

Alibaba Cloud ApsaraDB for MySQL

API Reference

Issue: 20190817

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Generic conventions

Table -1: Style conventions

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

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

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1 API overview

RDS instance management

API	Description
#unique_4	Create an RDS instance.
Delete an RDS instance	Release an RDS instance.
Restart an RDS instance	Restart an RDS instance.
View instance attributes	View the details of an RDS instance.
View the RDS instance list	View an RDS instance table.
Change the RDS instance type	Change the type of an RDS instance.
View RDS region and zone information	Query the RDS region and zone information.
View RDS zone information and data replication statuses	Query the data replication mode and high-availability policy of an instance.
Migrate the RDS instance zone	Migrate the zone of an RDS instance.
Clear RDS instance logs	Clear RDS instance logs.
Upgrade the database version of an RDS instance	Upgrade the RDS instance version.
Modify the description of an RDS instance	Modify the RDS instance remarks.
Modify the RDS instance maintenance time	Change the RDS instance maintenance time.
Modify the instance data replication mode and high-availability switching rules	Modify the data replication mode and high-availability policy of an instance.
Switch between the master and slave databases of an RDS instance	Switch between the master and slave RDS instances.
Create a read-only instance	Create a read-only RDS instance.

RDS database management

API	Description
Create a database	Create a database.
Delete a database	Delete a database.

API	Description
View the database list	View the database list.
Modify database remarks	Modify database remarks.
Copy a database for SQL Server 2008 R2	Copy a database in SQL Server 2008 R2.
Copy databases between instances	Copy databases between SQL Server 2012 and SQL Server 2016 instances.

RDS read/write splitting

API	Description
#unique_26	Apply for a read/write splitting address.
#unique_27	Query read weights distributed by the system.
#unique_28	Modify the delay threshold and read weights.
#unique_29	Release the read/write splitting address.

RDS account management

API	Description
Create an account	Create an account.
Delete an account	Delete an account.
View the account list	View the account list.
Grant account permissions	Authorize account permissions.
Revoke account permissions	Revoke account permissions.
Modify account descriptions	Modify account remarks.
Reset the account password	Reset a password.
Reset an account	Reset an account.

RDS security management

API	Description
#unique_38	View SSL configurations.
#unique_39	View the IP whitelist.
#unique_40	View TDE configurations.
#unique_41	Modify SSL configurations.
#unique_42	Modify TDE configurations.

API	Description
#unique_43	Modify the IP whitelist.
#unique_44	Change the common whitelist mode to high-security mode.

RDS network management

API	Description
#unique_45	View all connection addresses of an instance.
#unique_46	Apply for an Internet address.
#unique_46	Release an Internet address.
#unique_47	Modify the expiration time of the classic network address.
#unique_48	Modify the connection address and port number.
#unique_49	Switch the network type.
#unique_50	Switch between the intranet and Internet.

RDS log management

API	Description
#unique_51	View the slow log list.
#unique_52	View slow log details.
#unique_53	View error logs.
#unique_54	View binlogs.
#unique_55	Query whether SQL audit is enabled.
#unique_56	Enable or disable SQL audit.
#unique_57	Query SQL audit logs.
#unique_58	Query the SQL audit file list.

RDS backup and recovery

API	Description
Create backups	Create a backup instance.
Clone RDS instances	Clone an RDS instance.
View the backup list	View the backup instance list.

API	Description
#unique_62	View the backup task list.
Create a temporary instance	Create a temporary instance.
View the backup policy	View a backup policy.
Modify the backup list	Modify a backup policy.
Recover a backup set to an instance	Restore a backup set to an instance.
Delete data backup files	Delete data backup files.
#unique_68	Query log backup files.

RDS monitoring management

API	Description
View the instance resource usage	View the instance resource usage.
View instance performance data	View instance performance data.
Query monitoring behavior	Query monitoring behavior.
Modify monitoring behavior	Modify monitoring behavior.

RDS parameter management

API	Description
View database parameter templates	View the database parameter template.
View the list of currently running instance database parameters	View the database parameter operating list of the current instance.
Modify the database parameter list	Modify the database parameter list.

RDS data migration

API	Description
Obtain a file upload address	Obtain the address used for file upload.
View the database file list	View the data file list.
View the import list	View the import list.
Migrate data from other RDS instances	Migrate data from other instances.
Cancel an import task	Cancel migration.

RDS tag mangement

API	Description
#unique_81	Assign tags to RDS instances.
#unique_82	Query tags.
#unique_83	Unbind tags.

2 Use APIs

2.1 Public parameters

Public request parameters

Public request parameters refer to the request parameters that every interface must use.

Name	Type	Required or not	Description
Format	String	No	Type of the returned value. Values: JSON and XML. Default value: JSON.
Version	String	Yes	API version number. Format: YYYY-MM-DD (date). The current version number is 2016-11-01.
AccessKeyId	String	Yes	Secret key ID issued by Alibaba for user access
Signature	String	Yes	Signature result string. For more information about the signature calculation method, see #unique_86 .
SignatureMethod	string	Yes	Signature method. Currently, HMAC-SHA1 is supported.
Timestamp	String	Yes	Timestamp of a request. The date format follows the ISO8601 standard and uses UTC time. Format: YYYY-MM-DDThh:mm:ssZ, for example, 2013-08-15T12:00:00Z (20:00:00, August 15, 2013, Beijing time).
SignatureVersion	String	Yes	Signature algorithm version. The current version is 1.0
SignatureNonce	String	Yes	Unique random number, used to prevent replay attacks. Different random numbers are used for different requests.

Public return parameters

Each time the you sends a call request to an interface, the system returns a unique identification code (RequestId) no matter whether the request is successful or not.

Request example

```
https :// rds . aliyuncs . com /
Format = xml
& Version = 2014 - 08 - 15
& Signature = Pc5WB8gokV n0xfeu % 2FZV % 2BiNM1dgI % 3D
& SignatureM ethod = HMAC - SHA1
& SignatureN once = 1521552885 2396
& SignatureV ersion = 1 . 0
& AccessKeyI d = key - test
& OwnerId = 12345678
& Timestamp = 2014 - 10 - 10T12 : 00 : 00Z
```

Returned results

After the API service is called, data is returned in a unified format. The returned HTTP status code 2xx indicates that the call is successful. The returned HTTP status code 4xx or 5xx indicates that the call fails. For successful calls, the primary formats of returned data are XML and JSON. When a request is sent, an external system can generate a parameter to define the format of returned data, which is XML by default. In this document, examples of returned results are formatted in a way that is easier to view. The actual returned results do not contain line breaks and indentation.

Successful results

Returned XML results include the request processing result (successful or failed) and the specific service data. Example:

```
<? xml version =" 1 . 0 " encoding =" utf - 8 "? >
<!-- Result Root Node -->
< Interface Name + Response >
  <!-- Return Request Tag -->
  < RequestId > 4C467B38 - 3910 - 447D - 87BC - AC049166F2 16 </
  RequestId >
  <!-- Returned Result Data -->
</ Interface Name + Response >
```

JSON format:

```
" RequestId ": " 4C467B38 - 3910 - 447D - 87BC - AC049166F2 16 ",
/* Returned Result Data */
```

Error results

When an error occurs in an interface call, no result is returned. You can refer to [#unique_87](#) to identify the error cause.

When an error occurs in a call, the HTTP status code 4xx or 5xx is returned for the HTTP request. The returned message body contains the specific error code and error message. The message body also contains the globally unique RequestId and the requested HostId. If you cannot identify the error cause, contact Alibaba Cloud Customer Service for help and provide the HostId and RequestId for support engineers to solve the problem as quickly as possible.

XML format:

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

JSON example:

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

2.2 Request structure

Endpoint

The access address for the RDS API service is rds.aliyuncs.com.

Communication protocol

Support request communication over HTTP or HTTPS. You are advised to send requests using HTTPS for higher security.

Request methods

You can send requests through the HTTP GET method. This method requires that parameters be included in the request URL.

Request parameters

Each request must specify the action to be performed, namely, the action parameter (for example, `CreateData base`). Each action must include public request parameters and the request parameters of the specified action.

Character encoding

Requests and responses are encoded using UTF-8.

2.3 Signature

RDS performs authentication on each access request. Therefore, each request, whether being sent by HTTP or HTTPS, must contain signature information. RDS performs symmetric encryption using the ‘Access Key ID’ and ‘Access Key Secret’ to authenticate the request sender. The Access Key ID and Access Key Secret are officially issued to visitors by Alibaba Cloud (visitors can apply for and manage them at Alibaba Cloud’s official website). The Access Key ID indicates the identity of the visitor. The Access Key Secret is the secret key used to encrypt and verify the signature string on the server. It must be kept confidential and only be available to Alibaba Cloud and you.

When you call a server, the following method is used to sign the request:

1. Construct a normalized request string (Canonicalized Query String) using request parameters.
 - a. Request parameters are ordered alphabetically by their names (including public request parameters and user-defined parameters for the given request interfaces described in this document, but excluding the Signature parameter mentioned in public request parameters).



Notice:

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

- b. The name and value of each request parameter are encoded. The names and values must be URL-encoded using the UTF-8 character set. The URL encoding rules are as follows:
 - A. The characters A-Z, a-z, 0-9, and “-”, “_”, “.”, “~” are not encoded.
 - B. Other characters are encoded in “%XY” format, with XY representing the characters’ ASCII code in hexadecimal notation. For example, the English double quotes (“) are encoded as %22.
 - C. Extended UTF-8 characters are encoded in “%XY%ZA...” format.
 - D. It must be noted that an English space is encoded as %20, rather than the plus sign (+).



Notice:

Generally, libraries that support URL encoding (such as Java’s `java.net.URLEncoder`) encode characters according to the rules for the MIME-type “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 change %7E back to the tilde (~) to conform to the preceding encoding rules.

- c. Connect the encoded parameter names and values with the equal sign (=).
 - d. Sort the parameter name and value pairs connected by equal signs in alphabetical order, and connect them with the (&) symbol to produce the Canonicalized Query String.
2. Follow the following rules to construct the string used for signature calculation by using the Canonicalized Query String constructed in the previous step:

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

```
percentEncode ( CanonicalizedQueryString )
```

Parameter description:

- **HTTPMethod**: the HTTP method used for request submission, for example, GET.
 - **percentEncode(“/ “)**: the coded value for the character “/ “ according to the URL encoding rules described in 1.b, namely, “%2F” .
 - **percentEncode(CanonicalizedQueryString)**: the encoded string of the Canonicalized Query String constructed in Step 1, produced by following the URL encoding rules described in 1.b.
3. Use the preceding signature sting to calculate the signature’ s HMAC value based on RFC2104 definitions.



Notice:

The Key used for calculating the signature is the Access Key Secret held by you, which ends with the “&” character (ASCII:38) and is based on the SHA1 hashing.

4. According to Base64 encoding rules, encode the preceding HMAC value into a string, which gives you the signature value.
5. Add the obtained signature value to the request parameters as the Signature parameter, which completes the request signing process.



Note:

When the obtained signature value is submitted to the RDS server as the final request parameter value, the value is URL-encoded like other parameters according to RFC3986 rules.

DescribeDBInstances is used as an example. The request URL before signature is as follows:

```
http :// rds . aliyuncs . com /? Timestamp = 2013 - 06 - 01T10
: 33 : 56Z & Format = XML & AccessKeyI d = testid & Action =
DescribeDB Instances & SignatureM ethod = HMAC - SHA1 & RegionId
= region1 & SignatureN once = NwDaxvLU6t FE0DVb & Version = 2014
- 08 - 15 & SignatureV ersion = 1 . 0
```

Thus, the StringToSign is:

```
GET &% 2F & AccessKeyI d % 3Dtestid & Action % 3DDescribe
DBInstance s & Format % 3DXML & RegionId % 3Dregion1 & SignatureM
ethod % 3DHMAC - SHA1 & SignatureN once % 3DNwDaxvLU 6tFE0DVb &
```

```
SignatureVersion % 3D1 . 0 & Timestamp % 3D2013 - 06 - 01T10 %
253A33 % 253A56Z & Version % 3D2014 - 08 - 15
```

Assume that the Access Key ID is testid, the Access Key Secret is testsecret, and the Key used for HMAC calculation is testsecret&. The calculated signature is: cNr +

```
cHw3awqsBa Ws6J6hcGvn fJE =
```

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

```
http :// rds . aliyuncs . com /? Timestamp = 2013 - 06 - 01T10 %
3A33 % 3A56Z & Format = XML & AccessKeyId = testid & Action =
DescribeDB Instances & SignatureMethod = HMAC - SHA1 & RegionId
= region1 & SignatureNonce = NwDaxvLU6t FE0DVb & SignatureV
ersion = 1 . 0 & Version = 2014 - 08 - 15 & Signature = cNr %
2bcHw3awqs BaWs6J6hcG vnfJE % 3d
```

3 Instance management

3.1 DestroyDBInstance

This API is used to destroy RDS instances. This API is no longer supported.



Note:

This API is no longer supported.

Prerequisite: The instance is locked.

Request parameters

Parameter	Type	Required	Description
Action	String	Yes	Action to perform. Value: DestroyDBInstance
DBInstanceId	String	Yes	Instance ID.
AccessKeyId	String	No	AccessKey ID used to access Alibaba Cloud services.
ClientToken	String	No	Used to guarantee idempotence.
OwnerAccount	String	No	Your AlibabaCloud account used to log in to the RDS console.

Response parameters

Parameter	Type	Description
RequestId	String	Request ID.

Request example

```
https://rds.aliyuncs.com/?Action=DestroyDBInstance&DBInstanceId=rdsaiabna-iiabn
```

```
& amp ;& lt ;[ Common response parameter ]& gt ;
```

Response example

JSON format

```
{
  "RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 "
}
```

3.2 ModifyDBInstanceDelayReplicationTime

This API is used to modify the replication delay of read-only instances. This API is no longer supported.



Note:

This API is no longer supported.

Request parameters

Parameter	Type	Required	Description
Action	String	Yes	Action to perform. Value: ModifyDBInstanceDelayedReplicationTime
DBInstance Id	String	Yes	Read-only instance ID.
ReadSQLReplicationTime	Integer	Yes	Replication delay of read-only instances. Unit: second. Default value: 0.

Response parameters

Parameter	Type	Description
RequestId	String	See #unique_93 .
DBInstance Id	String	Instance ID.
DelayedReplicationTime	String	Replication delay.
TaskId	String	Task ID.

3.3 CreateDBInstance

You can call this operation to create an RDS instance.

Before performing this operation, make sure that you fully understand the [billing methods](#) and [pricing](#) of RDS.

For more information about RDS instance types, see [Instance types](#).

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateDBInstance	The operation that you want to perform. Set this parameter to CreateDBInstance .
RegionId	String	Yes	cn-hangzhou	The ID of the region. You can call the #unique_96 API operation to view the available regions of Alibaba Cloud.
Engine	String	Yes	MySQL	The engine type of the database . Valid values: - MySQL - SQLServer - PostgreSQL - PPAS - MariaDB

Parameter	Type	Required	Example	Description
EngineVersion	String	Yes	5.6	The version of the database. Valid values: - MySQL: 5 . 5 5 . 6 5 . 7 8 . 0 . - SQL Server: 2008r2 2012 2012_ent_h a 2012_std_h a 2012_web 2016_ent_h a 2016_std_h a 2016_web 2017_ent . - PostgreSQL: 9 . 4 10 . 0 . - PPAS: 9 . 3 10 . 0 . - MariaDB: 10 . 3 .
DBInstanceClass	String	Yes	rds.mysql.s1.small	The instance type (specifications). For more information, see Instance types.
DBInstanceStorage	Integer	Yes	20	The storage capacity of the instance. Unit: GB. This value must be a multiple of 5. For more information, see #unique_97.
DBInstanceNetType	String	Yes	Internet	The network type of the instance. Valid values: - Internet - Intranet
PayType	String	Yes	Postpaid	The billing method of the instance. Valid values: - Postpaid : Pay-As-You-Go - Prepaid : Subscription

Parameter	Type	Required	Example	Description
SecurityIPList	String	Yes	10.23.12.27/24	The IP address whitelist of the instance. Separate multiple IP addresses with commas (.). It can include up to 1,000 IP addresses. The IP addresses support two formats: • IP address format. For example, 10.23.12.24. • Classless Inter-Domain Routing (CIDR) format. For example, 10.23.12.24/24 (where /24 indicates the number of bits for the prefix of the IP address, in the range of 1 to 32.)
SystemDBCharset	String	No	GBK	The character set. Valid values: • MySQL or MariaDB: utf8 gbk latin1 utf8mb4 • SQL Server: Chinese_PR C_CI_AS Chinese_PR C_CS_AS SQL_Latin1_General_C P1_CI_AS SQL_Latin1_General_C P1_CS_AS Chinese_PR C_BIN
DBInstanceDescription	String	No	Test database	The instance description. It starts with a letter and contains 2 to 256 characters, including letters, digits, underscores (_), and hyphens (-).  Note: It cannot start with http:// or https://.

Parameter	Type	Required	Example	Description
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.
ZoneId	String	No	cn-hangzhou-b	The ID of the zone.
InstanceNetworkType	String	No	Classic	The network type of the instance. Valid values: - VPC - Classic Default value: Classic  Note: - SQL Server 2017 Cluster Edition supports only the VPC network. - For MariaDB, this parameter is required.
ConnectionMode	String	No	Standard	The access mode of the instance. Valid values: - Standard : standard mode. - Safe : database proxy mode.  Note: SQL Server 2012, 2016, and 2017 support only the standard mode.

Parameter	Type	Required	Example	Description
VPCId	String	No	vpc- xxxxxxxxxxxxx	The ID of the VPC.  Note: For MariaDB, this parameter is required.
VSwitchId	String	No	vsw- xxxxxxxxxxxxx	The ID of the VSwitch. Separate multiple IDs with commas (,).  Note: For MariaDB, this parameter is required.
PrivateIpAddress	String	No	172.16.201.69	The intranet IP address of the instance. It must be within the IP address range provided by the switch. By default, the system automatically assigns an IP address based on the VPCId and VSwitchId .
Period	String	No	Year	The prepayment period of the instance. Valid values: • Year • Month  Note: If the billing method is Prepaid , this parameter is required.

Parameter	Type	Required	Example	Description
UsedTime	String	No	2	The subscription length. Valid values: • If the <code>Period</code> parameter is set to <code>Year</code>, the value of the <code>UsedTime</code> parameter ranges from 1 to 3. • If the <code>Period</code> parameter is set to <code>Month</code>, the value of the <code>UsedTime</code> parameter ranges from 1 to 9.  Note: If the billing method is <code>Prepaid</code>, this parameter is required.
AutoRenew	String	No	true	Indicates whether the instance is automatically renewed. Valid values: • <code>true</code> • <code>false</code>  Note: • If the <code>Period</code> parameter is set to <code>Year</code>, the automatic renewal period is 1 year. • If the <code>Period</code> parameter is set to <code>Month</code>, the automatic renewal period is 1 month.

Parameter	Type	Required	Example	Description
DBInstanceStorageType	String	No	cloud_ssd	The storage type of the instance. Valid values: - local_ssd : local SSD (recommended). - cloud_ssd : cloud SSD.
BusinessInfo	String	No	121436975448952	The extended business information.

Response parameters

Parameter	Type	Example	Description
DBInstanceId	String	rm-uf6wjk5xxx xxxxxxx	The ID of the instance.
OrderId	String	1007893702 xxxxx	The ID of the order.
ConnectionString	String	rm-uf6wjk5xxx xxxx.mysql.rds. aliyuncs.com	The connection address of the database.
Port	String	3306	The port of the database.  Note: The DBInstance NetType parameter determines whether the value of this parameter is a port for establishing a private or public connection.
RequestId	String	1E43AAE0-BEE8-43DA-860D-EAF2AA0724DC	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = CreateDBInstance
& RegionId = cn - hangzhou
& Engine = MySQL
& EngineVersion = 5 . 6
```

```
& DBInstance Class = rds . mysql . s1 . small
& DBInstance Storage = 20
& DBInstance NetType = Internet
& PayType = Postpaid
& SecurityIP List = 10 . 23 . 12 . 27 / 24
&< Common request parameters >
```

Normal response examples

XML format

```
< CreateDBInstanceResponse >
  < OrderId > 1007893702 xxxxx </ OrderId >
  < Connection String > rm - uf6wjk5xxx xxxx . mysql . rds .
aliyuncs . com </ Connection String >
  < DBInstance Id > rm - uf6wjk5xxx xxxx </ DBInstance Id >
  < Port > 3306 </ Port >
  < RequestId > 1E43AAE0 - BEE8 - 43DA - 860D - EAF2AA0724 DC </
RequestId ></ CreateDBInstanceResponse >
```

JSON format

```
{
  "Port ":" 3306 ",
  "Connection String ":" rm - uf6wjk5xxx xxxx . mysql . rds .
aliyuncs . com ",
  "RequestId ":" 1E43AAE0 - BEE8 - 43DA - 860D - EAF2AA0724 DC ",
  "DBInstance Id ":" rm - uf6wjk5xxx xxxx ",
  "OrderId ":" 1007893702 xxxxx "
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	InvalidZoneId. NotSupported	The Specified vpc Zone not supported.	The zone does not support VPC instances. Change the zone and retry.

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

3.4 DeleteDBInstance

You can call this operation to release an RDS instance.

When you perform this operation, the instance must meet the following requirements :

- The instance is in the running state.
- The read/write splitting function is disabled for the instance.

- The instance is a Pay-As-You-Go master instance, read-only instance, disaster recovery instance, or temporary instance.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteDBInstance	The operation that you want to perform. Set this parameter to DeleteDBInstance .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxxxxx	The ID of the instance.
AccessKeyId	String	No	LTAIfCxxxx xxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	65BDA532-28AF-4122-AA39-B382721EEE64	The ID of the request.

Examples

Request example

```
http(s)://rds.aliyuncs.com/?Action=DeleteDBInstance
&DBInstanceId=rm-uf6wjk5xxx-xxxxxxx
&<Common request parameters>
```

Normal response examples

XML format

```
<DeleteDBInstanceResponse>
```

```
< RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 </  
RequestId ></ DeleteDBInstanceResponse >
```

JSON format

```
{  
  "RequestId": "65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64"  
}
```

Error codes

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

3.5 RestartDBInstance

You can call this operation to restart an RDS instance.



Note:

If a large number of transactions need to be submitted or rolled back, the restart process may take about one more minute.

This operation must meet the following requirements:

- The instance is in the running state.
- The instance is not performing a backup task.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	RestartDBInstance	The operation that you want to perform. Set this parameter to RestartDBInstance.
DBInstanceId	String	Yes	rm-uf6wjk5xxxxxx	The ID of the instance.

Parameter	Type	Required	Example	Description
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	65BDA532-28AF- -4122-AA39- B382721EEE64	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = RestartDBInstance
& DBInstanceId = rm-uf6wjk5xxx-xxxxxxx
& < Common request parameters >
```

Normal response examples

XML format

```
< RestartDBInstanceResponse >
  < RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 </
RequestId ></ RestartDBInstanceResponse >
```

JSON format

```
{
  "RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 "
```

```
}
```

Error codes

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

3.6 RenewInstance

You can call this operation to renew an RDS instance.

The instance must meet the following requirements:

- The billing method of the instance is Subscription.
- Your Alibaba Cloud account has sufficient balance or has been bound to a credit card.



Note:

Coupons under your account will be preferentially used during payment.

Debugging

You can use [API Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	RenewInstance	The operation that you want to perform. Set the value to RenewInstance.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxxxxx	The ID of the instance.

Parameter	Type	Required	Example	Description
Period	String	Yes	12	The renewal period. Unit: months. Valid values: • 1 to 9 • 12 • 24 • 36 • 48 • 60
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxxxxx	The client token that is used to ensure the idempotency of requests. The parameter value is generated by the client and is unique among different requests, which is a string of up to 64 ASCII characters.
AutoPay	String	No	True	Indicates whether automatic payment is enabled. Valid values: • True: Automatic payment is enabled. Make sure that your account has sufficient balance. • False: Automatic payment is disabled. You need to pay on the console as follows: Log on to the console. In the upper-right corner, choose Billing Management > Billing Management. On the Billing Management page, choose Bills. On the Unpaid tab, click Make a Payment in the Actions column. Default value: false

Parameter	Type	Required	Example	Description
AccessKeyId	String	No	LTAIfCxxxx xxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
OrderId	Long	201815745430941	The ID of the order.
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = RenewInstance
& DBInstanceId = rm - uf6wjk5xxx xxxxxxxx
& Period = 12
&< Common request parameters >
```

Normal response examples

XML format

```
< RenewInstanceResponse >
  < OrderId > 20286717xxx xxx </ OrderId >
  < RequestId > E10319A3 - B96A - 46B0 - 81CE - D610DC8914 09 </
  RequestId >
</ RenewInstanceResponse >
```

JSON format

```
{
  " RequestId ":" E10319A3 - B96A - 46B0 - 81CE - D610DC8914 09 ",
  " OrderId ":" 20286717xxx xxx "
}
```

Error codes

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

3.7 DescribeDBInstanceAttribute

You can call this operation to view the details of an RDS instance.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeDBInstanceAttribute	The operation that you want to perform. Set this parameter to <code>DescribeDBInstanceAttribute</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxxxxx	The ID of the instance. You can enter up to 30 instance IDs at a time. Separate multiple instance IDs with commas (,).
Expired	String	No	False	Indicates whether the instance has expired. Valid values: • True • False

Response parameters

Parameter	Type	Example	Description
Items	N/A	N/A	A list of instances.
DBInstanceId	String	rm-uf6wjk5xxx xxxxxxx	The ID of an instance.

