  "requestId": "F0997EE8-F4C2-4503-9168-85177ED78C70"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	IzNotSupportVpcError	Specify iz not support vpc.	The error message returned because the specified iz does not support VPC.
400	IzNotSupportSwitchNetworkError	Specify iz not support switch network.	The error message returned because the specified iz does not support network switching.

For a list of error codes, visit the [API Error Center](#).

9.2. ModifyInstanceNetExpireTime

If the network type of an ApsaraDB for Redis instance is switched from classic network to virtual private cloud (VPC) and the endpoint of the classic network is retained, you can call this operation to prolong the retention period of the endpoint in the classic network.

For more information about how to perform the corresponding operation in the console, see [Change the expiration time for the endpoint of the classic network](#).

 **Note** For more information about how to switch the network type of an ApsaraDB for Redis instance from classic network to VPC, see [SwitchNetwork](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceNetExpireTime	The operation that you want to perform. Set the value to ModifyInstanceNetExpireTime .
ClassicExpiredDays	Integer	Yes	14	The retention period of the endpoint of the classic network. Valid values: 14, 30, 60, and 120. Unit: days.
ConnectionString	String	Yes	r-bp1zxszhcgatnx***.redis.rds.aliyuncs.com	The endpoint of the classic network.
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
InstanceId	String	r-bp1zxszhcgatnx****	The ID of the instance.
NetInfoItems	Array of NetInfoItem		The details of the retention period of the endpoint in the classic network.
NetInfoItem			
ConnectionString	String	r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com	The endpoint of the classic network.
DBInstanceNetType	String	Classic	The network type. The returned value is Classic .
ExpiredTime	String	2019-08-01T09:29:18Z	The expiration time of the endpoint of the classic network.
IPAddress	String	100.118.142.***	The IP address of the instance in the classic network.
Port	String	6379	The service port of the instance.
RequestId	String	9C4AF387-1EA3-4C84-8013-3F6B973EDDF5	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceNetExpireTime
&ClassicExpiredDays=14
&ConnectionString=r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyInstanceNetExpireTimeResponse>
<InstanceId>r-bp1zxszhcgatnx****</InstanceId>
<RequestId>9C4AF387-1EA3-4C84-8013-3F6B973EDDF5</RequestId>
<NetInfoItems>
<NetInfoItem>
<ConnectionString>r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com</ConnectionString>
<Port>6379</Port>
<DBInstanceNetType>Classic</DBInstanceNetType>
<IPAddress>100.118.142. ***</IPAddress>
<ExpiredTime>2019-08-01T09:29:18Z</ExpiredTime>
</NetInfoItem>
</NetInfoItems>
</ModifyInstanceNetExpireTimeResponse>
```

JSON format

```
{
  "InstanceId": "r-bp1zxszhcgatnx****",
  "RequestId": "9C4AF387-1EA3-4C84-8013-3F6B973EDDF5",
  "NetInfoItems": {
    "NetInfoItem": [
      {
        "ConnectionString": "r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com",
        "Port": "6379",
        "DBInstanceNetType": "Classic",
        "IPAddress": "100.118.142. ***",
        "ExpiredTime": "2019-08-01T09:29:18Z"
      }
    ]
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

9.3. ModifyDBInstanceConnectionString

Modifies an endpoint of an ApsaraDB for Redis instance.

For more information about how to modify an endpoint in the ApsaraDB for Redis console, see [Modify connection addresses](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyDBInstanceConnectionString	The operation that you want to perform. Set the value to ModifyDBInstanceConnectionString .
CurrentConnectionString	String	Yes	r-bp1zxszhcgatnx***.redis.rds.aliyuncs.com	The current endpoint of the ApsaraDB for Redis instance.
DBInstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance.
NewConnectionString	String	No	standardredis	<p>The prefix of the new endpoint. The new endpoint of the ApsaraDB for Redis instance must be in the <code><prefix>.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 must be 8 to 64 characters in length.</p> <p>Note One of the request parameters NewConnectionString and Port must be specified.</p>
IPType	String	No	Public	<p>The network type of the endpoint. Valid values:</p> <ul style="list-style-type: none">• Private: the internal network.• Public: the Internet.
Port	String	No	6379	<p>The port number of the ApsaraDB for Redis instance. Valid values: 1024 to 65535.</p> <p>Note Either NewConnectionString or Port must be specified.</p>

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

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

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyDBInstanceConnectionString
&CurrentConnectionString=r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com
&DBInstanceId=r-bp1zxszhcgatnx****
&NewConnectionString=standardredis
&<Common request parameters>
```

Sample success responses

XML format

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

JSON format

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

Error codes

For a list of error codes, visit the [API Error Center](#).

9.4. AllocateInstancePublicConnection

Applies for a public endpoint of an ApsaraDB for Redis instance.

You can also apply for public endpoints in the ApsaraDB for Redis console. For more information, see [Connections over the Internet](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	AllocateInstancePublicConnection	The operation that you want to perform. Set the value to AllocateInstancePublicConnection .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
ConnectionStringPrefix	String	Yes	r-bp1zxszhcgatnx***	The prefix of the public endpoint. The prefix must be 8 to 64 characters in length, and can contain lowercase letters and digits. It must start with a lowercase letter. Note The format of the endpoint: <prefix>.redis.rds.aliyuncs.com .
Port	String	Yes	6379	The service port number of the ApsaraDB for Redis instance. Valid values: 1024 to 65535 .
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	20C8341E-B5AD-4B24-BD82-D73241522ABF	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=AllocateInstancePublicConnection  
&InstanceId=r-bp1zxszhcgatnx****  
&ConnectionStringPrefix=r-bp1zxszhcgatnx****  
&Port=6379  
&<Common request parameters>
```

Sample success responses

XML format

```
<AllocateInstancePublicConnectionResponse>  
  <RequestId>20C8341E-B5AD-4B24-BD82-D73241522ABF</RequestId>  
</AllocateInstancePublicConnectionResponse>
```

JSON format

```
{  
  "RequestId": "20C8341E-B5AD-4B24-BD82-D73241522ABF"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

9.5. ReleaseInstancePublicConnection

Releases a public endpoint of an ApsaraDB for Redis instance.

For more information about how to perform the API operation in the ApsaraDB for Redis console, see [Release public endpoints](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ReleaseInstancePublicConnection	The operation that you want to perform. Set the value to ReleaseInstancePublicConnection .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance for which you want to release a public endpoint.

Parameter	Type	Required	Example	Description
CurrentConnectionString	String	Yes	r-bp1zxszhcgatnx***.redis.rds.aliyuncs.com	The public endpoint to be released.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	88F850B5-CC68-48B4-83CA-5497C3C191DE	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ReleaseInstancePublicConnection
&InstanceId=r-bp1zxszhcgatnx****
&CurrentConnectionString=r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com
&<Common request parameters>
```

Sample success responses

XML format

```
<ReleaseInstancePublicConnectionResponse>
  <RequestId>88F850B5-CC68-48B4-83CA-5497C3C191DE</RequestId>
</ReleaseInstancePublicConnectionResponse>
```

JSON format

```
{
  "RequestId": "88F850B5-CC68-48B4-83CA-5497C3C191DE"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

9.6. AllocateDirectConnection

Applies for a private endpoint for an ApsaraDB for Redis cluster instance.

This topic describes how to connect to an ApsaraDB for Redis cluster instance through a direct connection. By default, cluster instances can be connected only through a proxy server. If you want to bypass the proxy server, you can apply for a private endpoint to enable direct connections to a cluster instance. This reduces the number of connections and improves service performance. For more information, see [Enable a direct connection](#).

The instance must meet the following requirements:

- An ApsaraDB for Redis cluster instance is used.
- The engine version of the cluster instance is Redis 4.0 (Community Edition) or Redis 5.0 (Community Edition or Enterprise Edition).
- The instance runs in a virtual private cloud (VPC). If the instance is deployed in the classic network, you can call the [SwitchNetwork](#) operation to change the network type to VPC.
- Secure Sockets Layer (SSL) encryption of the instance is disabled. If SSL encryption is enabled, you can call the [ModifyInstanceSSL](#) operation to disable it.
- The vSwitch to which the instance belongs has sufficient IP addresses that can be allocated. For more information, see [Obtain the number of available IP addresses in the vSwitch](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	AllocateDirectConnection	The operation that you want to perform. Set the value to AllocateDirectConnection .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
ConnectionString	String	No	redisdirect123	The prefix of the public endpoint. The prefix can be 8 to 64 characters in length, and can contain lowercase letters and digits. It must start with a lowercase letter.
Port	String	No	6379	The port number. Valid values: 1024 to 65535. Default value: 6379.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5D622714-AEDD-4609-9167-F5DDD3D1****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=AllocateDirectConnection
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<AllocateDirectConnectionResponse>
<RequestId>5D622714-AEDD-4609-9167-F5DDD3D1****</RequestId>
</AllocateDirectConnectionResponse>
```

JSON format

```
{
  "RequestId": "5D622714-AEDD-4609-9167-F5DDD3D1****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

9.7. ReleaseDirectConnection

Releases the private endpoint for an ApsaraDB for Redis instance.

This topic describes how to connect to a cluster instance of ApsaraDB for Redis through a private endpoint. By default, cluster instances can be connected only through a proxy server. If you want to bypass the proxy server, you can apply for a private endpoint to enable direct connections to a cluster instance. This reduces the number of connections and improves service performance. For more information, see [Enable a direct connection](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ReleaseDirectConnection	The operation that you want to perform. Set the value to ReleaseDirectConnection .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5D622714-AEDD-4609-9167-F5DDD3D1****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ReleaseDirectConnection
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<ReleaseDirectConnectionResponse>
  <RequestId>5D622714-AEDD-4609-9167-F5DDD3D1****</RequestId>
</ReleaseDirectConnectionResponse>
```

JSON format

```
{
  "RequestId": "5D622714-AEDD-4609-9167-F5DDD3D1****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

10.Renewal Management

10.1. DescribePrice

Queries the fees to create, update, and renew ApsaraDB for Redis instances.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribePrice	The operation that you want to perform. Set the value to DescribePrice .
OrderType	String	Yes	BUY	The type of the order. Valid values: <ul style="list-style-type: none">• BUY• UPGRADE• RENEW
RegionId	String	Yes	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query the region ID.
InstanceId	String	No	r-bp1zxszhcgatnx***	The ID of the instance.
Capacity	Long	No	1024	The storage capacity of the instance. Unit: MB. You must set InstanceClass or Capacity to specify the instance type. We recommend that you use the InstanceClass parameter to specify the instance type.

Parameter	Type	Required	Example	Description
InstanceClass	String	No	redis.master.small.default	<p>Specify the instance type. You must set InstanceClass or Capacity to specify the instance type. We recommend that you use the InstanceClass parameter to specify the instance type.</p> <p>To query the instance type, perform the following steps:</p> <ol style="list-style-type: none"> 1. In the Instance specifications topic, find the instance type and click the architecture type column to view the information about the instance type. 2. In the instance specifications table, select the instance type and find the instanceclass in the InstanceClass column.
Zoneld	String	No	cn-hangzhou-e	The ID of the zone. You can call the DescribeZones operation to query the zone ID.
ChargeType	String	No	PostPaid	<p>The billing method of the instance. Valid values:</p> <ul style="list-style-type: none"> • PostPaid: pay-as-you-go. • PrePaid: subscription. <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: PostPaid. </div>
NodeType	String	No	MASTER_SLAVE	The type of the node. Set the value to MASTER_SLAVE. This value specifies that the node is a master-replica node.
Period	Long	No	3	The subscription period. Unit: months. Valid values: 1 to 9, 12, 24, and 36.
Quantity	Long	No	1	The number of instances that you want to purchase. Valid values: 1 to 30. <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: 1. </div>

Parameter	Type	Required	Example	Description
Instances	String	No	Instances=[{"RegionId": "cn-hangzhou","ZoneId": "cn-hangzhou-b","InstanceClass": "redis.master.sm.all.default","ChargeType": "PostPaid","OrderType": "BUY","Period": "1","Quantity": "1","Capacity": "4096"}]	A JSON string that contains multiple instances. For more information, see Formats of Instances .
BusinessInfo	String	No	000000000000	The extended information such as promotion ID and business information.
CouponNo	String	No	youhuiquan_promotion_option_id_for_blank	The coupon code. By default, no coupon code is applied. Default value: youhuiquan_promotion_option_id_for_blank.
ForceUpgrade	Boolean	No	true	Specifies whether to forcibly change the type. Valid values: <ul style="list-style-type: none">• false• true <div style="background-color: #e1f5fe; padding: 5px; border-radius: 5px;">? Note Default value: true.</div>
OrderParamOut	String	No	true	Specifies whether to return order parameters. Valid values: <ul style="list-style-type: none">• false• true <div style="background-color: #e1f5fe; padding: 5px; border-radius: 5px;">? Note Default value: false.</div>

Response parameters

Parameter	Type	Example	Description
-----------	------	---------	-------------

Parameter	Type	Example	Description
Order	Struct		The order information.
Coupons	Array of Coupon		The coupon information.
Coupon			
CouponNo	String	youhuquan_promotion_option_id_for_blank	The coupon number.
Description	String	coupondemo	The description of the coupon.
IsSelected	String	true	Indicates whether the coupon was selected.
Name	String	Free for internal settlement	The final price of the order.
Currency	String	CNY	The type of the currency.
DiscountAmount	String	0.21	The discount amount of the order.
OriginalAmount	String	0.21	The original price of the order.
RuleIds	List	RuleId: 1111111111	The ID of the hit rule.
TradeAmount	String	10	The final price of the order.
SubOrders	Array of SubOrder		The rules that match the coupon.
SubOrder			
DiscountAmount	String	0.21	The discount amount of the order.
Instanceld	String	r-bp1xxxxxxxxxxxxxx	The ID of the instance.
OriginalAmount	String	0.21	The original price of the order.
RuleIds	List	RuleId: 1111111111	The ID of the hit rule.

Parameter	Type	Example	Description
TradeAmount	String	10	The final price of the order.
Rules	Array of Rule		The promotion rules.
Rule			
Name	String	Free for internal settlement	The final price of the order.
RuleDescId	Long	1111111111	The ID of the rule.
Title	String	demo	The title of the rule.
RequestId	String	3A40BE4E-1890-4972-889C-FEFA37663635	The ID of the request.
OrderParams	String	String	The parameters of the order. When OrderParamOut is set to <code>true</code> , this parameter is returned.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribePrice  
&OrderType=BUY  
&RegionId=cn-hangzhou  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribePriceResponse>
  <Order>
    <Currency>CNY</Currency>
    <RuleIds>
    </RuleIds>
    <TradeAmount>0</TradeAmount>
    <OriginalAmount>0</OriginalAmount>
    <Coupons>
    </Coupons>
    <DiscountAmount>0</DiscountAmount>
  </Order>
  <RequestId>3A40BE4E-1890-4972-889C-FEFA37663635</RequestId>
  <SubOrders>
    <SubOrder>
      <RuleIds>
      </RuleIds>
      <TradeAmount>0</TradeAmount>
      <OriginalAmount>0</OriginalAmount>
      <DiscountAmount>0</DiscountAmount>
    </SubOrder>
  </SubOrders>
  <Rules>
  </Rules>
</DescribePriceResponse>
```

JSON format

```
{  
    "Order": {  
        "Currency": "CNY",  
        "RuleIds": {  
            "RuleId": []  
        },  
        "TradeAmount": 0,  
        "OriginalAmount": 0,  
        "Coupons": {  
            "Coupon": []  
        },  
        "DiscountAmount": 0  
    },  
    "RequestId": "3A40BE4E-1890-4972-889C-FEFA37663635",  
    "SubOrders": {  
        "SubOrder": [  
            {  
                "RuleIds": {  
                    "RuleId": []  
                },  
                "TradeAmount": 0,  
                "OriginalAmount": 0,  
                "DiscountAmount": 0  
            }  
        ]  
    },  
    "Rules": {  
        "Rule": []  
    }  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

10.2. RenewInstance

Renews an ApsaraDB for Redis instance.

This operation applies to only subscription instances.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
-----------	------	----------	---------	-------------

Parameter	Type	Required	Example	Description
Action	String	Yes	RenewInstance	The operation that you want to perform. Set the value to RenewInstance .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
Period	Long	Yes	6	The renewal period of the instance. Unit: months. Valid values: 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 24, and 36.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
Capacity	String	No	1024	<p>The storage capacity of the instance. Unit: MB. You can set this parameter to change specifications of an instance when you renew the instance.</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note To change the specifications when you renew the instance, you must set at least one of the following parameters: Capacity and InstanceClass. </div>
InstanceClass	String	No	redis.master.small.default	<p>The instance type code. For more information, see Instance specifications overview. You can set this parameter to change specifications of an instance when you renew the instance.</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note To change the specifications when you renew the instance, you must set at least one of the following parameters: Capacity and InstanceClass. </div>

Parameter	Type	Required	Example	Description
AutoPay	Boolean	No	true	<p>Specifies whether to enable automatic payment for the instance. Valid values:</p> <ul style="list-style-type: none">• true: enables automatic payment. This is the default value.• false: disables automatic payment. <p>If you select false, you must choose Expenses > Renewal Management in the top navigation bar. In the left-side navigation pane, click Orders. Find the specified order and pay for it.</p>
FromApp	String	No	OpenAPI	Specifies the request source. The default value is OpenAPI and cannot be changed.
BusinessInfo	String	No	000000000	The ID of the event or the business information.
CouponNo	String	No	youhuiquan_promotion_option_id_for_blank	The coupon code. Default value: youhuiquan_promotion_option_id_for_blank .

Response parameters

Parameter	Type	Example	Description
EndTime	String	2019-02-19T00:00:00Z	The end time of the order.
OrderId	String	1111111111111111	The ID of the order.
RequestId	String	2222245-222A-4155-9349-E22222***	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=RenewInstance  
&InstanceId=r-bp1zxszhcgatnx***  
&Period=6  
&<Common request parameters>
```

Sample success responses

XML format

```
<RenewInstanceResponse>
  <OrderId>1111111111111111</OrderId>
  <RequestId>4D425645-A8BA-4155-9349-22222222****</RequestId>
  <EndTime>2019-02-19T00:00:00Z</EndTime>
</RenewInstanceResponse>
```

JSON format

```
{
  "OrderId": "1111111111111111",
  "RequestId": "2222245-222A-4155-9349-E2222222****",
  "EndTime": "2019-02-19T00:00:00Z"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	HasRenewChangeOrder	This instance has a renewChange order.	The error message returned because a renewal order with specifications change already exists.

For a list of error codes, visit the [API Error Center](#).

10.3.

DescribeInstanceAutoRenewalAttribute

Queries the auto renewal status of one or more ApsaraDB for Redis instances.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeInstanceAutoRenewalAttribute	The operation that you want to perform. Set the value to DescribeInstanceAutoRenewalAttribute .

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where the instance is deployed.
ClientToken	String	No	ETnLkblzczshOTUbOCz***	The client token that is used to ensure the idempotency of requests. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can only contain ASCII characters and cannot exceed 64 characters in length.
DBInstanceId	String	No	r-bp1zxszhcgatnx***	<p>The ID of the instance.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note By default, the system checks whether auto-renewal is enabled for all instances. </div>
PageSize	Integer	No	30	<p>The number of entries to return on each page. Valid values: 30, 50, and 100.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: 30. </div>
PageNumber	Integer	No	1	The number of the page to return. The value must be an integer greater than 0 . Default value: 1 .

Response parameters

Parameter	Type	Example	Description
Items	Array of Item		The auto-renewal status of instances.
Item			
AutoRenew	String	true	<p>Specifies whether to enable auto-renewal. Valid values:</p> <ul style="list-style-type: none"> • true: enables auto-renewal. • false: disables auto-renewal.

Parameter	Type	Example	Description
DBInstanceld	String	r-bp1zxszhcgatnx****	The ID of the instance.
Duration	Integer	1	The auto-renewal period. Unit: months.
RegionId	String	cn-shanghai	The ID of the region.
PageNumber	Integer	1	The page number of the returned page.
PageRecordCount	Integer	30	The number of returned entries on the current page.
TotalRecordCount	Integer	1	The total number of returned entries.
RequestId	String	2B17D708-1D6D-49F3-B6D7-478371DD****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/Action=DescribeInstanceAutoRenewalAttribute  
&RegionId=cn-hangzhou  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeInstanceAutoRenewalAttributeResponse>  
  <Items>  
    <Item>  
      <Duration>1</Duration>  
      <RegionId>cn-shanghai</RegionId>  
      <DBInstanceld>r-bp1zxszhcgatnx****</DBInstanceld>  
      <AutoRenew>true</AutoRenew>  
    </Item>  
  </Items>  
  <TotalRecordCount>1</TotalRecordCount>  
  <PageNumber>1</PageNumber>  
  <RequestId>2B17D708-1D6D-49F3-B6D7-478371DDDBE8</RequestId>  
  <PageRecordCount>1</PageRecordCount>  
</DescribeInstanceAutoRenewalAttributeResponse>
```

JSON format

```
{  
  "Items": {  
    "Item": [  
      {  
        "Duration": 1,  
        "RegionId": "cn-shanghai",  
        "DBInstanceId": "r-bp1zxszhcgatnx****",  
        "AutoRenew": "true"  
      }  
    ]  
  },  
  "TotalRecordCount": 1,  
  "PageNumber": 1,  
  "RequestId": "2B17D708-1D6D-49F3-B6D7-478371DDDBE8",  
  "PageRecordCount": 1  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

10.4. ModifyInstanceAutoRenewalAttribute

Enables or disables auto-renewal for ApsaraDB for Redis instances.

 Note Auto renewal is triggered seven days before the expiration date of the instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceAutoRenewalAttribute	The operation that you want to perform. Set the value to ModifyInstanceAutoRenewalAttribute .
DBInstanceId	String	Yes	r-bp1zxszhcgatnx****	The ID of the instance. Separate multiple instance IDs with commas (,).  Note You can specify up to 30 IDs.

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
Duration	String	No	3	<p>The auto-renewal period. Valid values: 1 to 12. When the instance is about to expire, the instance is automatically renewed based on the number of months specified by this parameter.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note This parameter is valid only when AutoRenew is set to true. </div>
AutoRenew	String	No	true	<p>Specifies whether to enable auto-renewal. Valid values:</p> <ul style="list-style-type: none"> • true • false <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: false. </div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	52D901ED-E0A5-42FB-B9DB-39C295C3****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceAutoRenewalAttribute
&DBInstanceId=r-bp1zxszhcgatnx****
&Duration=3
&AutoRenew=true
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyInstanceAutoRenewalAttributeResponse>
  <RequestId>52D901ED-E0A5-42FB-B9DB-39C295C3****</RequestId>
</ModifyInstanceAutoRenewalAttributeResponse>
```

JSON format

```
{
  "RequestId": "52D901ED-E0A5-42FB-B9DB-39C295C3****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.Account management

11.1. DescribeAccounts

Queries all accounts or a specified account of an ApsaraDB for Redis instance.

 **Note** Only ApsaraDB for Redis instances of Redis 4.0 and later versions are supported.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeAccounts	The operation that you want to perform. Set the value to DescribeAccounts .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance.
AccountName	String	No	demoaccount	The name of the account that you want to query. The name must start with a lowercase letter and can contain lowercase letters, digits, and underscores (_). The name can be 1 to 16 characters in length.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	6C9E114C-217C-4118-83C0-B4070222****	The ID of the request.
Accounts	Array of Account		The list of returned accounts of the ApsaraDB for Redis instance.

Parameter	Type	Example	Description
Account			
AccountDescription	String	testdec	The description of the account.
AccountName	String	demoaccount	The name of the account.
AccountStatus	String	Available	<p>The state of the account. Valid values:</p> <ul style="list-style-type: none"> • Unavailable: indicates that the account is unavailable. • Available: indicates that the account is available.
AccountType	String	Normal	<p>The type of the account. Valid values:</p> <ul style="list-style-type: none"> • Normal: a standard account. • Super: a super account.
DatabasePrivileges	Array of DatabasePrivilege		The list of account permissions.
DatabasePrivilege			
AccountPrivilege	String	RoleReadWrite	<p>The permissions of the account. Valid values:</p> <ul style="list-style-type: none"> • RoleReadOnly: The account has the read-only permissions. • RoleReadWrite: The account has the read and write permissions. This is the default value.
InstanceId	String	r-bp10noxlhcoim2***	The ID of the ApsaraDB for Redis instance.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeAccounts
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeAccountsResponse>
  <RequestId>4A74FE3A-2BA8-4574-AB85-99C01707****</RequestId>
  <Accounts>
    <Account>
      <AccountStatus>Available</AccountStatus>
      <InstanceId>r-bp10noxlhcoim2****</InstanceId>
      <AccountType>Normal</AccountType>
      <DatabasePrivileges>
        <DatabasePrivilege>
          <AccountPrivilege>RoleReadWrite</AccountPrivilege>
        </DatabasePrivilege>
      </DatabasePrivileges>
      <AccountName>r-bp10noxlhcoim2****</AccountName>
    </Account>
    <Account>
      <AccountDescription></AccountDescription>
      <AccountStatus>Available</AccountStatus>
      <InstanceId>r-bp10noxlhcoim2****</InstanceId>
      <AccountType>Normal</AccountType>
      <DatabasePrivileges>
        <DatabasePrivilege>
          <AccountPrivilege>RoleReadWrite</AccountPrivilege>
        </DatabasePrivilege>
      </DatabasePrivileges>
      <AccountName>testaccount</AccountName>
    </Account>
  </Accounts>
</DescribeAccountsResponse>
```