Parameter	Type	Example	Description
PayType	String	Postpaid	The billing method of the instance. Valid values: - Postpaid : Pay-As-You-Go. - Prepaid : Subscription.
DBInstanceType	String	Primary	The role of the instance. Valid values: - Primary : master instance. - Readonly : read-only instance. - Guard : disaster recovery instance. - Temp : temporary instance.
Category	String	Basic	The edition (series) of the instance. Valid values: - Basic - HighAvailability - AlwaysOn
InstanceNetworkType	String	Classic	The intranet type of the instance. Valid values: - Classic - VPC
RegionId	String	cn-hangzhou	The ID of the region.
ZoneId	String	cn-hangzhou-a	The ID of the zone.
ConnectionString	String	rm-uf6wjk5xxx xxxxxxx.mysql. rds.aliyuncs.com	The private IP address of the instance.
Port	String	3306	The private port of the instance.
Engine	String	MySQL	The type of the database engine.
EngineVersion	String	5.5	The version of the database engine.

Parameter	Type	Example	Description
DBInstanceClassType	String	s	The type family of the instance. Valid values: · s : shared instance. · x : common instance. · d : dedicated instance. · h : dedicated-host instance.
DBInstanceClass	String	rds.mys2.small	The instance type (specifications). For more information, see #unique_97 .
DBInstanceMemory	Long	4096	The memory of the instance. Unit: MB.
DBInstanceStorage	Integer	10	The storage capacity of the instance . Unit: GB.
DBInstanceNetType	String	Internet	The network type of the instance. Valid values: · Internet · Intranet
DBInstanceStatus	String	Running	The status of the instance. For more information, see #unique_103 .
DBInstanceDescription	String	Test database	The description of the instance.

Parameter	Type	Example	Description
LockMode	String	Unlock	The lock mode of the instance. Valid values: - Unlock : The instance is not locked, indicating the instance is operating normally. - ManualLock : The instance is locked manually. - LockByExpiration : The instance is locked automatically after the instance expires. - LockByRestoration : The instance is locked automatically during the instance rollback. - LockByDiskQuota : The instance is locked automatically due to full disk space.
LockReason	String	instance_expired	The reason why the instance is locked.
DBMaxQuantity	Integer	200	The maximum number of databases that can be created in an instance.
AccountMaxQuantity	Integer	50	The maximum number of accounts that can be created in an instance.
CreationTime	String	2011-05-30T12:11:04Z	The time when the instance is created. Format: yyyy-MM-ddTHH:mm:ssZ (UTC time).
ExpireTime	String	2019-03-27T16:00:00Z	The expiration time. Format: yyyy-MM-ddTHH:mm:ssZ (UTC time).  Note: Pay-As-You-Go instances never expire.

Parameter	Type	Example	Description
MaintainTime	String	00:00Z-02:00Z	The maintenance period of the instance. The value is UTC time . The value plus 8 hours is the maintenance period displayed on the web console.
AvailabilityValue	String	100.0%	The availability of the instance. Unit: %.
MaxIOPS	Integer	150	The maximum number of I/O requests per second.
MaxConnections	Integer	60	The maximum number of concurrent connections.
MasterInstanceId	String	rm-uf6wjk5xxxxxxx	The ID of the master instance of the current instance. If this parameter is not returned (null), the current instance itself is a master instance.
IncrementalSourceDBInstanceId	String	rm-uf6wjk5xxxxxxx	The ID of the incremental data source. The incremental data source of a disaster recovery instance or read-only instance is the master instance. If this parameter is not returned (null), the current instance itself is a master instance.
GuardDBInstanceId	String	rm-uf64zsuxxxx	The ID of the disaster recovery instance (if any) attached to the current instance.

Parameter	Type	Example	Description
TempDBInstanceID	String	rm-uf64zsuxxx xxxxxxx	The ID of the temporary instance (if any) attached to the current instance.
ReadOnlyDBInstanceIds	N/A	N/A	The IDs of read-only instances attached to the master instance.
DBInstanceID	String	rm-bpxxxxxxxxx	The ID of a read-only instance.
AdvancedFeatures	String	LinkedServer	This parameter is only applicable to SQL Server instances and indicates advanced features. Valid values: • <code>LinkedServer</code> • <code>Distribute Transaction</code>
AutoUpgradeMinorVersion	String	Auto	The method of upgrading an instance to a minor version. Valid values: • <code>Auto</code> : The system automatically upgrades an instance to a minor version. • <code>Manual</code> : The system prompts you to upgrade an instance to a minor version only when the version is deprecated.
Collation	String	Chinese_PRC_CI_AS	The sorting rule of character sets.
ConnectionMode	String	Standard	The access mode of the instance. Valid values: • <code>Standard</code> : standard mode. • <code>Safe</code> : database proxy mode.
CurrentKernelVersion	String	rds_20181010	The current kernel version.

Parameter	Type	Example	Description
DBInstanceStorageType	String	local_ssd	The storage type of the instance. Valid values: - local_ssd : local SSD. - cloud_ssd : cloud SSD.
DispenseMode	String	ClassicDispenseMode	The allocation mode.
Extra	N/A	N/A	The extended information about the instance.
DBInstanceId	N/A	rm-uf6wjk5xxxxxxxxxx	The ID of the instance.
MasterZone	String	5454284	The ID of the master zone.
ReadOnlyInstanceSQLDElayedTime	String	30	After the latency of ReadOnlyInstanceSQLDElayedTime , read-only instances synchronize data from the master instance. Unit: second.
ResourceGroupId	String	rg-acfmyxxxxxx	The ID of the resource group.
SecurityIPMode	String	normal	The IP whitelist mode.
SlaveZones	N/A	N/A	The information about SlaveZones.
ZoneId	String	cn-hangzhou-a	The ID of the zone.
TimeZone	String	Central Standard Time	The time zone.
VSwitchId	String	vsw-xxxxxx	The ID of the VSwitch.
VpcCloudInstanceId	String	vpc-23rsxdfxxxx	The ID of the VPC instance.
VpcId	String	vpc-xxxxxxxxxx	The ID of the VPC.
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeDB
InstanceAt tribute
& DBInstance Id = rm - uf6wjk5xxx xxxxxxxx
&< Common request parameters >
```

Normal response examples

XML format

```
< DescribeDB InstanceAt tributeRes ponse >
  < Items >
    < DBInstance Attribute >
      < Extra >
        < DBInstance Id ></ DBInstance Id >
      </ Extra >
      < Connection String > rm - uf6wjk5xxx xxxxxxxx . mysql . rds
. aliyuncs . com </ Connection String >
      < AccountMax Quantity > 99999 </ AccountMax Quantity >
      < CurrentKernelVersion > rds_201707_14 </ CurrentKernelVersion >
      < DBInstance CPU > 2 </ DBInstance CPU >
      < ZoneId > cn - hangzhou - f </ ZoneId >
      < ReadOnlyDB InstanceIds ></ ReadOnlyDB InstanceIds >
      < Connection Mode > Standard </ Connection Mode >
      < VSwitchId > vsw - bplw9oueix xxxx </ VSwitchId >
      < VpcId > vpc - bplpxulzk hxxxxx </ VpcId >
      < Engine > MySQL </ Engine >
      < MaintainTime > 18 : 00Z - 22 : 00Z </ MaintainTime >
      < MaxConnections > 4000 </ MaxConnections >
      < DBInstance Type > Primary </ DBInstance Type >
      < DBInstance Memory > 4096 </ DBInstance Memory >
      < EngineVersion > 5 . 7 </ EngineVersion >
      < DBInstance StorageType > cloud_ssd </ DBInstance
StorageType >
      < DBInstance Status > Running </ DBInstance Status >
      < SecurityIP Mode > normal </ SecurityIP Mode >
      < PayType > Prepaid </ PayType >
      < SupportUpgradeAccountType > No </ SupportUpgradeAccountType >
      < AccountType > Mix </ AccountType >
      < LockMode > Unlock </ LockMode >
      < DBInstance NetType > Intranet </ DBInstance NetType >
      < MaxIOPS > 600 </ MaxIOPS >
      < DBInstance Class > mysql . n2 . medium . 1 </ DBInstance
Class >
      < DBMaxQuantity > 99999 </ DBMaxQuantity >
      < ResourceGroupId > rg - acfmyxxxxx </ ResourceGroupId >
      < DBInstance Id > rm - bp176xxxxx </ DBInstance Id >
      < VpcCloudInstanceId > rm - bp176gz7xxx </ VpcCloudInstanceId >
      < DBInstance ClassType > x </ DBInstance ClassType >
      < LatestKernelVersion ></ LatestKernelVersion >
      < InstanceNetworkType > VPC </ InstanceNetworkType >
      < DBInstance Storage > 20 </ DBInstance Storage >
      < SupportCreateSuperAccount > No </ SupportCreateSuperAccount >
```

```

    < CreationTime > 2018 - 11 - 28T01 : 32 : 08Z </
CreationTime >
    < Category > Basic </ Category >
    < Port > 3306 </ Port >
    < InsId > 1 </ InsId >
    < ExpireTime > 2018 - 12 - 28T16 : 00 : 00Z </ ExpireTime >
    < RegionId > cn - hangzhou </ RegionId >
    < AvailabilityValue > 100 . 0 % </ AvailabilityValue >
    < SecurityIP List > 1 . 1 . 1 . 1 </ SecurityIP List >
  </ DBInstance Attribute >
</ Items >
  < RequestId > CFE76192 - 2F85 - 4D18 - 975E - 465B77C129 C4 </
RequestId >
</ DescribeDB InstanceAttributeResponse >

```

JSON format

```

{
  "Items":{
    "DBInstance Attribute":[
      {
        "AccountMax Quantity": 99999 ,
        "Connection String":"rm - uf6wjk5xxx xxxxxx . mysql . rds .
aliyuncs . com ",
        "Extra":{
          "DBInstance Id":{
            "DBInstance Id":[]
          }
        },
        "CurrentKernelVersion":" rds_201707 14 ",
        "DBInstance CPU ":" 2 ",
        "ZoneId ":" cn - hangzhou - f ",
        "Connection Mode ":" Standard ",
        "ReadOnlyDB InstanceIds":{
          "ReadOnlyDB InstanceId":[]
        },
        "VSwitchId ":" vsw - bp1w9oueix xxxx ",
        "Engine ":" MySQL ",
        "VpcId ":" vpc - bp1opxulzk hxxxxx ",
        "MaintainTime ":" 18 : 00Z - 22 : 00Z ",
        "MaxConnections": 4000 ,
        "DBInstance Type ":" Primary ",
        "DBInstance Memory": 4096 ,
        "EngineVersion ":" 5 . 7 ",
        "DBInstance StorageType ":" cloud_ssd ",
        "DBInstance Status ":" Running ",
        "SecurityIP Mode ":" normal ",
        "PayType ":" Prepaid ",
        "SupportUpgradeAccountType ":" No ",
        "AccountType ":" Mix ",
        "LockMode ":" Unlock ",
        "DBInstance NetType ":" Intranet ",
        "MaxIOPS": 600 ,
        "DBInstance Class ":" mysql . n2 . medium . 1 ",
        "DBMaxQuantity": 99999 ,
        "DBInstance Id ":" rm - bp176xxxxx ",
        "ResourceGroup": "rg - acfmyxxxxx ",
        "VpcCloudInstanceId ":" rm - bp176gz7xx xxx ",
        "DBInstance ClassType ":" x ",
        "LatestKernelVersion": "",
        "InstanceNetworkType ":" VPC ",
        "DBInstance Storage": 20 ,
        "SupportCreateSuperAccount ":" No ",

```

```

    " CreationTime ":" 2018 - 11 - 28T01 : 32 : 08Z ",
    " Port ":" 3306 ",
    " Category ":" Basic ",
    " InsId ":" 1 ",
    " ExpireTime ":" 2018 - 12 - 28T16 : 00 : 00Z ",
    " AvailabilityValue ":" 100 . 0 %",
    " RegionId ":" cn - hangzhou ",
    " SecurityIP List ":" 1 . 1 . 1 . 1 "
  }
],
},
" RequestId ":" CFE76192 - 2F85 - 4D18 - 975E - 465B77C129 C4 "
}

```

Error codes

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

3.8 DescribeDBInstances

You can call this operation to view the list of RDS instances or the list of instances that are authorized by RAM.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeDBInstances	The operation that you want to perform. Set this parameter to DescribeDBInstances.
RegionId	String	Yes	cn-hangzhou	The ID of the region. You can call the #unique_96 API operation to view the latest regions.

Parameter	Type	Required	Example	Description
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.
Engine	String	No	MySQL	The type of the database. Valid values: - MySQL - SQLServer - PostgreSQL - PPAS - MariaDB The system returns all the database types by default.
ZoneId	String	No	cn-hangzhou-a	The ID of the zone.
DBInstanceStatus	String	No	Running	The status of the instance. For more information, see #unique_103 .
Expired	String	No	True	Indicates whether the instance expires. Valid values: - True - False
SearchKey	String	No	rm-uf6w	The search key that can be used for fuzzy search based on the instance ID or instance description.

Parameter	Type	Required	Example	Description
DBInstanceId	String	No	rm-uf6wjk5xxx xxxx	The ID of the instance.
DBInstanceType	String	No	Primary	The type of the instance. Valid values: - Primary - Readonly - Guard - Temp The system returns all the instance types by default.
PageSize	Integer	No	30	The number of records per page. Valid values: 30 50 100 Default value: 30 .
PageNumber	Integer	No	1	The page number, which is greater than zero and up to the maximum value of an integer. Default value: 1 .
InstanceNetworkType	String	No	Classic	The network type of the instance. Valid values: - VPC - Classic The system returns instances of all the network types by default.
VpcId	String	No	vpc-uf6f7l4fg9 0xxxxxxxxxxx	The ID of the VPC.

Parameter	Type	Required	Example	Description
VSwitchId	String	No	vsw-uf6adz52c2pxxxxxxxxxx	The ID of the VSwitch.
DBInstanceClass	String	No	rds.mys2.small	The type of the instance. For more information, see #unique_97 .
EngineVersion	String	No	5.7	The version of the database.
PayType	String	No	Postpaid	The billing method. Valid values: - Postpaid - Prepaid
ConnectionMode	String	No	Standard	The access mode of the instance. Valid values: - Standard : standard mode. - Safe : database proxy mode. The system returns all the access modes of the instance by default.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.
proxyId	String	No	API	The ID of the proxy mode.
ResourceGroupId	String	No	rg-acfmyxxxxx	The ID of the resource group.

Parameter	Type	Required	Example	Description
Tags	String	No	{ "key1" : value1" }	The tag is a key-value pair, which includes the TagKey and TagValue. You can specify up to five tag pairs in a single request. Format: {"key1": "value1", "key2": "value2"...}.
Tag . 1 . key	String	No	Tagkey1	The TagKeys of the first set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.
Tag . 2 . key	String	No	Tagkey2	The TagKeys of the second set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.
Tag . 3 . key	String	No	Tagkey3	The TagKeys of the third set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.

Parameter	Type	Required	Example	Description
Tag . 4 . key	String	No	Tagkey4	The TagKeys of the fourth set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.
Tag . 5 . key	String	No	Tagkey5	The TagKeys of the fifth set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.
Tag . 1 . value	String	No	Tagvalue1	The TagValues of the first set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.
Tag . 2 . value	String	No	Tagvalue2	The TagValues of the second set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.

Parameter	Type	Required	Example	Description
Tag . 3 . value	String	No	Tagvalue3	The TagValues of the third set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.
Tag . 4 . value	String	No	Tagvalue4	The TagValues of the fourth set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.
Tag . 5 . value	String	No	Tagvalue5	The TagValues of the fifth set of tags. Each tag includes a TagKey and a TagValue. Up to five key-value pairs can be entered in a single request. The TagKey is required, and the TagValue is optional.

Response parameters

Parameter	Type	Example	Description
PageRecord Count	Integer	10	The number of instances on the current page.
TotalRecor dCount	Integer	100	The total number of records.
PageNumber	Integer	1	The page number.

Parameter	Type	Example	Description
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.
Items	N/A	N/A	The array that consists of instance data.
DBInstanceId	String	rm-uf6wjk5xxx xxxxxxx	The ID of the instance.
DBInstanceDescription	String	Test database	The description of the instance.
PayType	String	Postpaid	The billing method of the instance. Valid values: - Postpaid - Prepaid
DBInstanceType	String	Primary	The type of the instance role. Valid values: - Primary - ReadOnly - Guard - Temp
InstanceNetworkType	String	Classic	The network type of the instance. Valid values: - Classic - VPC
ConnectionMode	String	Performance	The access mode of the instance. Valid values: - Standard : standard mode. - Safe : database proxy mode.
RegionId	String	cn-hangzhou	The ID of the region.

Parameter	Type	Example	Description
ExpireTime	String	2019-02-27T16:00:00Z	The expiration time in the following UTC format: <i>yyyy-MM-ddTHH:mm:ss</i>.  Note: Pay-As-You-Go instances never expire.
DBInstanceStatus	String	Running	The status of the instance. For more information, see #unique_103 .
Engine	String	MySQL	The type of the database.
DBInstanceNetType	String	Internet	The network type of the instance. Valid values: - Internet : public network. - Intranet : private network.

Parameter	Type	Example	Description
LockMode	String	Unlock	The lock status of the instance. Valid values: - Unlock : The instance is unlocked, indicating the instance is operating normally. - ManualLock : The instance is locked manually. - LockByExpiration : The instance is locked automatically after the instance expires. - LockByRestoration : The instance is locked automatically before the instance rollback. - LockByDiskQuota : The instance is locked automatically due to full disk space. - Released : The instance has been released. You cannot unlock the instance in the released state. You can use the backup data to create a new instance, which is time-consuming.
LockReason	String	instance_expired	The reason why the instance is locked.
MasterInstanceId	String	rm-uf6wjk5xxx xxxxxxx	The ID of the primary instance. If this parameter is not returned (it is null), the instance is a primary instance.
GuardDBInstanceId	String	rm-uf64zsuxxx xxxxxxx	The ID of the disaster recovery instance.
TempDBInstanceId	String	rm-uf64zsuxxx xxxxxxx	The ID of the temporary instance.

Parameter	Type	Example	Description
AutoUpgradeMinorVersion	String	Auto	The method of upgrading an instance to a minor version. Valid values: - Auto : The system automatically upgrades an instance to a minor version. - Manual : The system prompts you to upgrade an instance to a minor version only when the version is deprecated.
Category	String	Basic	The instance edition: - Basic - HighAvailability
CreateTime	String	2018-11-05T11:26:02Z	The creation time in the following UTC format: <code>yyyy-MM-ddTHH:mm:ssZ</code> .
DBInstanceClass	String	rds.mys2.small	The type of the instance. For more information, see #unique_97 .
DBInstanceStorageType	String	ModuleList. 4. ModuleCode	The storage type of the instance.
DestroyTime	String	2018-11-05T11:26:02Z	The time when the instance is destroyed.
EngineVersion	String	5.7	The version of the database.
MultiAZ	Boolean	true	Indicates whether the instance is deployed in multiple zones. Valid values: - true - false

Parameter	Type	Example	Description
ReadOnlyDB InstanceIds	N/A	N/A	The IDs of the read-only instances.
DBInstanceId	String	rr-uf6wjk5xxx xxxx	The ID of the read-only instance.
ResourceGroupId	String	rg-acfmyxxxxxxxx	The ID of the resource group.
VSwitchId	String	vsw-uf6adz52c2 pxxxxxxxx	The ID of the VSwitch.
VpcCloudInstanceId	String	rm-uf6wjk5xxx xxxx	The ID of the VPC instance.
VpcId	String	vpc-uf6f7l4fg9 0xxxxxxxx	The ID of the VPC.
ZoneId	String	cn-hangzhou-a	The ID of the zone.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeDB
Instances
& RegionId = cn - hangzhou
& < Common request parameters >
```

Successful response examples

XML format

```
< DescribeDB InstancesR esponse >
  < Items >
    < DBInstance >
      < LockMode > Unlock </ LockMode >
      < DBInstance NetType > Intranet </ DBInstance NetType >
      < DBInstance Class > ppas . x4 . xlarge . 2 </ DBInstance
Class >
      < ResourceGr oupId > rg - acfnt75uxx xxx </ ResourceGr
oupId >
      < DBInstance Id > rm - dj120j44xx xxx </ DBInstance Id >
      < VpcCloudIn stanceId > </ VpcCloudIn stanceId >
      < ZoneId > cn - beijing - MAZ3 ( c , e ) </ ZoneId >
      < ReadOnlyDB InstanceId s > </ ReadOnlyDB InstanceId s >
      < Connection Mode > Standard </ Connection Mode >
      < InstanceNe tworkType > Classic </ InstanceNe tworkType >
      < Engine > PPAS </ Engine >
      < MutriORsig nle > true </ MutriORsig nle >
      < InsId > 1 </ InsId >
      < ExpireTime > </ ExpireTime >
      < CreateTime > 2019 - 03 - 20T02 : 18 : 02Z </ CreateTime >
```

```

    < DBInstance Type > Primary </ DBInstance Type >
    < RegionId > cn - beijing </ RegionId >
    < EngineVersion > 10 . 0 </ EngineVersion >
    < LockReason ></ LockReason >
    < DBInstance Status > Running </ DBInstance Status >
    < PayType > Postpaid </ PayType >
  </ DBInstance >
</ Items >
< TotalRecordCount > 1 </ TotalRecordCount >
< PageNumber > 1 </ PageNumber >
< RequestId > 0C2B0363 - 2707 - 4300 - 9900 - 0A65846CE4 8E </
RequestId >
< PageRecordCount > 1 </ PageRecordCount >
</ DescribeDBInstancesResponse >

```

JSON format

```

{
  "Items":{
    "DBInstance":[
      {
        "LockMode ":" Unlock ",
        "DBInstance NetType ":" Intranet ",
        "DBInstance Class ":" ppas . x4 . xlarge . 2 ",
        "ResourceGroupId ":" rg - acfnt75uxx xxx ",
        "DBInstance Id ":" rm - dj120j44xx xxx ",
        "VpcCloudInstanceId ":"",
        "ZoneId ":" cn - beijing - MAZ3 ( c , e )",
        "ReadOnlyDB InstanceIds ":{
          "ReadOnlyDB InstanceId ":[]
        },
        "Connection Mode ":" Standard ",
        "InstanceNetworkType ":" Classic ",
        "Engine ":" PPAS ",
        "MultiAZEnabled ": true ,
        "InsId ": 1 ,
        "ExpireTime ":"",
        "RegionId ":" cn - beijing ",
        "DBInstance Type ":" Primary ",
        "CreateTime ":" 2019 - 03 - 20T02 : 18 : 02Z ",
        "LockReason ":"",
        "EngineVersion ":" 10 . 0 ",
        "DBInstance Status ":" Running ",
        "PayType ":" Postpaid "
      }
    ]
  },
  "PageNumber ": 1 ,
  "TotalRecordCount ": 1 ,
  "RequestId ":" 0C2B0363 - 2707 - 4300 - 9900 - 0A65846CE4 8E ",
  "PageRecordCount ": 1
}

```

```
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	InvalidDBInstanceType. ValueNotSupport	The specified parameter "DBInstanceType" is not valid.	The value of the DBInstance Type parameter is invalid.

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

3.9 ModifyDBInstanceSpec

You can call this operation to modify the type or storage space of an instance. The instance can be a regular or read-only instance, and cannot be a disaster recovery or temporary instance.

This operation must meet the following requirements:

- The instance is in the running state.
- The instance is not performing a backup task.
- Either the instance type (DBInstanceClass) or storage space (DBInstanceStorage) parameter must be specified in the request.
- When you downgrade the disk space configuration, the input disk space is no less than 1.1 times the actually used space.
- Only regular and read-only instances allow configuration changes. Configurations cannot be changed for disaster recovery or temporary instances.

Debugging

You can use [API Explorer](#) to perform debugging. API Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyDBInstanceSpec	The operation that you want to perform. Set the value to <code>ModifyDBInstanceSpec</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
PayType	String	Yes	Postpaid	The current billing method of the instance. Valid values: - Postpaid - Prepaid
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxx	The client token that is used to ensure the idempotency of requests. The parameter value is generated by the client and is unique among different requests, which is a string of up to 64 ASCII characters.
DBInstanceClass	String	No	rds.mys2. small	The type of the instance. For more information, see Instance types .  Note: Either the instance type (DBInstanceClass) or storage space (DBInstanceStorage) parameter must be specified in the request.

Parameter	Type	Required	Example	Description
DBInstanceStorage	Integer	No	20	User-defined storage space. The value must be an integer multiple of 5. Valid values: - MySQL: 5 to 2000. - SQL Server: 10 to 3000. - PostgreSQL: 5 to 2000. - PPAS: 250 to 500. - MariaDB: 20 to 1000. Different billing methods and instances of different versions have different value ranges. For more information, see the read-only instance creation page in the console.  Note: Either the instance type (DBInstanceClass) or storage space (DBInstanceStorage) parameter must be specified in the request.
EffectiveTime	String	No	2017-11-06T17:49:12Z	Effective time. Valid values: - Immediate: The changes take effect immediately. - MaintainTime: The changes take effect during the maintenance period. For more information about the maintenance period, see ModifyDBInstanceMaintainTime. Default value: Immediate.

Parameter	Type	Required	Example	Description
EngineVersion	String	No	5.6	The version of the database. Valid values: - MySQL: 5.5/5.6/5.7 - SQLServer: 2008r2/2012/2012_ent_ha/2012_std_ha/2012_web/2016_ent_ha/2016_std_ha/2016_web/2017_ent - PostgreSQL: 9.4/10.0 - PPAS: 9.3/10.0 - MariaDB: 10.3
AccessKeyId	String	No	LTAIfCxxxx xxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Response parameters

Parameter	Type	Example	Description
RequestId	String	3C5CFDEE-F774-4DED-89A2-1D76EC63C575	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = ModifyDBInstanceSpec
& DBInstance Id = rm - uf6wjk5xxx xxxx
& PayType = Postpaid
& DBInstance Class = rds . mys2 . small
& < Common request parameters >
```

Successful response examples

XML format

```
< ModifyDBInstanceSpec Response >
  < RequestId > 3C5CFDEE - F774 - 4DED - 89A2 - 1D76EC63C5 75 </
  RequestId >
```

```
</ ModifyDBInstanceSpec Response >
```

JSON format

```
{
  "RequestId ":" 3C5CFDEE - F774 - 4DED - 89A2 - 1D76EC63C5 75 "
}
```

Error codes

[View error codes](#)

3.10 DescribeRegions

You can call this operation to view the regions and zones.