JSON format

```
{  
    "RequestId": "4A74FE3A-2BA8-4574-AB85-99C01707****",  
    "Accounts": {  
        "Account": [  
            {  
                "AccountStatus": "Available",  
                "InstanceId": "r-bp10noxlhcoim2****",  
                "AccountType": "Normal",  
                "DatabasePrivileges": {  
                    "DatabasePrivilege": [  
                        {  
                            "AccountPrivilege": "RoleReadWrite"  
                        }  
                    ]  
                },  
                "AccountName": "r-bp10noxlhcoim2****"  
            },  
            {  
                "AccountDescription": "",  
                "AccountStatus": "Available",  
                "InstanceId": "r-bp10noxlhcoim2****",  
                "AccountType": "Normal",  
                "DatabasePrivileges": {  
                    "DatabasePrivilege": [  
                        {  
                            "AccountPrivilege": "RoleReadWrite"  
                        }  
                    ]  
                },  
                "AccountName": "testaccount"  
            }  
        ]  
    }  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.2. CreateAccount

Creates an account with the specified permissions for an ApsaraDB for Redis instance.

Note

- The engine version of the ApsaraDB for Redis instance is Redis 4.0 or later.
- The ApsaraDB for Redis instance must be in the running state.
- You can create up to 18 accounts for an ApsaraDB for Redis instance.

For more information about how to perform the corresponding operation in the console, see [Manage database accounts](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateAccount	The operation that you want to perform. Set the value to CreateAccount .
AccountName	String	Yes	demoaccount	The name of the account. The name must be 1 to 16 characters in length and can contain lowercase letters, digits, and underscores (_). It must start with a lowercase letter.
AccountPassword	String	Yes	uWonno21****	The password of the account. The password must be 8 to 32 characters in length and contain at least three of the following character types: uppercase letters, lowercase letters, digits, and special characters. Special characters include !@#\$%^&*()_-+= .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
AccountPrivilege	String	No	RoleReadOnly	The permissions that you want to grant to the account. Valid values: <ul style="list-style-type: none">• RoleReadOnly: The account has the read-only permissions.• RoleReadWrite: The account has the read and write permissions. This is the default value.
AccountDescription	String	No	testaccount	The description of the account. <ul style="list-style-type: none">• It must start with a Chinese character or a letter and cannot start with http:// or https:// .• It can contain letters, digits, underscores (_), and hyphens (-).• It must be 2 to 256 characters in length.

Parameter	Type	Required	Example	Description
AccountType	String	No	Normal	The type of the account. Set the value to Normal .
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
AcountName	String	demoaccount	The name of the account.
Instanceld	String	r-bp1zxszhcgatnx****	The ID of the instance.
RequestId	String	ABA95F6-35C1-4177-AF3A-70969EBD****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=CreateAccount
&AccountName=demoaccount
&AccountPassword=uWonna21****
&Instanceld=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateAccountResponse>
  <RequestId>D3876765-1983-4CBC-BB45-79EEBD6D****</RequestId>
  <Instanceld>r-bp1zxszhcgatnx****</Instanceld>
  <AcountName>demoaccount</AcountName>
</CreateAccountResponse>
```

JSON format

```
{
  "RequestId": "D3876765-1983-4CBC-BB45-79EEBD6D****",
  "Instanceld": "r-bp1zxszhcgatnx****",
  "AcountName": "demoaccount"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.3. GrantAccountPrivilege

Modifies the permissions of an account on an ApsaraDB for Redis instance.

 Note

- Only ApsaraDB for Redis instances of Redis 4.0 and later are supported.
- The ApsaraDB for Redis instance must be in the Running state.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GrantAccountPrivilege	The operation that you want to perform. Set the value to GrantAccountPrivilege .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance which belongs to the account.
AccountName	String	Yes	demoaccount	<p>The name of the account that you want to manage.</p> <ul style="list-style-type: none">The name must start with a lowercase letter.The name can contain lowercase letters, digits, and underscores (_).The name must be 1 to 16 characters in length.
AccountPrivilege	String	Yes	RoleReadWrite	<p>The permissions that you want to grant to the account. Valid values:</p> <ul style="list-style-type: none">RoleReadOnly: the read-only permissions.RoleReadWrite: the read and write permissions. This is the default value.

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	3845BDF5-15A6-4444-B770-78501819****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=GrantAccountPrivilege
&InstanceId=r-bp1zxszhcgatnx****
&AccountName=demoaccount
&AccountPrivilege=RoleReadWrite
&<Common request parameters>
```

Sample success responses

XML format

```
<GrantAccountPrivilegeResponse>
  <RequestId>3845BDF5-15A6-4444-B770-78501819****</RequestId>
</GrantAccountPrivilegeResponse>
```

JSON format

```
{
  "RequestId": "3845BDF5-15A6-4444-B770-78501819****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.4. ModifyAccountDescription

Modifies the description of an account of an ApsaraDB for Redis instance.

 **Note** The engine version of the ApsaraDB for Redis instance must be Redis 4.0 and later.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyAccountDescription	The operation that you want to perform. Set the value to ModifyAccountDescription .
AccountDescription	String	Yes	testescription	<p>The description of the account.</p> <ul style="list-style-type: none"> It must start with a Chinese character or a letter and cannot start with <code>http://</code> or <code>https://</code>. It can contain letters, digits, underscores (_), and hyphens (-). It must be 2 to 256 characters in length.
AccountName	String	Yes	demoaccount	<p>The name of the account.</p> <ul style="list-style-type: none"> It must start with a lowercase letter. It can contain lowercase letters, digits, and underscores (_). It must be 1 to 16 characters in length.
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	8D0C0AFC-E9CD-47A4-8395-5C31BF9B****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyAccountDescription  
&AccountDescription=testdescription  
&AccountName=demoaccount  
&InstanceId=r-bp1zxszhcgatnx****  
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyAccountDescriptionResponse>  
  <RequestId>8D0C0AFC-E9CD-47A4-8395-5C31BF9B****</RequestId>  
</ModifyAccountDescriptionResponse>
```

JSON format

```
{  
  "RequestId": "8D0C0AFC-E9CD-47A4-8395-5C31BF9B****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.5. ModifyAccountPassword

Changes the password of a specified account for an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyAccountPassword	The operation that you want to perform. Set the value to ModifyAccountPassword .
InstanceId	String	Yes	r-bp1zxszhcgatnx****	The ID of the instance.
AccountName	String	Yes	testaccount	The account for which you want to change the password.

Parameter	Type	Required	Example	Description
OldAccountPassword	String	Yes	oldPassWd999*** *	The current password of the account. Note If you forget your password, you can call the ResetAccountPassword operation to reset your password.
NewAccountPassword	String	Yes	newPassWd888***	Set a new password for the account. The password must be 8 to 32 characters in length. It can contain at least three of the following characters, including uppercase letters, lowercase letters, digits, and special characters. Special characters include ! @ # \$ % ^ & * () _ + - = .
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5D622714-AEDD-4609-9167-F5DDD3D1****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyAccountPassword
&AccountName=testaccount
&InstanceId=r-bp1zxszhcgatnx****
&OldAccountPassword=oldPassWd999****
&NewAccountPassword=newPassWd888****
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyAccountPasswordResponse>
  <RequestId>5D622714-AEDD-4609-9167-F5DDD3D1****</RequestId>
</ModifyAccountPasswordResponse>
```

JSON format

```
{  
    "RequestId": "5D622714-AEDD-4609-9167-F5DDD3D1****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.6. ResetAccountPassword

Resets the password of an account of an ApsaraDB for Redis instance.

 **Note** Only Redis 4.0 and later of ApsaraDB for Redis instances are supported.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ResetAccountPassword	The operation that you want to perform. Set the value to ResetAccountPassword .
AccountName	String	Yes	demoaccount	The name of the account. The name must start with a lowercase letter and can contain lowercase letters, digits, and underscores (_). The name can be 1 to 16 characters in length.
AccountPassword	String	Yes	uWonno_221***	The new password of the account. The password must be 8 to 32 characters in length and contain at least three of the following character types: uppercase letters, lowercase letters, digits, and special characters. Special characters include ! @ # \$ % ^ & * () _ + - = .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance that belongs to the account.

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	8BE02313-5395-4EBE-BAE7-E90A053F****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ResetAccountPassword
&AccountName=demoaccount
&AccountPassword=uWonna_221****
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<ResetAccountResponse>
  <RequestId>8BE02313-5395-4EBE-BAE7-E90A053F****</RequestId>
</ResetAccountResponse>
```

JSON format

```
{
  "RequestId": "8BE02313-5395-4EBE-BAE7-E90A053F****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.7. DeleteAccount

Deletes an account of an ApsaraDB for Redis instance.

- The version of the ApsaraDB for Redis instance must be Redis 4.0.
- The ApsaraDB for Redis instance must be in the running state.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteAccount	The operation that you want to perform. Set the value to DeleteAccount .
AccountName	String	Yes	demoaccount	The name of the account that you want to manage. The name must start with a lowercase letter and can contain lowercase letters, digits, and underscores (_). The name must be 1 to 16 characters in length.
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	8129F11A-D70B-43A6-9455-CE9EAA71***	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DeleteAccount  
&AccountName=demoaccount  
&InstanceId=r-bp1zxszhcgatnx***  
&<Common request parameters>
```

Sample success responses

XML format

```
<DeleteAccountResponse>  
  <RequestId>8129F11A-D70B-43A6-9455-CE9EAA71***</RequestId>  
</DeleteAccountResponse>
```

JSON format

```
{  
    "RequestId": "8129F11A-D70B-43A6-9455-CE9EAA71****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

12. Backup and restoration

12.1. CreateBackup

Backs up an ApsaraDB for Redis instance.

You can also back up an instance in the ApsaraDB for Redis console. For more information, see [Back up and recover data in the console](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateBackup	The operation that you want to perform. Set the value to CreateBackup .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	2FF6158E-3394-4A90-B634-79C49184****	The ID of the request.
BackupJobID	String	1162****	The ID of the backup job.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=CreateBackup
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateBackupResponse>
  <RequestId>2FF6158E-3394-4A90-B634-79C49184****</RequestId>
  <BackupJobID>1162****</BackupJobID>
</CreateBackupResponse>
```

JSON format

```
{
  "RequestId": "2FF6158E-3394-4A90-B634-79C49184****",
  "BackupJobID": "1162****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

12.2. DescribeBackupTasks

Queries the information about backup tasks of an ApsaraDB for Redis instance.

 **Note** This operation is applicable to only **standard** instances of ApsaraDB for Redis.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeBackupTasks	The operation that you want to perform. Set the value to DescribeBackupTasks .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance. You can call the DescribeInstances operation to query instance IDs.  Note Only standard instances of ApsaraDB for Redis are supported. Cluster instances and read/write splitting instances are not supported.

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query region IDs.
BackupJobId	String	No	1162****	<p>The ID of the backup task.</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note When you call the CreateBackup operation to perform a manual backup task, you can specify the returned backup task ID in the request to query the progress of the backup task. </div>
JobMode	String	No	Manual	<p>The backup mode. Valid values:</p> <ul style="list-style-type: none"> • Automated: automatic backup. You can call the DescribeBackupPolicy operation to query the automatic backup policy. • Manual: manual backup. <div style="background-color: #e1f5fe; padding: 10px;"> ? Note By default, the information about the backup tasks in both modes is returned. </div>

Response parameters

Parameter	Type	Example	Description
BackupJobs	Array of BackupJob		The details of the backup task.
BackupJobID	Integer	8491111	The ID of the backup task.

Parameter	Type	Example	Description
BackupProgressStatus	String	Automated	The state of the backup task. Valid values: <ul style="list-style-type: none">• NoStart: The backup task is not started.• Preparing: The backup task is being prepared.• Waiting: The backup task is pending.• Uploading: The system is uploading the backup file.• Checking: The system is checking the uploaded backup file.• Finished: The backup task is completed.
JobMode	String	Manual	The backup mode. Valid values: <ul style="list-style-type: none">• Automated: automatic backup.• Manual: manual backup.
Process	String	0	The progress of the backup task in percentage.
StartTime	String	2021-01-05T19:24:00Z	The start time of the backup task. The time is displayed in the <i>yyyy-MM-ddT HH:mm:ssZ</i> format. The time is displayed in UTC.
TaskAction	String	NormalBackupTask	The backup type. Valid values: <ul style="list-style-type: none">• TempBackupTask: The backup task is manually performed.• NormalBackupTask: The backup task is automatically performed.
InstanceId	String	r-bp1zxszhcgatnx****	The ID of the ApsaraDB for Redis instance.
RequestId	String	BB73740C-23E2-4392-9DA4-2660C74C****	The ID of the request.

Examples

Sample requests

```
http(s)://https://r-kvstore.aliyuncs.com/?Action=DescribeBackupTasks
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeBackupTasksResponse>
  <RequestId>BB73740C-23E2-4392-9DA4-2660C74C****</RequestId>
  <InstanceId>r-bp1zxszhcgatnx****</InstanceId>
  <BackupJobs>
    <JobMode>Automated</JobMode>
    <TaskAction>NormalBackupTask</TaskAction>
    <StartTime>2021-01-05T19:24:00Z</StartTime>
    <BackupProgressStatus>NoStart</BackupProgressStatus>
    <Process>0</Process>
    <BackupJobID>8491111</BackupJobID>
  </BackupJobs>
</DescribeBackupTasksResponse>
```

JSON format

```
{
  "RequestId": "BB73740C-23E2-4392-9DA4-2660C74C****",
  "InstanceId": "r-bp1zxszhcgatnx****",
  "BackupJobs": [
    {
      "JobMode": "Automated",
      "TaskAction": "NormalBackupTask",
      "StartTime": "2021-01-05T19:24:00Z",
      "BackupProgressStatus": "NoStart",
      "Process": "0",
      "BackupJobID": 8491111
    }
  ]
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

12.3. DescribeBackupPolicy

Queries the backup policy of an ApsaraDB for Redis instance, such as the backup cycle and backup time.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeBackupPolicy	The operation that you want to perform. Set the value to DescribeBackupPolicy .

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
BackupRetentionPeriod	String	7	The retention period for backups. Unit: days.
EnableBackupLog	Integer	1	Specifies whether incremental backup is enabled. Valid values: <ul style="list-style-type: none"> • 1: enabled. • 0: disabled.
PreferredBackupPeriod	String	Monday,Tuesday,Wednesday,Thursday,Friday,Saturday,Sunday	The backup cycle. Valid values: <ul style="list-style-type: none"> • Monday • Tuesday • Wednesday • Thursday • Friday • Saturday • Sunday
PreferredBackupTime	String	05:00Z-06:00Z	The time when the data was backed up. The time follows the ISO 8601 standard in the <i>HH:mmZ-HH:mmZ</i> format. The time is displayed in UTC.
PreferredNextBackupTime	String	2019-03-14T05:28Z	The next backup time. The time follows the ISO 8601 standard in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time is displayed in UTC.
RequestId	String	90B82DB7-FB28-4CC2-ADBF-1F8659F3****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeBackupPolicy  
&InstanceId=r-bp1zxszhcgatnx****  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeBackupPolicyResponse>  
  <PreferredBackupPeriod>Monday,Tuesday,Wednesday,Thursday,Friday,Saturday,Sunday</PreferredBackupPeriod>  
  <RequestId>90B82DB7-FB28-4CC2-ABDF-1F8659F3****</RequestId>  
  <PreferredNextBackupTime>2018-10-26T19:05Z</PreferredNextBackupTime>  
  <PreferredBackupTime>19:00Z-20:00Z</PreferredBackupTime>  
  <BackupRetentionPeriod>7</BackupRetentionPeriod>  
</DescribeBackupPolicyResponse>
```

JSON format

```
{  
  "PreferredBackupPeriod": "Monday,Tuesday,Wednesday,Thursday,Friday,Saturday,Sunday",  
  "RequestId": "90B82DB7-FB28-4CC2-ABDF-1F8659F3****",  
  "PreferredNextBackupTime": "2018-10-26T19:05Z",  
  "PreferredBackupTime": "19:00Z-20:00Z",  
  "BackupRetentionPeriod": "7"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

12.4. ModifyBackupPolicy

Modifies the backup policy of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyBackupPolicy	The operation that you want to perform. Set the value to ModifyBackupPolicy .

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
PreferredBackupPeriod	String	Yes	Tuesday	<p>The period of backup. Valid values:</p> <ul style="list-style-type: none"> • Monday • Tuesday • Wednesday • Thursday • Friday • Saturday • Sunday
PreferredBackupTime	String	Yes	00:00Z-04:00Z	The time to back up data in the HH:mmZ-HH:mmZ format. The time is displayed in UTC.
EnableBackupLog	Integer	No	1	<p>Specifies whether to enable or disable incremental backup. Valid values:</p> <ul style="list-style-type: none"> • 1: enables incremental backup • 0: disables incremental backup. This is the default value.
RegionId	String	No	cn-hangzhou	The ID of the region.

Response parameters

Parameter	Type	Example	Description
RequestId	String	8D0C0AFC-E9CD-47A4-8395-5C31BF9B****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyBackupPolicy
&InstanceId=r-bp1zxszhcgatnx****
&PreferredBackupTime=00:00Z-04:00Z
&PreferredBackupPeriod=Tuesday
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyBackupPolicyResponse>
  <RequestId>8D0C0AFC-E9CD-47A4-8395-5C31BF9B****</RequestId>
</ModifyBackupPolicyResponse>
```

JSON format

```
{
  "RequestId": "8D0C0AFC-E9CD-47A4-8395-5C31BF9B****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

12.5. DescribeBackups

Queries the backup files of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeBackups	The operation that you want to perform. Set the value to DescribeBackups .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
StartTime	String	Yes	2019-03-11T10:00Z	The beginning of the time range to query. Specify the time in the ISO 8601 standard in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time must be in UTC.
EndTime	String	Yes	2019-03-14T18:00Z	The end of the time range to query. Specify the time in the ISO 8601 standard in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time must be in UTC. The end time must be later than the start time.

Parameter	Type	Required	Example	Description
BackupId	Integer	No	11611111	The ID of the backup file.
PageNumber	Integer	No	1	The number of the page to return. The value must be an integer larger than 0. Default value: 1.
PageSize	Integer	No	30	The maximum number of entries to return on each page.
NeedAof	String	No	1	Specifies whether to enable AOF. Valid values: <ul style="list-style-type: none">• 0: No.• 1: Yes. <div style="background-color: #e1f5fe; padding: 5px; border-radius: 5px; width: fit-content; margin-left: 20px;">? Note Default value: 0.</div>
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
TotalCount	Integer	5	The total number of backup files that were returned.
PageNumber	Integer	1	The page number of the returned page.
Backups	Array of Backup		The details of the backup set.
Backup			
BackupDBNames	String	all	The database to be backed up. The default value is all, which indicates that all databases are backed up.
BackupDownloadURL	String	https://rdsbak-hk45-v2.oss-cn-hongkong.aliyuncs.com/*********	The public download URL of the backup file.

Parameter	Type	Example	Description
BackupEndTime	String	2019-03-14T05:31:13Z	The time when the backup ended.
BackupId	Integer	111111111	The ID of the backup file.
BackupIntranetDownloadURL	String	https://rdsbak-hk45-v2.oss-cn-hongkong.aliyuncs.com/*********	The internal download URL of the backup file. <div style="background-color: #e1f5fe; padding: 10px;">? Note You can download the backup file by using this URL in the Elastic Compute Service (ECS) instance that is connected to the ApsaraDB for Redis instance. The ECS instance and ApsaraDB for Redis instance must be in the classic network of the same region or in the same virtual private cloud (VPC).</div>
BackupMethod	String	Physical	The backup method. Valid values: • Logical • Physical
BackupMode	String	Automated	The backup mode. Valid values: • Automated • Manual
BackupSize	Long	1024	The size of the backup file.
BackupStartTime	String	2019-03-14T05:28:50Z	The time when the backup started.
BackupStatus	String	Success	The status of the backup task. Valid values: • Success: The backup was successful. • Failed: The backup failed.
BackupType	String	FullBackup	The backup type. Valid values: • FullBackup: full backup. • IncrementalBackup: incremental backup.

Parameter	Type	Example	Description
EngineVersion	String	4.0	The engine version (major version) of the instance.
NodeInstanceId	String	r-bp10noxlhcoim2****-db-1	The ID of the node. <div style="background-color: #e0f2ff; padding: 5px;">Note If a standard instance is used, the instance ID is returned.</div>
PageSize	Integer	30	The maximum number of entries returned per page.
RequestId	String	963C20F0-7CE1-4591-AAF3-6F3CD1CE****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeBackups  
&InstanceId=r-bp1zxszhcgatnx****  
&StartTime=2019-03-11T10:00Z  
&EndTime=2019-03-14T18:00Z  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeBackupsResponse>
  <TotalCount>1</TotalCount>
  <RequestId>721E2D39-351D-40E2-BF7C-B5075B0A****</RequestId>
  <PageSize>30</PageSize>
  <PageNumber>1</PageNumber>
  <Backups>
    <Backup>
      <BackupMethod>Physical</BackupMethod>
      <EngineVersion>4.0</EngineVersion>
      <BackupIntranetDownloadURL>http://rdsbak-hz-v3.oss-cn-hangzhou-internal.aliyuncs.com/********
    *</BackupIntranetDownloadURL>
      <BackupMode>Automated</BackupMode>
      <BackupSize>2263040</BackupSize>
      <BackupId>775661111</BackupId>
      <NodeInstanceId>r-bp12fdcf4dea****</NodeInstanceId>
      <BackupDBNames>all</BackupDBNames>
      <BackupDownloadURL>http://rdsbak-hz-v3.oss-cn-hangzhou.aliyuncs.com/********</BackupDownloadURL>
      <BackupEndTime>2020-10-30T17:31:26Z</BackupEndTime>
      <BackupStartTime>2020-10-30T17:28:28Z</BackupStartTime>
      <BackupType>FullBackup</BackupType>
      <BackupStatus>Success</BackupStatus>
    </Backup>
  </Backups>
</DescribeBackupsResponse>
```

JSON format

```
{  
    "TotalCount": 1,  
    "RequestId": "721E2D39-351D-40E2-BF7C-B5075B0A****",  
    "PageSize": 30,  
    "PageNumber": 1,  
    "Backups": {  
        "Backup": [  
            {  
                "BackupMethod": "Physical",  
                "EngineVersion": "4.0",  
                "BackupIntranetDownloadURL": "http://rdsbak-hz-v3.oss-cn-hangzhou-internal.aliyuncs.com/*********",  
                "BackupMode": "Automated",  
                "BackupSize": 2263040,  
                "BackupId": 775661111,  
                "NodeInstanceId": "r-bp12fdcf4dea****",  
                "BackupDBNames": "all",  
                "BackupDownloadURL": "http://rdsbak-hz-v3.oss-cn-hangzhou.aliyuncs.com/*********",  
                "BackupEndTime": "2020-10-30T17:31:26Z",  
                "BackupStartTime": "2020-10-30T17:28:28Z",  
                "BackupType": "FullBackup",  
                "BackupStatus": "Success"  
            }  
        ]  
    }  
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidEndTime.Malformed	The Specified parameter EndTime is not valid.	The error message returned because the format of the end time is invalid. The time must be in GMT. Example: 2011-06- 11T16:00Z.

For a list of error codes, visit the [API Error Center](#).

12.6. RestoreInstance

You can call this operation to recover the data in a backup file to a specified ApsaraDB for Redis instance.

For more information about how to perform the corresponding operation in the console, see [Back up and recover data in the console](#).

 **Note** When you call this operation, the existing data of the ApsaraDB for Redis instance will be overwritten by the data in the backup file. Due to the risk involved, we recommend that you call this operation with caution.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	RestoreInstance	The operation that you want to perform. Set the value to <code>RestoreInstance</code> .
BackupId	String	Yes	78241****	The ID of the backup file. You can call the <code>DescribeBackups</code> operation to query the IDs of backup files.
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	8D0C0AFC-E9CD-47A4-8395-5C31BF9B****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com?Action=RestoreInstance
&InstanceId=r-bp1zxszhcgatnx****
&BackupId=78241****
&<Common request parameters>
```

Sample success responses

XML format

```
<RestoreInstanceResponse>
  <RequestId>8D0C0AFC-E9CD-47A4-8395-5C31BF9B****</RequestId>
</RestoreInstanceResponse>
```

JSON format

```
{  
    "RequestId": "8D0C0AFC-E9CD-47A4-8395-5C31BF9B****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

13. Monitoring management

13.1. DescribeMonitorItems

Queries the metrics of an ApsaraDB for Redis instance.

 **Note** ApsaraDB for Redis has upgraded the monitoring metrics. The `DescribeMonitorItems` operation is phased out. For more information, see [The `DescribeMonitorItems` operation supported by ApsaraDB for Redis is phased out](#).

After you call this operation to retrieve a list of metrics for a specified ApsaraDB for Redis instance, you can call the `DescribeHistoryMonitorValues` operation to query monitoring history of the instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer automatically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeMonitorItems	The operation that you want to perform. Set the value to <code>DescribeMonitorItems</code> .
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
-----------	------	---------	-------------

Parameter	Type	Example	Description
MonitorItems	Array of KVStoreMonitorItem		<p>The returned metrics.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> ? Note <ul style="list-style-type: none"> • <code>memoryUsage</code>, <code>GetQps</code>, and <code>PutQps</code> are supported only by ApsaraDB for Redis instances that use Redis 4.0 or later. <code>GetQps</code> and <code>PutQps</code> require the latest minor version. You can upgrade the major version or minor version of the instance as needed. For more information, see Upgrade the major version and Upgrade the minor version. • When you use instances of Redis 2.8, if the <code>hit_rate</code> metric is not displayed, you must upgrade the minor version of the instance. For more information, see Upgrade the minor version. </div>
KVStoreMonitorItem			
MonitorKey	String	select	The metric.
Unit	String	Counts/s	The unit of the metric.
RequestId	String	8BEB2618-9517-43F3-A233-E0B34512****	The ID of the request.

Examples

Sample requests

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

Sample success responses

XML format

```
<DescribeMonitorItemsResponse>
```

```
<DESCRIBE_MONITORITEMS_RESPONSE>
<RequestId>8BEB2618-9517-43F3-A233-E0B34512****</RequestId>
<MonitorItems>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>discard</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>zcount</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>select</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>sunionstore</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>zunionstore</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>del</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>zinterstore</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>echo</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>hscan</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>psubscribe</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>type</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>sinterstore</MonitorKey>
    </KVStoreMonitorItem>
    <KVStoreMonitorItem>
        <Unit>Counts/s</Unit>
        <MonitorKey>multi</MonitorKey>
    </KVStoreMonitorItem>
```

```
</KVStoreMonitorItem>
<KVStoreMonitorItem>
<Unit>Counts/s</Unit>
<MonitorKey>randomkey</MonitorKey>
</KVStoreMonitorItem>
<KVStoreMonitorItem>
<Unit>Counts/s</Unit>
<MonitorKey>setex</MonitorKey>
</KVStoreMonitorItem>
</MonitorItems>
</DescribeMonitorItemsResponse>
```

JSON format

```
{
  "RequestId": "8BEB2618-9517-43F3-A233-E0B34512****",
  "MonitorItems": {
    "KVStoreMonitorItem": [
      {
        "Unit": "Counts/s",
        "MonitorKey": "discard"
      },
      {
        "Unit": "Counts/s",
        "MonitorKey": "zcount"
      },
      {
        "Unit": "Counts/s",
        "MonitorKey": "select"
      },
      {
        "Unit": "Counts/s",
        "MonitorKey": "sunionstore"
      },
      {
        "Unit": "Counts/s",
        "MonitorKey": "zunionstore"
      },
      {
        "Unit": "Counts/s",
        "MonitorKey": "del"
      },
      {
        "Unit": "Counts/s",
        "MonitorKey": "zinterstore"
      },
      {
        "Unit": "Counts/s",
        "MonitorKey": "echo"
      },
      {
        "Unit": "Counts/s",
        "MonitorKey": "hscan"
      }
    ]
  }
}
```

```
{  
    "Unit": "Counts/s",  
    "MonitorKey": "psubscribe"  
},  
{  
    "Unit": "Counts/s",  
    "MonitorKey": "type"  
},  
{  
    "Unit": "Counts/s",  
    "MonitorKey": "sinterstore"  
},  
{  
    "Unit": "Counts/s",  
    "MonitorKey": "multi"  
},  
{  
    "Unit": "Counts/s",  
    "MonitorKey": "randomkey"  
},  
{  
    "Unit": "Counts/s",  
    "MonitorKey": "setex"  
}  
]  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

13.2. DescribeHistoryMonitorValues

Queries the monitoring history of an ApsaraDB for Redis instance.

You can also query the monitoring history in the ApsaraDB for Redis console. For more information, see [Monitoring metrics](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer automatically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeHistoryMonitorValues	The operation that you want to perform. Set the value to DescribeHistoryMonitorValues .

Parameter	Type	Required	Example	Description
EndTime	String	Yes	2018-10-19T12:00:00Z	<p>The end of the time range to query. The end time must be later than the start time. Specify the time in the <code>yyyy-MM-ddT HH:mm:ssZ</code> format. The time must be in UTC.</p> <p>Note If the number of data nodes in the instance is greater than 32, the query time for the Data Node Aggregation and Proxy Node Aggregation metrics cannot exceed one hour.</p>
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance.
IntervalForHistory	String	Yes	01m	The interval to collect monitoring data. Unit: minutes. Set the value to <code>01m</code> .
StartTime	String	Yes	2018-10-18T12:00:00Z	The beginning of the time range to query. Specify the time in the <code>yyyy-MM-ddT HH:mm:ssZ</code> format. The time must be in UTC.
NodeId	String	No	r-bp1zxszhcgatnx***-db-0#1679***	<p>The ID of the node on the instance. You can set this parameter to query the monitoring information of a specified node.</p> <p>Note</p> <ul style="list-style-type: none"> This parameter is available only for read/write splitting instances or cluster instances of ApsaraDB for Redis. To retrieve the node ID, you can call the DescribeLogicInstanceTopology operation.

Parameter	Type	Required	Example	Description
MonitorKeys	String	No	CpuUsage	<p>The monitoring metrics. Separate multiple metrics with commas (,).</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note <ul style="list-style-type: none"> To ensure query efficiency, we recommend that you specify no more than five metrics for a single node, and only one metric at a time when you query aggregate metrics. For more information about monitoring metrics that are supported by ApsaraDB for Redis and descriptions, see Query monitoring data (MonitorKeys). </div>
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
MonitorHistory	String	<pre>{"2020-11-18T00:00:00Z": {"CpuUsage": "0.30"}, "2020-11-18T00:02:00Z": {"CpuUsage": "0.60"}, "2020-11-18T00:03:00Z": {"CpuUsage": "0.60"}}</pre>	<p>The monitoring information is returned in the JSON format. For more information, see Monitoring metrics.</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note Only metrics whose values are not 0 were returned. This improves data transmission efficiency. Metrics that are not displayed are all the default value 0. </div>

Parameter	Type	Example	Description
RequestId	String	F0997EE8-F4C2-4503-9168-85177ED7****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeHistoryMonitorValues
&InstanceId=r-bp1zxszhcgatnx****
&StartTime=2018-10-18T12:00:00Z
&EndTime=2018-10-18T12:03:00Z
&IntervalForHistory=01m
&MonitorKeys=CpuUsage
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeHistoryMonitorValuesResponse>
  <MonitorHistory>["2020-11-18T00:00:00Z":{"CpuUsage":"0.30"},"2020-11-18T00:02:00Z":{"CpuUsage":"0.60"}, "2020-11-18T00:03:00Z":{"CpuUsage":"0.60"}]</MonitorHistory>
  <RequestId>689E8093-3094-4DC2-A2A2-30D40097****</RequestId>
</DescribeHistoryMonitorValuesResponse>
```

JSON format

```
{
  "MonitorHistory": ["\"2020-11-18T00:00:00Z\":{\"CpuUsage\":\"0.30\"},\"2020-11-18T00:02:00Z\":{\"CpuUsage\":\"0.60\"}, \"2020-11-18T00:03:00Z\":{\"CpuUsage\":\"0.60\"}}",
  "RequestId": "689E8093-3094-4DC2-A2A2-30D40097****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidEndTime.Malformed	The Specified parameter "EndTime" is not valid.	The error message returned because the format of the end time is invalid. The time must be in GMT. Example: 2011-06-11T16:00Z.

For a list of error codes, visit the [API Error Center](#).

14.Log management

14.1. InitializeKvstorePermission

Assigns a RAM role to ApsaraDB for Redis.

The log management feature of ApsaraDB for Redis requires the resources of [Log Service](#). To use the log management feature of ApsaraDB for Redis, you can call this operation to associate the RAM role named AliyunServiceRoleForKvstore with the ApsaraDB for Redis instance. For more information, see [Associated RAM roles of ApsaraDB for Redis](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	InitializeKvstorePermission	The operation that you want to perform. Set the value to InitializeKvstorePermission .
RegionId	String	No	cn-hangzhou	The ID of the region.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5D622714-AEDD-4609-9167-F5DDD3D1****	The ID of the request.

Examples

Sample requests

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

Sample success responses

XML format

```
<InitializeKvstorePermissionResponse>  
  <RequestId>5D622714-AEDD-4609-9167-F5DDD3D1****</RequestId>  
</InitializeKvstorePermissionResponse>
```

JSON format

```
{  
    "RequestId": "5D622714-AEDD-4609-9167-F5DDD3D1****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

14.2. ModifyAuditLogConfig

Modifies the audit log settings of an ApsaraDB for Redis instance.

Before you call this operation, make sure that you understand the billing methods and [pricing](#) of audit logs.

Before you call this operation, make sure that the following requirements are met:

- ApsaraDB for Redis instances of Community Edition or [performance-enhanced instances](#) of Enhanced Edition (Tair) are used.
- The database version of the ApsaraDB for Redis instance is Redis 4.0 or later, and the latest minor version is used. You can call the [DescribeEngineVersion](#) operation to query the major version and minor version of an ApsaraDB for Redis instance.
- If you want to activate the audit log feature as a RAM user, you must grant the [AliyunLogFullAccess](#) permission to the RAM user. For more information about how to authorize a RAM user, see [Grant permissions to a RAM user](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyAuditLogConfig	The operation that you want to perform. Set the value to ModifyAuditLogConfig .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance. You can call the DescribeInstances operation to query instance IDs.
RegionId	String	No	cn-hangzhou	The region ID of the instance. You can call the DescribeInstances operation to query region IDs.

Parameter	Type	Required	Example	Description
DbAudit	Boolean	No	true	<p>Specifies whether to enable the audit log feature. Valid values:</p> <ul style="list-style-type: none"> • yes: enables the feature. This is the default value. • false: disables the feature. <div style="background-color: #e1f5fe; padding: 10px;"> ? Note If the instance runs in the cluster architecture or read/write splitting architecture, the audit logs of the data nodes and proxy nodes are both enabled or disabled. You cannot separately enable the audit logs of the data nodes and proxy nodes. </div>
Retention	Integer	No	10	<p>The number of days for which audit logs are retained. Valid values: 1 to 365.</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note <ul style="list-style-type: none"> • This parameter is required only when DbAudit is set to true. • The setting of this parameter takes effect for all ApsaraDB for Redis instances in the current region. </div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	8D0C0AFC-E9CD-47A4-8395-5C31BF9B****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyAuditLogConfig  
&InstanceId=r-bp1zxszhcgatnx****  
&DbAudit=true  
&Retention=10  
&<Common request parameters>
```

Sample success responses

[XML](#) format

```
<ModifyAuditLogConfigResponse>  
  <RequestId>8D0C0AFC-E9CD-47A4-8395-5C31BF9B****</RequestId>  
</ModifyAuditLogConfigResponse>
```

[JSON](#) format

```
{  
  "RequestId": "8D0C0AFC-E9CD-47A4-8395-5C31BF9B****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

14.3. DescribeAuditRecords

Queries the audit log of an ApsaraDB for Redis instance.

This operation can be called up to 100 times per minute. For more information about how to query the audit log in the ApsaraDB for Redis console, see [Query the audit log](#).

Before you call this operation, make sure that the following requirements are met:

- ApsaraDB for Redis instances of Community Edition or performance-enhanced instances of Enterprise Edition are used.
- The engine version of the instance is Redis 4.0 or later.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeAuditRecords	The operation that you want to perform. Set the value to DescribeAuditRecords .

Parameter	Type	Required	Example	Description
Instanceld	String	Yes	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance for which you want to query the audit log.
StartTime	String	Yes	2019-03-24T12:10:00Z	The start of the time range that is specified to query the audit log. Specify the time in the <i>yyyy-MM-ddTHH:mm:ssZ</i> format. The time must be in UTC.
EndTime	String	Yes	2019-03-25T12:10:00Z	The end of the time range that is specified to query the audit log. The end time must be later than the start time. Specify the time in the <i>yyyy-MM-ddTHH:mm:ssZ</i> format. The time must be in UTC. <div style="background-color: #e1f5fe; padding: 10px;">? Note We recommend that you set a time range of 10 minutes or less because the audit log contains a great number of entries. Do not specify a time range that is longer than one day.</div>
HostAddress	String	No	127.0.0.1	The IP address of the client. By default, all client IP addresses are queried.
Nodeld	String	No	r-bp1zxszhcgatnx***-db-0	The ID of the node on the instance. You can set this parameter to query the information about a specified node. <div style="background-color: #e1f5fe; padding: 10px;">? Note<ul style="list-style-type: none">• This parameter is available for only read/write splitting or cluster instances of ApsaraDB for Redis.• You can call the DescribeLogicalInstanceTopology operation to query node IDs.</div>

Parameter	Type	Required	Example	Description
AccountName	String	No	demo	The name of the account. By default, all accounts are queried.
DatabaseName	String	No	0	The name of the database.
QueryKeywords	String	No	maxclients	<p>The keyword based on which the audit log is queried. You can pass a command as a keyword to query log data for the specified command. By default, all commands are queried.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note You can specify only one keyword in each call. </div>
PageSize	Integer	No	30	The maximum number of log entries to return per page.
PageNumber	Integer	No	1	The page number of the page to return.
RegionId	String	No	cn-hangzhou	The region ID of the instance.

Response parameters

Parameter	Type	Example	Description
Items	Array of SQL		The collection of returned audit log entries.
SQL			
AccountName	String	demo	The name of the account.
DatabaseName	String	demo	The name of the database.
ExecuteTime	String	2019-03-25T03:22:08Z	The time when the command was run.
HostAddress	String	127.0.0.1	The client IP address.
IPAddress	String	192.16.100.***	The IP address.

Parameter	Type	Example	Description
NodeId	String	r-bp1zxszhcgatnx****-db-0	The ID of the node. ? Note A specific node ID is returned only if a cluster or read/write splitting instance is used.
SQLText	String	CONFIG GET maxmemory	The command that was run.
SQLType	String	non_read_write	The type of command.
TotalExecutionTimes	String	0	The amount of time that is consumed to run the command.
StartTime	String	2019-03-24T12:10:00Z	The start of the time range that is specified to query the audit log.
EndTime	String	2019-03-25T12:10:00Z	The end of the time range that is specified to query the audit log.
PageNumber	Integer	1	The page number of the page returned.
PageSize	Integer	30	The maximum number of log entries returned on each page.
RequestId	String	9F5EB478-824E-4AC4-8D2B-58F31A02****	The ID of the request.
InstanceName	String	r-bp1zxszhcgatnx****	The name of the ApsaraDB for Redis instance.
TotalRecordCount	Integer	22222	The total number of log entries returned.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeAuditRecords  
&InstanceId=r-bp1zxszhcgatnx****  
&StartTime=2019-03-24T12:10:00Z  
&EndTime=2019-03-25T12:10:00Z  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeAuditRecordsResponse>  
  <Items>  
    <SQL>  
      <TotalExecutionTimes>0</TotalExecutionTimes>  
      <DatabaseName>0</DatabaseName>  
      <HostAddress>127.0.0.1</HostAddress>  
      <ExecuteTime>2019-03-25T03:22:08Z</ExecuteTime>  
      <SQLText>CONFIG GET band-width</SQLText>  
      <AccountName>0</AccountName>  
      <SQLType>non_read_write</SQLType>  
    </SQL>  
    <SQL>  
      <TotalExecutionTimes>0</TotalExecutionTimes>  
      <DatabaseName>0</DatabaseName>  
      <HostAddress>127.0.0.1</HostAddress>  
      <ExecuteTime>2019-03-25T03:22:08Z</ExecuteTime>  
      <SQLText>CONFIG GET maxmemory</SQLText>  
      <AccountName>0</AccountName>  
      <SQLType>non_read_write</SQLType>  
    </SQL>  
    <SQL>  
      <TotalExecutionTimes>0</TotalExecutionTimes>  
      <DatabaseName>0</DatabaseName>  
      <HostAddress>127.0.0.1</HostAddress>  
      <ExecuteTime>2019-03-25T03:22:08Z</ExecuteTime>  
      <SQLText>CONFIG GET maxclients</SQLText>  
      <AccountName>0</AccountName>  
      <SQLType>non_read_write</SQLType>  
    </SQL>  
    <SQL>  
      <TotalExecutionTimes>0</TotalExecutionTimes>  
      <DatabaseName>0</DatabaseName>  
      <HostAddress>127.0.0.1</HostAddress>  
      <ExecuteTime>2019-03-25T03:22:08Z</ExecuteTime>  
      <SQLText>CONFIG GET qps</SQLText>  
      <AccountName>0</AccountName>  
      <SQLType>non_read_write</SQLType>  
    </SQL>  
    <SQL>  
      <TotalExecutionTimes>0</TotalExecutionTimes>  
      <DatabaseName>0</DatabaseName>  
      <HostAddress>127.0.0.1</HostAddress>  
      <ExecuteTime>2019-03-25T03:22:03Z</ExecuteTime>  
      <SQLText>CONFIG GET cps</SQLText>
```

```
<AccountName>0</AccountName>
<SQLType>non_read_write</SQLType>
</SQL>
<SQL>
<TotalExecutionTimes>0</TotalExecutionTimes>
<DatabaseName>0</DatabaseName>
<HostAddress>127.0.0.1</HostAddress>
<ExecuteTime>2019-03-25T03:22:03Z</ExecuteTime>
<SQLText>CONFIG GET maxclients</SQLText>
<AccountName>0</AccountName>
<SQLType>non_read_write</SQLType>
</SQL>
<SQL>
<TotalExecutionTimes>0</TotalExecutionTimes>
<DatabaseName>0</DatabaseName>
<HostAddress>127.0.0.1</HostAddress>
<ExecuteTime>2019-03-25T03:22:03Z</ExecuteTime>
<SQLText>CONFIG GET maxmemory</SQLText>
<AccountName>0</AccountName>
<SQLType>non_read_write</SQLType>
</SQL>
</Items>
<TotalRecordCount>36559</TotalRecordCount>
<PageNumber>1</PageNumber>
<PageSize>30</PageSize>
<RequestId>9F5EB478-824E-4AC4-8D2B-58F31A02****</RequestId>
<EndTime>2019-03-25T12:10:00Z</EndTime>
<StartTime>2019-03-24T12:10:00Z</StartTime>
<InstanceName>r-bp1zxszhcgatnx****</InstanceName>
</DescribeAuditRecordsResponse>
```

JSON format

```
{
  "Items": {
    "SQL": [
      {
        "TotalExecutionTimes": "0",
        "DatabaseName": "0",
        "HostAddress": "127.0.0.1",
        "ExecuteTime": "2019-03-25T03:22:08Z",
        "SQLText": "CONFIG GET band-width",
        "AccountName": "0",
        "SQLType": "non_read_write"
      },
      {
        "TotalExecutionTimes": "0",
        "DatabaseName": "0",
        "HostAddress": "127.0.0.1",
        "ExecuteTime": "2019-03-25T03:22:08Z",
        "SQLText": "CONFIG GET maxmemory",
        "AccountName": "0",
        "SQLType": "non_read_write"
      }
    ]
  }
}
```

```
        },
        {
            "TotalExecutionTimes": "0",
            "DatabaseName": "0",
            "HostAddress": "127.0.0.1",
            "ExecuteTime": "2019-03-25T03:22:08Z",
            "SQLText": "CONFIG GET maxclients",
            "AccountName": "0",
            "SQLType": "non_read_write"
        },
        {
            "TotalExecutionTimes": "0",
            "DatabaseName": "0",
            "HostAddress": "127.0.0.1",
            "ExecuteTime": "2019-03-25T03:22:08Z",
            "SQLText": "CONFIG GET qps",
            "AccountName": "0",
            "SQLType": "non_read_write"
        },
        {
            "TotalExecutionTimes": "0",
            "DatabaseName": "0",
            "HostAddress": "127.0.0.1",
            "ExecuteTime": "2019-03-25T03:22:03Z",
            "SQLText": "CONFIG GET qps",
            "AccountName": "0",
            "SQLType": "non_read_write"
        },
        {
            "TotalExecutionTimes": "0",
            "DatabaseName": "0",
            "HostAddress": "127.0.0.1",
            "ExecuteTime": "2019-03-25T03:22:03Z",
            "SQLText": "CONFIG GET maxclients",
            "AccountName": "0",
            "SQLType": "non_read_write"
        },
        {
            "TotalExecutionTimes": "0",
            "DatabaseName": "0",
            "HostAddress": "127.0.0.1",
            "ExecuteTime": "2019-03-25T03:22:03Z",
            "SQLText": "CONFIG GET maxmemory",
            "AccountName": "0",
            "SQLType": "non_read_write"
        }
    ],
},
{
    "TotalRecordCount": 36559,
    "PageNumber": 1,
    "PageSize": 30,
    "RequestId": "9F5EB478-824E-4AC4-8D2B-58F31A02****",
    "EndTime": "2019-03-25T12:10:00Z",
    "StartTime": "2019-03-24T12:10:00Z",
    "InstanceName": "r-bn1zxs7hcσatnx****"
}
```

```
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidEndTime.Malformed	The Specified parameter EndTime is not valid.	The error message returned because the format of the end time is invalid. The time must be in UTC. Example: 2011-06-11T16:00Z.

For a list of error codes, visit the [API Error Center](#).

14.4. DescribeRunningLogRecords

Queries the operational log of an ApsaraDB for Redis instance.

You can also query operational logs in the ApsaraDB for Redis console. For more information, see [Query the operational log of an instance](#).

This operation can be called up to 100 times per minute.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeRunningLogRecords	The operation that you want to perform. Set the value to DescribeRunningLogRecords .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
StartTime	String	Yes	2018-12-03T07:01Z	The start of the time range that is specified to query the operational log. Specify the time in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time must be in UTC.

Parameter	Type	Required	Example	Description
EndTime	String	Yes	2018-12-03T08:01Z	The end of the time range that is specified to query the operational log. The end time must be later than the start time. The time range cannot exceed one day. We recommend that you specify 1 hour. Specify the time in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time must be in UTC.
Nodeld	String	No	r-bp1zxszhcgatnx***-db-0	<p>The ID of the node on the instance. You can set this parameter to query the operational log of a specified node.</p> <div style="background-color: #e1f5fe; padding: 10px;"> <p>? Note</p> <ul style="list-style-type: none"> • This parameter is available for only read/write splitting or cluster instances of ApsaraDB for Redis. • If you set this parameter, you must also set the CharacterType parameter. </div>
DBName	String	No	0	The name of the database.
RoleType	String	No	master	<p>The role of the shard that you want to query. Valid values:</p> <ul style="list-style-type: none"> • master: the master node. This is the default value. • slave: the replica node.
PageSize	Integer	No	30	The maximum number of entries to return on each page. Valid values: 30 , 50 , and 100 . Default value: 30 .
PageNumber	Integer	No	1	The page number of the page to return. The value must be an integer greater than 0 . Default value: 1 .
ResourceGroupId	String	No	rg-acfmyiu4ekp***	The ID of the resource group.