Before you create an instance by calling the [CreateDBInstance](#) API operation, you can call this operation to view the regions and zones.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeRegions	The operation that you want to perform. Set this parameter to DescribeRegions .

Response parameters

Parameter	Type	Example	Description
Regions	N/A	N/A	The list of available regions and zones.
RegionId	String	cn-hangzhou	The ID of the region.
ZoneId	String	cn-hangzhou-b	The ID of the zone.

Parameter	Type	Example	Description
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Examples

Sample requests

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

Successful response examples

XML format

```
<DescribeRegionsResponse>
  <Regions>
    <RDSRegion>
      <RegionId>cn-hangzhou</RegionId>
      <ZoneId>cn-hangzhou-b</ZoneId>
    </RDSRegion>
    <RDSRegion>
      <RegionId>cn-qingdao</RegionId>
      <ZoneId>cn-qingdao-b</ZoneId>
    </RDSRegion>
    <RDSRegion>
      <RegionId>cn-shenzhen</RegionId>
      <ZoneId>cn-shenzhen-a</ZoneId>
    </RDSRegion>
  </Regions>
  <RequestId>A36D9720-7902-42A4-B8B9-014A2135E6C3</RequestId></DescribeRegionsResponse>
```

JSON format

```
{
  "RequestId": "A36D9720-7902-42A4-B8B9-014A2135E6C3",
  "Regions": {
    "RDSRegion": [
      {
        "RegionId": "cn-hangzhou",
        "ZoneId": "cn-hangzhou-b"
      },
      {
        "RegionId": "cn-qingdao",
        "ZoneId": "cn-qingdao-b"
      },
      {
        "RegionId": "cn-shenzhen",
        "ZoneId": "cn-shenzhen-a"
      }
    ]
  }
}
```

```
}
```

Error codes

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

3.11 DescribeDBInstanceHAConfig

You can call this operation to view the high availability modes and data replication modes of the instance.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeDBInstanceHAConfig	The operation that you want to perform. Set this parameter to DescribeDBInstanceHAConfig .
DBInstanceId	String	Yes	rm-uf6wjk5xxxxxx	The ID of the instance.
AccessKeyId	String	No	LTAIfCxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Response parameters

Parameter	Type	Example	Description
DBInstanceId	String	rm-uf6wjk5xxx xxx	The ID of the instance.

Parameter	Type	Example	Description
HAMode	String	RPO	The high availability mode. Valid values: • RPO : Data persistence is preferred. The instance preferentially guarantees data reliability to minimize data loss. This is best for users whose highest priority is data consistency. • RTO : Instance availability is preferred. The instance must restore services as soon as possible. This is best for users who require their databases to provide uninterrupted online service.
SyncMode	String	Sync	The data replication mode. Valid values: • Sync • Semi - sync • Async  Note: • For ApsaraDB RDS for SQL Server 2012 or 2016 High-availability Edition, the value is Sync or Async . • For ApsaraDB RDS for SQL Server 2017 Cluster Edition, the value is Async
HostInstanceInfos	N/A	N/A	The list of master and slave instances.
NodeId	String	3397027	The unique ID of the instance.

Parameter	Type	Example	Description
NodeType	String	Master	The type of the node. Valid values: - Master - Slave
RegionId	String	cn-hangzhou	The ID of the region.
ZoneId	String	cn-hangzhou-b	The ID of the zone.
SyncStatus	String	NotAvailable	The status of the synchronization. Valid values: - NotAvailable : Data cannot be synchronized due to faults. - Syncing : Data is being synchronized and a switchover may cause data loss. - Synchronized : Data has been synchronized. - NotSupport : The database engine or version does not support data synchronization.
LogSyncTime	String	2018-05-05T15:15:00Z	The time when the slave instance receives the logs. The time is in the following UTC format: <i>yyyy-MM-ddTHH:mm:ssZ</i> .
DataSyncTime	String	2018-05-05T15:15:00Z	The time when the slave instance finishes data synchronization. The time is in the following UTC format: <i>yyyy-MM-ddTHH:mm:ssZ</i> .
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeDB
InstanceHA Config
& DBInstance Id = rm - uf6wjk5xxx xxx
& < Common request parameters >
```

Successful response examples

XML format

```
< DescribeDB InstanceHA ConfigResp onse >
  < dBInstance Id > rm - uf6wjk5xxx xxx </ dBInstance Id >
  < hAMode > RPO </ hAMode >
  < hostInstan ceInfos >
    < logSyncTim e > 2018 - 01 - 19T12 : 33 : 06Z </ logSyncTim e
  >
    < nodeId > 3397027 </ nodeId >
    < nodeType > Slave </ nodeType >
    < regionId > cn - shenzhen </ regionId >
    < syncStatus > Syncing </ syncStatus >
    < zoneId > cn - shenzhen - b </ zoneId >
  </ hostInstan ceInfos >
  < hostInstan ceInfos >
    < logSyncTim e > 2018 - 01 - 19T12 : 33 : 06Z </ logSyncTim e
  >
    < nodeId > 3397029 </ nodeId >
    < nodeType > Master </ nodeType >
    < regionId > cn - shenzhen </ regionId >
    < syncStatus > Syncing </ syncStatus >
    < zoneId > cn - shenzhen - a </ zoneId >
  </ hostInstan ceInfos >
  < requestId > F051AEB2 - 7655 - 4F0A - BC46 - 7E0C18A791 0C </
requestId >
  < syncMode > Semi - sync </ syncMode ></ DescribeDB InstanceHA
ConfigResp onse >
```

JSON format

```
{
  " hostInstan ceInfos " : [
    {
      " nodeId " : " 3397027 ",
      " syncStatus " : " Syncing ",
      " logSyncTim e " : " 2018 - 01 - 19T12 : 33 : 06Z ",
      " nodeType " : " Slave ",
      " zoneId " : " cn - shenzhen - b ",
      " regionId " : " cn - shenzhen "
    },
    {
      " nodeId " : " 3397029 ",
      " syncStatus " : " Syncing ",
      " logSyncTim e " : " 2018 - 01 - 19T12 : 33 : 06Z ",
      " nodeType " : " Master ",
      " zoneId " : " cn - shenzhen - a ",
      " regionId " : " cn - shenzhen "
    }
  ]
}
```

```
] ,
"requestId ":" F051AEB2 - 7655 - 4F0A - BC46 - 7E0C18A791 0C ",
"syncMode ":" Semi - sync ",
"haMode ":" RPO ",
"dbInstance Id ":" rm - uf6wjk5xxx xxx "
}
```

Error codes

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

3.12 MigrateToOtherZone

You can call this operation to migrate an instance from one zone to another.

For example, if Instance 1 is located in zone cn-hangzhou-a of China (Hangzhou), you can call this operation to migrate the instance to zone cn-hangzhou-b of China (Hangzhou).



Note:

In cross-zone migration, instances must be migrated within the same region. For example, instances in a zone of China (Hangzhou) cannot be migrated to zones of China (Qingdao).

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	MigrateToOtherZone	The operation that you want to perform. Set this parameter to MigrateToOtherZone .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxxxxx	The ID of the instance.

Parameter	Type	Required	Example	Description
ZoneId	String	Yes	cn-hangzhou-b	The ID of the destination zone. You can call the #unique_96 API operation to view the latest zones.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.
VSwitchId	String	No	vsw-uf6adz52c2pxxxxxxx	The ID of the VSwitch.
EffectiveTime	String	No	Immediate	Effective time. Valid values: - Immediate : The migration takes effect immediately. - MaintainTime : The migration takes effect during the maintenance period. For more information about the maintenance period, see #unique_111. Default value: Immediate

Response parameters

Parameter	Type	Example	Description
RequestId	String	65BDA532-28AF-4122-AA39-B382721EEE64	The ID of the request.

Examples

Sample requests

```
http(s)://rds.aliyuncs.com/?Action=MigrateToOtherZone&DBInstanceId=rm-uf6wjk5xxx-xxxxxxx&ZoneId=cn-hangzhou-b
```

< Common request parameters >

Successful response examples

XML format

```
< MigrateTo0 therZoneRe sponse >
  < RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 </
  RequestId ></ MigrateTo0 therZoneRe sponse >
```

JSON format

```
{
  "RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 "
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	IncorrectDBInstanceLockMode.ValueNotSupported	The Current DB instance lock mode does not support this operation.	The error message returned when the instance lock mode does not support this operation.
403	OperationDenied.OutofUsage	The resource is out of usage.	The error message returned when the selected zone does not have sufficient resources. Select another zone.

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

3.13 PurgeDBInstanceLog

You can call this operation to clear or compress logs for the instance.

- For ApsaraDB RDS for MySQL, this operation uploads the binlogs to OSS and then deletes the local binlogs to release the space.
- For ApsaraDB RDS for SQL Server, this operation generates a temporary backup. And then the system compresses the transaction logs to release the space.



Note:

This operation is applicable to ApsaraDB RDS MySQL and SQL Server instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	PurgeDBInstanceLog	The operation that you want to perform. Set this parameter to PurgeDBInstanceLog .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.

Response parameters

Parameter	Type	Example	Description
RequestId	String	65BDA532-28AF-4122-AA39-B382721EEE64	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = PurgeDBIns tanceLog
& DBInstance Id = rm - uf6wjk5xxx xxxx
&< Common request parameters >
```

Successful response examples

XML format

```
< PurgeDBIns tanceLogRe sponse >
  < RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 </
  RequestId ></ PurgeDBIns tanceLogRe sponse >
```

JSON format

```
{
  " RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 "
}
```

Error codes

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

3.14 UpgradeDBInstanceEngineVersion

You can call this operation to upgrade the database version of the instance.



Note:

The price for the upgrade is calculated based on the new and old instance types and storage types.

If the master instance is attached with a read-only or disaster recovery instance, first upgrade the database version of the attached instance.

This operation must meet the following requirements:

- The instance is in the running state.
- You can upgrade a database from MySQL 5.5 to MySQL 5.6.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpgradeDBInstanceEngineVersion	The operation that you want to perform. Set this parameter to UpgradeDBInstanceEngineVersion .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
EngineVersion	String	Yes	5.6	The version of the target database. Valid value: 5 . 6 .
AccessKeyId	String	No	LTAIfCxxxx xxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.
EffectiveTime	String	No	Immediate	The time when the upgrade takes effect. Valid values: - Immediate : The upgrade takes effect immediately. - MaintainTime : The upgrade takes effect during the maintenance period. You can call the #unique_111 API operation to view the information about the maintenance period. Default value: Immediate .

Parameter	Type	Required	Example	Description
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.

Response parameters

Parameter	Type	Example	Description
TaskId	String	10254125	The ID of the task.
RequestId	String	65BDA532-28AF-4122-AA39-B382721EEE64	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = UpgradeDBI
instanceEngineVersion
& DBInstance Id = rm - uf6wjk5xxx xxxx
& EngineVersion = 5 . 6
&< Common request parameters >
```

Successful response examples

XML format

```
< UpgradeDBI instanceEngineVersion Response >
  < RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 </
  RequestId >
  < TaskId > 10254125 </ TaskId ></ UpgradeDBI instanceEng
  ineVersion Response >
```

JSON format

```
{
  " RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 ",
  " TaskId ":" 10254125 "
```

```
}
```

Error codes

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

3.15 ModifyDBInstanceDescription

You can call this operation to modify the description of the instance.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyDBInstanceDescription	The operation that you want to perform. Set this parameter to ModifyDBInstanceDescription.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxxxxx	The ID of the instance.
DBInstanceDescription	String	Yes	Alibaba Cloud instance in test environment	The description of the instance.  Note: It must be 2 to 64 characters in length.
AccessKeyId	String	No	LTAIfCxxxx xxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Response parameters

Parameter	Type	Example	Description
RequestId	String	17F57FEE-EA4F-4337-8D2E-9C23CAA63D74	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = ModifyDBIn
stanceDesc ription
& DBInstance Descriptio n = Alibaba Cloud instance in test
environmen t
& DBInstance Id = rm - uf6wjk5xxx xxxxxxxx
&< Common request parameters >
```

Successful response examples

XML format

```
< ModifyDBIn stanceDesc riptionRes ponse >
  < RequestId > 17F57FEE - EA4F - 4337 - 8D2E - 9C23CAA63D 74
</ RequestId >
</ ModifyDBIn stanceDesc riptionRes ponse >
```

JSON format

```
{
  " RequestId ":" 17F57FEE - EA4F - 4337 - 8D2E - 9C23CAA63D 74 "
}
```

Error codes

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

3.16 ModifyDBInstanceMaintainTime

You can call this operation to modify the maintenance time of the instance.

You can set a period of time during off-peak hours. Alibaba Cloud performs routine maintenance within the maintenance period to minimize impact on your business.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyDBInstanceMaintainTime	The operation that you want to perform. Set this parameter to <code>ModifyDBInstanceMaintainTime</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
MaintainTime	String	Yes	22:00Z-02:00Z	The period during which the maintenance performs. The format is <code>yyyy-MM-ddZ-HH:mm:ssZ</code> .
AccessKeyId	String	No	LTAIfCxxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.
ClientToken	String	No	ETnLKlblczshOTubOCzxxxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.

Response parameters

Parameter	Type	Example	Description
RequestId	String	65BDA532-28AF-4122-AA39-B382721EEE64	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = ModifyDBIn
stanceMain tainTime
& DBInstance Id = rm - uf6wjk5xxx xxxx
& MaintainTi me = 22 : 00Z - 02 : 00Z
&< Common request parameters >
```

Successful response examples

XML format

```
< ModifyDBIn stanceMain tainTimeRe sponse >
    < RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE
    64 </ RequestId >
</ ModifyDBIn stanceMain tainTimeRe sponse >
```

JSON format

```
{
  " RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 "
}
```

Error codes

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

3.17 ModifyDBInstanceHAConfig

You can call this operation to modify the high availability mode and data replication mode for the instance.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyDBIn stanceHACo nfig	The operation that you want to perform. Set this parameter to ModifyDBIn stanceHACo nfig .

Parameter	Type	Required	Example	Description
DbInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
HAMode	String	Yes	RPO	The high availability mode. Valid values: • RPO : Data persistence is preferred. The instance preferentially guarantees data reliability to minimize data loss. This is best for users whose highest priority is data consistency. • RTO : Instance availability is preferred. The instance must restore services as soon as possible. This is best for users who require their databases to provide uninterrupted online service.
SyncMode	String	Yes	Sync	The data replication mode. Valid values: • Sync • Semi - sync • Async  Note: • For ApsaraDB RDS for SQL Server 2012 or 2016 High-Availability Edition, the value is Sync or Async . • For ApsaraDB RDS for SQL Server 2017 Cluster Edition, the value is Semi - sync .

Parameter	Type	Required	Example	Description
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Response parameters

Parameter	Type	Example	Description
RequestId	String	D4D4BE8A-DD46-440A-BFCD-EE31DA81C9DD	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = ModifyDBIn
stanceHACo nfig
& DbInstance Id = rm - uf6wjk5xxx xxxx
& HAMode = RPO
& SyncMode = Sync
&< Common request parameters >
```

Successful response examples

XML format

```
< ModifyDBIn stanceHACo nfigRespon se >
  < RequestId > D4D4BE8A - DD46 - 440A - BFCD - EE31DA81C9 DD </
RequestId ></ ModifyDBIn stanceHACo nfigRespon se >
```

JSON format

```
{
  " RequestId ":" D4D4BE8A - DD46 - 440A - BFCD - EE31DA81C9 DD "
}
```

Error codes

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

3.18 SwitchDBInstanceHA

You can call this operation to switch between the master and slave instances.

This operation switches between the master and slave instances for ApsaraDB for RDS High-Availability Edition. After switching, the slave instance becomes master and carries all business traffic.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SwitchDBInstanceHA	The operation that you want to perform. Set this parameter to SwitchDBInstanceHA .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxxxxx	The ID of the instance.
NodeId	String	Yes	349054	The unique ID of the slave instance. You can call the #unique_118 API operation to view the ID of the slave instance.
Force	String	No	No	Indicates whether to turn on the forcible switch. Valid values: • Yes • No Default value: No

Parameter	Type	Required	Example	Description
EffectiveTime	String	No	Immediate	The time when the switch takes effect. Valid values: - Immediate : The switch takes effect immediately. - MaintainTime : The switch takes effect during the maintenance time. Default value: Immediate .
AccessKeyId	String	No	LTAIfCxxxx xxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1E43AAE0-BEE8-43DA-860D-EAF2AA0724DC	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = SwitchDBInstanceHA
& DBInstance Id = rm - uf6wj k5xxx xxxxxxxx
& NodeId = 349054
& < Common request parameters >
```

Successful response examples

XML format

```
< SwitchDBInstanceHAResponse >
  < RequestId > 1E43AAE0 - BEE8 - 43DA - 860D - EAF2AA0724 DC </
RequestId ></ SwitchDBInstanceHAResponse >
```

JSON format

```
{
  "RequestId": "1E43AAE0 - BEE8 - 43DA - 860D - EAF2AA0724 DC "
```

```
}
```

Error codes

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

3.19 CreateReadOnlyDBInstance

You can call this operation to create a read-only instance for an RDS instance.

This operation must meet the following requirements:

- The master instance must use one of the following database engine versions or editions:
 - MySQL 5.6
 - MySQL 5.7/8.0 High-availability Edition (based on local SSDs)
 - SQL Server 2017 Cluster Edition
- For MySQL instances:
 - If the memory of the master instance is greater than or equal to 64 GB, the master instance can have up to 10 read-only instances.
 - If the memory of the master instance is less than 64 GB, the master instance can have up to five read-only instances.
- For SQL Server instances, the master instance can have up to seven read-only instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateReadOnlyDBInstance	The operation that you want to perform. Set this parameter to CreateRead OnlyDBInstance .

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region. The read-only instance and the master instance must be in the same region. You can call the #unique_96 API operation to view the latest regions.
ZoneId	String	Yes	cn-hangzhou-b	The ID of the zone. You can call the #unique_96 API operation to view the latest zones.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the master instance.
DBInstanceClass	String	Yes	rds.mys2.small	The type of the instance. For more information, see #unique_97 . The type of the read-only instance must be no less than that of the master instance. Otherwise, the read-only instance incurs high latency and high load.
DBInstanceStorage	Integer	Yes	20	The storage space of the instance. Value range: 5 to 3000 . The value must be a multiple of 5. Unit: GB.  Note: Instances of different versions have different value ranges. For more information, see the read-only instance creation page in the console.

Parameter	Type	Required	Example	Description
EngineVersion	String	Yes	5.6	The version of the database. The database and the master instance must have the same database version. Valid values: • 5 . 6 • 5 . 7 • 8 . 0 • 2017_ent
PayType	String	Yes	Postpaid	The billing method. The system only supports Pay-As-You-Go. Valid value: Postpaid .
DBInstanceDescription	String	No	Read-only instance for test	The description of the instance . The description must be 2 to 256 characters in length and can contain letters, digits, underscores (_), and hyphens (-). It must start with a letter.  Note: It cannot start with http:// or https://.
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.

Parameter	Type	Required	Example	Description
InstanceNetworkType	String	No	Classic	The network type of the instance. Valid values: - VPC - Classic Default value: Classic .
VPCId	String	No	vpc-uf6f7l4fg90xxxxxxxxxx	The ID of the VPC.
VSwitchId	String	No	vsw-uf6adz52c2pxxxxxxxxxx	The ID of the VSwitch.
AccessKeyId	String	No	LTAIfCxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.
PrivateIpAddress	String	No	172.16.201.69	The private IP address of the read-only instance. It must be within the IP address range provided by the switch. The system automatically assigns an IP address based on the VPCId and VSwitchId by default.
ResourceGroupId	String	No	rg-acfmyxxxxxx	The ID of the resource group.

Parameter	Type	Required	Example	Description
DBInstanceStorageType	String	No	local_ssd	The storage type of the instance. Valid values: - local_ssd / ephemeral_ssd : local SSDs. - cloud_ssd : SSDs. - cloud_essd : ESSDs.  Note: The MySQL database engine supports only local SSDs and the SQL Server database engine supports only SSDs.
Category	String	No	HighAvailability	The edition of the instance. Valid values: - Basic - HighAvailability - AlwaysOn

Response parameters

Parameter	Type	Example	Description
DBInstanceId	String	rr-uf6wjk5xxx xxxx	The ID of the read-only instance.
OrderId	String	10078937xxxxx	The ID of the order.
ConnectionString	String	rr-xxxxx.mysql. rds.aliyuncs.com	The endpoint URL of the read-only instance.
Port	String	3306	The internal port of the read-only instance.
RequestId	String	1E43AAE0-BEE8- 43DA-860D- EAF2AA0724DC	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = CreateRead
OnlyDBInst ance
& RegionId = cn - hangzhou
& ZoneId = cn - hangzhou - b
& DBInstance Id = rm - uf6wjk5xxx xxxx
& DBInstance Class = rds . mys2 . small
& DBInstance Storage = 20
& EngineVers ion = 5 . 6
& PayType = Postpaid
&< Common request parameters >
```

Successful response examples

XML format

```
< CreateRead OnlyDBInst anceRespon se >
  < OrderId > 10078937xx xxx </ OrderId >
  < Connection String > rm - uf6wjk5xxx xxxx . mysql . rds .
aliyuncs . com </ Connection String >
  < DBInstance Id > rm - uf6wjk5xxx xxxx </ DBInstance Id >
  < port > 3306 </ port >
  < RequestId > 1E43AAE0 - BEE8 - 43DA - 860D - EAF2AA0724 DC </
RequestId >
</ CreateRead OnlyDBInst anceRespon se >
```

JSON format

```
{
  " Port ":" 3306 ",
  " Connection String ":" rm - uf6wjk5xxx xxxx . mysql . rds .
aliyuncs . com ",
  " RequestId ":" 1E43AAE0 - BEE8 - 43DA - 860D - EAF2AA0724 DC ",
  " DBInstance Id ":" rm - uf6wjk5xxx xxxx ",
  " OrderId ":" 10078937xx xxx "
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	InvalidEngineVersion.Malformed	The specified parameter "EngineVersion" is not valid.	The error message returned when the specified EngineVersion parameter is invalid.

HTTP status code	Error code	Error message	Description
400	InvalidSecurityIPList.Malformed	The specified parameter "SecurityIPList" is not valid.	The error message returned when the specified SecurityIPList parameter is invalid.
400	InvalidSecurityIPList.Duplicate	The Security IP address is not in the available range or occupied.	The error message returned when the specified security IP address is in use or is not in the valid range.
400	InvalidParameter	The specified parameter "dbInstanceId" is not valid.	The error message returned when the specified dbInstanceId parameter is invalid.
403	OperationDenied.PrimaryDBInstanceStatus	The operation is not permitted due to status of primary instance.	The error message returned when the status of the master instance does not support this operation. Only the master instance in the running state supports this operation.
400	OperationDenied	VPC IP is in use, please check.	The error message returned when the specified IP address is in use. Change the IP address and try.
404	IncorrectDBInstanceConnType	Current DB instance connection type does not support this operation.	The error message returned when the connection type of the DB instance does not support this operation.
400	InvalidZoneId.NotSupported	The Specified vpc Zone not supported.	The error message returned when the zone does not support the VPC instance. Change the zone and try.

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

4 Database management

4.1 CreateDatabase

You can call this operation to create a database under an instance.

This operation must meet the following requirements:

- The instance is in the running state.
- The number of databases in the instance does not exceed the maximum number.
You can call the [#unique_122](#) API to view the maximum number of databases.
- The instance cannot be read-only.



Note:

This operation is not applicable to ApsaraDB RDS for PostgreSQL, PPAS, or SQL Server 2017 Cluster Edition. You can run `CREATE DATABASE SQL` statement to create databases.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateData base	The operation that you want to perform. Set this parameter to <code>CreateData base</code> .
DBInstance Id	String	Yes	rm- uf6wjk5xxx xxxxxxx	The ID of the instance.

Parameter	Type	Required	Example	Description
DBName	String	Yes	rds_mysql	The name of the database.  Note: • It must be 2 to 64 characters in length. • It must start with a lowercase letter and end with a lowercase letter or digit. • It can contain lowercase letters, digits, underscores (_), and hyphens (-). • The database name must be unique within the instance. • For more information about invalid characters, see #unique_123.
CharacterSetName	String	Yes	gbk	The character set. Valid values: • MySQL or MariaDB: utf8 gbk latin1 utf8mb4 • SQL Server: Chinese_PR C_CI_AS Chinese_PR C_CS_AS SQL_Latin1_General_C P1_CI_AS SQL_Latin1_General_C P1_CS_AS Chinese_PR C_BIN .

Parameter	Type	Required	Example	Description
DBDescription	String	No	Test database	The description of the database . It must be 2 to 256 characters in length. It can contain letters , digits, underscores (_), and hyphens (-), and must start with a letter.  Note: It cannot start with http:// or https://.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5A77D650-27A1-4E08-AD9E-59008EDB6927	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = CreateData base
& DBInstance Id = rm - uf6wjk5xxx xxxxxxxx
& DBName = rds_mysql
& CharacterS etName = gbk
&< Common request parameters >
```

Successful response examples

XML format

```
< CreateData baseResponse >
  < RequestId > 5A77D650 - 27A1 - 4E08 - AD9E - 59008EDB69
  27 </ RequestId >
```

```
</ CreateData baseRespon se >
```

JSON format

```
{
  " RequestID ":" 5A77D650 - 27A1 - 4E08 - AD9E - 59008EDB69 27 "
}
```

Error codes

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

4.2 DeleteDatabase

You can call this operation to delete a database under an instance.

This operation must meet the following requirements:

- The instance is in the running state.
- The instance is a master instance.
- The database engine is MySQL, SQL Server, or MariaDB.



Note:

This operation is not applicable to ApsaraDB RDS for PostgreSQL or PPAS. You can run the `DROP DATABASE` SQL statement to delete databases.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteData base	The operation that you want to perform. Set this parameter to DeleteData base .
DBInstance Id	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
DBName	String	Yes	testdb01	The name of the database.

Response parameters

Parameter	Type	Example	Description
RequestId	String	07F6177E-6DE4-408A-BB4F-0723301340F3	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = DeleteData base
& DBInstance Id = rm - uf6wjk5xxx xxxx
& DBName = testdb01
&< Common request parameters >
```

Successful response examples

XML format

```
< DeleteData baseResponse >
  < RequestId > 07F6177E - 6DE4 - 408A - BB4F - 0723301340 F3 </
  RequestId ></ DeleteData baseResponse >
```

JSON format

```
{
  " RequestId ":" 07F6177E - 6DE4 - 408A - BB4F - 0723301340 F3 "
}
```

Error codes

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

4.3 DescribeDatabases

You can call this operation to view the database information under an instance.



Note:

- If the request parameters are entered incorrectly, the response is null.
- This operation is not applicable to ApsaraDB RDS for PostgreSQL or PPAS.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeDatabases	The operation that you want to perform. Set this parameter to DescribeDatabases .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
DBName	String	No	testDB01	The name of the database.
DBStatus	String	No	Creating	The status of the database. Valid values: - Creating - Running - Deleting
PageSize	Integer	No	30	The number of records on each page. Valid values: 30 50 100 Default value: 30 .
PageNumber	Integer	No	1	The page number. It must be greater than 0 and cannot exceed the maximum value of the given Integer. Default value: 1 .

Parameter	Type	Required	Example	Description
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Response parameters

Parameter	Type	Example	Description
Databases	N/A	N/A	A collection of database information.
DBName	String	testDB01	The name of the database.
DBInstanceId	String	rm-uf6wjk5xxxxxxx	The name of the instance to which the database belongs.
Engine	String	MySQL	The type of the database instance.
DBStatus	String	Creating	The status of the database. Valid values: - Creating - Running - Deleting
CharacterSetName	String	utf8	The character set. Valid values: - MySQL or MariaDB: utf8 gbk latin1 utf8mb4 . - SQL Server: Chinese_PR C_CI_AS Chinese_PR C_CS_AS SQL_Latin1_General_CP1_CI_AS SQL_Latin1_General_CP1_CS_AS Chinese_PR C_BIN .
DBDescription	String	Test database	The description of the database.

Parameter	Type	Example	Description
Accounts	N/A	N/A	The information of accounts that have database permissions.
Account	String	test	The name of the account.
AccountPrivilege	String	DMLOnly	The database permissions of the account. Valid values: - ReadWrite - ReadOnly - DDLOnly - DMLOnly
AccountPrivilegeDetail	String	SELECT	The detailed permissions that the account has on the database.
RequestId	String	2603CA96-B17D-4903-BC04-61A2C829CD94	The ID of the request.

Examples

Sample requests

```
http(s)://rds.aliyuncs.com/?Action=DescribeDatabases
&DBInstanceId=rm-uf6wjk5xxx-xxxx
&<Common request parameters>
```

Successful response examples

XML format

```
<DescribeDatabasesResponse>
  <RequestId>2603CA96-B17D-4903-BC04-61A2C829CD94</RequestId>
  <Databases>
    <Database>
      <Engine>MySQL</Engine>
      <CharacterSet>utf8</CharacterSet>
      <DBStatus>Creating</DBStatus>
      <DBDescription></DBDescription>
      <DBInstanceId>rdsaiabna-iiabn</DBInstanceId>
      <Accounts></Accounts>
      <DBName>testdb</DBName>
    </Database>
  </Databases>
  <Engine>MySQL</Engine>
```

```

    < CharacterS etName > gbk </ CharacterS etName >
    < DBStatus > Creating </ DBStatus >
    < DBDescript ion ></ DBDescript ion >
    < DBInstance Id > rdsaiiabna iiabn </ DBInstance Id >
    < Accounts ></ Accounts >
    < DBName > testdb2 </ DBName >
  </ Database >
</ Databases ></ DescribeDa tabasesRes ponse >

```

JSON format

```

{
  " Databases ":{
    " Database ":[
      {
        " Accounts ":{
          " AccountPri vilegeInfo ":[ ]
        },
        " DBStatus ":" Creating ",
        " DBInstance Id ":" rdsaiiabna iiabn ",
        " DBDescript ion ":"",
        " DBName ":" testdb ",
        " CharacterS etName ":" utf8 ",
        " Engine ":" MySQL "
      },
      {
        " Accounts ":{
          " AccountPri vilegeInfo ":[ ]
        },
        " DBStatus ":" Creating ",
        " DBInstance Id ":" rdsaiiabna iiabn ",
        " DBDescript ion ":"",
        " DBName ":" testdb2 ",
        " CharacterS etName ":" gbk ",
        " Engine ":" MySQL "
      }
    ]
  },
  " RequestId ":" 2603CA96 - B17D - 4903 - BC04 - 61A2C829CD 94 "
}

```

Error codes

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

4.4 ModifyDBDescription

You can call this operation to modify the database description.



Note:

This operation is not applicable to ApsaraDB RDS for PostgreSQL or PPAS.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyDBDe scription	The operation that you want to perform. Set this parameter to ModifyDBDe scription .
DBInstance Id	String	Yes	rm- uf6wjk5xxx xxxx	The ID of the instance.
DBName	String	Yes	testDB01	The name of the database.
DBDescript ion	String	Yes	Test database A	The description of the database .
AccessKeyI d	String	No	LTAIfCxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Response parameters

Parameter	Type	Example	Description
RequestId	String	17F57FEE-EA4F -4337-8D2E- 9C23CAA63D74	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = ModifyDBDe  
scription  
& DBDescript ion = Test database A  
& DBInstance Id = rm - uf6wjk5xxx xxxx  
& DBName = testDB01
```

&< Common request parameters >

Successful response examples

XML format

```
< ModifyDBDe scriptionR esponse >
  < RequestId > 17F57FEE - EA4F - 4337 - 8D2E - 9C23CAA63D 74 </
  RequestId ></ ModifyDBDe scriptionR esponse >
```

JSON format

```
{
  " RequestId ":" 17F57FEE - EA4F - 4337 - 8D2E - 9C23CAA63D 74 "
}
```

Error codes

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

4.5 CopyDatabase

Description

This API is used to copy a SQL Server 2008 R2 database. This API is no longer supported.



Note:

This API is no longer supported.

Request parameters

Name	Type	Required or not	Description
Action	String	Yes	Required parameter. Value: CopyDatabase.
DBInstanceId	String	Yes	Instance ID. This API supports only SQL Server 2008 R2 databases.

Name	Type	Required or not	Description
SrcDBName	String	Yes	Name of the source database. The name must exist in the instance and comply with the following rules: · Start with a letter. · Contain only lowercase letters, digits, underscores (_), and hyphens (-). · Cannot exceed 64 characters. · For other invalid characters, see #unique_123.
DstDBName	String	Yes	Name of the target database. The name must be unique and comply with the following rules: · Start with a letter. · Contain only lowercase letters, digits, underscores (_), and hyphens (-). · Cannot exceed 64 characters. · For other invalid characters, see #unique_123
ReserveAccount	String	Yes	Whether to reserve the account of the source database. · If the account is reserved, it is copied to the target database. · Otherwise, the target database does not reserve the user account. The optional values are 0 and 1, and the default value is 1.
DBDescription	String	No	Database description. The length is up to 256 characters.

Response parameters

Name	Type	Description
<Common response parameters>	String	For more information, see #unique_93 .
RequestId	String	Request ID
DBName	String	Database name

Name	Type	Description
DBStatus	String	Database status. Value range: · Creating · Running · Deleting
TaskId	String	Task ID

4.6 Copy databases between instances

Description

This API is used to copy databases from one instance to another.



Note:

This API is applicable to RDS for SQL Server 2012/2016 instances.

Prerequisites

- The source and target instances belong to the same account.
- The engine versions of the source and target instances are the same.
- The source and target instances are located in the same region (can be in different zones) and have the same network type.
- The source and target instances do not have databases whose names are the same.
- Available storage space of the target instance is larger than the size of the databases to be copied.

Request parameters

Name	Type	Required	Description
Action	String	Yes	Required parameter. Value: CopyDatabaseBetweenInstances.
SourceDBInstanceId	String	Yes	Source instance ID.
TargetDBInstanceId	String	Yes	Target instance ID, which must differ from the source instance ID.
DBNames	String	Yes	List of names of the databases to be copied. Separate the names by comma (,).

Name	Type	Required	Description
SyncUserPrivilege	String	Yes	Whether to copy users and permissions: - YES : Copy users and permissions.  Note: If the source instance and target instance each have a user of the same name before migration, after migration the target instance user has the combined permissions of both the users. - NO : Do not copy users and permissions. This is the default value.

Return parameters

Name	Type	Description
<Public return parameters>	String	For more information, see #unique_93 .
RequestId	String	Request ID.
CopyTaskId	String	Migration task ID.
CopyResult	String	Migration result: - SUCCESS - FAILED

5 Read/Write splitting

5.1 ModifyDBInstanceConnectionMode

You can call this operation to enable or disable the database proxy.



Note:

This operation is deprecated.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyDBInstanceConnectionMode	The operation that you want to perform. Set this parameter to <code>ModifyDBInstanceConnectionMode</code> .
ConnectionMode	String	Yes	Performance	The access mode of the instance. Valid values: - Performance : standard mode. - Safe : safe mode.
DBInstanceId	String	Yes	rm-uf6wjk5xxxxxx	The name of the instance.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Parameter	Type	Required	Example	Description
OwnerAccount	String	No	testuser@aliyun.com	The Apsara Stack tenant account.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Examples

Sample requests

```
http(s)://rds.aliyuncs.com/?Action=ModifyDBInstanceConnectionMode
&ConnectionMode=Performance
&DBInstanceId=rm-uf6wjk5xxx
&<Common request parameters>
```

Successful response examples

XML format

```
<ModifyDBInstanceConnectionModeResponse>
  <RequestId>D4D4BE8A-DD46-440A-BFCD-EE31DA81C9-DD</RequestId>
</ModifyDBInstanceConnectionModeResponse>
```

JSON format

```
{
  "RequestId": "D4D4BE8A-DD46-440A-BFCD-EE31DA81C9-DD"
}
```

Error codes

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

5.2 AllocateReadWriteSplittingConnection

You can call this operation to apply for the read-write splitting address.

For a master instance that has read-only instances, you can apply for the [read/write splitting address](#). The read/write splitting address does not affect the existing

connection addresses of the master instance and its read-only instances, nor does it affect your applying for the intranet and Internet addresses.

When you call this operation, the instance must meet the following requirements:

- The instance is in the running state.
- The instance has at least one read-only instance.
- The instance does not have an ongoing migration task.

Debugging

You can use [API Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	AllocateReadWriteSplittingConnection	The operation that you want to perform. Set the value to AllocateReadWriteSplittingConnection.
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the master instance.
ConnectionStringPrefix	String	No	rr-m5exxxx-rw.mysql.rds.aliyuncs.com	The prefix of the read/write splitting address. It must be unique and start with a letter. It contains at most 30 characters, including lowercase letters or hyphens (-).  Note: By default, the prefix is "instance name + rw".

Parameter	Type	Required	Example	Description
Port	String	No	3306	The read/write splitting port. Valid values: - MySQL: 3001 to 3999. Default value: 3306. - SQL Server: 1000 to 5999. Default value: 1433.
MaxDelayTime	String	No	30	The latency threshold. It ranges from 0 to 7,200. Default value: 30. Unit: seconds.  Note: If a read-only instance reaches the latency threshold, read requests are no longer sent to the read-only instance.
NetType	String	No	Intranet	The network type of the read/write splitting address. Valid values: - Internet. - Intranet (default value). The intranet type (classic network or VPC) is the same as the that of the master instance.
DistributionType	String	No	Standard	The mode of read weight distribution. Valid values: - Standard: Read weights are distributed according to instance specifications. - Custom: Read weights are specified by you.

Parameter	Type	Required	Example	Description
Weight	String	No	{ "Instanceid1 ":" 100" , "Instanceid2 ":" 200" }	The read weight distribution. Enter the read weights for the master instance and its read-only instances. It must be a multiple of 100. The maximum value is 10000. Format: { "Instanceid1 ":" Weight" , "Instanceid2 ":" Weight" ...}.  Note: · This parameter is required if Distributi onType is set to Custom. · This parameter is invalid if Distributi onType is set to Standard.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	4C467B38-3910-447D-87BC-AC049166F216	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = AllocateReadWriteSplittingConnection
& DBInstanceId = rm - uf6wjk5xxx xxxx
& < Common request parameters >
```

Normal response examples

XML format

```
< AllocateReadWriteSplittingConnectionResponse >
  < RequestId > 4C467B38 - 3910 - 447D - 87BC - AC049166F2 16 </
    RequestId >
</ AllocateReadWriteSplittingConnectionResponse >
```

JSON format

```
{
  "RequestId ":" 4C467B38 - 3910 - 447D - 87BC - AC049166F2 16 "
}
```

Error codes

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

5.3 CalculateDBInstanceWeight

You can call this operation to query the read weights distributed by the system.

If [read/write splitting](#) is enabled, you can call this operation to query the read weights specified by the system. To query custom read weights, see [DescribeDBInstanceNetworkInfo](#).

This operation is applicable to the following instances:

- MySQL 5.7 High-availability Edition (based on local SSDs)
- MySQL 5.6
- SQL Server 2017 Cluster Edition

Debugging

You can use [API Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

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

Parameter	Type	Required	Example	Description
DBInstance Id	String	Yes	rm- uf6wjk5xxx xxxx	The ID of the master instance.

Response parameters

Parameter	Type	Example	Description
Items			The list of weights specified by the system.
[└] DBInstance Id	String	rm-uf6wjk5xxx xxxx	The ID of an instance.
[└] DBInstance Type	String	Master	The type of the instance. Valid values: • Master. • Readonly.
[└] Weight	String	100	The instance weight calculated by the system in real time.
[└] ReadonlyIn stanceSQLD elayedTime	String	30	The latency for read-only instances to synchronize the data of the master instance. After a latency of ReadonlyInstanceSQLDelayedTime seconds, the read-only instances synchronize the data of the master instance. Unit: seconds.
RequestId	String	C816A4BF-A6EC -4722-95F9- 2055859CCFD2	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = CalculateD
BInstanceWeight
& DBInstance Id = rm - uf6wjk5xxx xxxx
```

< Common request parameters >

Normal response example

XML format

```
< CalculateD BInstanceW eightResponse >
  < items >
    < DBInstance Id > rm - uf6wjk5xxx xxxx </ DBInstance Id >
    < DBInstance Type > Master </ DBInstance Type >
    < Weight />
    < Availability />
  </ items >
  < requestId > C816A4BF - A6EC - 4722 - 95F9 - 2055859CCF D2 </
requestId >
</ CalculateD BInstanceW eightResponse >
```

JSON format

```
{
  "requestId ":" C816A4BF - A6EC - 4722 - 95F9 - 2055859CCF D2 ",
  "items ":[
    {
      "Weight ":"",
      "Availability ":"",
      "DBInstance Type ":" Master ",
      "DBInstance Id ":" rm - uf6wjk5xxx xxxx "
    }
  ]
}
```

Error codes

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

5.4 ModifyReadWriteSplittingConnection

You can call this operation to modify the latency threshold of the read/write splitting address and the read weight of each instance.

When you call this operation, the instance must meet the following requirements:

- The instance is in the running state.
- The instance does not have an ongoing migration task.



Note:

This operation is applicable to MySQL instances and SQL Server 2017 Cluster Edition instances.

Debugging

You can use [API Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyReadWriteSplittingConnection	The operation that you want to perform. Set the value to ModifyReadWriteSplittingConnection.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the master instance.
ConnectionString	String	No	rm-m5xxxxxxxxx.mysql.rds.aliyuncs.com	The prefix of the read/write splitting address. It must be unique and start with a letter. It contains at most 30 characters, including lowercase letters or hyphens (-).
				 Note: By default, the prefix is "instance name + rw".

Parameter	Type	Required	Example	Description
MaxDelayTime	String	No	12	The latency threshold. Unit: seconds. If a read-only instance reaches the latency threshold, read requests are no longer sent to the read-only instance.  Note: · This parameter is not applicable to SQL Server 2017 Cluster Edition instances. · If this parameter is not entered, the parameter value remains unchanged. · Either MaxDelayTime or DistributionType is required.
DistributionType	String	No	Standard	The mode of read weight distribution. Valid values: · Standard: Read weights are distributed according to instance specifications. · Custom: Read weights are specified by you.  Note: Either MaxDelayTime or DistributionType is required.

Parameter	Type	Required	Example	Description
Weight	String	No	{ "Instanceid1 ":" 100" ," Instanceid2 ":" 200" }	The read weight distribution. Enter the read weights for the master instance and its read-only instances. It must be a multiple of 100. The maximum value is 10000. Format: { " Instanceid1 ":" Weight" ," Instanceid2 ":" Weight" ...}.  Note: · This parameter is required if Distributi onType is set to Custom. · This parameter is invalid if Distributi onType is set to Standard.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5A77D650-27A1-4E08-AD9E-59008EDB6927	The ID of the request.

Examples

Request example

```
http ( s ):// rds . aliyuncs . com /? Action = ModifyRead
WriteSplit tingConnec tion
& Distributi onType = Standard
& DBInstance Id = rm - uf6wjk5xxx xxxx
&< Common request parameters >
```

Normal response examples

XML format

```
< ModifyRead WriteSplit tingConnec tionRespon se >
  < RequestID > 5A77D650 - 27A1 - 4E08 - AD9E - 59008EDB69 27 </
    RequestID >
</ ModifyRead WriteSplit tingConnec tionRespon se >
```

JSON format

```
{
  " RequestID ":" 5A77D650 - 27A1 - 4E08 - AD9E - 59008EDB69 27 "
}
```

Error codes

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

5.5 ReleaseReadWriteSplittingConnection

You can call this operation to release the read/write splitting address of an RDS instance.

This operation is applicable to the following instances:

- MySQL 5.7 High-availability Edition (based on local SSDs)
- MySQL 5.6
- SQL Server 2017 Cluster Edition

Debugging

You can use [API Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ReleaseReadWriteSplittingConnection	The operation that you want to perform. Set the value to ReleaseReadWriteSplittingConnection.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the master instance.

Response parameter

Parameter	Type	Example	Description
RequestId	String	5A77D650-27A1-4E08-AD9E-59008EDB6927	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = ReleaseReadWriteSplittingConnection
& DBInstance Id = rm - uf6wjk5xxx xxxx
& < Common request parameters >
```

Normal response example

XML format

```
< ReleaseReadWriteSplittingConnectionResponse >
  < RequestID > 5A77D650 - 27A1 - 4E08 - AD9E - 59008EDB69 27 </
  RequestID >
</ ReleaseReadWriteSplittingConnectionResponse >
```

JSON format

```
{
  " RequestID ":" 5A77D650 - 27A1 - 4E08 - AD9E - 59008EDB69 27 "
}
```

Error codes

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

6 Account management

6.1 CreateAccount

You can call this operation to create an RDS database account.

When you call this operation, the instance must meet the following requirements:

- The instance is in the running state.
- The database is in the running state.
- The number of accounts in the instance does not exceed the upper limit.



Note:

- This operation is applicable only to MySQL, MariaDB, and SQL Server (excluding SQL Server 2017 Cluster Edition).
- PostgreSQL, PPAS, and SQL Server 2017 Cluster Edition instances each have a superuser account. Other accounts are created through SQL by the superuser account.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateAccount	The operation that you want to perform. Set this parameter to <code>CreateAccount</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.