Parameter	Type	Required	Example	Description
CharacterType	String	No	proxy	<p>The shard type of the cluster instance. Valid values:</p> <ul style="list-style-type: none"> • proxy: the proxy node. • db: the data node. • cs: the config server. <div style="background-color: #e1f5fe; padding: 5px;"> ? Note If you set this parameter, you must also set the InstanceId parameter. </div>
QueryKeyword	String	No	aof	The keyword that is used to match log entries.
OrderType	String	No	asc	<p>The method that is used to sort the log entries in returned results. Valid values:</p> <ul style="list-style-type: none"> • asc: ascending order • desc: descending order
RegionId	String	No	cn-hangzhou	The region ID of the instance.

Response parameters

Parameter	Type	Example	Description
Engine	String	Redis	The database engine of the instance.
InstanceId	String	r-bp1zxszhcgatnx****	The ID of the ApsaraDB for Redis instance.
Items	Array of LogRecords		The log entries that are returned.
LogRecords			
Content	String	CONFIG REWRITE executed with success.	The content of the operational log.
CreateTime	String	2018-12-03T07:07:30Z	The time when the log entry was generated. The time is in the <i>yyyy-MM-ddT HH:mm:ssZ</i> format. The time is displayed in UTC.

Parameter	Type	Example	Description
InstanceId	String	r-bp1zxszhcgatnx****	The ID of the ApsaraDB for Redis instance.
NodeId	String	r-bp1zxszhcgatnx****-db-0	The ID of the node. ? Note If a standard instance is queried, (null) is returned.
PageNumber	Integer	1	The page number of the page returned.
PageRecordCount	Integer	5	The number of log entries returned on the current page.
PageSize	Integer	30	The maximum number of log entries returned on each page.
RequestId	String	093B8579-9264-43A0-ABA9-AA86****	The ID of the request.
StartTime	String	2018-12-03T07:01Z	The start of the time range that is specified to query the operational log.
TotalRecordCount	Integer	5	The total number of log entries returned.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeRunningLogRecords
&InstanceId=r-bp1zxszhcgatnx****
&StartTime=2018-12-03T07:01Z
&EndTime=2018-12-03T08:01Z
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeRunningLogRecordsResponse>
  <TotalRecordCount>1</TotalRecordCount>
  <PageRecordCount>1</PageRecordCount>
  <RequestId>D73451AC-B9BA-46AA-8972-C17B967E****</RequestId>
  <PageSize>30</PageSize>
  <InstanceId>r-bp10noxlhcoim2****</InstanceId>
  <PageNumber>1</PageNumber>
  <StartTime>2020-11-08T02:00Z</StartTime>
  <Items>
    <LogRecords>
      <InstanceId>r-bp10noxlhcoim2****</InstanceId>
      <Content>126732:M 08 Nov 2020 10:02:03.955 # CONFIG REWRITE executed with success.</Content>
      <CreateTime>2020-11-08T02:02:06Z</CreateTime>
    </LogRecords>
  </Items>
</DescribeRunningLogRecordsResponse>
```

JSON format

```
{
  "TotalRecordCount": "1",
  "PageRecordCount": "1",
  "RequestId": "D73451AC-B9BA-46AA-8972-C17B967E****",
  "PageSize": "30",
  "InstanceId": "r-bp10noxlhcoim2****",
  "PageNumber": "1",
  "StartTime": "2020-11-08T02:00Z",
  "Items": {
    "LogRecords": [
      {
        "InstanceId": "r-bp10noxlhcoim2****",
        "Content": "126732:M 08 Nov 2020 10:02:03.955 # CONFIG REWRITE executed with success.",
        "CreateTime": "2020-11-08T02:02:06Z"
      }
    ]
  }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidEndTime.Malformed	The Specified parameter EndTime is not valid.	The error message returned because the format of the end time is invalid. The time must be in UTC. Example: 2011-06-11T16:00Z.

For a list of error codes, visit the [API Error Center](#).

14.5. DescribeSlowLogRecords

Queries slow logs of an ApsaraDB for Redis instance within a specified period.

You can also query slow logs in the ApsaraDB for Redis console. For more information, see [Query slow logs of an instance](#).

This operation can be called up to 100 times per minute.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer automatically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeSlowLogRecords	The operation that you want to perform. Set the value to DescribeSlowLogRecords .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
StartTime	String	Yes	2019-03-10T14:11Z	The beginning of the time range to query. Specify the time in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time must be in UTC.
EndTime	String	Yes	2019-03-22T14:11Z	The end of the time range to query. The end time must be later than the beginning time. The time range cannot exceed one day. We recommend that you set the time range to one hour. Specify the time in the <i>yyyy-MM-ddT HH:mmZ</i> format. The time must be in UTC.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
NodeId	String	No	r-bp1zxszhcgatnx***-db-0	The ID of the node on the instance. You can set this parameter to query the slow logs of a specified node.

 **Note** This parameter is available only for read/write splitting instances or cluster instances of ApsaraDB for Redis.

Parameter	Type	Required	Example	Description
DBName	String	No	0	The name of the database.
PageSize	Integer	No	30	The number of entries to return on each page. Valid values: 30 , 50 , and 100 . Default value: 30 .
PageNumber	Integer	No	1	The number of the page to return. The value must be an integer that is greater than 0 and does not exceed the maximum value of the Integer data type. Default value: 1 .
SlowLogRecordType	String	No	proxy	<p>The type of slow log. Valid values:</p> <ul style="list-style-type: none">• proxy: slow logs of the proxy nodes.• db: slow logs of data nodes. <p>(?) Note Default value: db.</p>
QueryKeyword	String	No	keyword1	The keyword based on which slow logs are queried. You can set this parameter to a value of the string type.
OrderType	String	No	ASC	<p>The sorting method of the results to return. Valid values:</p> <ul style="list-style-type: none">• ASC: ascending order.• DESC: descending order. <p>(?) Note Default value: DESC.</p>

Parameter	Type	Required	Example	Description
OrderBy	String	No	execution_time	<p>The dimension by which the results to return are sorted. Valid values:</p> <ul style="list-style-type: none"> • execution_time: specifies that the results to return are sorted by the start time of queries. • latency: specifies that the results to return are sorted by the execution time of queries. <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: <code>execution_time</code>. </div>

Response parameters

Parameter	Type	Example	Description
Engine	String	Redis	The database engine type of the instance.
Instanceld	String	r-bp10n*****	The ID of the instance.
Items	Array of LogRecords		The slow logs returned.
LogRecords			
Account	String	0	The ID of the account.
AccountName	String	demo	The name of the account.
Command	String	KEYS *	The slow query statement.
DBName	String	-1	The name of the database.
DataBaseName	String	-1	Database name, which serves the same purpose as the DBName parameter. We recommend that you use the value of the DBName parameter.
Elapsed Time	Long	248	The amount of time to run the slow query statement. Unit: milliseconds.

Parameter	Type	Example	Description
ExecuteTime	String	2019-03-20T09:18:41Z	The time when the slow query statement was run. The time is displayed in the yyyy-MM-ddTHH:mm:ssZ format.
IPAddress	String	172.16.88.***	The IP address of the client.
NodeId	String	r-bp1zxszhcgatnx****-db-0	The ID of the node.
PageNumber	Integer	1	The page number of the returned page.
PageRecordCount	Integer	1	The number of logs returned on the current page.
PageSize	Integer	30	The maximum number of log entries returned per page.
StartTime	String	2019-03-10T13:11Z	The beginning of the time range where slow logs were queried.
TotalRecordCount	Integer	1	The total number of returned log entries.
RequestId	String	686BB8A6-BBA5-47E5-8A75-D2ADE433***	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeSlowLogRecords
&InstanceId=r-bp1zxszhcgatnx****
&StartTime=2019-03-10T14:11Z
&EndTime=2019-03-22T14:11Z
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeSlowLogRecordsResponse>
  <Items>
    <LogRecords>
      <Command>KEYS *</Command>
      <ExecuteTime>2019-03-20T09:18:41Z</ExecuteTime>
      <ElapsedTime>248</ElapsedTime>
      <IPAddress>172.16.88.***</IPAddress>
      <Account>0</Account>
      <AccountName>0</AccountName>
      <DataBaseName>-1</DataBaseName>
      <DBName>-1</DBName>
    </LogRecords>
  </Items>
  <PageNumber>1</PageNumber>
  <TotalRecordCount>1</TotalRecordCount>
  <PageSize>30</PageSize>
  <InstanceId>r-bp1zxszhcgatnx****-db-1</InstanceId>
  <RequestId>686BB8A6-BBA5-47E5-8A75-D2ADE433****</RequestId>
  <StartTime>2019-03-10T13:11Z</StartTime>
  <Engine>Redis</Engine>
  <PageRecordCount>1</PageRecordCount>
</DescribeSlowLogRecordsResponse>
```

JSON format

```
{
  "Items": {
    "LogRecords": [
      {
        "Command": "KEYS *",
        "ExecuteTime": "2019-03-20T09:18:41Z",
        "ElapsedTime": 248,
        "IPAddress": "172.16.88.***",
        "Account": "0",
        "AccountName": "0",
        "DataBaseName": "-1",
        "DBName": "-1"
      }
    ],
    "PageNumber": 1,
    "TotalRecordCount": 1,
    "PageSize": 30,
    "InstanceId": "r-bp1zxszhcgatnx****-db-1",
    "RequestId": "686BB8A6-BBA5-47E5-8A75-D2ADE433****",
    "StartTime": "2019-03-10T13:11Z",
    "Engine": "Redis",
    "PageRecordCount": 1
  }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidEndTime.Malformed	The Specified parameter EndTime is not valid.	The error message returned because the format of the end time is invalid. The time must be in GMT. Example: 2011-06-11T16:00Z.

For a list of error codes, visit the [API Error Center](#).

15.Network security

15.1. DescribeSecurityIps

Queries IP address whitelists of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeSecurityIps	The operation that you want to perform. Set the value to DescribeSecurityIps .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
SecurityIpGroups	Array of SecurityIpGroup		The information about the IP address whitelist groups of the instance.
SecurityIpGroup			
SecurityIpGroup Attribute	String	hidden	<p>The attribute of the IP address whitelist group. Default value: null.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note If the returned value of this parameter is hidden, the whitelist group is not displayed in the ApsaraDB for Redis console. </div>
SecurityIpGroupName	String	default	The name of the IP address whitelist group.

Parameter	Type	Example	Description
SecurityIpList	String	100.100.202.***/24,10.10.10.***	The IP addresses in the whitelist group. The maximum number of IP addresses in the whitelist group is 1,000.
RequestId	String	EFC9161F-15E3-4A6E-8A99-C09916D1****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeSecurityIps  
&InstanceId=r-bp1zxszhcgatnx***  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeSecurityIpsResponse>  
  <SecurityIpGroups>  
    <SecurityIpGroup>  
      <SecurityIpList>127.0.0.1</SecurityIpList>  
      <SecurityIpGroupAttribute></SecurityIpGroupAttribute>  
      <SecurityIpGroupName>default</SecurityIpGroupName>  
    </SecurityIpGroup>  
    <SecurityIpGroup>  
      <SecurityIpList>100.100.202.***/24,10.10.10.***</SecurityIpList>  
      <SecurityIpGroupAttribute>hidden</SecurityIpGroupAttribute>  
      <SecurityIpGroupName>rds_replica_group</SecurityIpGroupName>  
    </SecurityIpGroup>  
  </SecurityIpGroups>  
  <RequestId>EFC9161F-15E3-4A6E-8A99-C09916D1****</RequestId>  
</DescribeSecurityIpsResponse>
```

JSON format

```
{  
    "SecurityIpGroups": {  
        "SecurityIpGroup": [  
            {  
                "SecurityIpList": "127.0.0.1",  
                "SecurityIpGroupAttribute": "",  
                "SecurityIpGroupName": "default"  
            },  
            {  
                "SecurityIpList": "100.100.202. ***/24,10.10.10. ***",  
                "SecurityIpGroupAttribute": "hidden",  
                "SecurityIpGroupName": "rds_replica_group"  
            }  
        ]  
    "RequestId": "EFC9161F-15E3-4A6E-8A99-C09916D1****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

15.2. ModifySecurityIps

Modifies the IP address whitelist of an ApsaraDB for Redis instance.

You can also modify IP address whitelists in the ApsaraDB for Redis console. For more information, see [Set an IP address whitelist](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifySecurityIps	The operation that you want to perform. Set the value to ModifySecurityIps .
Instanceld	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance whose IP whitelist is modified.

Parameter	Type	Required	Example	Description
SecurityIps	String	Yes	100.64.***.0/24,10.101.11. ***	The IP addresses in the whitelist group. Up to 1,000 IP addresses can be specified in each whitelist. Separate multiple IP addresses with a comma (,). You can add 0.0.0.0/0, IP addresses such as 10.23.12.24, and Classless Inter-Domain Routing (CIDR) blocks such as 10.23.12.24/24 to the whitelist group. In CIDR block 10.23.12.24/24, /24 specifies the length of the prefix in the IP addresses. The prefix length ranges from 1 to 32.
SecurityIpGroupName	String	No	default	The name of the IP address whitelist.
SecurityIpGroupAttribute	String	No	hidden	Default value: null. The attribute of the whitelist group. The ApsaraDB for Redis console does not display the whitelist group whose value of this parameter is hidden .
ModifyMode	String	No	Append	The method of modification. Valid values: <ul style="list-style-type: none">• Cover: overwrites the whitelist.• Append: appends data to the whitelist.• Delete: deletes the whitelist.

Response parameters

Parameter	Type	Example	Description
RequestId	String	AAAF99B1-69ED-4E80-8CD5-272C09E4****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifySecurityIps  
&InstanceId=r-bp1zxszhcgatnx****  
&SecurityIps=100.64.***.0/24,10.101.11.***  
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifySecurityIpsResponse>  
  <RequestId>AAAF99B1-69ED-4E80-8CD5-272C09E4****</RequestId>  
</ModifySecurityIpsResponse>
```

JSON format

```
{  
  "RequestId": "AAAF99B1-69ED-4E80-8CD5-272C09E4****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

15.3. DescribeSecurityGroupConfiguration

Queries the security groups that are included in the whitelist of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeSecurityGroupConfiguration	The operation that you want to perform. Set the value to DescribeSecurityGroupConfiguration .
InstanceId	String	Yes	r-bp1zxszhcgatnx****	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
Items	Array of EcsSecurityGroupRelation		The list of security groups.
EcsSecurityGroupRelation			
NetType	String	vpc	The network type of the security group. Valid values: <ul style="list-style-type: none">• classic: the classic network.• vpc: the virtual private cloud (VPC).
RegionId	String	cn-hangzhou	The ID of the region where the instance is deployed.
SecurityGroupId	String	sg-bp14p9y07ns3gwq****	The ID of the security group.
RequestId	String	981C0D6A-D9DD-466C-92DA-F29DF755****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeSecurityGroupConfiguration
?InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeSecurityGroupConfigurationResponse>
<RequestId>981C0D6A-D9DD-466C-92DA-F29DF755****</RequestId>
<Items>
    <EcsSecurityGroupRelation>
        <SecurityGroupId>sg-bp14p9y07ns3gwq****</SecurityGroupId>
        <RegionId>cn-hangzhou</RegionId>
        <NetType>vpc</NetType>
    </EcsSecurityGroupRelation>
</Items>
</DescribeSecurityGroupConfigurationResponse>
```

JSON format

```
{  
  "RequestId": "981C0D6A-D9DD-466C-92DA-F29DF755****",  
  "Items": {  
    "EcsSecurityGroupRelation": [  
      {  
        "SecurityGroupId": "sg-bp14p9y07ns3gwq****",  
        "RegionId": "cn-hangzhou",  
        "NetType": "vpc"  
      }  
    ]  
  }  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

15.4. ModifySecurityGroupConfiguration

Resets the security groups in the whitelist of an ApsaraDB for Redis instance.

 **Note** After you call this operation, the security groups in the whitelist of the ApsaraDB for Redis instance are deleted, and the security group specified by the **SecurityGroupId** parameter are added to the whitelist.

For more information about how to reset security groups in the ApsaraDB for Redis console, see [Add security groups](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifySecurityGroupConfiguration	The operation that you want to perform. Set the value to ModifySecurityGroupConfiguration .
DBInstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
SecurityGroupId	String	Yes	sg-bpcfmyiu4ekp***	The ID of the security group that you want to manage. You can specify up to 10 security groups. Separate multiple security group IDs with commas (,).

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	147CAC09-E8C6-43F8-9599-982A43D6****	The ID of the request.

Examples

Sample requests

```
http(s)://https://r-kvstore.aliyuncs.com/?Action=ModifySecurityGroupConfiguration
&DBInstanceId=r-bp1zxszhcgatnx****
&SecurityGroupId=sg-bpcfmyiu4ekp****
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifySecurityGroupConfigurationResponse>
  <RequestId>147CAC09-E8C6-43F8-9599-982A43D6****</RequestId>
</ModifySecurityGroupConfigurationResponse>
```

JSON format

```
{
  "RequestId": "147CAC09-E8C6-43F8-9599-982A43D6****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

15.5. DescribeInstanceSSL

Checks whether Secure Socket Layer (SSL) encryption is enabled for an ApsaraDB for Redis instance.

The standard and cluster instances of Redis 2.8 and the cluster instances of Redis 4.0 support secure sockets layer (SSL) encryption. You can enable SSL encryption to enhance data transmission security.

You can enable or disable SSL encryption or update the SSL certificate for an ApsaraDB for Redis instance in the following ways:

- Call the [ModifyInstanceSSL](#) operation.

- Enable or disable SSL encryption or update the SSL certificate in the ApsaraDB for Redis console. For more information, see [Configure SSL encryption](#).

 **Note** After SSL encryption is enabled, the instance may respond slower.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeInstanceSSL	The operation that you want to perform. Set the value to DescribeInstanceSSL .
InstanceId	String	Yes	r-bp1zxszhcgatnx****	The ID of the instance that was queried.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
SSLEnabled	String	Enable	Indicates whether SSL encryption is enabled. Valid values: <ul style="list-style-type: none">Enable: SSL encryption is enabled.Disable : SSL encryption is disabled.
SSLExpiredTime	String	2020-08-05T09:05:53Z	The expiration time of the SSL certificate.
InstanceId	String	r-bp1zxszhcgatnx****	The ID of the instance.
RequestId	String	02260F96-913E-4655-9BA5-A3651CAF****	The ID of the request.

Parameter	Type	Example	Description
CertCommonName	String	r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com	The common name of the SSL certificate, which is the domain name for which you want to apply for the SSL certificate. The default value is the internal endpoint of the instance.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeInstanceSSL
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeInstanceSSLResponse>
<SSLEnabled>Enable</SSLEnabled>
<SSLExpiredTime>2020-08-05T09:05:53Z</SSLExpiredTime>
<InstanceId>r-bp1zxszhcgatnx****</InstanceId>
<RequestId>02260F96-913E-4655-9BA5-A3651CAF****</RequestId>
<CertCommonName>r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com</CertCommonName>
</DescribeInstanceSSLResponse>
```

JSON format

```
{
  "SSLEnabled": "Enable",
  "SSLExpiredTime": "2020-08-05T09:05:53Z",
  "InstanceId": "r-bp1zxszhcgatnx****",
  "RequestId": "02260F96-913E-4655-9BA5-A3651CAF****",
  "CertCommonName": "r-bp1zxszhcgatnx****.redis.rds.aliyuncs.com"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

15.6. ModifyInstanceSSL

Modifies SSL encryption configurations for an ApsaraDB for Redis instance.

You can also modify SSL encryption configurations in the ApsaraDB for Redis console. For more information, see [Configure SSL encryption](#).

 **Note** To specify the earliest supported SSL version, you can call the [ModifyInstanceConfig](#) operation to modify the required parameter.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceSSL	The operation that you want to perform. Set the value to ModifyInstanceSSL .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
SSLEnabled	String	Yes	Enable	Modifies SSL encryption configurations. Valid values: <ul style="list-style-type: none">• Disable: The SSL encryption is disabled.• Enable: The SSL encryption is enabled.• Update: The SSL certificate is updated.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
InstanceId	String	r-bp1zxszhcgatnx****	The ID of the instance.
TaskId	String	32184****	The ID of the task.
RequestId	String	AD7E16AA-6B23-43BF-979C-07D957FB****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceSSL  
&InstanceId=r-bp1zxszhcgatnx****  
&SSLEnabled=Enable  
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyInstanceSSLResponse>  
  <TaskId>32184****</TaskId>  
  <RequestId>AD7E16AA-6B23-43BF-979C-07D957FB****</RequestId>  
  <InstanceId>r-bp1zxszhcgatnx****</InstanceId>  
</ModifyInstanceSSLResponse>
```

JSON format

```
{  
  "TaskId": "32184****",  
  "RequestId": "AD7E16AA-6B23-43BF-979C-07D957FB****",  
  "InstanceId": "r-bp1zxszhcgatnx****"  
}
```

Error codes

HttpCode	Error code	Error message	Description
403	IncorrectDBInstanceState	Current DB instance state does not support this operation.	The error message returned because the status of the instance does not support this operation. This operation is supported only when the instance is in the running state.
403	IncorrectDBInstanceLockMode	Current DB instance lock mode does not support this operation.	The error message returned because the current lock mode of the instance does not support this operation.
400	InvalidParameters.Format	Specified parameters is not valid.	The error message returned because the specified parameters are invalid.

For a list of error codes, visit the [API Error Center](#).

15.7. ModifyInstanceVpcAuthMode

Enable or disables password-free access for an ApsaraDB for Redis instance. This can ensure convenient and secure database access.

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 a password. You can also use the username and password to access the ApsaraDB for Redis instance.

 **Note** The ApsaraDB for Redis instance is deployed in VPC. For more information, see [Enable password-free access](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceVpcAuthMode	The operation that you want to perform. Set the value to ModifyInstanceVpcAuthMode .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
VpcAuthMode	String	Yes	Close	<p>Specifies whether to enable password authentication for access in the VPC. Valid values:</p> <ul style="list-style-type: none"> • Open: enables password authentication. • Close: disables password authentication. <p> Note Default value: Open.</p>
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

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

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceVpcAuthMode  
&InstanceId=r-bp1zxszhcgatnx****  
&VpcAuthMode=Close  
&<Common request parameters>
```

Sample success responses

XML format

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

JSON format

```
{  
  "RequestId": "ABAF95F6-35C1-4177-AF3A-70969EBD****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

16. Parameter management

16.1. DescribeParameterTemplates

Queries the parameters and default values of ApsaraDB for Redis instances that use a specified architecture and major version.

After you call this operation to query the parameters and default values, you can also call the [ModifyInstanceConfig](#) operation to modify the parameters of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeParameterTemplates	The operation that you want to perform. Set the value to DescribeParameterTemplates .
CharacterType	String	Yes	logic	The architecture of the instance. For more information, see Architectures . Valid values: <ul style="list-style-type: none">• logic: indicates a cluster instance or read/write splitting instance.• normal: indicates a master-replica instance.
Engine	String	Yes	Redis	The database type of the instance. Set the value to Redis .
EngineVersion	String	Yes	5.0	The major version of the instance. Valid values: 2.8 , 4.0 , and 5.0 .
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query region IDs.

Parameter	Type	Required	Example	Description
ResourceGroupId	String	No	rg-acfmyiu4ekp***	<p>The ID of the resource group. You can call the ListResourceGroups operation to query the IDs of resource groups.</p> <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;"> ? Note You can also query the ID of the resource group in the Resource Management console. For more information, see View basic information about a resource group. </div>

Response parameters

Parameter	Type	Example	Description
Engine	String	redis	The database type of the instance. The value of Redis is returned.
EngineVersion	String	5.0	The major version of the ApsaraDB for Redis instance.
ParameterCount	String	24	The number of parameters.
Parameters	Array of TemplateRecord		The details about the parameters.
TemplateRecord			
CheckingCode	String	[yes no]	The valid values of the parameter.
ForceModify	Boolean	true	Indicates whether the parameter can be modified. Valid values: <ul style="list-style-type: none"> • true: The parameter can be modified. • false: The parameter cannot be modified.

Parameter	Type	Example	Description
ForceRestart	Boolean	false	<p>Indicates whether a restart is required after the parameter is modified. Valid values:</p> <ul style="list-style-type: none"> • true: A restart is required before the modification can take effect. • false: The modification immediately takes effect without restart.
ParameterDescription	String	Enable append-only file (AOF) persistence.	The description of the parameter.
ParameterName	String	appendonly	The name of the parameter. For more information about parameters and configurations, see Parameter overview and configuration guide .
ParameterValue	String	yes	The default value of the parameter.
RequestId	String	9DA28D8E-514D-4F12-ADED-70A9C818****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeParameterTemplates
&CharacterType=logic
&Engine=Redis
&EngineVersion=5.0
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeParameterTemplatesResponse>
<ParameterCount>24</ParameterCount>
<EngineVersion>5.0</EngineVersion>
<Parameters>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[yes|no]</CheckingCode>
<ParameterValue>no</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>#no_loose_check-whitelist-always</ParameterName>
<ParameterDescription>check whitelist always</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
```

```
<ForceModify>1</ForceModify>
<CheckingCode>.*</CheckingCode>
<ParameterValue></ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>#no_loose_disabled-commands</ParameterName>
<ParameterDescription>You can disable some dangerous commands, for example "keys,flushdb,flushall", the commands must be in [flushall,flushdb,keys,hgetall,eval,evalsha,script].</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[yes|no]</CheckingCode>
<ParameterValue>no</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>#no_loose_sentinel-enabled</ParameterName>
<ParameterDescription>Be compatible with sentinel mode.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[yes|no]</CheckingCode>
<ParameterValue>yes</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>appendonly</ParameterName>
<ParameterDescription>Enable AOF persistence.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>\d+\s+\d+\s+\d+</CheckingCode>
<ParameterValue>33554432 8388608 60</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>client-output-buffer-limit pubsub</ParameterName>
<ParameterDescription>The output buffer limits of publisher and subscriber clients.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[yes|no]</CheckingCode>
<ParameterValue>yes</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>dynamic-hz</ParameterName>
<ParameterDescription>Whether to enable a dynamic hz value.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[0-9999999999999999]</CheckingCode>
<ParameterValue>512</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>hash-max-ziplist-entries</ParameterName>
<ParameterDescription>If hash fields are less than this value and hash value sizes are less than hash-max-ziplist-value, the ziplist will be used.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[0-9999999999999999]</CheckingCode>
<ParameterValue>64</ParameterValue>
```

```
<ForceRestart>false</ForceRestart>
<ParameterName>hash-max-ziplist-value</ParameterName>
<ParameterDescription>If hash value sizes are than less this value and hash fields are less than hash-max-ziplist-entries, the ziplist will be used.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[1-500]</CheckingCode>
<ParameterValue>10</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>hz</ParameterName>
<ParameterDescription>The frequency at which Redis background tasks are performed, for example, the tasks that are used to evict expired keys. Valid values: 1 to 500. Default value: 10. A value of 10 indicates that a task is performed 10 times per second. A greater value allows the system to delete expired keys and close timeout connections more frequently, and therefore causes higher CPU utilization. We recommend that you specify a value that is less than or equal to 100.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[yes|no]</CheckingCode>
<ParameterValue>no</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>lazyfree-lazy-eviction</ParameterName>
<ParameterDescription>lazyfree switch on eviction.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[yes|no]</CheckingCode>
<ParameterValue>yes</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>lazyfree-lazy-expire</ParameterName>
<ParameterDescription>lazyfree switch on expire.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[yes|no]</CheckingCode>
<ParameterValue>yes</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>lazyfree-lazy-server-del</ParameterName>
<ParameterDescription>lazyfree switch on server implicit deletion.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[0-65535]</CheckingCode>
<ParameterValue>0</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>list-compress-depth</ParameterName>
<ParameterDescription>The number of entries on the list that are not compressed at both ends.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[-5-99999999]</CheckingCode>
<ParameterValue>-2</ParameterValue>
```

```
<ForceRestart>false</ForceRestart>
<ParameterName>list-max-ziplist-size</ParameterName>
<ParameterDescription>Threadold of ziplist size on quicklist.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[volatile-lru|allkeys-lru|volatile-random|allkeys-random|volatile-ttl|volatile-lfu|allkeys-lfu|noeviction]</CheckingCode>
<ParameterValue>volatile-lru</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>maxmemory-policy</ParameterName>
<ParameterDescription>To config how Redis will select what to remove when maxmemory is reached. There are eight behaviors that can be chose : volatile-lru,allkeys-lru,volatile-lfu,allkeys-lfu,volatile-random,allkeys-random,volatile-ttl,noeviction</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>.*</CheckingCode>
<ParameterValue></ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>notify-keyspace-events</ParameterName>
<ParameterDescription>keyspace-event notification feature.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[0-9999999999999999]</CheckingCode>
<ParameterValue>512</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>set-max-intset-entries</ParameterName>
<ParameterDescription>Sets have a special encoding in just one case: when a set is composed of just strings that happen to be integers in radix 10 in the range of 64 bit signed integers. The following configuration setting sets the limit in the size of the set in order to use this special memory saving encoding.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[10000-10000000]</CheckingCode>
<ParameterValue>20000</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>slowlog-log-slower-than</ParameterName>
<ParameterDescription>The time is expressed in microseconds, so 1000000 is equivalent to one second. The default setting for this is 20000 (20ms) and the lower bound of this setting is 10000 (10ms).</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[100-10000]</CheckingCode>
<ParameterValue>1024</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>slowlog-max-len</ParameterName>
<ParameterDescription>The max slowlog count.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[n_aaaaaaaaaaaaaaa]</CheckingCode>
```

```
<CheckingCode>[0-9999999999999999]</CheckingCode>
<ParameterValue>4096</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>stream-node-max-bytes</ParameterName>
<ParameterDescription>The maximum amount of memory in bytes that each macro node in a stream can consume. Valid values: 0 to 999999999999999. Default value: 4096. Unit: bytes. A value of 0 indicates that the amount of consumed memory is unlimited.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[0-9999999999999999]</CheckingCode>
<ParameterValue>100</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>stream-node-max-entries</ParameterName>
<ParameterDescription>The maximum number of entries stored on each macro node in a stream. Valid values: 0 to 99999999999999. Default value: 100. A value of 0 indicates that the number of entries on each node is unlimited.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[0-100000]</CheckingCode>
<ParameterValue>0</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>timeout</ParameterName>
<ParameterDescription>Close the connection after a client is idle for N seconds (0 to disable)</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[0-9999999999999999]</CheckingCode>
<ParameterValue>128</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>zset-max-ziplist-entries</ParameterName>
<ParameterDescription>Similarly to hashes and lists, sorted sets are also specially encoded in order to save a lot of space.</ParameterDescription>
</TemplateRecord>
<TemplateRecord>
<ForceModify>1</ForceModify>
<CheckingCode>[0-9999999999999999]</CheckingCode>
<ParameterValue>64</ParameterValue>
<ForceRestart>false</ForceRestart>
<ParameterName>zset-max-ziplist-value</ParameterName>
<ParameterDescription>Similarly to hashes and lists, sorted sets are also specially encoded in order to save a lot of space.</ParameterDescription>
</TemplateRecord>
</Parameters>
<RequestId>9DA28D8E-514D-4F12-ADED-70A9C818F0A0</RequestId>
<Engine>redis</Engine>
</DescribeParameterTemplatesResponse>
```

JSON format

```
{  
    "ParameterCount": "24",  
    ...  
}
```

```
"EngineVersion": "5.0",
"Parameters": [
    "TemplateRecord": [
        {
            "ForceModify": 1,
            "CheckingCode": "[yes|no]",
            "ParameterValue": "no",
            "ForceRestart": false,
            "ParameterName": "#no_loose_check-whitelist-always",
            "ParameterDescription": "check whitelist always"
        },
        {
            "ForceModify": 1,
            "CheckingCode": ".*",
            "ParameterValue": "",
            "ForceRestart": false,
            "ParameterName": "#no_loose_disabled-commands",
            "ParameterDescription": "You can disable some dangerous commands, for example \\\"keys,flushdb,flushall\\\", the commands must be in [flushall,flushdb,keys,hgetall,eval,evalsha,script]."
        },
        {
            "ForceModify": 1,
            "CheckingCode": "[yes|no]",
            "ParameterValue": "no",
            "ForceRestart": false,
            "ParameterName": "#no_loose_sentinel-enabled",
            "ParameterDescription": "Be compatible with sentinel mode."
        },
        {
            "ForceModify": 1,
            "CheckingCode": "[yes|no]",
            "ParameterValue": "yes",
            "ForceRestart": false,
            "ParameterName": "appendonly",
            "ParameterDescription": "Enable AOF persistence."
        },
        {
            "ForceModify": 1,
            "CheckingCode": "\d+\s+\d+\s+\d+",
            "ParameterValue": "33554432 8388608 60",
            "ForceRestart": false,
            "ParameterName": "client-output-buffer-limit pubsub",
            "ParameterDescription": "The output buffer limits of publisher and subscriber clients."
        },
        {
            "ForceModify": 1,
            "CheckingCode": "[yes|no]",
            "ParameterValue": "yes",
            "ForceRestart": false,
            "ParameterName": "dynamic-hz",
            "ParameterDescription": "Whether to enable a dynamic hz value."
        },
        {
            "ForceModify": 1,
            "CheckingCode": "no"
        }
    ]
]
```

```
    "CheckingCode": "[0-9999999999999999]" ,
    "ParameterValue": "512",
    "ForceRestart": false,
    "ParameterName": "hash-max-ziplist-entries",
    "ParameterDescription": "If hash fields are less than this value and hash value sizes are less than hash-max-ziplist-value, the ziplist will be used."
},
{
    "ForceModify": 1,
    "CheckingCode": "[0-9999999999999999]",
    "ParameterValue": "64",
    "ForceRestart": false,
    "ParameterName": "hash-max-ziplist-value",
    "ParameterDescription": "If hash value sizes are less than this value and hash fields are less than hash-max-ziplist-entries, the ziplist will be used."
},
{
    "ForceModify": 1,
    "CheckingCode": "[1-500]",
    "ParameterValue": "10",
    "ForceRestart": false,
    "ParameterName": "hz",
    "ParameterDescription": "The frequency at which Redis background tasks are performed, for example, tasks that are used to evict expired keys. Valid values: 1 to 500. Default value: 10. A value of 10 indicates that a task is performed 10 times per second. A greater value allows the system to delete expired keys and close timeout connections more frequently, and therefore causes higher CPU utilization. We recommend that you specify a value that is less than or equal to 100."
},
{
    "ForceModify": 1,
    "CheckingCode": "[yes|no]",
    "ParameterValue": "no",
    "ForceRestart": false,
    "ParameterName": "lazyfree-lazy-eviction",
    "ParameterDescription": "lazyfree switch on eviction."
},
{
    "ForceModify": 1,
    "CheckingCode": "[yes|no]",
    "ParameterValue": "yes",
    "ForceRestart": false,
    "ParameterName": "lazyfree-lazy-expire",
    "ParameterDescription": "lazyfree switch on expire."
},
{
    "ForceModify": 1,
    "CheckingCode": "[yes|no]",
    "ParameterValue": "yes",
    "ForceRestart": false,
    "ParameterName": "lazyfree-lazy-server-del",
    "ParameterDescription": "lazyfree switch on server implicit deletion."
},
{
    "ForceModify": 1,
    "CheckingCode": "[0-65535]".
```

```
        "ParameterValue": "0",
        "ForceRestart": false,
        "ParameterName": "list-compress-depth",
        "ParameterDescription": "The number of entries on the list that are not compressed at both ends."
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[ -5-99999999 ]",
        "ParameterValue": "-2",
        "ForceRestart": false,
        "ParameterName": "list-max-ziplist-size",
        "ParameterDescription": "Threadhold of ziplist size on quicklist."
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[ volatile-lru|allkeys-lru|volatile-random|allkeys-random|volatile-ttl|volatile-lfu|allkeys-lfu|noeviction ]",
        "ParameterValue": "volatile-lru",
        "ForceRestart": false,
        "ParameterName": "maxmemory-policy",
        "ParameterDescription": "To config how Redis will select what to remove when maxmemory is reached. There are eight behaviors that can be chose : volatile-lru,allkeys-lru,volatile-lfu,allkeys-lfu,volatile-random,allkeys-random,volatile-ttl,noeviction"
    },
    {
        "ForceModify": 1,
        "CheckingCode": ".*",
        "ParameterValue": "",
        "ForceRestart": false,
        "ParameterName": "notify-keyspace-events",
        "ParameterDescription": "keyspace-event notification feature."
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[ 0-9999999999999999 ]",
        "ParameterValue": "512",
        "ForceRestart": false,
        "ParameterName": "set-max-intset-entries",
        "ParameterDescription": "Sets have a special encoding in just one case: when a set is composed of just strings that happen to be integers in radix 10 in the range of 64 bit signed integers. The following configuration setting sets the limit in the size of the set in order to use this special memory saving encoding."
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[ 10000-10000000 ]",
        "ParameterValue": "20000",
        "ForceRestart": false,
        "ParameterName": "slowlog-log-slower-than",
        "ParameterDescription": "The time is expressed in microseconds, so 1000000 is equivalent to one second. The default setting for this is 20000 (20ms) and the lower bound of this setting is 10000 (10ms)."
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[ 100-10000 ]",

```

```
        "ParameterValue": "1024",
        "ForceRestart": false,
        "ParameterName": "slowlog-max-len",
        "ParameterDescription": "The max slowlog count."
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[0-9999999999999999]",
        "ParameterValue": "4096",
        "ForceRestart": false,
        "ParameterName": "stream-node-max-bytes",
        "ParameterDescription": "The maximum amount of memory in bytes that each macro node in a stream can consume. Valid values: 0 to 9999999999999999. Default value: 4096. Unit: bytes. A value of 0 specifies that the amount of consumed memory is unlimited."
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[0-9999999999999999]",
        "ParameterValue": "100",
        "ForceRestart": false,
        "ParameterName": "stream-node-max-entries",
        "ParameterDescription": "The maximum number of entries stored on each macro node in a stream. Valid values: 0 to 9999999999999999. Default value: 100. A value of 0 indicates that the number of entries on each node is unlimited."
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[0-100000]",
        "ParameterValue": "0",
        "ForceRestart": false,
        "ParameterName": "timeout",
        "ParameterDescription": "Close the connection after a client is idle for N seconds (0 to disable)"
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[0-9999999999999999]",
        "ParameterValue": "128",
        "ForceRestart": false,
        "ParameterName": "zset-max-ziplist-entries",
        "ParameterDescription": "Similarly to hashes and lists, sorted sets are also specially encoded in order to save a lot of space."
    },
    {
        "ForceModify": 1,
        "CheckingCode": "[0-9999999999999999]",
        "ParameterValue": "64",
        "ForceRestart": false,
        "ParameterName": "zset-max-ziplist-value",
        "ParameterDescription": "Similarly to hashes and lists, sorted sets are also specially encoded in order to save a lot of space."
    }
],
},
{
    "RequestId": "9DA28D8E-514D-4F12-ADED-70A9C818F0A0",
}
```

```

    "Engine": "redis"
}

```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameters.Format	Specified parameters is not valid.	The error message returned because the specified parameters are invalid.

For a list of error codes, visit the [API Error Center](#).

16.2. DescribeInstanceConfig

Queries the parameters of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer automatically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeInstanceConfig	The operation that you want to perform. Set the value to DescribeInstanceConfig .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance. You can call the DescribeInstances operation to obtain it.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query IDs of available regions.

Response parameters

Parameter	Type	Example	Description
-----------	------	---------	-------------

Parameter	Type	Example	Description
Config	String	{"EvictionPolicy": "volatile-lru", "hash-max-ziplist-entries": 512, "zset-max-ziplist-entries": 128, "list-max-ziplist-entries": 512, "list-max-ziplist-value": 64, "zset-max-ziplist-value": 64, "set-max-intset-entries": 512, "hash-max-ziplist-value": 64, "#no_loose_disabled_commands": "flushall"}	The parameters of the instance. For more information, see Parameter overview and configuration guide .
RequestId	String	4E2C08F6-2D11-4ECD-9A4C-27EF2D3D****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeInstanceConfig
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeInstanceConfigResponse>
  <RequestId>4E2C08F6-2D11-4ECD-9A4C-27EF2D3D****</RequestId>
  <Config>{"#no_loose_statistics-cmds":"SET,GET","EvictionPolicy":"volatile-lru","hash-max-ziplist-entries":512,"slowlog-log-slower-than":"1000","notify-keyspace-events":"$","zset-max-ziplist-entries":128,"list-max-ziplist-entries":512,"list-max-ziplist-value":64,"zset-max-ziplist-value":64,"set-max-intset-entries":512,"hash-max-ziplist-value":64,"#no_loose_disabled_commands":"flushall"}</Config>
</DescribeInstanceConfigResponse>
```

JSON format

```
{
  "RequestId": "4E2C08F6-2D11-4ECD-9A4C-27EF2D3D****",
  "Config": "{\"#no_loose_statistics-cmds\": \"SET,GET\", \"EvictionPolicy\": \"volatile-lru\", \"hash-max-ziplist-entries\": 512, \"slowlog-log-slower-than\": \"1000\", \"notify-keyspace-events\": \"$\", \"zset-max-ziplist-entries\": 128, \"list-max-ziplist-entries\": 512, \"list-max-ziplist-value\": 64, \"zset-max-ziplist-value\": 64, \"set-max-intset-entries\": 512, \"hash-max-ziplist-value\": 64, \"#no_loose_disabled_commands\": \"flushall\"}"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

16.3. DescribeParameters

Queries the configurations and operational parameters of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeParameters	The operation that you want to perform. Set the value to DescribeParameters .
DBInstanceld	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
Nodeld	String	No	r-bp1xxxxxxxxxxxxx-db-0	The ID of the node. Note You can set this parameter to query the parameter configurations of a specified node in a cluster instance.

Response parameters

Parameter	Type	Example	Description
ConfigParameters	Array of Parameter		The returned configuration parameters.
Parameter			
CheckingCode	String	[0 1]	The valid values of the parameter.

Parameter	Type	Example	Description
ForceRestart	Boolean	true	<p>Indicates whether a restart is required to take effect. Valid values:</p> <ul style="list-style-type: none"> • True: A restart is required for modifications to take effect. • False: A restart is not required. Modifications immediately take effect.
ModifiableStatus	Boolean	true	<p>Indicates whether the parameter can be modified. Valid values:</p> <ul style="list-style-type: none"> • False: The parameter setting cannot be modified. • True: The parameter setting can be modified.
ParameterDescription	String	Check all keys passed in the KEYS array map to the same slot.	The description of the parameter.
ParameterName	String	script_check_enable	The name of the parameter.
ParameterValue	String	1	The value of the parameter.
Engine	String	redis	The engine type of the instance.
EngineVersion	String	4.0	The engine version of the instance.
RunningParameters	Array of Parameter		The operational parameters that are returned.
Parameter			
CheckingCode	String	[0 1]	The valid values of the parameter.
ForceRestart	String	true	<p>Indicates whether a restart is required to take effect. Valid values:</p> <ul style="list-style-type: none"> • True: A restart is required for modifications to take effect. • False: A restart is not required. Modifications immediately take effect.

Parameter	Type	Example	Description
ModifiableStatus	String	true	<p>Indicates whether the parameter can be modified. Valid values:</p> <ul style="list-style-type: none"> • False: The parameter cannot be modified. • True: The parameter can be modified.
ParameterDescription	String	You can disable some dangerous commands, for example \\"keys,flushdb,flush all\\", the commands must be in [flushall,flushdb,keys,hgetall,eval,evalsh,a,script].	The description of the parameter.
ParameterName	String	#no_loose_disabled-commands	The name of the parameter.
ParameterValue	String	keys,flushall,flushdb	The value of the parameter.
RequestId	String	9C1338BE-8DE8-4890-A900-E1BC06BF****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeParameters
&DBInstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeParametersResponse>
<ConfigParameters></ConfigParameters>
<RequestId>9C1338BE-8DE8-4890-A900-E1BC06BF****</RequestId>
<RunningParameters>
<Parameter>
<ParameterDescription>check whitelist always</ParameterDescription>
<ParameterValue>no</ParameterValue>
<CheckingCode>[yes|no]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>#no_loose_check-whitelist-always</ParameterName>
</Parameter>
```

```
<Parameter>
  <ParameterDescription>You can disable some dangerous commands, for example "keys,flushdb,flushall", the commands must be in [flushall,flushdb,keys,hgetall,eval,evalsha,script]. </ParameterDescription>
  <ParameterValue>keys,flushall,flushdb</ParameterValue>
  <CheckingCode>.*</CheckingCode>
  <ForceRestart>false</ForceRestart>
  <ModifiableStatus>true</ModifiableStatus>
  <ParameterName>#no_loose_disabled-commands</ParameterName>
</Parameter>
<Parameter>
  <ParameterDescription>Enable or disable SSL</ParameterDescription>
  <ParameterValue>yes</ParameterValue>
  <CheckingCode>[yes|no]</CheckingCode>
  <ForceRestart>false</ForceRestart>
  <ModifiableStatus>true</ModifiableStatus>
  <ParameterName>#no_loose_ssl-enabled</ParameterName>
</Parameter>
<Parameter>
  <ParameterDescription>Be compatible with cluster mode. </ParameterDescription>
  <ParameterValue>0</ParameterValue>
  <CheckingCode>[0|1]</CheckingCode>
  <ForceRestart>false</ForceRestart>
  <ModifiableStatus>true</ModifiableStatus>
  <ParameterName>cluster_compat_enable</ParameterName>
</Parameter>
<Parameter>
  <ParameterDescription>Check all keys passed in the KEYS array map to the same slot. </ParameterDescription>
  <ParameterValue>1</ParameterValue>
  <CheckingCode>[0|1]</CheckingCode>
  <ForceRestart>false</ForceRestart>
  <ModifiableStatus>true</ModifiableStatus>
  <ParameterName>script_check_enable</ParameterName>
</Parameter>
<Parameter>
  <ParameterDescription>If hash fields are less than this value and hash value sizes are less than hash-max-ziplist-value, the ziplist will be used. </ParameterDescription>
  <ParameterValue>512</ParameterValue>
  <CheckingCode>[0-9999999999999999]</CheckingCode>
  <ForceRestart>false</ForceRestart>
  <ModifiableStatus>true</ModifiableStatus>
  <ParameterName>hash-max-ziplist-entries</ParameterName>
</Parameter>
<Parameter>
  <ParameterDescription>If hash value sizes are less than this value and hash fields are less than hash-max-ziplist-entries, the ziplist will be used. </ParameterDescription>
  <ParameterValue>64</ParameterValue>
  <CheckingCode>[0-9999999999999999]</CheckingCode>
  <ForceRestart>false</ForceRestart>
  <ModifiableStatus>true</ModifiableStatus>
  <ParameterName>hash-max-ziplist-value</ParameterName>
</Parameter>
<Parameter>
  <ParameterDescription>lazyfree switch on eviction. </ParameterDescription>
```

```
<ParameterValue>yes</ParameterValue>
<CheckingCode>[yes|no]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>lazyfree-lazy-eviction</ParameterName>
</Parameter>
<Parameter>
<ParameterDescription>lazyfree switch on expire. </ParameterDescription>
<ParameterValue>yes</ParameterValue>
<CheckingCode>[yes|no]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>lazyfree-lazy-expire</ParameterName>
</Parameter>
<Parameter>
<ParameterDescription>lazyfree switch on server implicit deletion. </ParameterDescription>
<ParameterValue>yes</ParameterValue>
<CheckingCode>[yes|no]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>lazyfree-lazy-server-del</ParameterName>
</Parameter>
<Parameter>
<ParameterDescription>The number of entries on the list that are not compressed at both ends. </ParameterDescription>
<ParameterValue>0</ParameterValue>
<CheckingCode>[0-65535]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>list-compress-depth</ParameterName>
</Parameter>
<Parameter>
<ParameterDescription>Threadhold of ziplist size on quicklist. </ParameterDescription>
<ParameterValue>-2</ParameterValue>
<CheckingCode>[-5-99999999]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>list-max-ziplist-size</ParameterName>
</Parameter>
<Parameter>
<ParameterDescription>To config how Redis will select what to remove when maxmemory is reached. There are eight behaviors that can be chose : volatile-lru,allkeys-lru,volatile-lfu,allkeys-lfu,volatile-random,allkeys-random,volatile-ttl,noeviction</ParameterDescription>
<ParameterValue>volatile-lfu</ParameterValue>
<CheckingCode>[volatile-lru|allkeys-lru|volatile-random|allkeys-random|volatile-ttl|volatile-lfu|allkeys-lfu|noeviction]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>maxmemory-policy</ParameterName>
</Parameter>
<Parameter>
<ParameterDescription>
Sets have a special encoding in just one case: when a set is composed of just strings that happen to be integers in radix 10 in the range of 61 bit signed integers

```

64 bit signed integers.