Parameter	Type	Required	Example	Description
AccountName	String	Yes	test1	The name of the database account.  Note: • The name must be unique. • The name must start with a lowercase letter and end with a lowercase letter or digit. • The name consists of lowercase letters, digits, or underscores (_). • The name contains 2 to 16 characters. • For information about invalid characters, see #unique_123.
AccountPassword	String	Yes	Test123456	The password of the database account.  Note: • It contains 8 to 32 characters. • It contains at least three of the following four character types: uppercase letters, lowercase letters, digits, and special characters. • The allowed special characters are as follows: ! @ # \$ % ^ * () _ + - =

Parameter	Type	Required	Example	Description
AccountDescription	String	No	Test account A	The description of the account . The description starts with a letter and contains 2 to 256 characters, including letters , digits, underscores (_), or hyphens (-).  Note: It cannot start with http:// or https://.
AccountType	String	No	Normal	The type of the account. Valid values: - Normal - Super Default value: Normal .
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	D4D4BE8A-DD46-440A-BFCD-EE31DA81C9DD	The ID of the request.

Examples

Request example

```

http ( s ) : // rds . aliyuncs . com / ? Action = CreateAccount
& DBInstanceId = rm - uf6wjk5xxx xxxx
& AccountName = test1
& AccountPassword = Test123456
&< Common request parameters >

```

Normal response examples

XML format

```
< CreateAccountResponse >
  < RequestId > D4D4BE8A - DD46 - 440A - BFCD - EE31DA81C9 DD
</ RequestId >
</ CreateAccountResponse >
```

JSON format

```
{
  "RequestId": "D4D4BE8A - DD46 - 440A - BFCD - EE31DA81C9 DD "
}
```

Error codes

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

6.2 DeleteAccount

You can call this operation to delete an RDS database account.

When you call this operation, the instance must be in the running state.

**Note:**

This operation is not applicable to SQL Server 2017 Cluster Edition, PostgreSQL, and PPAS instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteAccount	The operation that you want to perform. Set this parameter to DeleteAccount.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.

Parameter	Type	Required	Example	Description
AccountName	String	Yes	test1	The name of the database account to be deleted.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameter

Parameter	Type	Example	Description
RequestId	String	91E855E5-7E80-4955-929B-C74EE1D38C66	The ID of the request.

Examples

Request example

```
http(s)://rds.aliyuncs.com/?Action=DeleteAccount
&DBInstanceId=rm-uf6wjk5xxx-xxxx
&AccountName=test1
&<Common request parameters>
```

Normal response examples

XML format

```
<DeleteAccountResponse>
  <RequestId>91E855E5-7E80-4955-929B-C74EE1D38C66</RequestId>
</DeleteAccountResponse>
```

JSON format

```
{
  "RequestId": "91E855E5-7E80-4955-929B-C74EE1D38C66"
}
```

Error codes

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

6.3 DescribeAccounts

You can call this operation to view the database accounts of an RDS instance.



Note:

This operation is not applicable to SQL Server 2017 Cluster Edition, PostgreSQL, and PPAS instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeAccounts	The operation that you want to perform. Set this parameter to DescribeAccounts .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
AccountName	String	No	test1	The name of a database account.
PageSize	Integer	No	30	The number of records on each page. Valid values: 30 50 100 Default value: 30 .

Parameter	Type	Required	Example	Description
PageNumber	Integer	No	1	The page number. It must be greater than 0 and cannot exceed the maximum value of the Integer data type. Default value: 1 .

Response parameters

Parameter	Type	Example	Description
Accounts	N/A	N/A	The account information list.
DBInstanceId	String	rm-uf6wjk5xxx xxxx	The ID of the instance to which the account belongs.
AccountName	String	test1	The name of the database account.
AccountStatus	String	Available	The status of the account. Valid values: - Unavailable - Available
AccountDescription	String	The account of the test database .	The description of the account.
DatabasePrivileges	N/A	N/A	The list of database privileges granted to the account.
DBName	String	test1	The name of the database.

Parameter	Type	Example	Description
AccountPrivilege	String	ReadWrite	The privileges of the account. Valid values: • ReadWrite • ReadOnly • DDLOnly • DMLOnly • Custom
AccountPrivilegeDetail	String	SELECT,INSERT	The specific privileges of the account.
AccountType	String	Normal	The type of the account. Valid values: • Normal • Super
PrivExceeded	String	0	Indicates whether authorization limits are exceeded. Valid values: • 1 : Yes. • 0 : No.
RequestId	String	A2E94301-D07F-4457-9B49-6AA2BB388C85	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeAccounts
& DBInstance Id = rm - uf6wjk5xxx xxxx
& < Common request parameters >
```

Normal response examples

XML format

```
< DescribeAccountsResponse >
  < Accounts >
    < DBInstanceAccount >
      < DatabasePrivileges >
```

```

        < DatabasePrivilege >
        < AccountPrivilege > ReadWrite </ AccountPrivilege
    >
        < AccountPrivilegeData > SELECT , INSERT , UPDATE
, DELETE , CREATE , DROP , REFERENCES , INDEX , ALTER , CREATE
TEMPORARY TABLES , LOCK TABLES , CREATE VIEW , SHOW VIEW ,
CREATE ROUTINE , ALTER ROUTINE , EXECUTE , EVENT , TRIGGER </
AccountPrivilegeData >
        < DBName > testdb </ DBName >
    </ DatabasePrivilege >
</ DatabasePrivileges >
    < AccountStatus > Available </ AccountStatus >
    < AccountDescription ></ AccountDescription >
    < DBInstanceId > rm - uf6wjk5xxx xxxx </ DBInstanceId >
    < AccountName > testacc02 </ AccountName >
    < PrivExceed > 0 </ PrivExceed >
    < AccountType > Normal </ AccountType >
</ DBInstanceAccount >
</ Accounts >
    < RequestId > A2E94301 - D07F - 4457 - 9B49 - 6AA2BB388C 85 </
RequestId ></ DescribeAccountsResponse >

```

JSON format

```

{
  "Accounts":{
    "DBInstanceAccount":[
      {
        "AccountStatus":" Available ",
        "DatabasePrivileges":{
          "DatabasePrivilege":[
            {
              "AccountPrivilege":" ReadWrite ",
              "AccountPrivilegeData":" SELECT , INSERT , UPDATE
, DELETE , CREATE , DROP , REFERENCES , INDEX , ALTER , CREATE
TEMPORARY TABLES , LOCK TABLES , CREATE VIEW , SHOW VIEW ,
CREATE ROUTINE , ALTER ROUTINE , EXECUTE , EVENT , TRIGGER ",
              "DBName":" testdb "
            }
          ]
        },
        "AccountDescription":"",
        "DBInstanceId":" rm - uf6wjk5xxx xxxx ",
        "AccountName":" testacc02 ",
        "PrivExceed":" 0 ",
        "AccountType":" Normal "
      }
    ]
  },
  "RequestId":" A2E94301 - D07F - 4457 - 9B49 - 6AA2BB388C 85 "
}

```

Error codes

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

6.4 GrantAccountPrivilege

You can call this operation to grant privileges to an RDS database account so that it can access one or more databases.

When you call this operation, the instance must be in the running state.



Note:

This operation is not applicable to SQL Server 2017 Cluster Edition, PostgreSQL, and PPAS instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GrantAccountPrivilege	The operation that you want to perform. Set this parameter to GrantAccountPrivilege.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxxxxx	The ID of the instance.
AccountName	String	Yes	test1	The name of the account.
DBName	String	Yes	testDB	The name of the database that the account needs to access.

Parameter	Type	Required	Example	Description
AccountPrivilege	String	Yes	ReadWrite	The account privilege. Valid values: - ReadWrite - ReadOnly - DDLOnly : This value is only for MySQL and MariaDB. - DMLOnly : This value is only for MySQL and MariaDB. - DBOwner : This value is only for SQL Server.

Response parameter

Parameter	Type	Example	Description
RequestId	String	81BC9559-7B22-4B7F-B705-5F56DEECDEA7	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = GrantAccountPrivilege
& DBInstance Id = rm - uf6wjk5xxx xxxx
& AccountName = test1
& DBName = test
& AccountPrivilege = ReadWrite
&< Common request parameters >
```

Normal response examples

XML format

```
< GrantAccountPrivilegeResponse >
  < RequestId > 81BC9559 - 7B22 - 4B7F - B705 - 5F56DEECDE A7 </
  RequestId ></ GrantAccountPrivilegeResponse >
```

JSON format

```
{
  "RequestId ":" 81BC9559 - 7B22 - 4B7F - B705 - 5F56DEECDE A7 "
```

```
}
```

Error codes

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

6.5 RevokeAccountPrivilege

You can call this operation to remove privileges of an RDS database account on a database.

When you perform this operation, the instance must meet the following requirements :

- The instance is in the running state.
- The database is in the running state.



Note:

- The removed privileges are as follows: SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, REFERENCES, INDEX, ALTER, CREATE TEMPORARY TABLES, LOCK TABLES, EXECUTE, CREATE VIEW, SHOW VIEW, CREATE ROUTINE, ALTER ROUTINE, EVENT, and TRIGGER.
- This operation is not applicable to SQL Server 2017 Cluster Edition, PostgreSQL, and PPAS instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	RevokeAccountPrivilege	The operation that you want to perform. Set this parameter to <code>RevokeAccountPrivilege</code> .

Parameter	Type	Required	Example	Description
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
AccountName	String	Yes	test1	The name of the database account.
DBName	String	Yes	testDB	The name of a database. This API revokes all privileges of the account on the database.
AccessKeyId	String	No	LTAIfCxxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameter

Parameter	Type	Example	Description
RequestId	String	E22099CA-A61E-4992-A0B7-CE82DC175626	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = RevokeAccountPrivilege
& DBInstanceId = rm - uf6wjk5xxx xxxx
& AccountName = test1
& DBName = testDB
&< Common request parameters >
```

Normal response examples

XML format

```
< RevokeAccountPrivilegeResponse >
  < RequestId > E22099CA - A61E - 4992 - A0B7 - CE82DC1756 26 </
  RequestId ></ RevokeAccountPrivilegeResponse >
```

JSON format

```
{
```

```
" RequestId ":" E22099CA - A61E - 4992 - A0B7 - CE82DC1756 26 "
```

Error codes

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

6.6 ModifyAccountDescription

You can call this operation to modify the description of an RDS database account.



Note:

This operation is not applicable to SQL Server 2017 Cluster Edition, PostgreSQL, and PPAS instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyAccountDescription	The operation that you want to perform. Set this parameter to ModifyAccountDescription.
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
AccountName	String	Yes	test1	The name of the account.

Parameter	Type	Required	Example	Description
AccountDescription	String	Yes	Test account A	The description of the account . The description starts with a letter and contains 2 to 256 characters, including letters , digits, underscores (_), or hyphens (-).  Note: It cannot start with http:// or https://.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameter

Parameter	Type	Example	Description
RequestId	String	17F57FEE-EA4F-4337-8D2E-9C23CAA63D74	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = ModifyAccountDescription
& AccountDescription = Test account A
& AccountName = test1
& DBInstanceId = rm - uf6wjk5xxx xxxxxxxx
&< Common request parameters >
```

Normal response examples

XML format

```
< ModifyAccountDescriptionResponse >
```

```
< RequestId > 17F57FEE - EA4F - 4337 - 8D2E - 9C23CAA63D 74 </  
RequestId ></ ModifyAcco untDescrip tionRespon se >
```

JSON format

```
{  
  " RequestId ":" 17F57FEE - EA4F - 4337 - 8D2E - 9C23CAA63D 74 "  
}
```

Error codes

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

6.7 ResetAccountPassword

You can call this operation to reset the password of an account.

When you call this operation, the instance must be in the running state.



Note:

For SQL Server 2017 Cluster Edition instances, PostgreSQL instances, and PPAS instances, you cannot call this operation to reset the password of an account that is created through SQL.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required ?	Example	Description
Action	String	Yes	ResetAccou ntPassword	The operation that you want to perform. Set the value to ResetAccou ntPassword .
DBInstance Id	String	Yes	rm- uf6wjk5xxx xxxx	The ID of the instance.
AccountNam e	String	Yes	test1	The name of the account.

Parameter	Type	Required?	Example	Description
AccountPassword	String	Yes	Test123456	The new password.  Note: · It must be 8 to 32 characters in length. · It must contain three of the following four character types: uppercase letters, lowercase letters, digits, and special characters. · The allowed special characters are as follows: ! @ # \$ % ^ * () _ + - =
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	D4D4BE8A-DD46-440A-BFCD-EE31DA81C9DD	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = ResetAccountPassword
& DBInstance Id = rm - uf6wjk5xxx xxxx
& AccountName = test1
& AccountPassword = Test123456
& < Common request parameters >
```

Successful response examples

XML format

```
< ResetAccountPassword Response >
```

```
< RequestId > D4D4BE8A - DD46 - 440A - BFCD - EE31DA81C9 DD </
RequestId ></ ResetAccou ntPassword Response >
```

JSON format

```
{
  "RequestId ":" D4D4BE8A - DD46 - 440A - BFCD - EE31DA81C9 DD "
}
```

Error codes

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

6.8 ResetAccount

You can call this operation to reset the permissions of a superuser account.



Note:

This operation is not applicable to SQL Server 2008 R2 instances that do not have superuser accounts.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ResetAccount	The operation that you want to perform. Set this parameter to ResetAccou nt .
DBInstance Id	String	Yes	rm- uf6wjk5xxx xxxx	The ID of the instance.
AccountNam e	String	Yes	test1	The name of the superuser account.

Parameter	Type	Required?	Example	Description
AccountPassword	String	Yes	Test123456	The password of the superuser account.  Note: - It must be 8 to 32 characters in length. - It must contain three of the following four character types: uppercase letters, lowercase letters, digits, and special characters. - The allowed special characters are as follows: ! @ # \$ % ^ * () _ + - =
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	81BC9559-7B22-4B7F-B705-5F56DEECDEA7	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = ResetAccount
& AccountName = test1
& AccountPassword = Test123456
& DBInstanceId = rm - uf6wjk5xxx xxxxxxx
& < Common request parameters >
```

Successful response examples

XML format

```
< ResetAccountResponse >
  < RequestId > 81BC9559 - 7B22 - 4B7F - B705 - 5F56DEECDE A7 </
  RequestId ></ ResetAccountResponse >
```

JSON format

```
{
  "RequestId ":" 81BC9559 - 7B22 - 4B7F - B705 - 5F56DEECDE A7 "
```

Error codes

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

7 Security management

7.1 DescribeDBInstanceIPArrayList

You can call this operation to view the IP address whitelist of an RDS instance.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeDBInstanceIPArrayList	The operation that you want to perform. Set this parameter to DescribeDB InstanceIP ArrayList .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
WhitelistNetworkType	String	No	VPC	The network type of the whitelist. Valid values: • Classic : classic networks in safe mode. • VPC : VPCs in safe mode. • Mix : normal whitelist mode. The whitelist IP addresses of all network types are returned by default.

Response parameters

Parameter	Type	Example	Description
Items	N/A	N/A	The array of the IP address whitelist.
DBInstance IPArrayName	String	rds_default	The name of the IP address whitelist.
DBInstance IPArrayAttribute	String	hidden	The attribute of the whitelist group. It is empty by default.  Note: The groups with hidden attribute are not displayed in the console. The groups with hidden attribute are used to access DTS and DRDS.
SecurityIP List	String	192.168.1.0/24	The IP addresses in an IP address whitelist. Up to 1,000 IP addresses can be returned. These addresses must be separated by commas (,).
SecurityIP Type	String	IPv4	The type of the IP address.
RequestId	String	E2B6AF71-DC32-4055-B477-43B348798D10	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeDB
InstanceIP ArrayList
& DBInstance Id = rm - uf6wjk5xxx xxxx
& < Common request parameters >
```

Successful response examples

XML format

```
< DescribeDB InstanceIP ArrayListResponse >
  < Items >
```

```

    < DBInstance IPArray >
      < DBInstance IPArrayName > rds_default </ DBInstance
IPArrayName >
      < DBInstance IPArrayAttribute ></ DBInstance IPArrayAtt
ribute >
        < WhitelistNetworkType > VPC </ WhitelistNetworkType >
        < SecurityIPList > 192 . 168 . 1 . 0 / 24 </ SecurityIP
List >
        < SecurityIPType > IPv4 </ SecurityIPType >
      </ DBInstance IPArray >
    </ Items >
    < RequestId > E2B6AF71 - DC32 - 4055 - B477 - 43B348798D 10 </
RequestId >
  </ DescribeDBInstanceIPArrayListResponse >

```

JSON format

```

{
  "Items":{
    "DBInstance IPArray ":[
      {
        "DBInstance IPArrayName ":" rds_default ",
        "DBInstance IPArrayAttribute ":"",
        "WhitelistNetworkType ":" VPC ",
        "SecurityIPType ":" IPv4 ",
        "SecurityIPList ":" 192 . 168 . 1 . 0 / 24 "
      }
    ]
  },
  "RequestId ":" E2B6AF71 - DC32 - 4055 - B477 - 43B348798D 10 "
}

```

Error codes

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

7.2 DescribeDBInstanceSSL

You can call this operation to query the SSL settings of an instance.



Note:

This operation is applicable only to MySQL 5.6, MySQL 5.7/8.0 High-availability Edition (based on local SSDs), and all editions of SQL Server.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeDBInstanceSSL	The operation that you want to perform. Set this parameter to DescribeDBInstanceSSL.
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
ConnectionString	String	rm-uf6wjk5xxx-xxx.mysql.rds.aliyuncs.com	The connection address protected by the SSL certificate.
SSLExpirationTime	String	2018-01-17T12:18:15Z	The expiration time of the SSL certificate. The time is in the following UTC format: yyyy-MM-ddTHH:mm:ssZ.
RequireUpdate	String	Yes	Indicates whether the SSL certificate needs to be updated. Valid values: Yes No .
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.
RequireUpdateReason	String	N/A	The reason why the SSL certificate needs to be updated.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = DescribeDB
InstanceSS L
& DBInstance Id = rm - uf6wjk5xxx xxxx
&< Common request parameters >
```

Successful response examples

XML format

```
< DescribeDB InstanceSS LResponse >
  < items >
    < Connection String > rm - uf6wjk5xxx xxx . mysql . rds .
aliyuncs . com </ Connection String >
    < SSLExpireT ime > 2018 - 01 - 17T12 : 18 : 15Z </ SSLExpireT
ime >
    < RequireUpd ate > Yes </ RequireUpd ate >
    < RequireUpd ateReason ></ RequireUpd ateReason >
  </ items >
  < requestId > 1AD222E9 - E606 - 4A42 - BF6D - 8A4442913C EF </
requestId ></ DescribeDB InstanceSS LResponse >
```

JSON format

```
{
  " requestId ":" 1AD222E9 - E606 - 4A42 - BF6D - 8A4442913C EF ",
  " items ":[
    {
      " RequireUpd ate ":" Yes ",
      " Connection String ":" rm - uf6wjk5xxx xxx . mysql . rds .
aliyuncs . com ",
      " RequireUpd ateReason ":"",
      " SSLExpireT ime ":" 2018 - 01 - 17T12 : 18 : 15Z "
    }
  ]
}
```

Error codes

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

7.3 DescribeDBInstanceTDE

You can call this operation to query the data encryption status of an instance.

This operation is used to view the [TDE](#) configuration of an instance.



Note:

This operation is applicable only to MySQL 5.6 and SQL Server Enterprise Edition instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeDBInstanceTDE	The operation that you want to perform. Set this parameter to <code>DescribeDBInstanceTDE</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
AccessKeyId	String	No	LTAIfCxxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
TDEStatus	String	Enabled	The TDE status at the instance level. Valid values: <code>Enable</code> <code>Disable</code> .

Parameter	Type	Example	Description
Databases	N/A	N/A	The TDE status list at the database level.  Note: For SQL Server Enterprise Edition instances, you can enable or disable TDE at the database level when TDE is enabled at the instance level.
DBName	String	test02	The name of the database.
TDEStatus	String	Enabled	The TDE status at the database level. Valid values: Enable Disable .
RequestId	String	C816A4BF-A6EC-4722-95F9-2055859CCFD2	The ID of the instance.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeDB
InstanceTD E
& DBInstance Id = rm - uf6wjk5xxx xxxx
&< Common request parameters >
```

Successful response examples

XML format

```
< DescribeDB InstanceTD EResponse >
  < TDEStatus > Enabled </ TDEStatus >
  < Databases >
    < DBName > test02 </ DBName >
    < TDEStatus > Enabled </ TDEStatus >
  </ Databases >
  < requestId > C816A4BF - A6EC - 4722 - 95F9 - 2055859CCF D2 </
requestId >
</ DescribeDB InstanceTD EResponse >
```

JSON format

```
{
```

```
" Databases ":[
  {
    " TDEStatus ":" Enabled ",
    " DBName ":" test02 "
  }
],
" requestId ":" C816A4BF - A6EC - 4722 - 95F9 - 2055859CCF D2 ",
" TDEStatus ":" Enabled "
}
```

Error codes

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

7.4 ModifyDBInstanceSSL

You can call this operation to modify the Secure Sockets Layer (SSL) link of an instance.

This operation is used to configure [SSL encryption](#) for an instance.



Note:

- This operation is applicable only to MySQL5.6, 5.7/8.0 High-availability Edition (based on local SSDs), and all editions of SQL Server.
- SSL encryption is not supported for the read/write splitting address.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ModifyDBInstanceSSL	The operation that you want to perform. Set this parameter to ModifyDBInstanceSSL .

Parameter	Type	Required?	Example	Description
Connection String	String	Yes	rm-uf6wjk5xxx xx.mysql.rds. aliyuncs.com	The connection address for which the SSL certificate is created or updated.  Note: Each instance can only have one connection address which is protected by the SSL certificate.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
AccessKeyId	String	No	LTAIfCxxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	777C4593-8053-427B-99E2-105593277CAB	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = ModifyDBInstanceSSL
& Connection String = rm - uf6wjk5xxx xx . mysql . rds . aliyuncs . com
& DBInstanceId = rm - uf6wjk5xxx xxxx
& < Common request parameters >
```

Successful response examples

XML format

```
< ModifyDBInstanceSSLResponse >
```

```
< requestId > 777C4593 - 8053 - 427B - 99E2 - 105593277C AB </  
requestId ></ ModifyDBIn stanceSSLR esponse >
```

JSON format

```
{  
  " requestId ":" 777C4593 - 8053 - 427B - 99E2 - 105593277C AB "  
}
```

Error codes

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

7.5 ModifyDBInstanceTDE

You can call this operation to modify the data encryption status of an instance.

This operation is used to configure [TDE](#) for an instance.

- Encryption keys are created and managed by the Key Management Service (KMS). RDS does not provide the keys and certificates needed for encryption. After enabling TDE, you must decrypt the data through RDS if you want to restore the data to the local server.
- Before enabling TDE, you must activate KMS. If you do not activate KMS, you can activate it as instructed when enabling TDE.
- For SQL Server Enterprise Edition, TDE can be enabled and disabled only at the database level.
- For MySQL 5.6, TDE cannot be disabled after being enabled.
- After TDE is enabled, CPU usage increases.



Note:

This operation is applicable only to MySQL 5.6 and SQL Server Enterprise Edition instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ModifyDBInstanceTDE	The operation that you want to perform. Set this parameter to <code>ModifyDBInstanceTDE</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
TDEStatus	String	Yes	Enabled	The TDE status. Valid values: <code>Enabled</code> <code>Disabled</code> .
DBName	String	No	testDB	The name of the database with TDE enabled. Up to 50 database names can be entered in a single request. These names must be separated with commas (,).  Note: This parameter is required only for SQL Server Enterprise Edition instances.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	777C4593-8053-427B-99E2-105593277CAB	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = ModifyDBIn
stanceTDE
& DBInstance Id = rm - uf6wjk5xxx xxxx
& TDEStatus = Enabled
&< Common request parameters >
```

Successful response examples

XML format

```
< ModifyDBIn stanceTDER esponse >
  < requestId > 777C4593 - 8053 - 427B - 99E2 - 105593277C AB </
requestId ></ ModifyDBIn stanceTDER esponse >
```

JSON format

```
{
  " requestId ":" 777C4593 - 8053 - 427B - 99E2 - 105593277C AB "
}
```

Error codes

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

7.6 ModifySecurityIps

You can call this operation to modify a whitelist.

When you call this operation, the instance must be in the running state.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ModifySecurityIps	The operation that you want to perform. Set this parameter to ModifySecurityIps .

Parameter	Type	Required?	Example	Description
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
SecurityIPs	String	Yes	10.23.12.24	The IP address whitelist of the instance. Multiple IP addresses must be separated with commas (,), and cannot be the same. Up to 1,000 IP addresses can be entered in a single request. Two formats are supported: · IP address. For example, 10.23.12.24. · CIDR block. For example, 10.23.12.24/24. /24 indicates the prefix length of the address is 24 bits. The prefix length varies from 1 to 32 bits.
DBInstanceIPArrayName	String	No	test	The name of the IP address whitelist to be modified. Default value: default .  Note: You can create up to 50 whitelist groups for an instance.
DBInstanceIPArrayAttribute	String	No	hidden	The attribute of the whitelist group. It is empty by default.  Note: The groups with hidden attribute are not displayed in the console. The groups with hidden attribute are used to access DTS and DRDS.

Parameter	Type	Required?	Example	Description
Modifymode	String	No	Cover	The modification method. Valid values: • Cover : to overwrite the original IP address whitelist. • Append : to add IP addresses to the whitelist. • Delete : to delete IP addresses from the whitelist. Default value: Cover
WhitelistNetworkType	String	No	Classic	The network type of the whitelist. Valid values: • Classic : classic networks in safe mode. • VPC : VPCs in safe mode. • Mix : In standard mode, the IP addresses are added to the normal group. In safe mode, the IP addresses are added to both classic network and VPC groups. Default value: Mix .
SecurityGroupId	String	No	rg-acfmyxxxxx	The ID of the security group.
SecurityIPType	String	No	IPv4	The type of the IP address.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.
TaskId	String	115855279	The ID of the task.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? & Action = ModifySecurityIps
& DBInstance Id = rm - uf6wjk5xxx xxxx
& SecurityIp s = 10 . 23 . 12 . 24
&< Common request parameters >
```

Successful response examples

XML format

```
< ModifySecurityIpsResponse >
  < RequestId > 1AD222E9 - E606 - 4A42 - BF6D - 8A4442913C EF </
RequestId >
  < TaskId > 115855279 </ TaskId ></ ModifySecurityIpsResponse >
```

JSON format

```
{
  "RequestId ":" 1AD222E9 - E606 - 4A42 - BF6D - 8A4442913C EF ",
  "TaskId ": 115855279
}
```

Error codes

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

7.7 MigrateSecurityIPMode

You can call this operation to switch a whitelist from normal mode to safe mode.

- In normal mode, IP addresses in the whitelist apply to both classic networks and VPCs. In case of security risks, we recommend that you switch to safe mode.
- In safe mode, IP addresses in the whitelist are divided into VPC IP addresses and the IP addresses of classic networks and public networks.



Note:

- Safe mode cannot be switched to normal mode.
- This operation is not applicable to SQL Server and MariaDB instances.

Debugging

You can use [API Explorer](#) to perform debugging. API Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	MigrateSecurityIPMode	The operation that you want to perform. Set the value to MigrateSecurityIPMode.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
AccessKeyId	String	No	LTAIfCxxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
DBInstanceId	String	rm-uf6wjk5xxx xxxx	The ID of the instance.
RequestId	String	EF1E53AB-5625-49C7-ADF1-FBD0B6640D19	The ID of the request.
SecurityIPMode	String	safety	The mode of the whitelist after the switch. Valid values: safety.

Examples

Sample requests

```
http(s)://rds.aliyuncs.com/?Action=MigrateSecurityIPMode
&DBInstanceId=rm-uf6wjk5xxx-xxxx
```

&< Common request parameters >

Successful response examples

XML format

```
< MigrateSecurityIPModeResponse >
  < DBInstanceId > rm-uf6wjk5xxx-xxxx </ DBInstanceId >
  < RequestId > EF1E53AB - 5625 - 49C7 - ADF1 - FBD0B6640D 19 </
  RequestId >
  < SecurityIPMode > safety </ SecurityIPMode >
</ MigrateSecurityIPModeResponse >
```

JSON format

```
{
  "RequestId ":" EF1E53AB - 5625 - 49C7 - ADF1 - FBD0B6640D 19 ",
  "DBInstanceId ":" rm-uf6wjk5xxx-xxxx ",
  "SecurityIPMode ":" safety "
}
```

Error codes

[View error codes](#)

8 Network management

8.1 AllocateInstancePublicConnection

You can call this operation to apply for the public IP address of an instance.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	AllocateInstancePublicConnection	The operation that you want to perform. Set this parameter to <code>AllocateInstancePublicConnection</code> .
ConnectionStringPrefix	String	Yes	test1.mysql.rds.aliyuncs.com	The public IP address. The prefix can be customized.  Note: It must be 5 to 40 characters in length. It can contain letters, digits, and hyphens (-). It cannot contain Chinese characters and the following special characters: ~ ! # % ^ & * = + \ { } ; : ' " , < > / ?
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.

Parameter	Type	Required?	Example	Description
Port	String	Yes	3306	The connection port of the public network. Valid values: 1000 to 5999
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	65BDA532-28AF-4122-AA39-B382721EEE64	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = AllocateIn
stancePublicConnection
& ConnectionStringPrefix = test1 . mysql . rds . aliyuncs . com
& DBInstanceId = rm - uf6wjk5xxx xxxx
& Port = 3306
&< Common request parameters >
```

Successful response examples

XML format

```
< AllocateIn stancePublicConnectionResponse >
  < RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64
</ RequestId >
</ AllocateIn stancePublicConnectionResponse >
```

JSON format

```
{
  " RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 "
}
```

Error codes

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

8.2 DescribeDBInstanceNetInfo

You can call this operation to view all the connection addresses of an instance.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeDBInstanceNetInfo	The operation that you want to perform. Set this parameter to <code>DescribeDBInstanceNetInfo</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
DBInstanceNetRWSplitType	String	No	Normal	The type of the connection address. Valid values: - Normal - ReadWriteSplitting  Note: By default, all types of connections are listed.
AccessKeyId	String	No	LTAIfCxxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Parameter	Type	Required?	Example	Description
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.
Flag	String	No	-	Optional.

Response parameters

Parameter	Type	Example	Description
DBInstanceNetInfos	N/A	N/A	The list of the connection addresses for the instance.
ConnectionString	String	rm-uf6wxxxxx .mysql.rds. aliyuncs.com	The connection address.
IPAddress	String	192.168.12.84	The IP address.
IPType	String	Public	The type of the network. Valid values: - For a classic network: - Inner - Public - For a VPC: - Private - Public
Port	String	3306	The connection port.
VPCId	String	vpc-uf6f7l4fg9 0xxxxxxxxxx	The ID of the VPC.

Parameter	Type	Example	Description
VSwitchId	String	vsw-uf6adz52c2pxxxxxxxxxx	The ID of the VSwitch.
ConnectionStringType	String	Normal	The type of the connection address. Valid values: - Normal - ReadWriteSplitting
MaxDelayTime	String	12	The latency threshold. This parameter is returned only for the read/write splitting address. Unit: second.  Note: No traffic is allocated to read-only instances that exceed the latency threshold.
DistributionType	String	Standard	The allocation policy of the read request. This parameter is returned only for the read/write splitting address. Valid values: - Standard - Custom
DBInstanceWeights	N/A	N/A	The list of instance weights. The instances with read/write splitting addresses return this parameter.
DBInstanceId	String	rm-uf6wjk5xxxxxxx	The ID of the instance.
DBInstanceType	String	Master	The type of the instance. Valid values: - Master - Readonly
Weight	String	100	The weight of the instance.

Parameter	Type	Example	Description
Availability	String	Unavailable	The availability of the instance. Valid values: - Unavailable - Available
ExpiredTime	String	1209534	The remaining time of the classic network in the hybrid access mode. Unit: second.
SecurityIP Groups	N/A	N/A	The IP whitelist groups of the instance.
SecurityIP GroupName	String	Default	The name of the IP whitelist group.
SecurityIPs	String	127.0.0.1	The whitelist IP address.
Upgradeable	String	Disabled	Indicates whether the IP version can be upgraded. Valid values: - true - false  Note: IPv4 can be upgraded to IPv6.
InstanceNetworkType	String	VPC	The type of the network. Valid values: - Classic - VPC
RequestId	String	777C4593-8053-427B-99E2-105593277CAB	The ID of the request.
SecurityIP Mode	String	safety	The whitelist mode. Valid values: - normal - safety

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = DescribeDB
InstanceNe tInfo
& DBInstance Id = rm - uf6wjk5xxx xxxx
&< Common request parameters >
```

Successful response examples

XML format

```
< DescribeDB InstanceNe tInfoRespo nse >
  < dBInstance NetInfos >
    < connection String > rm - uf6wjk5xxx xxxx . mysql . rds .
aliyuncs . com </ connection String >
    < connection StringType > Normal </ connection StringType >
    < iPAAddress > 192 . 168 . xx . xx </ iPAAddress >
    < iPType > Public </ iPType >
    < port > 3306 </ port >
    < upgradeabl e > Disabled </ upgradeabl e >
    < vPCId ></ vPCId >
  </ dBInstance NetInfos >
  < instanceNe tworkType > Classic </ instanceNe tworkType >
  < requestId > 777C4593 - 8053 - 427B - 99E2 - 105593277C AB </
requestId >
</ DescribeDB InstanceNe tInfoRespo nse >
```

JSON format

```
{
  " instanceNe tworkType ":" Classic ",
  " requestId ":" 777C4593 - 8053 - 427B - 99E2 - 105593277C AB ",
  " dBInstance NetInfos ":[
    {
      " port ":" 3306 ",
      " dBInstance Weights ":[],
      " iPType ":" Public ",
      " connection StringType ":" Normal ",
      " vPCId ":"",
      " securityIP Groups ":[],
      " connection String ":" rm - uf6wjk5xxx xxxx . mysql . rds .
aliyuncs . com ",
      " iPAAddress ":" 192 . 168 . xx . xx ",
      " upgradeabl e ":" Disabled "
    }
  ]
}
```

Error codes

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

8.3 Change the expiration time of the original classic endpoint

Description

When the instance in the hybrid access mode (both the VPC and classic network endpoints exist in the instance), you can change the expiration time of the original classic endpoint.

Request parameters

Name	Type	Required or not	Description
Action	String	Yes	System parameter. Valid value: ModifyDBInstanceNetworkExpri
DBInstanceId	String	Yes	ID of the target RDS instance
ConnectionString	String	Yes	The connection string of the classic network to be extended. There are two types of classic network string: · Classic network string of the current instance · Classic network string of the read/write splitting
ClassicExpiredDays	Integer	Yes	The retention days of the classic network string. Value range: [1-120].

Return parameters

Name	Type	Description
Public return parameters	-	For more information, see #unique_93 .

8.4 ModifyDBInstanceConnectionString

You can call this operation to modify the connection address and port of an instance.

RDS provides two types of connection addresses: private IP addresses and public IP addresses. RDS also allows a VPC and a classic network to coexist in the hybrid access mode.



Note:

- Only the prefix of the connection address can be modified.
- The read/write splitting address cannot be modified.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ModifyDBInstanceConnectionString	The operation that you want to perform. Set this parameter to ModifyDBInstanceConnectionString.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.

Parameter	Type	Required?	Example	Description
CurrentConnectionString	String	Yes	rm-uf6wjk5xxx xxxx.mysql. rds.aliyuncs. com	The current connection address of an instance. It can be an internal network address, a public network address, or a classic network address in the hybrid access mode.  Note: The read/write splitting address cannot be modified.
ConnectionStringPrefix	String	Yes	m-xxxxbn5c23 qo	The prefix of the target connection address. Only the prefix of CurrentConnectionString can be modified.  Note: It must be 5 to 30 characters in length and can contain letters, digits, and hyphens (-). It cannot contain Chinese characters and the following special characters: ~ ! # % ^ & * = + \ { } ; : ' " , < > / ?
Port	String	Yes	3306	The target port.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

parameter	Type	Example	Description
RequestId	String	65BDA532-28AF-4122-AA39-B382721EEE64	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = ModifyDBInstanceConnectionStr ing
& DBInstance Id = rm - uf6wjk5xxx xxxx
& CurrentConnectionStr ing = rm - uf6wjk5xxx xxxx . mysql . rds . aliyuncs . com
& Connection StringPref ix = m - xxxxbn5c23 qo
& Port = 3306
&< Common request parameters >
```

Successful response examples

XML format

```
< PurgeDBInstanceLogResponse >
  < RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64
</ RequestId >
</ PurgeDBInstanceLogResponse >
```

JSON format

```
{
  "RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 "
}
```

Error codes

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

8.5 ModifyDBInstanceNetworkType

You can call this operation to switch the network type of an RDS instance.

This operation is used to switch the network type of an instance between a VPC and a classic network.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ModifyDBInstanceNetworkType	The operation that you want to perform. Set this parameter to <code>ModifyDBInstanceNetworkType</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
InstanceNetworkType	String	Yes	Classic	The type of the target network. Valid values: - VPC - Classic
RetainClassic	String	No	True	Indicates whether to retain the classic network address. Valid values: - True - False Default value: <code>False</code> .  Note: This parameter is valid when a classic network is switched to a VPC.

Parameter	Type	Required?	Example	Description
ClassicExpiredDays	String	No	7	The retention days of the classic network. Value range: 1 to 120 . Unit: day. Default value: 7 .  Note: If the RetainClassic parameter is set to True , this parameter is required.
ReadWriteSplittingClassicExpiredDays	Integer	No	7	The retention days of the read/write splitting address for a classic network. Value range: 1 to 120 . Unit: day. Default value: 7 .  Note: When an instance has the read/write splitting address of a classic network, and the RetainClassic parameter is set to True , this parameter is valid.
VPCId	String	No	vpc-uf6f7l4fg90xxxxxx	The ID of the VPC.
VSwitchId	String	No	vsw-uf6adz52c2pxxxxxx	The ID of the VSwitch. If the VPCId is entered, this parameter is required.

Parameter	Type	Required ?	Example	Description
PrivateIpAddress	String	No	172.10.40.25	The private IP address of the instance. It must be within the IP address range of the specified VSwitch. The system automatically allocates the private IP addresses through the <code>VPCId</code> and <code>VSwitchId</code> parameters by default.
ReadWriteSplittingPrivateIpAddress	String	No	192.168.0.22	The read/write splitting private IP address of the instance. It must be within the IP address range of the specified VSwitch. The system automatically allocates the private IP addresses through the <code>VPCId</code> and <code>VSwitchId</code> parameters by default.  Note: When the current instance has the read/write splitting address of a classic network, this parameter is valid.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Parameter	Type	Example	Description
TaskId	String	1025486523574	The ID of the task.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = ModifyDBIn
stanceNetw orkType
& DBInstance Id = rm - uf6wjk5xxx xxxx
& InstanceNe tworkType = Classic
&< Common request parameters >
```

Successful response examples

XML format

```
< ModifyDBIn stanceNetw orkTypeRes ponse >
  < RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 </
RequestId ></ ModifyDBIn stanceNetw orkTypeRes ponse >
```

JSON format

```
{
  " RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 "
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	NetTypeExists	Specified network type already exists.	The error message returned when the network type already exists. Check whether this parameter is correct.
403	OperationDenied .DBInstance ConnType	The current DB instance connection type does not support this operation.	The error message returned when the network connection type is not supported.

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

8.6 ReleaseInstancePublicConnection

You can call this operation to release the public IP address of an instance.

To guarantee data security, you can release the public IP address through this operation when you do not need to access the database from the public IP address.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ReleaseInstancePublicConnection	The operation that you want to perform. Set this parameter to ReleaseInstancePublicConnection.
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
CurrentConnectionString	String	Yes	rm-uf6wjk5xxx.mysql.rds.aliyuncs.com	The public IP address.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	65BDA532-28AF-4122-AA39-B382721EEE64	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = ReleaseIns
tancePubli cConnectio n
& DBInstance Id = rm - uf6wjk5xxx xxxx
& CurrentCon nectionStr ing = rm - uf6wjk5xxx x . mysql . rds .
aliyuncs . com
&< Common request parameters >
```

Successful response examples

XML format

```
< ReleaseIns tancePubli cConnectio nResponse >
  < RequestId > 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64
</ RequestId >
</ ReleaseIns tancePubli cConnectio nResponse >
```

JSON format

```
{
  " RequestId ":" 65BDA532 - 28AF - 4122 - AA39 - B382721EEE 64 "
}
```

Error codes

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

8.7 SwitchDBInstanceNetType

You can call this operation to switch between an internal network and a public network.

You can switch between an internal network and a public network through this operation. An internal network can be switched to a public network, and vice versa. After switching, the connection address changes. You must modify the connection address in the code and restart the application.

This operation must meet the following requirements:

- The instance has only a private or public IP address.
- The instance is in the running state.
- You switch between an internal network and a public network for less than 20 times within 24 hours.
- The network type of the instance is classic network.

- [Access modes](#) and [Instance types](#) place the following restrictions on which connection address to choose:
 - The instance type is Single-host Basic Edition. The versions of instances include MySQL 5.7, basic series of SQL Server 2012/2016 Web Edition, basic series of SQL Server 2012 Web Enterprise Edition, and PostgreSQL 10.0. The access mode is standard mode. The connection address can be switched to the private IP address, the public IP address, or the private and public IP addresses.
 - The instance type is Dual-host High-availability Edition. The versions of instances include MySQL 5.5/5.6/5.7, SQL Server 2008 R2, SQL Server 2012/2016 Standard High-availability Edition, SQL Server 2012/2016 Enterprise High-availability Edition, PostgreSQL 9.4, and PPAS 9.3/10.0. The access mode is standard mode. The connection address can be switched to the private IP address or the public IP address.
 - The instance type is Dual-host High-availability Edition. The versions of instances include MySQL 5.5/5.6/5.7, SQL Server 2008 R2, SQL Server 2012/2016 Standard High-availability Edition, SQL Server 2012/2016 Enterprise High-availability Edition, PostgreSQL 9.4, and PPAS 9.3/10.0. The access mode is safe mode. The connection address can be switched to the private IP address, the public IP address or the private and public IP addresses.
 - The instance type is Finance Edition. The versions of instances include MySQL 5.6. The access mode is standard mode. The connection address can be switched to the private IP address or public IP address.
 - The instance type is Finance Edition. The versions of instances include MySQL 5.6. The access mode is safe mode. The connection address can be switched to the private IP address, the public IP address, or the private and public IP addresses.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	SwitchDBInstanceNetType	The operation that you want to perform. Set this parameter to <code>SwitchDBInstanceNetType</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
ConnectionStringPrefix	String	Yes	rm-xxxxxx	The prefix of the custom connection address. It must be 8 to 64 characters in length and can contain letters and digits. It must start with a lowercase letter.
ClientToken	String	No	ETnLKlblzc-zshOTUbOCz-xxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.
Port	String	No	3306	The port number. Value range: 3001 to 3999

Parameter	Type	Required?	Example	Description
ConnectionStringType	String	No	Normal	The type of the connection address. Valid values: - Normal - ReadWriteSplitting  Note: By default, all types of connections are listed.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	65BDA532-28AF-4122-AA39-B382721EEE64	The ID of the request.

Examples

Sample requests

```
http(s)://rds.aliyuncs.com/?Action=SwitchDBInstanceNetType
&DBInstanceId=rm-uf6wjk5xxx-xxxx
&ConnectionStringPrefix=rm-xxxxxx
&<Common request parameters>
```

Successful response examples

XML format

```
<SwitchDBInstanceNetTypeResponse>
  <RequestId>65BDA532-28AF-4122-AA39-B382721EEE64</RequestId>
</SwitchDBInstanceNetTypeResponse>
```

JSON format

```
{
  "RequestId": "65BDA532-28AF-4122-AA39-B382721EEE64"
}
```

```
}
```

Error codes

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

9 Log management

9.1 DescribeSQLCollectorPolicy

You can call this operation to check whether SQL collection is enabled for an instance.



Note:

This operation is not applicable to SQL Server 2017 Cluster Edition instances.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The operation that you want to perform. Set this parameter to DescribeSQLCollectorPolicy.
DBInstanceId	String	Yes	The ID of the instance.

Response parameters

Parameter	Type	Description
<Common response parameters>	-	For more information, see #unique_93 .
SQLCollectorStatus	String	Valid values: - Enable SQL. - Disabled SQL.

9.2 DescribeSlowLogs

You can call this operation to view the statistics of slow logs.



Note:

This operation is not applicable to SQL Server 2017 Cluster Edition instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeSlowLogs	The operation that you want to perform. Set this parameter to <code>DescribeSlowLogs</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
StartTime	String	Yes	2011-05-01Z	The start time of the query. Format: <code>yyyy-MM-ddZ</code> .
EndTime	String	Yes	2011-05-30Z	The end time of the query. It must be later than the start time. The time span between the start and end time must be less than or equal to 31 days. Format: <code>yyyy-MM-ddZ</code> .
DBName	String	No	RDS_MySQL	The name of the database.
SortKey	String	No	TotalExecutionCounts	The basis on which query results are sorted. Valid values: • TotalExecutionCounts • TotalQueryTimes • TotalLogicalReads • TotalPhysicalReads

Parameter	Type	Required ?	Example	Description
PageSize	Integer	No	30	The number of records on each page. Valid values: • 30 • 50 • 100 Default value: 30 .
PageNumber	Integer	No	1	The page number. It must greater than 0 and cannot exceed the maximum value of the given Integer. Default value: 1 .
AccessKeyId	String	No	LTAlfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
Engine	String	MySQL	The type of the database.
StartTime	String	2011-05-30Z	The start time of the query.
EndTime	String	2011-05-30Z	The end time of the query.
TotalRecordCount	Integer	5	The total number of records.
PageNumber	Integer	1	The page number.
PageRecordCount	Integer	10	The number of SQL statements on the current page.
Items	N/A	N/A	The list of slow logs.

Parameter	Type	Example	Description
DBName	String	RDS_MySQL	The name of the database.
SQLText	String	select id,name from tb_table	The SQL statement.
SQLServerTotalExecutionCounts	Long	1	The total number of SQL Server executions.
MySQLTotalExecutionCounts	Long	1	The total number of MySQL executions.
SQLServerTotalExecutionTimes	Long	1,000	The total execution time of SQL Server. Unit: millisecond.
MySQLTotalExecutionTimes	Long	1	The total execution time of MySQL. Unit: second.
MaxExecutionTime	Long	60	The maximum execution time. Unit : second.
ReportTime	String	2011-05-30Z	The date when the data report is generated.
TotalLockTimes	Long	0	The total lock duration. Unit: second.
MaxLockTime	Long	0	The maximum lock duration. Unit: second.
ParseTotalRowCounts	Long	1	The total rows of parsed SQL statements.
ParseMaxRowCount	Long	1	The maximum row of parsed SQL statements.
ReturnTotalRowCounts	Long	1	The total rows of returned SQL statements.