The following configuration setting sets the limit in the size of the set in order to use this special memory saving encoding. </ParameterDescription>

```
<ParameterValue>512</ParameterValue>
<CheckingCode>[0-999999999999999]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>set-max-intset-entries</ParameterName>
</Parameter>
<Parameter>
  <ParameterDescription>
```

The time is expressed in microseconds, so 1000000 is equivalent to one second. Note that a negative number disables the slow log, while a value of zero forces the logging of every command. </ParameterDescription>

```
<ParameterValue>10000</ParameterValue>
<CheckingCode>[0-10000000]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>slowlog-log-slower-than</ParameterName>
</Parameter>
<Parameter>
```

```
  <ParameterDescription>The max slowlog count. </ParameterDescription>
  <ParameterValue>1024</ParameterValue>
  <CheckingCode>[100-10000]</CheckingCode>
  <ForceRestart>false</ForceRestart>
  <ModifiableStatus>true</ModifiableStatus>
  <ParameterName>slowlog-max-len</ParameterName>
</Parameter>
<Parameter>
```

```
  <ParameterDescription>
Similarly to hashes and lists, sorted sets are also specially encoded in order to save a lot of space. </ParameterDescription>
```

```
<ParameterValue>128</ParameterValue>
<CheckingCode>[0-999999999999999]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>zset-max-ziplist-entries</ParameterName>
</Parameter>
<Parameter>
```

```
  <ParameterDescription>
Similarly to hashes and lists, sorted sets are also specially encoded in order to save a lot of space. </ParameterDescription>
```

```
<ParameterValue>64</ParameterValue>
<CheckingCode>[0-999999999999999]</CheckingCode>
<ForceRestart>false</ForceRestart>
<ModifiableStatus>true</ModifiableStatus>
<ParameterName>zset-max-ziplist-value</ParameterName>
</Parameter>
</RunningParameters>
<EngineVersion>4.0</EngineVersion>
<Engine>redis</Engine>
```

```
</DescribeParametersResponse>
```

JSON format

```
{  
  "ConfigParameters": {  
    "Parameter": []  
  },  
  "RequestId": "9C1338BE-8DE8-4890-A900-E1BC06BF****",  
  "RunningParameters": {  
    "Parameter": [  
      {  
        "ParameterDescription": "check whitelist always",  
        "ParameterValue": "no",  
        "CheckingCode": "[yes|no]",  
        "ForceRestart": "false",  
        "ModifiableStatus": "true",  
        "ParameterName": "#no_loose_check-whitelist-always"  
      },  
      {  
        "ParameterDescription": "You can disable some dangerous commands, for example \\\"keys,flushdb,flushall\\\", the commands must be in [flushall,flushdb,keys,hgetall,eval,evalsha,script].",  
        "ParameterValue": "keys,flushall,flushdb",  
        "CheckingCode": ". *",  
        "ForceRestart": "false",  
        "ModifiableStatus": "true",  
        "ParameterName": "#no_loose_disabled-commands"  
      },  
      {  
        "ParameterDescription": "Enable or disable SSL",  
        "ParameterValue": "yes",  
        "CheckingCode": "[yes|no]",  
        "ForceRestart": "false",  
        "ModifiableStatus": "true",  
        "ParameterName": "#no_loose_ssl-enabled"  
      },  
      {  
        "ParameterDescription": "Be compatible with cluster mode.",  
        "ParameterValue": "0",  
        "CheckingCode": "[0|1]",  
        "ForceRestart": "false",  
        "ModifiableStatus": "true",  
        "ParameterName": "cluster_compat_enable"  
      },  
      {  
        "ParameterDescription": "Check all keys passed in the KEYS array map to the same slot.",  
        "ParameterValue": "1",  
        "CheckingCode": "[0|1]",  
        "ForceRestart": "false",  
        "ModifiableStatus": "true",  
        "ParameterName": "script_check_enable"  
      },  
      {  
        "ParameterDescription": "If hash fields are less than this value and hash value sizes are less than hash-max-ziplist-value, the ziplist will be used.",  
        "ParameterValue": "512",  
        "CheckingCode": "[0-9999999999999999]"  
      }  
    ]  
  }  
}
```

```
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "hash-max-ziplist-entries"
},
{
"ParameterDescription": "If hash value sizes are than less this value and hash fields are less than hash-max-ziplist-entries, the ziplist will be used.",
"ParameterValue": "64",
"CheckingCode": "[0-9999999999999999]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "hash-max-ziplist-value"
},
{
"ParameterDescription": "lazyfree switch on eviction.",
"ParameterValue": "yes",
"CheckingCode": "[yes|no]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "lazyfree-lazy-eviction"
},
{
"ParameterDescription": "lazyfree switch on expire.",
"ParameterValue": "yes",
"CheckingCode": "[yes|no]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "lazyfree-lazy-expire"
},
{
"ParameterDescription": "lazyfree switch on server implicit deletion.",
"ParameterValue": "yes",
"CheckingCode": "[yes|no]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "lazyfree-lazy-server-del"
},
{
"ParameterDescription": "The number of entries on the list that are not compressed at both ends.",
"ParameterValue": "0",
"CheckingCode": "[0-65535]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "list-compress-depth"
},
{
"ParameterDescription": "Threadhold of ziplist size on quicklist.",
"ParameterValue": "-2",
"CheckingCode": "[-5-99999999]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "list-max-ziplist-size"
},
```

```
"ParameterDescription": "To config how Redis will select what to remove when maxmemory is reached. There are eight behaviors that can be chose : volatile-lru,allkeys-lru,volatile-lfu,allkeys-lfu,volatile-random,allkeys-random,volatile-ttl,noeviction",
"ParameterValue": "volatile-lfu",
"CheckingCode": "[volatile-lru|allkeys-lru|volatile-random|allkeys-random|volatile-ttl|volatile-lfu|allkeys-lfu|noeviction]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "maxmemory-policy"
},
{
"ParameterDescription": "Sets have a special encoding in just one case: when a set is composed\nof just strings that happen to be integers in radix 10 in the range\nof 64 bit signed integers.\n\nThe following configuration setting sets the limit in the size of the\nset in order to use this special memory saving encoding.",
"ParameterValue": "512",
"CheckingCode": "[0-9999999999999999]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "set-max-intset-entries"
},
{
"ParameterDescription": "The time is expressed in microseconds, so 1000000 is equivalent\nto one second.\n\nNote that a negative number disables the slow log,\nwhile a value of zero forces the logging of every command.",
"ParameterValue": "10000",
"CheckingCode": "[0-10000000]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "slowlog-log-slower-than"
},
{
"ParameterDescription": "The max slowlog count.",
"ParameterValue": "1024",
"CheckingCode": "[100-10000]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "slowlog-max-len"
},
{
"ParameterDescription": "Similarly to hashes and lists, sorted sets are also specially encoded in\norder to save a lot of space.",
"ParameterValue": "128",
"CheckingCode": "[0-9999999999999999]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "zset-max-ziplist-entries"
},
{
"ParameterDescription": "Similarly to hashes and lists, sorted sets are also specially encoded in\norder to save a lot of space.",
"ParameterValue": "64",
"CheckingCode": "[0-9999999999999999]",
"ForceRestart": "false",
"ModifiableStatus": "true",
"ParameterName": "zset-max-zinlist-value"
}
```

```
    "ParameterName": "ZSETMAXZIPUSCVALUE"
  }
]
},
"EngineVersion": "4.0",
"Engine": "redis"
}
```

Error codes

HttpCode	Error code	Error message	Description
404	InvalidDBInstanceClass.NotFound	Specified DB instance class is not found.	The error message returned because the specified instance type is invalid. Check whether the instance type is valid.
403	IncorrectDBInstanceType	Current DB instance type does not support this operation.	The error message returned because the current instance type does not support this operation. You can clone or back up only read replica instances.

For a list of error codes, visit the [API Error Center](#).

16.4. ModifyInstanceConfig

Modifies configuration parameters of an ApsaraDB for Redis instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyInstanceConfig	The operation that you want to perform. Set the value to ModifyInstanceConfig .

Parameter	Type	Required	Example	Description
Config	String	Yes	{"EvictionPolicy": "volatile-lru", "list-max-ziplist-entries": 512, "zset-max-ziplist-entries": 128, "hash-max-ziplist-entries": 512, "hash-max-ziplist-value": 64, "list-max-ziplist-value": 64, "set-max-intset-entries": 512, "zset-max-ziplist-value": 64}	The configuration of the instance in the JSON format. ? Note For more information, see Parameter overview .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Response parameters

Parameter	Type	Example	Description
RequestId	String	8D0C0AFC-E9CD-47A4-8395-5C31BF9B****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ModifyInstanceConfig
&InstanceId=r-bp1zxszhcgatnx****
&Config={"EvictionPolicy": "volatile-lru", "list-max-ziplist-entries": 512, "zset-max-ziplist-entries": 128, "hash-max-ziplist-entries": 512, "hash-max-ziplist-value": 64, "list-max-ziplist-value": 64, "set-max-intset-entries": 512, "zset-max-ziplist-value": 64}
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyInstanceConfigResponse>
  <RequestId>8D0C0AFC-E9CD-47A4-8395-5C31BF9B****</RequestId>
</ModifyInstanceConfigResponse>
```

JSON format

```
{  
    "requestId": "8D0C0AFC-E9CD-47A4-8395-5C31BF9B****"  
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameters.Format	Specified parameters is not valid.	The error message returned because the specified parameters are invalid.

For a list of error codes, visit the [API Error Center](#).

17.Tag management

17.1. ListTagResources

Queries the binding relationship between ApsaraDB for Redis instances and tags.

You can also query these instances or tags in the ApsaraDB for Redis console. For more information, see [Filter ApsaraDB for Redis instances by tag](#) and [View tags bound to an instance](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListTagResources	The operation that you want to perform. Set the value to ListTagResources .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the instance is deployed.
ResourceType	String	Yes	INSTANCE	The type of resource. Set the value to INSTANCE .
ResourceId.N	RepeatList	No	r-bp1zxszhcgatnx***	<p>The ID of the specified instance. You can specify multiple IDs.</p> <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;"><p>? Note</p><ul style="list-style-type: none">• N specifies the serial number of the instance. For example, ResourceId.1 indicates the ID of the first instance and ResourceId.2 indicates the ID of the second instance.• You must specify either this parameter or Tag.N.Key.</div>

Parameter	Type	Required	Example	Description
Tag.N.Key	String	No	demokey	<p>The key of the tag.</p> <div style="background-color: #e1f5fe; padding: 10px;"> <p>? Note</p> <ul style="list-style-type: none"> • N specifies the serial number of the tag. For example, Tag.1.Key indicates the key of the first tag. Tag.2.Key indicates the key of the second tag. • You must specify either this parameter or ResourceId.N. </div>
Tag.N.Value	String	No	demovalue	<p>The value of the tag.</p> <div style="background-color: #e1f5fe; padding: 10px;"> <p>? Note N specifies the serial number of the tag. For example, Tag.1.Value indicates the value of the first tag. Tag.2.Value indicates the value of the second tag.</p> </div>
NextToken	String	No	212db86sca4384 811e0b5e8707ec 2****	<p>The start token for the next query. It is used to return more results.</p> <div style="background-color: #e1f5fe; padding: 10px;"> <p>? Note This parameter is not required in the first query. If all results are not returned in one query, you can input the NextToken returned in the previous query to query again.</p> </div>

Response parameters

Parameter	Type	Example	Description
-----------	------	---------	-------------

Parameter	Type	Example	Description
NextToken	String	212db86sca4384811e0b5e8707ec2****	If all results are not returned in this query, you can provide this token in the next query to obtain more results.
RequestId	String	47A514A1-4B77-4E30-B4C5-2A880650****	The ID of the request.
TagResources	Array of TagResource		The information about the returned instances and tags.
TagResource			
ResourceId	String	r-bp1zxszhcgatnx****	The ID of the ApsaraDB for Redis instance.
ResourceType	String	ALIYUN::KVSTORE::INSTANCE	The type of resource. The returned value is ALIYUN::KVSTORE::INSTANCE. The value indicates an ApsaraDB for Redis instance.
TagKey	String	demokey	The key of the tag.
TagValue	String	demovalue	The value of the tag.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=ListTagResources
&RegionId=cn-hangzhou
&ResourceType=INSTANCE
&Tag.1.Key=demokey1
&Tag.1.Value=demovalue1
&Tag.2.Key=demokey2
&Tag.2.Value=demovalue2
&<Common request parameters>
```

Sample success responses

XML format

```
<ListTagResourcesResponse>
  <TagResources>
    <TagResource>
      <ResourceType>ALIYUN::KVSTORE::INSTANCE</ResourceType>
      <TagValue>demovalue1</TagValue>
      <ResourceId>r-bp1zxszhcgatnx****</ResourceId>
      <TagKey>demokey1</TagKey>
    </TagResource>
    <TagResource>
      <ResourceType>ALIYUN::KVSTORE::INSTANCE</ResourceType>
      <TagValue>demovalue1</TagValue>
      <ResourceId>r-bp1zxszhcgatnx****</ResourceId>
      <TagKey>demokey1</TagKey>
    </TagResource>
    <TagResource>
      <ResourceType>ALIYUN::KVSTORE::INSTANCE</ResourceType>
      <TagValue>demovalue2</TagValue>
      <ResourceId>r-bp1zxszhcgatnx****</ResourceId>
      <TagKey>demokey2</TagKey>
    </TagResource>
    <TagResource>
      <ResourceType>ALIYUN::KVSTORE::INSTANCE</ResourceType>
      <TagValue>demovalue2</TagValue>
      <ResourceId>r-bp1zxszhcgatnx****</ResourceId>
      <TagKey>demokey2</TagKey>
    </TagResource>
  </TagResources>
  <RequestId>47A514A1-4B77-4E30-B4C5-2A880650****</RequestId>
</ListTagResourcesResponse>
```

JSON format

```
{  
    "TagResources": {  
        "TagResource": [  
            {  
                "ResourceType": "ALIYUN::KVSTORE::INSTANCE",  
                "TagValue": "demovalue1",  
                "ResourceId": "r-bp1zxszhcgatnx****",  
                "TagKey": "demokey1"  
            },  
            {  
                "ResourceType": "ALIYUN::KVSTORE::INSTANCE",  
                "TagValue": "demovalue1",  
                "ResourceId": "r-bp1zxszhcgatnx****",  
                "TagKey": "demokey1"  
            },  
            {  
                "ResourceType": "ALIYUN::KVSTORE::INSTANCE",  
                "TagValue": "demovalue2",  
                "ResourceId": "r-bp1zxszhcgatnx****",  
                "TagKey": "demokey2"  
            },  
            {  
                "ResourceType": "ALIYUN::KVSTORE::INSTANCE",  
                "TagValue": "demovalue2",  
                "ResourceId": "r-bp1zxszhcgatnx****",  
                "TagKey": "demokey2"  
            }  
        ]  
    },  
    "RequestId": "47A514A1-4B77-4E30-B4C5-2A880650****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

17.2. TagResources

Adds tags to one or more ApsaraDB for Redis instances.

If you have a large number of instances, you can classify them by creating multiple tags and binding these tags to your instances. You can filter your instances by tag.

- A tag consists of a key and a value. Each key must be unique in a region for an Alibaba Cloud account. Different keys can be mapped to the same value.
- If the tag that you specify does not exist, this tag is automatically created and bound to the specified instance.
- If the key of the specified tag is the same as that of an existing tag, the specified tag overwrites the existing tag.
- You can bind up to 20 tags to an instance.
- You can bind tags to up to 50 instances in each call.

You can also bind tags to instances in the ApsaraDB for Redis console. For more information, see [Create a tag](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	TagResources	The operation that you want to perform. Set the value to TagResources .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the instance is deployed.
ResourceId.N	RepeatList	Yes	r-bp1zxszhcgatnx***	The ID of the specified instance. You can specify multiple IDs. Note N indicates the serial number of the instance. For example, ResourceId.1 indicates the ID of the first instance and ResourceId.2 indicates the ID of the second instance.
ResourceType	String	Yes	INSTANCE	The type of resource. Set the value to INSTANCE .
Tag.N.Key	String	Yes	demokey	The key of the tag. Note <ul style="list-style-type: none"> N indicates the serial number of the tag. For example, Tag.1.Key indicates the key of the first tag. Tag.2.Key indicates the key of the second tag. If the key of the tag does not exist, the tag is automatically created.

Parameter	Type	Required	Example	Description
Tag.N.Value	String	Yes	demovalue	<p>The value of the tag.</p> <p>Note N specifies the value of the nth tag. For example, Tag.1.Value indicates the value of the first tag. Tag.2.Value indicates the value of the second tag.</p>

Response parameters

Parameter	Type	Example	Description
RequestId	String	4BD4E308-A3D8-4CD1-98B3-0ADAEE38****	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=TagResources
&RegionId=cn-hangzhou
&ResourceIds.1=r-bp1zxszhcgatnx****
&ResourceIds.2=r-bp1zxszhcgatnx****
&ResourceType=INSTANCE
&Tag.1.Key=demokey1
&Tag.1.Value=demovalue1
&Tag.2.Key=demokey2
&Tag.2.Value=demovalue2
&<Common request parameters>
```

Sample success responses

XML format

```
<TagResourcesResponse>
  <RequestId>4BD4E308-A3D8-4CD1-98B3-0ADAEE38****</RequestId>
</TagResourcesResponse>
```

JSON format

```
{
  "RequestId": "4BD4E308-A3D8-4CD1-98B3-0ADAEE38****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

17.3. UntagResources

Unbinds tags from ApsaraDB for Redis instances.

- You can unbind up to 20 tags at a time.
- If a tag is not bound to any instances after you unbind the tag from an instance, the tag is deleted.

You can also unbind tags from instances in the console. For more information, see [Unbind a tag](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UntagResources	The operation that you want to perform. Set the value to UntagResources .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query IDs of available regions.
ResourceId.N	RepeatList	Yes	r-bp1zxszhcgatnx***	The ID of the instance. Note N specifies the serial number of the instance. For example, ResourceId.1 specifies the ID of the first instance and ResourceId.2 specifies the ID of the second instance.
ResourceType	String	Yes	INSTANCE	The type of the resource. Set the value to INSTANCE .

Parameter	Type	Required	Example	Description
TagKey.N	RepeatList	No	demokey	<p>The key of the tag.</p> <p>Note N specifies the serial number of the tag. For example, TagKey.1 specifies the key of the first tag and TagKey.2 specifies the key of the second tag.</p>
All	Boolean	No	false	<p>Specifies whether to unbind all tags from the instance. Valid values:</p> <ul style="list-style-type: none"> • true: unbinds all tags from the instance. • false: does not unbind all tags from the instance. <p>Note If you specify both this parameter and TagKey.N, this parameter is invalid.</p>

Response parameters

Parameter	Type	Example	Description
RequestId	String	601B6F25-21E7-4484-99D5-3EF2625C****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=UntagResources
&RegionId=cn-hangzhou
&ResourceType=INSTANCE
&ResourceId.1=r-bp1zxszhcgatnx****
&ResourceId.2=r-bp2zxszhcgatnx****
&ResourceType=INSTANCE
&TagKey.1=demokey1
&TagKey.2=demokey2
&<Common request parameters>
```

Sample success responses

XML format

```
<UntagResourcesResponse>
  <RequestId>601B6F25-21E7-4484-99D5-3EF2625C****</RequestId>
</UntagResourcesResponse>
```

JSON format

```
{
  "RequestId": "601B6F25-21E7-4484-99D5-3EF2625C****"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

18.Troubleshooting

18.1. Cache analysis and hotkey querying

You can call the API operations of Database Autonomy Service (DAS) to perform a cache analysis task or query hotkeys.

Precautions

API operations described in this topic are provided by DAS. You must use the core library and SDKs of DAS to call these operations.

- SDK Core: [Alibaba Cloud SDK for Java](#).
- DAS SDKs: [Alibaba Cloud DAS SDK for Java](#).

For more information, see [Quick start](#).

Related operations

API operation	Description
CreateCacheAnalysisJob	Creates a cache analysis task.
DescribeCacheAnalysisJobs	Queries the list of cache analysis tasks.
DescribeCacheAnalysisJob	Queries the details of a cache analysis task.
DescribeHotKeys	Queries hotkeys of an ApsaraDB for Redis instance.

18.2. CreateCacheAnalysisTask

Manually creates a cache analytics task.

 **Note** Alibaba Cloud has optimized the cache analytics feature of ApsaraDB for Redis to improve user experience. This API operation is phased out. You can use the new API operation for cache analytics. For more information, see [API operations for cache analytics are upgraded](#).

Before you call this operation, make sure that the following requirements are met:

- The engine version of the instance is Redis 4.0 or later.
- An ApsaraDB for Redis instance of Community Edition or a [performance-enhanced](#) instance of Enhanced Edition is used.
- The latest minor version of the ApsaraDB for Redis instance is used. For more information about whether you must upgrade the minor version, see [How to check whether the minor version of an ApsaraDB for Redis instance is the latest version](#).

After you call this operation, you can call the [DescribeCacheAnalysisReport](#) operation to view the analytic result.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateCacheAnalysisTask	The operation that you want to perform. Set the value to CreateCacheAnalysisTask .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the ApsaraDB for Redis instance. You can call the DescribeInstances operation to query instance IDs.
RegionId	String	No	cn-hangzhou	The ID of the region to which the ApsaraDB for Redis instance belongs. You can call the DescribeInstances operation to query region IDs.

Response parameters

Parameter	Type	Example	Description
RequestId	String	BBC1E3D6-7C88-4DF5-9A3D-0DB1E6D9****	The ID of the request.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=CreateCacheAnalysisTask
&InstanceId=r-bp1zxszhcgatnx****
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateCacheAnalysisTaskResponse>
  <RequestId>BBC1E3D6-7C88-4DF5-9A3D-0DB1E6D9****</RequestId>
</CreateCacheAnalysisTaskResponse>
```

JSON format

```
{  
    "RequestId": "BBC1E3D6-7C88-4DF5-9A3D-0DB1E6D9****"  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

18.3. DescribeCacheAnalysisReport

Queries the cache analysis report of an ApsaraDB for Redis instance on a specified date.

 **Note** Alibaba Cloud has optimized the cache analysis feature of ApsaraDB for Redis to improve user experience. This API operation is deprecated and you can use the new API operation for cache analysis. For more information, see [API operations for cache analysis will be upgraded](#).

Before you call this operation, make sure that the following requirements are met:

- The engine version of the instance is Redis 4.0 or later.
- The latest minor version of the ApsaraDB for Redis instance is used. For more information about whether you need to upgrade the minor version, see [How to determine whether the minor version of an ApsaraDB for Redis instance is the latest](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeCacheAnalysisReport	The operation that you want to perform. Set the value to DescribeCacheAnalysisReport .
AnalysisType	String	Yes	BigKey	The type of analysis. Set the value to BigKey .
Date	String	Yes	2019-08-05Z	The date on which you want to query the cache analysis report. You can query the cache analysis report within one day each time. Specify the date in the <i>yyyy-MM-ddZ</i> format. The time must be in UTC.

Parameter	Type	Required	Example	Description
Instanceld	String	Yes	-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.
PageSize	Integer	No	30	<p>The number of entries to return on each page. Valid values: 30, 50, and 100.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note Default value: 30. </div>
PageNumbers	Integer	No	1	<p>The number of the page to return.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note If the value of this parameter exceeds the maximum number of the returned pages, an empty big key list is returned. </div>
Nodeld	String	No	-bp1zxszhcgatnx***-db-0	<p>The ID of the child node in the ApsaraDB for Redis cluster.</p> <div style="background-color: #e1f5fe; padding: 5px;"> ? Note If you do not specify this parameter, the analysis reports of all child nodes in the cluster will be returned. </div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	A057C066-C3F5-4CC9-9FE4-A8D8B0DC***	The ID of the request.
PageRecordCount	Integer	30	The number of entries that were returned on the current page.
PageSize	Integer	30	The maximum number of entries that were returned per page.