Parameter	Type	Example	Description
ReturnMaxRowCount	Long	1	The maximum row of returned SQL statements
CreateTime	String	2011-05-30Z	The date when the data is generated.
AvgExecutionTime	Long	1	The average execution time. Unit: second.
SQLHASH	String	U2FsdGVkxxxx	The unique ID of the SQL statement in the slow log statistics. It can be used to obtain the slow log details of the SQL statement.
SQLIdStr	String	521584	the SQL ID in the slow log statistics template. It is deprecated. Use the SQLHASH parameter instead.
SlowLogId	Long	26584213	The ID of slow query summary.
TotalLogicalReadCounts	Long	1	The total number of logical reads.
TotalPhysicalReadCounts	Long	1	The total number of physical reads.
DBInstanceId	String	rm-uf6wjk5xxxx xxxx	The ID of the instance.
RequestId	String	2553A660-E4EB-4AF4-A402-8AFF70A49143	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeSlowLogs
& DBInstance Id = rm - uf6wjk5xxxx xxxx
& StartTime = 2011 - 05 - 01Z
& EndTime = 2011 - 05 - 30Z
```

&< Common request parameters >

Successful response examples

XML format

```
< DescribeSlowLogsResponse >
  < RequestId > A5409D02 - D661 - 4BF3 - 8F3D - 0A814D0574 E7 </
  RequestId >
  < DBInstanceId > rm-uf6wjk5xxx xxxx </ DBInstanceId >
  < Engine > SQLServer </ Engine >
  < StartTime > 2011 - 06 - 11Z </ StartTime >
  < EndTime > 2011 - 12 - 11Z </ EndTime >
  < TotalRecordCount > 1 </ TotalRecordCount >
  < PageNumber > 1 </ PageNumber >
  < PageRecordCount > 1 </ PageRecordCount >
  < Items >
    < SQLSlowLog >
      < SQLText > update test . zxb set id = 0 limit 1
    </ SQLText >
    < SQLServerTotalExecutionCounts > 178 </ SQLServerTotalExecutionCounts >
    < SQLServerTotalExecutionTimes > 189 </ SQLServerTotalExecutionTimes >
    < TotalLogicalReadCounts > 89 </ TotalLogicalReadCounts >
    < TotalPhysicalReadCounts > 90 </ TotalPhysicalReadCounts >
    < ReportTime > 2013 - 11 - 12Z </ ReportTime >
  </ SQLSlowLog >
</ Items >
</ DescribeSlowLogsResponse >
```

JSON format

```
{
  "DescribeSlowLogsResponse":{
    "Items":{
      "SQLSlowLog":{
        "SQLServerTotalExecutionTimes":"189",
        "SQLText":"update test . zxb set id = 0 limit 1",
        "TotalLogicalReadCounts":"89",
        "SQLServerTotalExecutionCounts":"178",
        "TotalPhysicalReadCounts":"90",
        "ReportTime":"2013 - 11 - 12Z"
      }
    },
    "PageNumber":"1",
    "TotalRecordCount":"1",
    "DBInstanceId":"rm-uf6wjk5xxx xxxx",
    "RequestId":"A5409D02 - D661 - 4BF3 - 8F3D - 0A814D0574 E7",
    "EndTime":"2011 - 12 - 11Z",
    "StartTime":"2011 - 06 - 11Z",
    "Engine":"SQLServer",
    "PageRecordCount":"1"
  }
}
```

```
}
```

Error codes

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

9.3 DescribeSlowLogRecords

You can call this operation to view the slow log details of an instance.



Note:

- The response parameters for this operation are updated once every minute.
- This operation is not applicable to SQL Server instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeSlowLogRecords	The operation that you want to perform. Set this parameter to DescribeSlowLogRecords.
DBInstanceId	String	Yes	rm-uf6wjk5xxxxxx	The instance of the ID.
StartTime	String	Yes	2011-06-01T16:00Z	The start time of the query. Format: yyyy-MM-ddTHH:mmZ.

Parameter	Type	Required?	Example	Description
EndTime	String	Yes	2011-06-20T16:00Z	The end time of the query. It must be later than the start time. The time span between the start and end time must be less than 31 days. Format: <i>yyyy-MM-ddTHH:mmZ</i> .
SQLHASH	String	No	U2FsdGVkxxxx	The unique ID of the SQL statement in the slow log statistics. It can be used to obtain the slow log details of the SQL statement.
DBName	String	No	RDS_MySQL	The name of the database.
PageSize	Integer	No	30	The number of records on each page. Valid values: • 30 • 50 • 100 Default value: 30 .
PageNumber	Integer	No	1	The page number. It must be greater than 0 and cannot exceed the maximum value of the given Integer. Default value: 1 .
AccessKeyId	String	No	LTAIfCxxxx xxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
Engine	String	MySQL	The type of the database.
TotalRecordCount	Integer	1	The total number of records.
PageNumber	Integer	1	The page number.
PageRecordCount	Integer	1	The number of SQL statements on the current page.
Items	N/A	N/A	The list of slow logs.
HostAddress	String	192.101.2.11	The client address used to connect to a database.
DBName	String	testDB	The name of the database.
SQLText	String	update test.zxb set id=0 limit 1;	The SQL statement.
QueryTimes	Long	20	The execution time of the SQL statement. Unit: second.
LockTimes	Long	12	The lock duration. Unit: second.
ParseRowCounts	Long	100	The number of parsed rows.
ReturnRowCounts	Long	1	The number of returned rows.
ExecutionStartTime	String	2011-06-11T15:00:08Z	The execution start time. Format: yyyy-MM-ddT ^{HH} :mm:ssZ.
DBInstanceId	String	rm-uf6wjk5xxx xxxx	The ID of the instance.
RequestId	String	542BB8D6-4268-45CC-A557-B03EFD7AB30A	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = DescribeSlowLogRecords
& DBInstanceID = rm - uf6wjk5xxx xxxx
& StartTime = 2011 - 06 - 01T16 : 00Z
& EndTime = 2011 - 06 - 20T16 : 00Z
&< Common request parameters >
```

Successful response examples

XML format

```
< DescribeSlowLogRecordsResponse >
  < RequestId > 542BB8D6 - 4268 - 45CC - A557 - B03EFD7AB3 0A </
RequestId >
  < DBInstanceID > rm - uf6wjk5xxx xxxx </ DBInstanceID >
  < Engine > MySQL </ Engine >
  < TotalRecordCount > 1 </ TotalRecordCount >
  < PageNumber > 1 </ PageNumber >
  < PageRecordCount > 1 </ PageRecordCount >
  < Items >
    < SQLSlowRecord >
      < HostAddress > 192 . 101 . 2 . 11 </ HostAddress >
      < DBName > test </ DBName >
      < SQLText > update test . zxb set id = 0 limit 1
    </ SQLText >
      < QueryTimes > 123 </ QueryTimes >
      < LockTimes > 12 </ LockTimes >
      < ParseRowCounts > 125 </ ParseRowCounts >
      < ReturnRowCounts > 1 </ ReturnRowCounts >
      < ExecutionStartTime > 2011 - 06 - 11T15 : 00 : 08Z </
ExecutionStartTime >
    </ SQLSlowRecord >
  </ Items >
</ DescribeSlowLogRecordsResponse >
```

JSON format

```
{
  "DescribeSlowLogRecordsResponse":{
    "Items":{
      "SQLSlowRecord":{
        "ReturnRowCounts":"1",
        "HostAddress":"192 . 101 . 2 . 11",
        "SQLText":"update test . zxb set id = 0 limit 1",
        "LockTimes":"12",
        "ExecutionStartTime":"2011 - 06 - 11T15 : 00 : 08Z",
        "ParseRowCounts":"125",
        "QueryTimes":"123",
        "DBName":"test"
      }
    },
    "PageNumber":"1",
    "TotalRecordCount":"1",
    "DBInstanceID":"rm - uf6wjk5xxx xxxx",
    "RequestId":"542BB8D6 - 4268 - 45CC - A557 - B03EFD7AB3 0A",
  },
}
```

```
" Engine ":" MySQL ",
" PageRecord Count ":" 1 "
}
```

Error codes

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

9.4 DescribeErrorLogs

You can call this operation to view the error logs of an instance during a certain period of time.

The error logs include the time when they are generated and error messages.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeErrorLogs	The operation that you want to perform. Set this parameter to DescribeErrorLogs .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
StartTime	String	Yes	2011-05-01T20:10Z	The start time of the query. Format: yyyy-MM-ddTHH:mm:ssZ.

Parameter	Type	Required ?	Example	Description
EndTime	String	Yes	2011-05-30T20:10Z	The end time of the query. It must be later than the start time. The time span between the start and end time must be less than 31 days. Format: <code>yyyy-MM-ddTHH:mm:ssZ</code> .
PageSize	Integer	No	30	The number of records on each page. Valid values: • 30 • 50 • 100 Default value: 30 .
PageNumber	Integer	No	1	The page number. It must be greater than 0 and cannot exceed the maximum value of the given Integer. Default value: 1 .
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
TotalRecordCount	Integer	100	The total number of records.
PageNumber	Integer	1	The page number.
PageRecordCount	Integer	30	The number of error logs on the current page.

Parameter	Type	Example	Description
Items	N/A	N/A	The detailed list of error logs.
ErrorInfo	String	spid52 DBCC TRACEON 3499 , server process ID (SPID) 52 . This is an informational message only; no user action is required	The error message.
CreateTime	String	2011-05-30T12:11:04Z	The time when the error log is generated. Format: yyyy-MM-dd'THH:mm:ssZ.
RequestId	String	98504E07-BB0E-40FC-B152-E4882615812C	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeErrorLogs
& DBInstance Id = rm - uf6wjk5xxx xxxx
& StartTime = 2011 - 05 - 01T20 : 10Z
& EndTime = 2011 - 05 - 30T20 : 10Z
&< Common request parameters >
```

Successful response examples

XML format

```
< DescribeErrorLogsResponse >
  < RequestId > 98504E07 - BB0E - 40FC - B152 - E488261581 2C </
RequestId >
  < PageNumber > 1 </ PageNumber >
  < TotalRecordCount > 1 </ TotalRecordCount >
  < PageRecordCount > 1 </ PageRecordCount >
  < Items >
    < ErrorLog >
      < ErrorInfo > spid52 DBCC TRACEON 3499 , server
process ID ( SPID ) 52 . This is an informational
message only ; no user action is required </ ErrorInfo >
      < CreateTime > 2013 - 06 - 04T15 : 00 : 00 </ CreateTime >
    </ ErrorLog >
```

```
</ Items ></ DescribeErrorLogsResponse >
```

JSON format

```
{
  "Items":{
    "ErrorLog":[
      {
        "ErrorInfo":"spid52 DBCC TRACEON 3499 , server process
ID ( SPID ) 52 . This is an informational message
only ; no user action is required ",
        "CreateTime":"2013 - 06 - 04T15 : 00 : 00 "
      }
    ]
  },
  "TotalRecordCount": 1 ,
  "PageNumber": 1 ,
  "RequestId":"98504E07 - BB0E - 40FC - B152 - E488261581 2C ",
  "PageRecordCount": 1
}
```

Error codes

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

9.5 DescribeBinlogFiles

You can call this operation to view binlogs.

- If the `DownloadLink` parameter is null, the download link is unavailable.
- If the `DownloadLink` parameter is not null, you can download backup files from this link. The expiration time for this link is specified by the `LinkExpirationTime` parameter. Make sure that you download the backup files before the expiration time.



Note:

This operation is not applicable to SQL Server instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeBinlogFiles	The operation that you want to perform. Set this parameter to DescribeBinlogFiles .
DBInstanceId	String	Yes	rm-uf6wjk5xxxxxxx	The ID of the instance.
StartTime	String	Yes	2011-06-01T15:00:00Z	The start time of the query. Format: yyyy-MM-dd'THH:mm:ssZ.
EndTime	String	Yes	2011-06-20T15:00:00Z	The end time of the query. It must be later than the start time. Format: yyyy-MM-dd'THH:mm:ssZ.
PageSize	Integer	No	30	The number of records on each page. Valid values: 30 50 100 Default value: 30 .
PageNumber	Integer	No	1	The page number. It must be greater than 0 and cannot exceed the maximum value of the Integer data type. Default value: 1 .
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
TotalRecordCount	Integer	100	The total number of binlog files.
PageNumber	Integer	1	The page number.
PageRecordCount	Integer	30	The number of binlog files on the current page.
Items	N/A	N/A	The detailed list of binlogs.
FileSize	Long	2269410	The size of the binlog file. Unit: byte.
LogBeginTime	String	2019-02-09T17:45:21Z	The start time of logs in the binlog file. Format: <i>yyyy-MM-ddTHH:mm:ssZ</i> .
LogEndTime	String	2019-02-15T13:10:28Z	The end time of logs in the binlog file. Format: <i>yyyy-MM-ddTHH:mm:ssZ</i> .
DownloadLink	String	http://rdsxxxxx.oss.aliyuncs.com/xxxxxx	The HTTP download link. If this parameter is null, the download link is unavailable.
HostInstanceId	String	5841973	The ID of the instance to which a binlog file belongs. You can use this parameter to tell whether the binlog file is from a master or slave instance.
LinkExpirationTime	String	2013-06-09T18:00:00Z	The expiration time of the download link. Format: <i>yyyy-MM-ddTHH:mm:ssZ</i> .

Parameter	Type	Example	Description
Checksum	String	1835830439 3468701857	The checksum.
IntranetDownloadLink	String	http://rdslog-hz-v3.oss-cn-hangzhou-internal.aliyuncs.com/xxxxxx	The download link for the intranet.
LogFileName	String	0000000400 00000000000019	The name of the binlog file.
RequestId	String	ED169A3E-1657-4104-82AB-24EA8CD0DB75	The ID of the request.
TotalFileSize	Long	2269410	The total size of binlog files.

Examples

Request example

```
http ( s ):// rds . aliyuncs . com /? Action = DescribeBinlogFiles
& DBInstance Id = rm - uf6wjk5xxx xxxx
& StartTime = 2011 - 06 - 01T15 : 00 : 00Z
& EndTime = 2011 - 06 - 20T15 : 00 : 00Z
&< Common request parameters >
```

Normal response example

XML format

```
< DescribeBinlogFilesResponse >
  < Items ></ Items >
  < PageNumber > 1 </ PageNumber >
  < TotalRecordCount > 0 </ TotalRecordCount >
  < TotalFileSize > 0 </ TotalFileSize >
  < RequestId > ED169A3E - 1657 - 4104 - 82AB - 24EA8CD0DB 75 </
RequestId >
  < PageRecordCount > 0 </ PageRecordCount ></ DescribeBinlogFilesResponse >
```

JSON format

```
{
  " Items ":{
    " BinLogFile ":[ ]
  },
  " TotalRecordCount ": 0 ,
  " PageNumber ": 1 ,
  " TotalFileSize ":" 0 ",
```

```
" RequestId ":" ED169A3E - 1657 - 4104 - 82AB - 24EA8CD0DB 75 ",
" PageRecord Count ": 0
}
```

Error codes

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

9.6 ModifySQLCollectorPolicy

You can call this operation to enable or disable the SQL audit feature of an instance.

This operation is applicable to the following database engine versions:

- MySQL 5.5
- MySQL 5.6
- MySQL 5.7 High-availability Edition (based on local SSDs)
- SQL Server 2008 R2
- PostgreSQL
- PPAS

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ModifySQLCollectorPolicy	The operation that you want to perform. Set this parameter to ModifySQLCollectorPolicy.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.

Parameter	Type	Required?	Example	Description
SQLCollect orStatus	String	Yes	Enable	Indicates whether to enable or disable the SQL audit feature. Valid values: Enable Disable .
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = ModifySQLC
ollectorPo licy
& DBInstance Id = rm - uf6wjk5xxx xxxx
& SQLCollect orStatus = Enable
&< Common request parameters >
```

Normal response example

XML format

```
< ModifySQLC_ollectorPo_licyRespon se >
  < requestId > C3565F9F - 76E9 - 4F7E - A662 - D1B2488EC2 FC </
requestId >
  < sQLCollect orStatus > Enable </ sQLCollect orStatus ></
ModifySQLC_ollectorPo_licyRespon se >
```

JSON format

```
{
  " requestId ":" C3565F9F - 76E9 - 4F7E - A662 - D1B2488EC2 FC ",
  " sQLCollect orStatus ":" Enable "
```

```
}
```

Error codes

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

9.7 DescribeSQLLogRecords

You can call this operation to query the SQL audit logs of an RDS instance.

This operation is applicable to the following database engine versions:

- MySQL 5.5
- MySQL 5.6
- MySQL 5.7 High-availability Edition (based on local SSDs)
- SQL Server 2008 R2
- PostgreSQL
- PPAS

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeSQLLogRecords	The operation that you want to perform. Set this parameter to DescribeSQLLogRecords.
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
StartTime	String	Yes	2011-06-01T15:00:00Z	The start time of the query. Format: yyyy-MM-ddTHH:mm:ssZ.

Parameter	Type	Required	Example	Description
EndTime	String	Yes	2011-06-11T15:00:00Z	The end time of the query. It must be later than the start time. The time span between the start time and the end time must be less than 31 days. Format: <i>yyyy-MM-ddTHH:mm:ssZ</i> .
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.
SQLId	Long	No	25623548	The unique ID of the SQL statement.
QueryKeywords	String	No	rds	The keywords used for query. Separate multiple keywords with spaces. Up to 10 keywords can be entered in a single request.
Database	String	No	Database	The name of the database. All databases are selected by default.
User	String	No	user	The name of the user. All users are selected by default.

Parameter	Type	Required	Example	Description
Form	String	No	Stream	Used to generate audit files or return the list of SQL records. Valid values: - File : Use this value to generate audit files. Only common parameters are returned, so you need to call the #unique_170 API operation to obtain the download link of audit files. - Stream : The list of SQL records is returned. Default value: Stream .
PageSize	Integer	No	30	The number of records on each page. Valid values: 30 50 100 Default value: 30 .
PageNumber	Integer	No	1	The page number. It must be greater than 0 and cannot exceed the maximum value of the Integer data type. Default value: 1 .
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
TotalRecordCount	Long	100	The total number of records.
PageNumber	Integer	1	The page number.
PageRecordCount	Integer	30	The number of SQL audit logs on the current page.
Items	N/A	N/A	The list of SQL audit logs.
DBName	String	testDB	The name of the database.
AccountName	String	accounttest	The account used to perform operations.
HostAddress	String	192.168.0.121	The IP address of the client used to connect to the database.
SQLText	String	update test.zxb set id=0 limit 1	The SQL statement.
TotalExecutionTimes	Long	600	The total execution time. Unit: microsecond.
ReturnRowCounts	Long	30	The number of returned records.
ThreadID	String	1025865428	The ID of the thread.
ExecuteTime	String	2011-06-11T15:00:23Z	The execution time. Format: yyyy-MM-ddTHH:mm:ssZ.
RequestId	String	08A3B71B-FE08-4B03-974F-CC7EA6DB1828	The ID of the request.

Examples

Request example

```
http ( s ):// rds . aliyuncs . com /? Action = DescribeSQ
LLogRecord s
& DBInstance Id = rm - uf6wjk5xxx xxx
& StartTime = 2011 - 06 - 01T15 : 00 : 00Z
& EndTime = 2011 - 06 - 11T15 : 00 : 00Z
&< Common request parameters >
```

Normal response example

XML format

```
< DescribeSQ LLogRecord sResponse >
  < PageNumber > 1 </ PageNumber >
  < TotalRecor dCounts > 1 </ TotalRecor dCounts >
  < ItemsCount s > 1 </ ItemsCount s >
  < SQLItems >
    < SQLItem >
      < DBName > test </ DBName >
      < AccountNam e > accounttes t </ AccountNam e >
      < HostAddres s > 192 . 168 . 0 . 121 </ HostAddres s >
      < SQLText > update test . zxb set id = 0 limit 1 </
SQLText >
      < TotalExecu tionTimes > 12 </ TotalExecu tionTimes >
      < ReturnRowC ounts > 34 </ ReturnRowC ounts >
      < ExecuteTim e > 2011 - 06 - 11T15 : 00 : 23Z </ ExecuteTim
e >
    </ SQLItem >
  </ SQLItems >
  < RequestId > 08A3B71B - FE08 - 4B03 - 974F - CC7EA6DB18 28 </
RequestId ></ DescribeSQ LLogRecord sResponse >
```

JSON format

```
{
  " PageNumber ": 1 ,
  " RequestId ":" 08A3B71B - FE08 - 4B03 - 974F - CC7EA6DB18 28 ",
  " TotalRecor dCounts ": 1 ,
  " SQLItems ":{
    " SQLItem ":[
      {
        " ReturnRowC ounts ": 34 ,
        " TotalExecu tionTimes ": 12 ,
        " HostAddres s ":" 192 . 168 . 0 . 121 ",
        " ExecuteTim e ":" 2011 - 06 - 11T15 : 00 : 23Z ",
        " SQLText ":" update test . zxb set id = 0 limit 1 ",
        " AccountNam e ":" accounttes t ",
        " DBName ":" test "
      }
    ]
  },
  " ItemsCount s ": 1
}
```

Error codes

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

9.8 DescribeSQLLogFiles

You can call this operation to query the list of SQL audit files of an RDS instance.

This operation is applicable to the following database engine versions:

- MySQL 5.5
- MySQL 5.6
- MySQL 5.7 High-availability Edition (based on local SSDs)
- SQL Server 2008 R2
- PostgreSQL
- PPAS

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeSQLLogFiles	The operation that you want to perform. Set this parameter to DescribeSQLLogFiles .
DBInstanceId	String	Yes	rm-uf6wjk5xxxxxx	The ID of the instance.
FileName	String	No	custinsxxxxx.csv	The name of the audit file.
PageSize	Integer	No	20	The number of records on each page. Value range: 1 to 50 . Default value: 20 .
PageNumber	Integer	No	1	The page number. Value range: 1 to 100000 . Default value: 1 .

Parameter	Type	Required	Example	Description
AccessKeyId	String	No	LTAIfCxxxx xxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
TotalRecordCount	Integer	10	The total number of records.
PageNumber	Integer	1	The page number.
PageRecordCount	Integer	10	The number of records on the current page.
Items	N/A	N/A	The list of audit files.
FileID	String	custinsxxxxx.csv	The name of the file.
LogStatus	String	Success	The status of the file. Valid values: - Success - Failed - Generating
LogStartTime	String	2015-05-23T07:00:00Z	The SQL start time. Format: yyyy-MM-ddTHH:mm:ssZ.
LogEndTime	String	2015-05-24T07:00:00Z	The SQL end time. Format: yyyy-MM-ddTHH:mm:ssZ.
LogDownloadURL	String	http://rdslog-hz-v3.oss-cn-hangzhou.aliyuncs.com/xxxxx	The download link. If the download is unavailable, this parameter is null.
LogSize	String	3,000	The size of the audit file. Unit: byte.

Parameter	Type	Example	Description
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Examples

Request example

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeSQ LLogFiles
& DBInstance Id = rm - uf6wjk5xxx xxx
&< Common request parameters >
```

Normal response example

XML format

```
< DescribeSQ LLogFilesR esponse >
  < items >
    < FileID > ZUBaS964T3 0Ytxxxxxxx x </ FileID >
    < LogStatus > Success </ LogStatus >
    < LogStartTi me > 2015 - 05 - 23T07 : 00 : 00Z </ LogStartTi
me >
    < LogEndTime > 2015 - 05 - 23T07 : 00 : 00Z </ LogEndTime >
    < LogDownloa dURL > xxxxxx . cn - hangzhou . oss . aliyun - inc
. com / xxxxx </ LogDownloa dURL >
    < LogSize > 257 </ LogSize >
  </ items >
  < pageRecord Count > 1 </ pageRecord Count >
  < requestId > 1AD222E9 - E606 - 4A42 - BF6D - 8A4442913C EF </
requestId >
  < totalReco r dCount > 1 </ totalReco r dCount ></ DescribeSQ
LLogFilesR esponse >
```

JSON format

```
{
  " totalReco r dCount ": 1 ,
  " requestId ":" 1AD222E9 - E606 - 4A42 - BF6D - 8A4442913C EF ",
  " items ": [
    {
      " LogStartTi me ":" 2015 - 05 - 23T07 : 00 : 00Z ",
      " LogEndTime ":" 2015 - 05 - 23T07 : 00 : 00Z ",
      " LogStatus ":" Success ",
      " FileID ":" ZUBaS964T3 0Ytxxxxxxx x ",
      " LogDownloa dURL ":" xxxxxx . cn - hangzhou . oss . aliyun - inc
. com / xxxxx ",
      " LogSize ":" 257 "
    }
  ],
  " pageRecord Count ": 1
}
```

```
}
```

Error codes

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

10 Backup and recovery

10.1 CreateBackup

You can call this operation to create a backup set for an instance.

This operation must meet the following requirements.

- The instance is in the running state.
- The instance does not have an ongoing backup task.
- The number of backup sets that have been created for the instance on the day does not exceed 20.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging.

OpenAPI Explorer provides various functions to simplify API usage. For example, you can retrieve APIs, call APIs, and generate SDK sample code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	CreateBackup	The operation that you want to perform. Set this parameter to CreateBackup .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.

Parameter	Type	Required ?	Example	Description
BackupMethod	String	No	Physical	The backup type. Valid values: - Logical - Physical - Snapshot Default value: <code>Physical</code>.  Note: - Set Physical option when backing up a MariaDB snapshot. - Logical backups can be performed only when the instance exists in a database.
BackupStrategy	String	No	db	The backup policy. Valid values: <code>db</code> : single-database backups. <code>instance</code> : instance backups.  Note: This parameter can be entered when MySQL logical backups or full physical backups for SQL Server are performed.

Parameter	Type	Required?	Example	Description
DBName	String	No	rds_mysql	The list of databases. Separate multiple databases with commas (,).  Note: This parameter can be entered when single-database logical backups for MySQL or single-database full physical backups for SQL Server are performed.
BackupType	String	No	Auto	The backup method. Valid values: - Auto : indicates that full or incremental backups are selected automatically. - FullBackup Default value: Auto .

Response parameters

Parameter	Type	Example	Description
BackupJobId	String	5073731	The ID of the backup task.
RequestId	String	2C125605-266F-41CA-8AC5-3A643D4F42C5	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = CreateBack up
DBInstance Id = rm - uf6wjk5xxx xxxx
& < Common request parameters >
```

Successful response examples

XML format

```
< CreateBack upResponse >
  < RequestId > 2C125605 - 266F - 41CA - 8AC5 - 3A643D4F42 C5 </
  RequestId >
  < BackupJobI d > 5073731 </ BackupJobI d ></ CreateBack
upResponse >
```

JSON format

```
{
  " RequestId ":" 2C125605 - 266F - 41CA - 8AC5 - 3A643D4F42 C5 ",
  " BackupJobI d ":" 5073731 "
}
```

Error codes

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

10.2 Clone RDS instances

Description

A new instance with the historical data is cloned based on the backup file of an existing instance or a specified time. The new instance has the same whitelist settings, SQL audit settings, threshold value alarm settings, backup settings, and parameter settings as the existing instance. The data and accounts in the new instance are the same as the historical data in the backup file.