Parameter	Type	Example	Description
PageNumber	Integer	1	The page number of the returned page.
TotalRecordCount	Integer	160	The total number of entries that were returned.
BigKeys	List	[]	The hot keys that were returned. <div style="background-color: #e0f2ff; padding: 5px; border-radius: 5px;">? Note Currently, this parameter is not returned because ApsaraDB for Redis does not support hot key analysis.</div>
HotKeys	List	[{"db": "0", "qps": 0, "keyType": "list", "isExpired": "no", "analysisType": "BIGKEY", "key": "mylist", "memory": 1005377, "size": 200000}]	The big keys that were returned.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com/?Action=DescribeCacheAnalysisReport  
&AnalysisType=BigKey  
&Date=2019-08-05Z  
&InstanceId=r-bp1zxszhcgatnx****  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeCacheAnalysisReportResponse>  
  <PageNumber>1</PageNumber>  
  <TotalRecordCount>160</TotalRecordCount>  
  <PageSize>30</PageSize>  
  <RequestId>A057C066-C3F5-4CC9-9FE4-A8D8B0DC****</RequestId>  
  <BigKeys>  
    <db>0</db>  
    <qps>0</qps>  
    <keyType>list</keyType>  
    <isExpired>no</isExpired>  
    <analysisType>BIGKEY</analysisType>  
    <key>mylist</key>  
    <memory>1005377</memory>  
    <size>200000</size>  
  </BigKeys>
```

```
  <BigKeys>
    <db>0</db>
    <qps>0</qps>
    <keyType>hash</keyType>
    <isExpired>no</isExpired>
    <analysisType>BIGKEY</analysisType>
    <key>customer:23124</key>
    <memory>970</memory>
    <size>11</size>
  </BigKeys>
  <BigKeys>
    <db>0</db>
    <qps>0</qps>
    <keyType>hash</keyType>
    <isExpired>no</isExpired>
    <analysisType>BIGKEY</analysisType>
    <key>customer:167541</key>
    <memory>967</memory>
    <size>11</size>
  </BigKeys>
  <BigKeys>
    <db>0</db>
    <qps>0</qps>
    <keyType>hash</keyType>
    <isExpired>no</isExpired>
    <analysisType>BIGKEY</analysisType>
    <key>customer:152015</key>
    <memory>958</memory>
    <size>11</size>
  </BigKeys>
  <BigKeys>
    <db>0</db>
    <qps>0</qps>
    <keyType>hash</keyType>
    <isExpired>no</isExpired>
    <analysisType>BIGKEY</analysisType>
    <key>customer:30883</key>
    <memory>955</memory>
    <size>11</size>
  </BigKeys>
  <BigKeys>
    <db>0</db>
    <qps>0</qps>
    <keyType>hash</keyType>
    <isExpired>no</isExpired>
    <analysisType>BIGKEY</analysisType>
    <key>customer:81031</key>
    <memory>953</memory>
    <size>11</size>
  </BigKeys>
  <BigKeys>
    <db>0</db>
    <qps>0</qps>
    <keyType>hash</keyType>
```

```
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:152007</key>
<memory>952</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:161880</key>
<memory>951</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:194610</key>
<memory>949</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:53620</key>
<memory>948</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:23525</key>
<memory>946</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:89333</key>
<memory>946</memory>
```

```
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:23687</key>
<memory>945</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:32653</key>
<memory>945</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:72166</key>
<memory>945</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:195881</key>
<memory>944</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:160121</key>
<memory>944</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
```

```
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:93626</key>
<memory>944</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:138451</key>
<memory>944</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:183732</key>
<memory>943</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:143393</key>
<memory>943</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:109289</key>
<memory>943</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
```

```
<key>customer:15561</key>
<memory>942</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:171049</key>
<memory>942</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:53013</key>
<memory>941</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:103664</key>
<memory>941</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:180733</key>
<memory>941</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:69766</key>
<memory>941</memory>
<size>11</size>
</BigKeys>
<BigKeys>
```

```
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:125910</key>
<memory>940</memory>
<size>11</size>
</BigKeys>
<BigKeys>
<db>0</db>
<qps>0</qps>
<keyType>hash</keyType>
<isExpired>no</isExpired>
<analysisType>BIGKEY</analysisType>
<key>customer:10653</key>
<memory>940</memory>
<size>11</size>
</BigKeys>
<PageRecordCount>30</PageRecordCount>
</DescribeCacheAnalysisReportResponse>
```

JSON format

```
{
  "PageNumber": 1,
  "TotalRecordCount": 160,
  "HotKeys": [],
  "PageSize": 30,
  "RequestId": "A057C066-C3F5-4CC9-9FE4-A8D8B0DC****",
  "BigKeys": [
    {
      "db": "0",
      "qps": 0,
      "keyType": "list",
      "isExpired": "no",
      "analysisType": "BIGKEY",
      "key": "mylist",
      "memory": 1005377,
      "size": 200000
    },
    {
      "db": "0",
      "qps": 0,
      "keyType": "hash",
      "isExpired": "no",
      "analysisType": "BIGKEY",
      "key": "customer:23124",
      "memory": 970,
      "size": 11
    },
    {
      "db": "0",
      "qps": 0,
```

```
"qps": 0,  
"keyType": "hash",  
"isExpired": "no",  
"analysisType": "BIGKEY",  
"key": "customer:167541",  
"memory": 967,  
"size": 11  
},  
{  
"db": "0",  
"qps": 0,  
"keyType": "hash",  
"isExpired": "no",  
"analysisType": "BIGKEY",  
"key": "customer:152015",  
"memory": 958,  
"size": 11  
},  
{  
"db": "0",  
"qps": 0,  
"keyType": "hash",  
"isExpired": "no",  
"analysisType": "BIGKEY",  
"key": "customer:30883",  
"memory": 955,  
"size": 11  
},  
{  
"db": "0",  
"qps": 0,  
"keyType": "hash",  
"isExpired": "no",  
"analysisType": "BIGKEY",  
"key": "customer:81031",  
"memory": 953,  
"size": 11  
},  
{  
"db": "0",  
"qps": 0,  
"keyType": "hash",  
"isExpired": "no",  
"analysisType": "BIGKEY",  
"key": "customer:152007",  
"memory": 952,  
"size": 11  
},  
{  
"db": "0",  
"qps": 0,  
"keyType": "hash",  
"isExpired": "no",  
"analysisType": "BIGKEY",  
"key": "customer:161880"
```

```
    "key": "customer:194610",
    "memory": 951,
    "size": 11
},
{
    "db": "0",
    "qps": 0,
    "keyType": "hash",
    "isExpired": "no",
    "analysisType": "BIGKEY",
    "key": "customer:194610",
    "memory": 949,
    "size": 11
},
{
    "db": "0",
    "qps": 0,
    "keyType": "hash",
    "isExpired": "no",
    "analysisType": "BIGKEY",
    "key": "customer:53620",
    "memory": 948,
    "size": 11
},
{
    "db": "0",
    "qps": 0,
    "keyType": "hash",
    "isExpired": "no",
    "analysisType": "BIGKEY",
    "key": "customer:23525",
    "memory": 946,
    "size": 11
},
{
    "db": "0",
    "qps": 0,
    "keyType": "hash",
    "isExpired": "no",
    "analysisType": "BIGKEY",
    "key": "customer:89333",
    "memory": 946,
    "size": 11
},
{
    "db": "0",
    "qps": 0,
    "keyType": "hash",
    "isExpired": "no",
    "analysisType": "BIGKEY",
    "key": "customer:23687",
    "memory": 945,
    "size": 11
},
{
```

```
`"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:32653",
"memory": 945,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:72166",
"memory": 945,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:195881",
"memory": 944,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:160121",
"memory": 944,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:93626",
"memory": 944,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
```

```
"analysisType": "BIGKEY",
"key": "customer:138451",
"memory": 944,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:183732",
"memory": 943,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:143393",
"memory": 943,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:109289",
"memory": 943,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:153637",
"memory": 942,
"size": 11
},
{
"db": "0",
"qps": 0,
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:171049",
"memory": 942,
"size": 11
```

```
},
{
  "db": "0",
  "qps": 0,
  "keyType": "hash",
  "isExpired": "no",
  "analysisType": "BIGKEY",
  "key": "customer:53013",
  "memory": 941,
  "size": 11
},
{
  "db": "0",
  "qps": 0,
  "keyType": "hash",
  "isExpired": "no",
  "analysisType": "BIGKEY",
  "key": "customer:103664",
  "memory": 941,
  "size": 11
},
{
  "db": "0",
  "qps": 0,
  "keyType": "hash",
  "isExpired": "no",
  "analysisType": "BIGKEY",
  "key": "customer:180733",
  "memory": 941,
  "size": 11
},
{
  "db": "0",
  "qps": 0,
  "keyType": "hash",
  "isExpired": "no",
  "analysisType": "BIGKEY",
  "key": "customer:69766",
  "memory": 941,
  "size": 11
},
{
  "db": "0",
  "qps": 0,
  "keyType": "hash",
  "isExpired": "no",
  "analysisType": "BIGKEY",
  "key": "customer:125910",
  "memory": 940,
  "size": 11
},
{
  "db": "0",
  "qps": 0,
```

```
"keyType": "hash",
"isExpired": "no",
"analysisType": "BIGKEY",
"key": "customer:10653",
"memory": 940,
"size": 11
},
],
"PageRecordCount": 30
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

18.4. DescribeCacheAnalysisReportList

Queries cache analytics reports of an ApsaraDB for Redis instance.

 **Note** Alibaba Cloud has optimized the cache analytics feature of ApsaraDB for Redis. This API operation is phased out. The new API operation for cache analysis is available. For more information, see [The API operation for cache analysis of ApsaraDB for Redis phased out](#).

Before you call this operation, make sure that the following requirements are met:

- The engine version of the instance is Redis 4.0 or later.
- The minor version of the ApsaraDB for Redis instance is the latest one. For more information about whether you must upgrade the minor version, see [How do I determine whether the minor version of an ApsaraDB for Redis instance is the latest?](#)

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeCacheAnalysisReportList	The operation that you want to perform. Set the value to DescribeCacheAnalysisReportList .
InstanceId	String	Yes	r-bp1zxszhcgatnx***	The ID of the instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the instance is deployed.

Parameter	Type	Required	Example	Description
Days	Integer	No	7	<p>Specifies the number of the past days for which you want to query cache analytics results. Default value: 7.</p> <p>Note If either automatic analysis or manual analysis is performed on the day when you query analysis reports, no record is returned for this day.</p>
PageSize	Integer	No	30	<p>The number of entries to return on each page. Valid values: 30, 50, and 100.</p> <p>Note Default value: 30.</p>
PageNumbers	Integer	No	1	The number of the page to return.
NodeId	String	No	r-bp1zxszhcgatnx***-db-0	<p>The ID of the node in the ApsaraDB for Redis cluster.</p> <p>Note If you do not set this parameter, the analysis reports of all nodes in the cluster will be returned.</p>

Response parameters

Parameter	Type	Example	Description
InstanceId	String	1041xxxx	The ID of the instance.
RequestId	String	743D0A03-52DE-4E6F-8D09-EC1414CF****	The ID of the request.
DailyTasks	Array of DailyTask		The cache analysis reports that are returned.
DailyTask			
Date	String	2019-08-01Z	The date on which the cache analysis tasks is initiated.

Parameter	Type	Example	Description
Tasks	Array of Task		The detailed information about the cache analysis tasks.
Task			
NodeID	String	r-bp1zxszhcgatnx****-db-0	The ID of the node in the ApsaraDB for Redis cluster.
StartTime	String	2019-08-01T19:08:49Z	The time when the cache analysis task is initiated.
Status	String	success	The status of cache analysis tasks. Valid values: <ul style="list-style-type: none">• success: The cache analysis task is successful.• running: The cache analysis task is running
TaskID	String	156465****	The ID of the task.

Examples

Sample requests

```
https://r-kvstore.aliyuncs.com?Action=DescribeCacheAnalysisReportList  
&InstanceId=r-bp1zxszhcgatnx****  
&<Common request parameters>
```

Sample success responses

[XML](#) format

```
<DescribeCacheAnalysisReportListResponse>
<InstanceId>1041xxxx</InstanceId>
<RequestId>BFB9478A-119E-4589-B02C-2D2EBE5E****</RequestId>
<DailyTasks>
  <DailyTask>
    <Date>2019-08-03Z</Date>
    <Tasks>
      <Task>
        <Status>success</Status>
        <NodeId>r-bp1zxszhcgatnx****-db-0</NodeId>
        <StartTime>2019-08-03T19:08:48Z</StartTime>
        <TaskId>156483****</TaskId>
      </Task>
      <Task>
        <Status>success</Status>
        <NodeId>r-bp1zxszhcgatnx****-db-1</NodeId>
        <StartTime>2019-08-03T19:08:49Z</StartTime>
        <TaskId>156483****</TaskId>
      </Task>
    </Tasks>
  </DailyTask>
  <DailyTask>
    <Date>2019-08-02Z</Date>
    <Tasks>
      <Task>
        <Status>success</Status>
        <NodeId>r-bp1zxszhcgatnx****-db-0</NodeId>
        <StartTime>2019-08-02T19:08:55Z</StartTime>
        <TaskId>156474****</TaskId>
      </Task>
      <Task>
        <Status>success</Status>
        <NodeId>r-bp1zxszhcgatnx****-db-1</NodeId>
        <StartTime>2019-08-02T19:08:55Z</StartTime>
        <TaskId>156474****</TaskId>
      </Task>
    </Tasks>
  </DailyTask>
</DailyTasks>
</DescribeCacheAnalysisReportListResponse>
```

JSON format

```
{  
    "InstanceId": "1041xxxx",  
    "RequestId": "BFB9478A-119E-4589-B02C-2D2EBE5E****",  
    "DailyTasks": {  
        "DailyTask": [  
            {  
                "Date": "2019-08-03Z",  
                "Tasks": {  
                    "Task": [  
                        {  
                            "Status": "success",  
                            "NodeId": "r-bp1zxszhcgatnx****-db-0",  
                            "StartTime": "2019-08-03T19:08:48Z",  
                            "TaskId": "156483****"  
                        },  
                        {  
                            "Status": "success",  
                            "NodeId": "r-bp1zxszhcgatnx****-db-1",  
                            "StartTime": "2019-08-03T19:08:49Z",  
                            "TaskId": "156483****"  
                        }  
                    ]  
                }  
            },  
            {  
                "Date": "2019-08-02Z",  
                "Tasks": {  
                    "Task": [  
                        {  
                            "Status": "success",  
                            "NodeId": "r-bp1zxszhcgatnx****-db-0",  
                            "StartTime": "2019-08-02T19:08:55Z",  
                            "TaskId": "156474****"  
                        },  
                        {  
                            "Status": "success",  
                            "NodeId": "r-bp1zxszhcgatnx****-db-1",  
                            "StartTime": "2019-08-02T19:08:55Z",  
                            "TaskId": "156474****"  
                        }  
                    ]  
                }  
            }  
        ]  
    }  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

19.O&M task management

19.1. DescribeActiveOperationTask

Queries the information about operations and maintenance (O&M) tasks for an ApsaraDB for Redis instance.

After you have called this API operation and queried the information about a specific O&M task, you can also call the [ModifyActiveOperationTask](#) operation to modify the scheduled switchover time of the O&M task.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeActiveOperationTask	The operation that you want to perform. Set the value to DescribeActiveOperationTask .
Region	String	Yes	all	<p>The ID of the region to which pending events belong. You can call the DescribeRegions operation to query the region IDs.</p> <div style="background-color: #e1f5fe; padding: 10px; border-radius: 5px;"><p>? Note A value of all indicates all region IDs.</p></div>
TaskType	String	Yes	all	<p>The type of the O&M task. Valid values:</p> <ul style="list-style-type: none">• rds_apsaradb_ha: switchover between a master node and a replica node.• rds_apsaradb_transfer: instance migration task.• rds_apsaradb_upgrade: minor version upgrade.• all: all task types.

Parameter	Type	Required	Example	Description
RegionId	String	No	cn-hangzhou	The ID of the region. You can call the DescribeRegions operation to query the region IDs.
IsHistory	Integer	No	1	Specifies whether to return the historical tasks. Valid values: • 0: returns the current task. This is the default value. • 1: returns the historical tasks.
PageSize	Integer	No	30	The number of entries to return on each page. Specify a value greater than 10. Default value: 30.
PageNumber	Integer	No	1	The number of the page to return. It must be an integer that is greater than 0 and less than or equal to the maximum value supported by the integer data type. Default value: 1.

Response parameters

Parameter	Type	Example	Description
Items	Array of Items		The list of O&M tasks.
CreatedTime	String	2018-07-15 23:59:59	The time when the O&M task was created. The time in UTC is displayed in the <code>yyyy-MM-ddT HH:mm:ssZ</code> format.
DbType	String	redis	The database type of the instance. The returned value is Redis .
Deadline	String	2018-07-19 23:59:59	The deadline before which the time to execute the O&M task can be modified. The time in UTC is displayed in the <code>yyyy-MM-ddT HH:mm:ssZ</code> format.
Id	Integer	114111	The ID of the O&M task.

Parameter	Type	Example	Description
InsName	String	r-bp1lgal1sdvxrz****	The ID of the ApsaraDB for Redis instance.
ModifiedTime	String	2018-07-19 14:00:00	The time when the O&M task was modified. The time in UTC is displayed in the <i>yyyy-MM-ddT HH:mm:ssZ</i> format.
PrepareInterval	String	14:00:00	The required preparation period between the task start time and the switchover time. The time is displayed in the <i>HH:mm:ss</i> format.
Region	String	cn-hangzhou	The ID of the region.
StartTime	String	2018-07-19 10:00:00	The time when the O&M task was executed. The time in UTC is displayed in the <i>yyyy-MM-ddT HH:mm:ssZ</i> format.
Status	Integer	5	<p>The state of the O&M task. Valid values:</p> <ul style="list-style-type: none"> • 2: The O&M task is waiting until the specified time. • 3: The O&M task is waiting to be handled. • 4: The O&M task is being executed. You cannot call the ModifyActiveOperationTask operation to modify the time if the task is in this state. • 5: The O&M task succeeded • 6: The O&M task failed • 7: The O&M task is canceled.
SwitchTime	String	2018-07-19 14:00:00	The time when the system performs the switchover operation. The time in UTC is displayed in the <i>yyyy-MM-ddT HH:mm:ssZ</i> format.
TaskType	String	rds_apsaradb_upgrade	<p>The type of the task. Valid values:</p> <ul style="list-style-type: none"> • rds_apsaradb_ha: switchover between a master node and a replica node. • rds_apsaradb_transfer: instance migration task. • rds_apsaradb_upgrade: minor version upgrade. • all: all task types.

Parameter	Type	Example	Description
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	30	The maximum number of entries that were returned per page.
RequestId	String	2E1FF0CC-F42A-4B6F-A1F4-A17B1451****	The ID of the request.
TotalRecordCount	Integer	1	The total number of entries.

Examples

Sample requests

```
http(s)://https://r-kvstore.aliyuncs.com/?Action=DescribeActiveOperationTask  
&Region=all  
&TaskType=all  
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeActiveOperationTaskResponse>  
  <TotalRecordCount>1</TotalRecordCount>  
  <RequestId>2E1FF0CC-F42A-4B6F-A1F4-A17B1451****</RequestId>  
  <PageSize>30</PageSize>  
  <PageNumber>1</PageNumber>  
  <Items>  
    <Status>5</Status>  
    <CreatedTime>2019-10-17T20:28:31Z</CreatedTime>  
    <Deadline>2019-10-21T15:59:59Z</Deadline>  
    <StartTime>2019-10-17T17:50:00Z</StartTime>  
    <InsName>r-bp1lgal1sdvxrz****</InsName>  
    <DbType>redis</DbType>  
    <ModifiedTime>2019-10-17T20:28:31Z</ModifiedTime>  
    <TaskType>rds_apsaradb_upgrade</TaskType>  
    <PrepareInterval>01:00:00</PrepareInterval>  
    <Region>cn-hangzhou</Region>  
    <Id>114111</Id>  
    <SwitchTime>2019-10-17T18:50:00Z</SwitchTime>  
  </Items>  
</DescribeActiveOperationTaskResponse>
```

JSON format

```
{  
    "TotalRecordCount": 1,  
    "RequestId": "2E1FF0CC-F42A-4B6F-A1F4-A17B1451****",  
    "PageSize": 30,  
    "PageNumber": 1,  
    "Items": [  
        {  
            "Status": 5,  
            "CreatedTime": "2019-10-17T20:28:31Z",  
            "Deadline": "2019-10-21T15:59:59Z",  
            "StartTime": "2019-10-17T17:50:00Z",  
            "InsName": "r-bp1lgal1sdvxrz****",  
            "DbType": "redis",  
            "ModifiedTime": "2019-10-17T20:28:31Z",  
            "TaskType": "rds_apsaradb_upgrade",  
            "PrepareInterval": "01:00:00",  
            "Region": "cn-hangzhou",  
            "Id": 114111,  
            "SwitchTime": "2019-10-17T18:50:00Z"  
        }  
    ]  
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

19.2. ModifyActiveOperationTask

Modifies the scheduled switchover time of an operations and maintenance (O&M) task.

You can receive notifications of events such as instance migration and version upgrades by SMS messages, phone calls, emails, internal messages, and notifications in the ApsaraDB for Redis console. In addition to modifying the scheduled switchover time by calling this operation, you can also modify the time in the ApsaraDB for Redis console. For more information, see [Query or manage pending events](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyActiveOperationTask	The operation that you want to perform. Set the value to: ModifyActiveOperationTask .

Parameter	Type	Required	Example	Description
Ids	String	Yes	11111,22222	<p>The ID of the O&M task. Separate multiple IDs with commas (,).</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note You can call the DescribeActiveOperationTask operation to query IDs of O&M tasks. </div>
SwitchTime	String	Yes	2019-10-17T18:50:00Z	<p>The scheduled switchover time to be specified. Specify the time in the <i>yyyy-MM-ddTHH:mm:ssZ</i> format. The time must be in UTC.</p> <div style="background-color: #e1f5fe; padding: 10px;"> ? Note The time cannot be later than the latest operation time. You can call the DescribeActiveOperationTask operation. The Deadline parameter in the response indicates the latest operation time. </div>
RegionId	String	No	cn-hangzhou	<p>The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query the region IDs.</p>

Response parameters

Parameter	Type	Example	Description
Ids	String	11111,22222	The ID of the O&M task. Multiple IDs are separated with commas (,).
RequestId	String	5D622714-AEDD-4609-9167-F5DDD3D1***	The ID of the request.

Examples

Sample requests

```
http(s)://https://r-kvstore.aliyuncs.com/?Action=ModifyActiveOperationTask
&Ids=11111,22222
&SwitchTime=2019-10-17T18:50:00Z
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyActiveOperationTaskResponse>
  <RequestId>5D622714-AEDD-4609-9167-F5DDD3D1****</RequestId>
  <Ids>11111,22222</Ids>
</ModifyActiveOperationTaskResponse>
```

JSON format

```
{
  "RequestId": "5D622714-AEDD-4609-9167-F5DDD3D1****",
  "Ids": "11111,22222"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

20. Additional description of parameters

20.1. Instance types

ApsaraDB for Redis provides multiple editions, series types, and architectures. You can refer to the related topics for further information about the required instance specifications.

For more information about instance types, see [Overview](#).

20.2. Description of the Instances parameter

This topic describes the details of the Instances parameter and provides a sample request. If you call the `CreateInstances` operation to create one or more ApsaraDB for Redis instances, you must specify the Instances parameter to configure the instances that you want to create.

Related API operations

[CreateInstances](#)

Subparameters of the Instances request parameter

Subparameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where you want to create ApsaraDB for Redis instances. You can call the DescribeRegions operation to query region IDs.
IzNo	String	Yes	cn-hangzhou-b	The ID of the primary zone where you want to create ApsaraDB for Redis instances. You can call the DescribeRegions operation to query zone IDs.
Quantity	Integer	No	1	The number of ApsaraDB for Redis instances that you want to create. Valid values: 1 to 300. Default value: 1.
InstanceType	String	No	Redis	<p>The engine type of the ApsaraDB for Redis instance. Valid values:</p> <ul style="list-style-type: none">• Redis: an ApsaraDB for Redis instance. This is the default value.• Memcache: an ApsaraDB for Memcache instance.

Subparameter	Type	Required	Example	Description
InstanceClass	String	No	redis.master.small.default	<p>For more information about instance types, see Overview.</p> <p>Note You must specify this parameter or the Capacity parameter.</p>
Capacity	Long	No	16384	<p>The storage capacity of the ApsaraDB for Redis instance. Unit: MB. For more information, see Overview.</p> <p>Note You must specify this parameter or the InstanceClass parameter.</p>
EngineVersion	String	No	5.0	<p>The major version of the ApsaraDB for Redis instance. Valid values: 2.8, 4.0, and 5.0. Default value: 5.0.</p>
ChargeType	String	No	PrePaid	<p>The billing method. Valid values:</p> <ul style="list-style-type: none"> • PrePaid: subscription. • PostPaid: pay-as-you-go. This is the default value.
Period	Long	No	12	<p>The subscription duration. Valid values: 1 to 9, 12, 24, and 36. Unit: months.</p> <p>Note This parameter is valid and required only if you set the ChargeType parameter to PrePaid.</p>
AutoRenew	String	No	true	<p>Specifies whether to enable auto-renewal. Valid values:</p> <ul style="list-style-type: none"> • true: enables auto-renewal. • false: disables auto-renewal. This is the default value. <p>Note This parameter is valid only if you set the ChargeType parameter to PrePaid.</p>

Subparameter	Type	Required	Example	Description
InstanceName	String	No	apitest	<p>The name of the instance. The format of the name must meet the following requirements:</p> <ul style="list-style-type: none"> The name must be 2 to 128 characters in length and must start with a letter. Space characters and the following special characters are not supported: @ / := < > { [] } .
Password	String	No	Pass!123456	<p>The password of the instance. The password must meet the following requirements:</p> <ul style="list-style-type: none"> The password must be 8 to 32 characters in length. The password must contain at least three of the following types of characters: uppercase letters, lowercase letters, special characters, and digits. Supported special characters include !@#\$%^&*()_+=-
NetworkType	String	No	VPC	<p>The network type of the ApsaraDB for Redis instance. Valid values:</p> <ul style="list-style-type: none"> CLASSIC: a classic network. This is the default value. VPC: a virtual private cloud (VPC).
VpcId	String	No	vpc-bp1nme44gek34slfc****	The ID of the VPC. You can call the DescribeVpcs operation to query VPC IDs.
vSwitchId	String	No	vsw-bp1e7clcw529l773d****	The ID of the vSwitch that belongs to the VPC. You can call the DescribeVpcs operation to query vSwitch IDs.
NodeType	String	No	MASTER_SLAVE	<p>The node type of the ApsaraDB for Redis instance. Valid values:</p> <ul style="list-style-type: none"> STAND_ALONE: standalone MASTER_SLAVE: master-replica
SrcDBInstanceId	String	No	r-bp1zxszhcgatnx****	<p>The ID of the source ApsaraDB for Redis instance. You can call the DescribeInstances operation to query instance IDs.</p> <p>Note This parameter is required only if you want to create a new instance from the backup of a specified instance.</p>

Subparameter	Type	Required	Example	Description
BackupId	String	No	111111111	<p>The ID of the backup set. You can call the DescribeBackups operation to query the backup set IDs.</p> <p>Note If you want to create an ApsaraDB for Redis instance from the backup set of a specified instance, you must specify the source instance in the <code>SrcDBInstanceId</code> parameter. You must also specify the ID of the backup set that is created based on the source instance. The system creates an instance based on the backup set that is specified by this parameter.</p>
RebuildInstance	String	No	false	<p>Specifies whether to restore the source instance from the recycle bin. Valid values:</p> <ul style="list-style-type: none"> • <code>true</code>: restores the source instance from the recycle bin. • <code>false</code>: does not restore the source instance from the recycle bin. This is the default value. <p>Note If you configure this parameter, you must also configure the <code>SrcDBInstanceId</code> parameter.</p>

Sample request in which the Instances parameter is specified

```
[{
  "RegionId": "cn-hangzhou",
  "izNo": "cn-hangzhou-b",
  "quantity": 2,
  "instanceType": "Redis",
  "instanceClass": "redis.master.small.default",
  "EngineVersion": "5.0",
  "ChargeType": "PostPaid"
}]
```

20.3. MonitorKeys

This topic describes the performance metrics that are supported by ApsaraDB for Redis. When you call the `DescribeHistoryMonitorValues` operation, you must specify one or more of the metrics in the following tables to collect the relevant monitoring data.

Associated API operations

[DescribeHistoryMonitorValues](#): queries detailed monitoring information about an ApsaraDB for Redis instance.

Note When you call this operation, you can pass the metrics listed in the MonitorKeys column of the following tables to the MonitorKeys request parameter based on your business requirements. Standard instances of ApsaraDB for Redis support only [Metrics for a single node](#).

Metrics for a single node

MonitorKeys	Subordinate metric	Unit	Description
Calls_Monitor	flushall_calls	Counts	The total number of times the FLUSHALL command is run.
	flushdb_calls	Counts	The total number of times that the FLUSHDB command is run.
	keys_calls	Counts	The total number of times that the KEYS command is run.
ConnectionUsage	connectionUsage	%	The connections usage. Connections usage = Number of connections/Total number of connections supported by the instance.
CpuUsage	CpuUsage	%	The CPU usage.
FailedCount	FailedCount	Counts	The number of failed commands.
Hit_Rate_Monitor	hit_rate	%	The hit ratio of keys. Hit ratio = Total key hits/(Total key hits + Total key misses). Note The metric is not collected if you use instances of Redis 2.8. You must upgrade the minor version of the instance. For more information, see Upgrade the minor version .
IntranetIn	InFlow	Kbps	The inbound traffic rate.
IntranetInRatio	intranetInRatio	%	The usage rate of the inbound traffic.

MonitorKeys	Subordinate metric	Unit	Description
IntranetOut	OutFlow	KBps	The outbound traffic rate.
IntranetOutRatio	intranetOutRatio	%	The usage rate of the outbound traffic.
MemoryUsage	memoryUsage	%	<p>The memory usage.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note Redis 2.8 instances are not supported. To collect this metric, you must upgrade the engine version of the instance. For more information, see Upgrade the major version. </div>
QPSUsage	qpsUsage	%	Queries-per-second (QPS) usage.
Redis_Avg_Rt_Monitor	AvgRt	us	The average response time that is consumed by all commands. This is the average period from when the node receives the command request to when the node returns the response.
Redis_Basic_Monitor	Keys	Counts	The total number of keys.
	Expires	Counts	<p>The total number of keys that have an expiration time set.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note This metric indicates the instantaneous value when the data is collected. </div>
	ExpiredKeys	Counts	The total number of expired keys.
	EvictedKeys	Counts	The total number of evicted keys.
	inmem_keys	Counts	<p>The number of key-value pairs in memory.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note Supported by only ApsaraDB for Redis Enhanced Edition (Hybrid-storage instances). </div>

MonitorKeys	Subordinate metric	Unit	Description
	swapped_keys	Counts	<p>The number of key-value pairs on the disk.</p> <p>? Note Supported by only the ApsaraDB for Redis Enhanced Edition (Hybrid-storage instances).</p>
	ExpiredKeysPerSecond	Counts/s	The number of keys that are expired per second.
	EvictedKeysPerSecond	Counts/s	The number of keys that are evicted per second.
Redis_Connection_Monitor	auth, echo, ping, quit, and select.	Counts/s	The number of times per second each command in the Connection family of commands such as AUTH and ECHO is run.
Redis_DetailedSpaceUsage	ins_size	MB	The total disk space that is occupied by the instance, including data_size and log_size.
	data_size	MB	The size of data files on the persistent disk, including the append-only files (AOF) and Redis Database (RDB) files.
	log_size	MB	The size of logs on the persistent disk, including the operational logs of ApsaraDB for Redis instances.
Redis_Geo_Monitor	geoadd, geohash, geopos, geodist, georadius, and georadiusbymember.	Counts/s	The number of times per second each command in the Geo family of commands such as GEOADD and GEHASH is run.
Redis_Hashes_Monitor	hdel, hexists, hget, hgetall, hincrby, hincrbyfloat, hkeys, hlen, hmget, hmset, hset, hsetnx, hvals, and hscan.	Counts/s	The number of times per second each command in the Hash family of commands such as HGET and HDEL is run.
Redis_Hyperlog_Monitor	pfadd, pfcount, and pfmerge.	Counts/s	The number of times per second each command in the HyperLogLog family of commands such as PFADD and PFCOUNT is run.

MonitorKeys	Subordinate metric	Unit	Description
Redis_Keys_Monitor	del, dump, exists, expire, expireat, move, persist, pexpire, pexpireat, pttl, randomkey, rename, renamenx, restore, sort, ttl, type, and scan.	Counts/s	The number of times per second each command in the Keys family of commands such as DEL and EXISTS is run.
Redis_Lists_Monitor	blpop, brpop, brpoplpush, lindex, linsert, llen, lpop, lpush, lpushx, lrange, lrem, lset, ltrim, rpop, rpoplpush, rpush, and rpushx.	Counts/s	The number of times per second each command in the Lists family of commands such as BLPOP and BRPOP is run.
Redis_Max_Rt_Monitor	MaxRt	us	The maximum response time of requests. This is the maximum response time at which a data node sends a response after it receives a command.
Redis_Memory_Monitor	used_memory_rss	Bytes	The physical memory occupied by the process. This is the memory allocated by the operating system to the Redis service.
	used_memory_overhead	Bytes	The memory usage that is required to support the internal mechanism of ApsaraDB for Redis. This includes the output buffers, query buffers, and AOF files for all clients.
	used_memory_startup	Bytes	The memory consumed by ApsaraDB for Redis at startup.
	used_memory_dataset	Bytes	The memory occupied by the dataset.
	lazyfree_pending_objects	Counts	The pending keys to be collected when ApsaraDB for Redis performs the lazy free operation.
	used_memory_lua	Bytes	Specifies the memory used to store Lua script.
Redis_Pub_Sub_Monitor	psubscribe, publish, pubsub, punsubscribe, subscribe, and unsubscribe.	Counts/s	The number of times per second each command in the Pub/Sub family of commands such as PUBLISH and SUBSCRIBE is run.
Redis_Scripting_Monitor	eval, evalsha, and script.	Counts/s	The number of times per second each command in the Scripting family of commands such as EVAL and EVALSHA is run.

MonitorKeys	Subordinate metric	Unit	Description
Redis_Server_Monitor	bgsave, client, command, config, dbsize, debug, flushall, flushdb, info, monitor, slowlog, and time.	Counts/s	The number of times per second each command in the Server family of commands such as BGSAVE and CONFIG is run.
Redis_Sets_Monitor	sadd, scard, sdiff, sdiffstore, sinter, sinterstore, sismember, smembers, smove, spop, srandmember, srem, sunion, sunionstore, and sscan.	Counts/s	The number of times per second each command in the Sets family of commands such as SADD and SCARD is run.
Redis_Streams_Monitor	xinfo, xadd, xtrim, xdel, xrange, xrevrange, xlen, xread, xgroup, xreadgroup, xack, xclaim, and xpending.	Counts/s	The number of times per second each command in the Streams family of commands such as XINFO and XADD is run.
Redis_String_Monitor	append, bitcount, bitop, decr, decrby, get, getbit, getrange, getset, incr, incrby, incrbyfloat, mget, mset, msetnx, psetex, set, setbit, setex, setnx, setrange, and strlen.	Counts/s	The number of times per second each command in the String family of commands such as APPEND and MGET is run.
Redis_Transaction_Monitor	discard, exec, multi, unwatch, and watch.	Counts/s	The number of times per second each command in the Transaction family of commands such as WATCH, MULTI, and EXEC is run.
Redis_Zset_Monitor	zadd, zcard, zcount, zincrby, zrange, zrangebyscore, zrank, zrem, zremrangebyrank, zremrangebyscore, zrevrange, zrevrangebyscore, zrevrank, zscore, zunionstore, zinterstore, zscan, zrangebylex, zlexcount, zremrangebylex, zpopmin, zpopmax, bzpopmin, and bzpopmax.	Counts/s	The number of times per second each command in the Zset family of commands such as ZADD and ZCARD is run.

MonitorKeys	Subordinate metric	Unit	Description
UsedConnection	ConnCount	Counts	<p>The number of used connections. This is the number of Transmission Control Protocol (TCP) connections to the node.</p> <p>Note</p> <ul style="list-style-type: none"> This metric is collected if the client is connected to a cluster instance of ApsaraDB for Redis through a direct connection. This metric is not collected when the client is connected to a cluster instance or read/write splitting instance through the proxy node. In this case, you must pay attention to the number of connections on the proxy node.
UsedMemory	UsedMemory	Bytes	The amount of used memory, which includes the memory consumed by the data and cache.
UsedQPS	TotalQps	Counts/s	The total number of requests per second, including read and write requests.
	GetQps	Counts/s	<p>The number of read requests per second.</p> <p>Note To collect this metric, you must upgrade the engine version of the ApsaraDB for Redis instance to Redis 4.0 or later with the latest minor version. For more information, see Upgrade the major version and Upgrade the minor version.</p>
	PutQps	Counts/s	<p>The number of write requests per second.</p> <p>Note To collect this metric, you must upgrade the engine version of the ApsaraDB for Redis instance to Redis 4.0 or later with the latest minor version. For more information, see Upgrade the major version and Upgrade the minor version.</p>

MonitorKeys	Subordinate metric	Unit	Description
Redis_TairBloom_Monitor	bfadd, bfmadd, bfexists, bfmexists, bfinsert, bfreserve, and bfdebug.	Counts/s	<p>The number of times per second TairBloom group commands such as BF.RESERVE and BF.ADD are run.</p> <p>Note Supported by only ApsaraDB for Redis Enhanced Edition (Performance-enhanced instances) and Enhanced Edition (Hybrid-storage instances).</p>
Redis_TairDoc_Monitor	jsondel, jsonget, jsonmget, jsonset, jsontype, jsonnumincrby, jsonstrappend, jsonstrlen, jsonarrappend, jsonarrpop, jsonarrinsert, jsonarrlen, and jsonarrtrim.	Counts/s	<p>The number of times per second TairDoc group commands are run, such as JSON.SET and JSON.GET.</p> <p>Note Supported by only ApsaraDB for Redis Enhanced Edition (Performance-enhanced instances) and Enhanced Edition (Hybrid-storage instances).</p>
Redis_TairGis_Monitor	gisadd, gisget, gisdel, gissearch, giscontains, gisintersects, and gisgetall.	Counts/s	<p>The number of times per second TairGis group commands such as GIS.ADD, GIS.GET, and GIS.DEL are run.</p> <p>Note Supported by only ApsaraDB for Redis Enhanced Edition (Performance-enhanced instances) and Enhanced Edition (Hybrid-storage instances).</p>

MonitorKeys	Subordinate metric	Unit	Description
Redis_TairHash_Monitor	exhset, exhsetnx, exhmset, exhexpireat, exhexpire, exhmsetwithopts, exhpexpireat, exhpexpire, exhpttl, exhtt, exhver, exhsetver, exhincrby, exhincrbyfloat, exhget, exhgetwithver, exhget, exhget, exhlen, exexists, exhkeys, exhvals, exhgetall, exhgetwithver, exhsterlen, and exhscan.	Counts/s	<p>The number of times per second TairHash group commands such as EXHSET and EXHMSET are run.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note Supported by only ApsaraDB for Redis Enhanced Edition (Performance-enhanced instances) and Enhanced Edition (Hybrid-storage instances). </div>
Redis_TairString_Monitor	cas, cad, exset, exget, exsetver, exincrby, exincrbyfloat, excas, and excad.	Counts/s	<p>The number of times per second TairString group commands such as EXSET and EXGET are run.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note Supported by only ApsaraDB for Redis Enhanced Edition (Performance-enhanced instances) and Enhanced Edition (Hybrid-storage instances). </div>

Metrics for a single proxy node

MonitorKeys	Subordinate metric	Unit	Description
CpuUsage	CpuUsage	%	The CPU usage.
IntranetIn	IntranetIn	Kbps	The inbound traffic rate.
Redis_Package_Monitor	request	Bytes	The average number of bytes per request.
	response	Bytes	The average number of bytes per response.
	request_max	Bytes	The maximum number of bytes per request.
	response_max	Bytes	The maximum number of bytes per response.
	TotalQps	Counts/s	The total number of requests per second, including read and write requests.

MonitorKeys	Subordinate metric	Unit	Description
UsedQPS	GetQps	Counts/s	<p>The number of read requests per second.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note To collect the metric, you must upgrade the minor version of the ApsaraDB for Redis instance to the latest. For more information, see Upgrade the minor version. </div>
	PutQps	Counts/s	<p>The number of write requests per second.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note To collect the metric, you must upgrade the minor version of the ApsaraDB for Redis instance to the latest one. For more information, see Upgrade the minor version. </div>
IntranetOut	IntranetOut	KBps	The outbound traffic rate.
Redis_Max_Rt_Monitor	MaxRt	us	The maximum response time of requests. This is the maximum response time at which a proxy node sends a response after it receives a command.
Redis_Avg_Rt_Monitor	AvgRt	us	The average response time of all commands. This is the average time period from the time when the proxy node receives the command request to the time when the proxy node returns the response.
TotalCalls	TotalRefusedCommands	Counts	The cumulative number of rejected commands.
	TotalCallsPerSecCalls	Counts/s	The number of requests per second
	TotalCallsPerSecRetryCalls	Counts/s	The number of request retries per second.
	TotalCallsPerSecRetryFailed	Counts/s	The number of failed requests per second.
RedisProxyConn	RedisUsedConnection	Counts	The number of connections from the proxy node to a data node.
	NewDBConnQps	Counts/s	The number of connections per second established from the proxy node to a data node.

MonitorKeys	Subordinate metric	Unit	Description
	DisconnectDBConn	Counts	The cumulative number of times that the proxy nodes are disconnected from data nodes.
	DisconnectUserConn	Counts	The cumulative number of disconnections from the client to the proxy node.
UsedConnection	ConnectionUsage	%	The connection usage of the proxy node.
	UsedConnection	Counts	The number of connections from the client to the proxy node.
	NewUserConnQps	Counts/s	The number of connections per second established from the client to the proxy node.

Aggregate monitoring metrics for data nodes

MonitorKeys	Subordinate metric	Unit	Description
CpuUsage\$db	CpuUsage	%	The CPU usage.
UsedMemory\$db	UsedMemory	Bytes	The amount of used memory, which includes the memory consumed by the data and cache.
MemoryUsage\$db	memoryUsage	%	<p>The memory usage.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note Redis 2.8 instances are not supported. To collect this metric, you must upgrade the engine version of the instance. For more information, see Upgrade the major version. </div>
	Keys	Counts	The total number of keys.
	Expires	Counts	<p>The total number of keys that have an expiration time set.</p> <div style="background-color: #e0f2ff; padding: 10px;"> ? Note This metric indicates the instantaneous value when the data is collected. </div>
	ExpiredKeys	Counts	The total number of expired keys.
	EvictedKeys	Counts	The total number of evicted keys.

MonitorKeys	Subordinate metric	Unit	Description
Redis_Basic_Monitor\$db	inmem_keys	Counts	<p>The number of key-value pairs in memory.</p> <div style="background-color: #e0f2ff; padding: 5px;"> ? Note Supported only by ApsaraDB for Redis Enhanced Edition (Hybrid-storage instances).</div>
	swapped_keys	Counts	<p>The number of key-value pairs on the disk.</p> <div style="background-color: #e0f2ff; padding: 5px;"> ? Note Supported only by ApsaraDB for Redis Enhanced Edition (Hybrid-storage instances).</div>
	ExpiredKeysPerSecond	Counts/s	The number of keys that are expired per second.
	EvictedKeysPerSecond	Counts/s	The number of keys that are evicted per second.

Aggregate monitoring metrics for proxy nodes

MonitorKeys	Subordinate metric	Unit	Description
UsedConnection\$proxy	ConnectionUsage	%	The connections usage. Connections usage = Number of connections/Total number of connections supported by the instance.
	UsedConnection	Counts	The number of used connections. This is the number of TCP connections to the proxy node.
	NewUserConnQps	Counts/s	The number of connections per second established from the client to the proxy node.
IntranetIn\$proxy	IntranetIn	KBps	The inbound traffic rate of the proxy node.
IntranetOut\$proxy	IntranetOut	KBps	The outbound traffic rate of the proxy node.
	TotalQps	Counts/s	The total number of requests per second, including read and write requests.

MonitorKeys	Subordinate metric	Unit	Description
UsedQPS\$proxy	GetQps	Counts/s	The number of read requests per second. ? Note To collect the metric, you must upgrade the minor version of the ApsaraDB for Redis instance to the latest. For more information, see Upgrade the minor version .
	PutQps	Counts/s	The number of write requests per second. ? Note To collect the metric, you must upgrade the minor version of the ApsaraDB for Redis instance to the latest. For more information, see Upgrade the minor version .
Redis_Max_Rt_Monitor\$proxy	MaxRt	us	The maximum response time of requests. This is the maximum response time at which a proxy node sends a response after it receives a command.
Redis_Avg_Rt_Monitor\$proxy	AvgRt	us	The average response time of all commands. This is the average time period from the time when the proxy node receives the command request to the time when the proxy node returns the response.

Monitoring metrics for an instance of ApsaraDB for Memcache

?**Note** The [DescribeHistoryMonitorValues](#) operation is also applicable to [ApsaraDB for Memcache](#). To collect metrics of an instance of ApsaraDB for Memcache, you can set the parameters listed in the MonitorKeys column.

MonitorKeys	Subordinate metric	Unit	Description
Memcached_Monitor	mem_get, mem_set, mem_add, mem_replace, mem_delete, mem_incr, mem_decr, mem_flush_all, mem_noop, mem_version, mem_getk, mem_append, mem_append, mem_preappend, mem_gat, mem_gets, and mem_cas.	Counts/s	
Memcached_Quiet_Monitor	mem_getq, mem_setq, mem_addq, mem_replacedq, mem_deleteq, mem_incrq, mem_decrq, mem_flush_allq, mem_getkq, mem_appendq, mem_preappendq, and mem_gatq.	Counts/s	The number of times per second ApsaraDB for Memcache commands are run.

MonitorKeys	Subordinate metric	Unit	Description
Memcached_Quit_Monitor	mem_quit and mem_quitq.	Counts/s	Counts/s
Memcached_Sasl_Monitor	mem_list_mechs, mem_sasl_auth, and mem_sasl_step.	Counts/s	

20.4. API error center

You can go to the API Error Center to view the error codes that occur during the use of the Redis API. This helps you troubleshoot and solve problems.

Please visit [Error Center](#) for more information about Redis API error codes.

20.5. Description of the Instances parameter in the DescribePrice API operation

This topic describes the subparameters that are included in the Instances request parameter of the DescribePrice API operation. It also provides a sample request where the Instances request parameter is specified.

Limits

This topic provides additional information about the [DescribePrice](#) API operation. The additional information is not applicable to other API operations.

Subparameters of the Instances request parameter

Subparameter	Type	Required	Description
InstanceId	String	No	The ID of the instance. This parameter is required if the OrderType parameter is set to UPGRADE or RENEW.
Capacity	Long	Yes	The storage capacity of the instance. Unit: MB.
InstanceClass	String	Yes	The instance type. For more information about instance types, see Overview .
OrderType	String	Yes	The type of the order. Valid values: <ul style="list-style-type: none"> • BUY • UPGRADE • RENEW
IzNo	String	Yes	The ID of the zone. You can call the DescribeZones operation to query zone IDs.

Subparameter	Type	Required	Description
ChargeType	String	No	<p>The billing method. Valid values:</p> <ul style="list-style-type: none">PostPaid: the pay-as-you-go billing method.PrePaid: the subscription billing method. <p>Note The default value is PostPaid.</p>
NodeType	String	No	The type of the node. Set the value to MASTER_SLAVE. This value specifies that the node is a master-replica node.
Period	Long	No	The subscription period. Unit: months. Valid values: 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 24, and 36.
Quantity	String	No	The number of instances that you want to purchase. Valid values: 1 to 30. Default value: 1.
VPCId	String	No	The ID of the VPC.
vSwitchId	String	No	The ID of the vSwitch.
AutoPay	String	No	<p>Specifies whether to enable automatic payment. Valid values:</p> <ul style="list-style-type: none">truefalse <p>Note The default value is true.</p>
InstanceName	String	No	The names of the instances.

Sample request where the Instances request parameter is specified

```
https://r-kvstore.aliyuncs.com/?Action=DescribePrice  
&RegionId=cn-hangzhou  
&ZoneId=cn-hangzhou-b  
&OrderType=BUY  
&Instances=[  
  {  
    "RegionId": "cn-hangzhou",  
    "IzNo": "cn-hangzhou-b",  
    "InstanceClass": "redis.master.small.default",  
    "ChargeType": "PostPaid",  
    "OrderType": "BUY",  
    "Period": "1",  
    "Quantity": "1",  
    "Capacity": "4096"  
  }  
]  
&<Common request parameters>
```