When you create a clone instance, the master instance must meet the following conditions:

- The instance is running and not locked.
- The instance does not have an ongoing migration task.
- To clone an instance by time, log backup must have been enabled.
- To clone an instance by using a backup set, the master instance must have at least one backup set.

**Note:**

To create a clone instance using a sub-account, ensure that you have authorized the sub-account. For more information, see [Authorization for RDS instances](#).

Request parameters

Name	Type	Required or not	Description
Action	String	Yes	Required parameter; value: CloneDBInstance
DBInstanceId	String	Yes	Instance ID
BackupId	String	No	- Backup set ID, which is obtained through DescribeBackups, the API for backup list query. - Either BackupId or RestoreTime is required.
RestoreTime	String	No	- The arbitrary time specified by user during the backup retention period, for example, 2011-06-11T16:00:00Z. - Either BackupId or RestoreTime is required.
PayType	String	Yes	Billing method. Value range: - Postpaid : Pay-As-You-Go - Prepaid : Subscription
Period	String	No	- This input parameter is required if PayType is set to Subscription . - The pre-payment methods include: - Year : yearly subscription - Month : monthly subscription
UsedTime	String	No	Subscription type. - This input parameter is required if PayType is set to Prepaid . - This parameter indicates the duration for purchase, which can be 1, 2, 3, or other numeric values as required.

Name	Type	Required or not	Description
DBInstanceClass	String	No	- Instance type. For more information, see #unique_97 - This parameter is optional. If it is unavailable, the new instance and the master instance are of the same type.
DBInstanceStorage	String	No	- Disk space. Unit: GB. By default, the disk space for the new instance is the same as that for the master instance. The parameter value is increased at a step of 5 GB. - For RDS instances with exclusive storage space on a physical machine, the parameter value range is [3000, 3000]. - For other instance types, the parameter value range is [5, 2000].
InstanceNetworkType	String	No	Network type. Value range: - Classic : classic network - VPC : VPC - By default, the new instance and the master instance are of the same network type.
VPCId	String	No	VPC ID
VSwitch ID	String	No	VSwitch ID
PrivateIpAddress	String	No	IP address of a VPC under VSwitchId. If no value is set, the system automatically assigns a VPC IP address.

Return parameters

Name	Type	Description
<Common response parameters>	-	For more information, see #unique_93 .
DBInstanceId	-	Instance ID
OrderId	-	Order ID

10.3 DescribeBackups

You can call this operation to view the list of backup sets.



Note:

Backups can be restored only when the `BackupStatus` parameter is set to `Success`.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeBackups	The operation that you want to perform. Set this parameter to <code>DescribeBackups</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
BackupId	String	No	327329803	The ID of the backup set.
BackupStatus	String	No	Success	The status of the backup set. Valid values: - Success - Failed
BackupMode	String	No	Automated	The backup mode. Valid values: - Automated - Manual

Parameter	Type	Required ?	Example	Description
StartTime	String	No	2011-06-01T16:00Z	The start time of the query. Format: <i>yyyy-MM-ddTHH:mm:ssZ</i> .
EndTime	String	No	2011-06-15T16:00Z	The end time of the query. It must be later than the start time. Format: <i>yyyy-MM-ddTHH:mm:ssZ</i> .
PageSize	Integer	No	30	The number of records on each page. Valid values: • 30 • 50 • 100 Default value: 30 .
PageNumber	Integer	No	1	The page number. It must be greater than 0 and cannot exceed the maximum value of the given Integer. Default value: 1 .

Response parameters

Parameter	Type	Example	Description
TotalRecordCount	String	100	The total number of records.
PageNumber	String	1	The page number.
PageRecordCount	String	30	The number of backup sets on the current page.
Items	N/A	N/A	The list of backup sets.

Parameter	Type	Example	Description
BackupId	String	321020562	The ID of the backup set.
DBInstanceId	String	rm-uf6wjk5xxx xxxx	The ID of the instance.
HostInstanceID	String	5882781	The ID of the instance that generates a backup set. You can use this parameter to indicate whether the master or slave instance generates the backup set.
BackupStatus	String	Success	The status of the backup set.
BackupStartTime	String	2019-02-03T12:20:00Z	The start time of the current backup. Format: yyyy-MM-ddTHH:mm:ssZ.
BackupEndTime	String	2019-02-13T12:20:00Z	The end time of the current backup. Format: yyyy-MM-ddTHH:mm:ssZ.
BackupType	String	FullBackup	The backup type. Valid values: - FullBackup - IncrementalBackup
BackupMode	String	Automated	The backup mode. Valid values: - Automated - Manual
BackupMethod	String	Physical	The backup method. Valid values: - Logical - Physical

Parameter	Type	Example	Description
BackupDownloadURL	String	http://rdsbak-hz-v3.oss-cn-hangzhou.aliyuncs.com/xxxxx	The download link for the public network access. If the download is unavailable, this parameter is a null string.
BackupIntranetDownloadURL	String	http://rdsbak-hz-v3.oss-cn-hangzhou-internal.aliyuncs.com/xxxxx	The download link for the private network access. If the download is unavailable, this parameter is a null string.
BackupSize	Long	2,167,808	The size of the backup file. Unit: Byte.
StoreStatus	String	Disabled	Indicates whether the data backup can be deleted. Valid values: - Enabled - Disabled
MetaStatus	String	OK	The status of the backup set used for restoring database tables. Valid values: - OK : The backup set is normal. - LARGE : The backup set contains a large number of tables and therefore cannot be used to restore database tables. - EMPTY : The backup set fails the backup.  Note: A null string indicates that the backup set used for restoring database tables has not been activated.
RequestId	String	1A6D328C-84B8-40DC-BF49-6C73984D7494	The ID of the request.

Examples

Sample requests

```
http(s)://rds.aliyuncs.com/?Action=DescribeBackups
&DBInstanceId=rm-uf6wjk5xxx-xxxx
&<CommonRequestParameters>
```

Successful response examples

XML format

```
<DescribeBackupsResponse>
  <Items>
    <Backup>
      <StoreStatus>Disabled</StoreStatus>
      <HostInstanceId>5882781</HostInstanceId>
      <BackupLocation>OSS</BackupLocation>
      <BackupIntranetDownloadURL>http://rdsbak-hz-v3.oss-cn-hangzhou-internal.aliyuncs.com/custins104_30291/hins588278_1_data_20190213201955.tar.gz?OSSAccessKeyId=xxxxxxx&Expires=1231230&Signature=zIBwxxxxxx5ga3p%2BVxxxxxx%3D</BackupIntranetDownloadURL>
      <BackupType>FullBackup</BackupType>
      <DBInstanceId>rm-uf6wjk5xxx-xxxx</DBInstanceId>
      <BackupEndTime>2019-02-13T12:22:53Z</BackupEndTime>
      <BackupMethod>Physical</BackupMethod>
      <BackupId>321020562</BackupId>
      <BackupStartTime>2019-02-13T12:20:37Z</BackupStartTime>
      <BackupDownloadURL>http://rdsbak-hz-v3.oss-cn-hangzhou.aliyuncs.com/custins104_30291/hins588278_1_data_20190213201955.tar.gz?OSSAccessKeyId=xxxxxxx&Expires=1231230&Signature=zIBwxxxxxx5ga3p%2BVxxxxxx%3D</BackupDownloadURL>
      <MetaStatus></MetaStatus>
      <BackupDBNames>spdb,sys,test20181221,test-20181228,test_20181115,test_20181116</BackupDBNames>
      <BackupMode>Automated</BackupMode>
      <BackupSize>2167808</BackupSize>
      <BackupStatus>Success</BackupStatus>
      <BackupScale>DBInstance</BackupScale>
    </Backup>
  </Items>
  <TotalBackupSize>8672256</TotalBackupSize>
  <PageNumber>1</PageNumber>
  <TotalRecordCount>1</TotalRecordCount>
  <RequestId>B0E0F374-919F-4BD9-BCAC-AE68122A0D68</RequestId>
  <PageRecordCount>1</PageRecordCount></DescribeBackupsResponse>
```

JSON format

```
{
  "TotalBackupSize": 8672256,
  "Items": {
    "Backup": [
```

```
{
  " StoreStatu s ":" Disabled ",
  " HostInstan ceID ":" 5882781 ",
  " BackupLoca tion ":" OSS ",
  " BackupIntr anetDownlo adURL ":" http :// rdsbak - hz - v3 .
oss - cn - hangzhou - internal . aliyuncs . com / custins104 30291
/ hins588278 1_data_201 9021320195 5 . tar . gz ? OSSAccessK eyId
= xxxxxxxx & Expires = 1231230 & Signature = zIBwxxxxxx x5ga3p %
2BVxxxxxxx x % 3D ",
  " BackupType ":" FullBackup ",
  " DBInstance Id ":" rm - uf6wjk5xxx xxxx ",
  " BackupEndT ime ":" 2019 - 02 - 13T12 : 22 : 53Z ",
  " BackupMeth od ":" Physical ",
  " BackupId ":" 321020562 ",
  " BackupStar tTime ":" 2019 - 02 - 13T12 : 20 : 37Z ",
  " BackupDown loadURL ":" http :// rdsbak - hz - v3 . oss -
cn - hangzhou . aliyuncs . com / custins104 30291 / hins588278
1_data_201 9021320195 5 . tar . gz ? OSSAccessK eyId = xxxxxxxx &
Expires = 1231230 & Signature = zIBwxxxxxx xxUs5ga3p % 2BVxxxxxxx k
% 3D ",
  " MetaStatus ":"",
  " BackupDBNa mes ":" spdb , sys , test201812 21 , test -
20181228 , test_20181 115 , test_20181 116 ",
  " BackupMode ":" Automated ",
  " BackupStat us ":" Success ",
  " BackupSize ":" 2167808 ",
  " BackupSca l e ":" DBInstance "
}
],
" TotalRecor dCount ":" 1 ",
" PageNumber ":" 1 ",
" RequestId ":" B0E0F374 - 919F - 4BD9 - BCAC - AE68122A0D 68 ",
" PageRecord Count ":" 1
}
```

Error codes

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

10.4 CreateTempDBInstance

You can call this operation to create temporary instances.

You can create a temporary instance based on a backup set or a time point within the past seven days.

This operation must meet the following requirements:

- The instance uses the SQL Server 2012 or 2016 Basic Edition or SQL Server 2008 R2 engine.
- The instance is in the running state.
- The instance does not have an ongoing migration task.
- The last creation of a backup set is completed.

**Note:**

When a temporary instance is created, accounts and databases inherit the data in the backup set.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	CreateTempDBInstance	The operation that you want to perform. Set this parameter to CreateTempDBInstance .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance
BackupId	Integer	No	603524168	The ID of the backup set. Note: At least one of the BackupId and RestoreTime parameters is entered.

Parameter	Type	Required?	Example	Description
RestoreTime	String	No	2011-06-11T16:00:00Z	The specified point in time within the backup retention period. Format: <code>yyyy-MM-ddTHH:mm:ssZ</code>.  Note: - The time can be set to any point in time within the past seven days which is more than 30 minutes earlier than the current time. The default time zone is UTC. - At least one of the BackupId and RestoreTime parameters is entered.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
TempDBInstanceId	String	sub138xxxxx_rm-xxxxx	The ID of the temporary instance.
RequestId	String	248DE93F-8647-4B9D-8287-4A4A0FE56AD5	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = CreateTemp
DBInstance
& DBInstance Id = rm - uf6wjk5xxx xxxx
& BackupId = 603524168
```

&< Common request parameters >

Successful response examples

XML format

```
< CreateTemp DBInstance Response >
  < RequestId > 248DE93F - 8647 - 4B9D - 8287 - 4A4A0FE56A D5 </
  RequestId >
  < TempDBInst anceId > sub138xxxx x_juxxxxx </ TempDBInst anceId >
</ CreateTemp DBInstance Response >
```

JSON format

```
{
  " RequestId ":" 248DE93F - 8647 - 4B9D - 8287 - 4A4A0FE56A D5 ",
  " TempDBInst anceId ":" sub138xxxx x_juxxxxx "
}
```

Error codes

HTTP status code	Error code	Error message	Description
403	OperationDenied.TempDBInst anceExists	The operation is not permitted due to temp instance exist.	The error message returned when the temporary instance already exists.

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

10.5 DescribeBackupPolicy

You can call this operation to view the backup settings of instances.

RDS instances are backed up regularly based on your backup settings.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeBackupPolicy	The operation that you want to perform. Set this parameter to DescribeBackupPolicy.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
BackupPolicyMode	String	No	DataBackupPolicy	The backup type. Valid values: - DataBackupPolicy - LogBackupPolicy
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.
CompressType	String	No	1	The compression method. Valid values: 0 : The backup data is not compressed. 1 : The backup data is compressed by using zlib. 2 : The backup data is compressed through multiple threads concurrently by using zlib. 4 : The backup data is compressed by using QuickLZ and database tables can be restored. 8 : For MySQL 8.0, the backup data is compressed by using QuickLZ but database tables cannot be restored.

Response parameters

Parameter	Type	Example	Description
BackupRetentionPeriod	Integer	7	The retention period of the data backup.
PreferredBackupTime	String	15:00Z-16:00Z	The data backup time. Format: <i>HH:mmZ-HH:mmZ</i> .
PreferredBackupPeriod	String	Monday, Wednesday, Friday, Sunday	The data backup period. Separate multiple values with commas (,). Valid values: - Monday - Tuesday - Wednesday - Thursday - Friday - Saturday - Sunday
BackupLog	String	Enable	Indicates whether to enable log backups. Valid values: Enable Disabled .
LogBackupRetentionPeriod	Integer	7	The retention period of the log backup.
Duplication	String	Enable	Indicates whether to dump backup files to OSS. Valid values: Enable Disabled .

Parameter	Type	Example	Description
DuplicationContent	String	DATA&LOG	Indicates whether to dump data backups or log backups to OSS. Valid values: - DATA : Only data backups are dumped. - LOG : Only log backups are dumped. - DATA & LOG : Both data backups and log backups are dumped.  Note: When the Duplication parameter is set to Enable , this parameter is required.
DuplicationLocation	N/A	N/A	The storage location of the backup file.
Location	N/A	N/A	The location information.
Bucket	String	mybucket	The name of the target OSS bucket.
Endpoint	String	oss-cn-shanghai.aliyuncs.com	The name of the endpoint.
Storage	String	OSS	The storage media of the backup.
EnableBackupLog	String	1	Indicates whether to enable log backups. Valid values: 1 : indicates that log backups are enabled. 0 : indicates that log backups are disabled.

Parameter	Type	Example	Description
HighSpaceUsageProtection	String	Enable	Indicates whether Binlogs must be deleted when the used space exceeds 80% or the remaining space is less than 5 GB. Valid values: - Disable - Enable
LocalLogRetentionHours	Integer	0	The local retention hours of the log backup.
LocalLogRetentionSpace	String	30	The maximum space utilization of the local log.
LogBackupFrequency	String	LogInterval	The log backup frequency. Valid values: - LogInterval : Logs are backed up every 30 minutes. - It is the same as the PreferredBackupPeriod value by default.  Note: The LogBackupFrequency parameter is applicable only to SQL Server instances.
PreferredNextBackupTime	String	2018-01-19T15:15Z	The next backup time. Format: <code>yyyy-MM-ddTHH:mm:ssZ</code> .
RequestId	String	B87E2AB3-B7C9-4394-9160-7F639F732031	The ID of the request.

Parameter	Type	Example	Description
CompressType	String	1	The compression method. Valid values: 0 : The backup data is not compressed. 1 : The backup data is compressed by using zlib. 2 : The backup data is compressed through multiple threads concurrently by using zlib. 4 : The backup data is compressed by using QuickLZ and database tables can be restored. 8 : For MySQL 8.0, the backup data is compressed by using QuickLZ but database tables cannot be restored.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = DescribeBackupPolicy
& DBInstance Id = rm - uf6wjk5xxx xxxxxxxx
& < Common request parameters >
```

Successful response examples

XML format

```
< DescribeBackupPolicy Response >
  < backupLog > Enable </ backupLog >
  < backupRetentionPeriod > 7 </ backupRetentionPeriod >
  < logBackupRetentionPeriod > 7 </ logBackupRetentionPeriod >
  < preferredBackupPeriod > Monday , Wednesday , Friday , Sunday
</ preferredBackupPeriod >
  < preferredBackupTime > 15 : 00Z - 16 : 00Z </ preferredBackupTime >
  < preferredNextBackupTime > 2018 - 01 - 19T15 : 15Z </
preferredNextBackupTime >
```

```
< requestId > B87E2AB3 - B7C9 - 4394 - 9160 - 7F639F7320 31 </
requestId ></ DescribeBackupPolicy Response >
```

JSON format

```
{
  "preferredBackupPeriod": "Monday , Wednesday , Friday , Sunday",
  "requestId": " B87E2AB3 - B7C9 - 4394 - 9160 - 7F639F7320 31 ",
  "logBackupRetentionPeriod": 7 ,
  "backupRetentionPeriod": 7 ,
  "backupLog": " Enable ",
  "preferredNextBackupTime": " 2018 - 01 - 19T15 : 15Z ",
  "preferredBackupTime": " 15 : 00Z - 16 : 00Z "
}
```

Error codes

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

10.6 ModifyBackupPolicy

You can call this operation to modify the backup settings of an RDS instance.

This operation must meet the following requirements:

- The instance cannot be a read-only instance.
- The instance is in the running state.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ModifyBackupPolicy	The operation that you want to perform. Set this parameter to ModifyBackupPolicy .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.

Parameter	Type	Required?	Example	Description
BackupPolicyMode	String	No	DataBackupPolicy	The type of the backup. Valid values: - DataBackupPolicy - LogBackupPolicy
PreferredBackupTime	String	No	00:00Z-01:00Z	The time when the backup task is performed. Format: <code>yyyy-MM-ddZ-HH:mm:ssZ</code>.  Note: When the BackupPolicyMode parameter is set to DataBackupPolicy, this parameter is required.
PreferredBackupPeriod	String	No	Monday	The backup period. Separate multiple values with commas (,). The default value is the original value. Valid values: - Monday - Tuesday - Wednesday - Thursday - Friday - Saturday - Sunday  Note: When the BackupPolicyMode parameter is set to DataBackupPolicy, this parameter is required.

Parameter	Type	Required?	Example	Description
BackupRetentionPeriod	String	No	7	The retention period of the data backup. Value range: 7 to 730 . The default value is the original value.  Note: When the BackupPolicyMode parameter is set to LogBackupPolicy , this parameter is required.
BackupLog	String	No	Enable	Indicates whether to enable log backups. Valid values: Enable Disabled . The default value is the original value.  Note: When the BackupPolicyMode parameter is set to DataBackupPolicy , this parameter can be used to enable or disable log backups.

Parameter	Type	Required?	Example	Description
LogBackupRetentionPeriod	String	No	7	The retention period of the log backup. Value range: 7 to 730 . It cannot be greater than the retention period of the data backup.  Note: When you enable log backups, you can set the retention period of log backup files. This operation is applicable only to the following instances: MySQL, PostgreSQL, and PPAS.
EnableBackupLog	String	No	True	Indicates whether to enable log backups. Valid values: True False .  Note: When the BackupPolicyMode parameter is set to LogBackupPolicy , this parameter can be used to enable or disable log backups.

Parameter	Type	Required?	Example	Description
LocalLogRetentionHours	String	No	18	The local retention hours of the log backup. Value range: (0 to 7)*24. The value 0 indicates that log backups are not retained locally. The default value is the original value.  Note: When the BackupPolicyMode parameter is set to LogBackupPolicy, this parameter is required.
LocalLogRetentionSpace	String	No	30	The maximum cycle space utilization of the local log. If the maximum value of this parameter is exceeded, you can start to delete the first Binlog until the space utilization is less than this ratio. Value range: 0 to 50 . The default value is the original value.  Note: When the BackupPolicyMode parameter is set to BackupPolicyMode, this parameter is required.

Parameter	Type	Required ?	Example	Description
HighSpaceUsageProtection	String	No	Enable	Indicates whether to delete Binlogs unconditionally when the used space exceeds 80% or the remaining space is less than 5 GB. Valid values: Enable Disable . The default value is the original value.  Note: When the BackupPolicyMode parameter is set to LogBackupPolicy , this parameter is required.
Duplication	String	No	Disable	Indicates whether to dump backup files to OSS. Valid values: Enable Disable .
DuplicationContent	String	No	DATA	Indicates whether to dump data backups or log backups to OSS. Valid values: • DATA : Only data backups are dumped. • LOG : Only log backups are dumped. • DATA & LOG : Both data backups and log backups are dumped.  Note: When the Duplication parameter is set to Enable , this parameter is required.

Parameter	Type	Required?	Example	Description
DuplicationLocation	String	No	<code>{"Storage": "OSS", "Location": {"Bucket": 'xxx', "Location": 'cn-hangzhou', "OSSEndPoint": "oss-test", "Object": "obj1"}}</code>	Indicates whether RAM can authorize RDS to access your OSS. The log files can be dumped to OSS only after authorization. Format: <pre> {"Storage": "OSS", "Location": {" Bucket": 'xxx', "Location": 'cn-hangzhou', "OSSEndPoint": "oss-test", "Object": "obj1"} </pre>  Note: When the Duplication parameter is set to Enable, this parameter is required.
LogBackupFrequency	String	No	LogInterval	The log backup frequency. Valid values: - LogInterval : Logs are backed up every 30 minutes. - It is the same as the data backup frequency by default.  Note: The LogInterval parameter is applicable only to SQL Server instances.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Parameter	Type	Required ?	Example	Description
CompressType	String	No	4	The compression method. This parameter is valid only when you change the compression method to QuickLZ for an RDS MySQL 5.6 instance. The backup data can be used to restore database tables. Value: 4 .

Response parameters

Parameter	Type	Example	Description
CompressType	String	4	The compression method. Valid values: 0 : The backup data is not compressed. 1 : The backup data is compressed by using zlib. 2 : The backup data is compressed through multiple threads concurrently by using zlib. 4 : The backup data is compressed by using QuickLZ and database tables can be restored. 8 : For MySQL 8.0, the backup data is compressed by using QuickLZ but database tables cannot be restored.
DBInstanceID	String	rm-uf6wjk5xxx xxxx	The ID of the instance.
EnableBackupLog	String	False	Indicates whether to enable log backups.

Parameter	Type	Example	Description
HighSpaceUsageProtection	String	Disable	Indicates whether to delete Binlogs unconditionally when the used space exceeds 80% or the remaining space is less than 5 GB.
LocalLogRetentionHours	Integer	18	The local retention hours of the log backup.
LocalLogRetentionSpace	String	30	The maximum cycle space utilization of the local log.
RequestId	String	DA147739-AEAD-4417-9089-65E9B1D8240D	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? & Action = ModifyBackupPolicy
& DBInstance Id = rm - uf6wjk5xxx xxxx
& BackupPolicyMode = LogBackupPolicy
& EnableBackupLog = True
& HighSpaceUsageProtection = Enable
&< Common request parameters >
```

Successful response examples

XML format

```
< ModifyBackupPolicyResponse >
  < HighSpaceUsageProtection > Disable </ HighSpaceUsageProtection >
  < DBInstanceId > rm - bp1z3xxxxx </ DBInstanceId >
  < RequestId > E4BF5598 - ED12 - 4406 - AAA4 - F375428BE7 41 </ RequestId >
  < LocalLogRetentionHours > 18 </ LocalLogRetentionHours >
  < EnableBackupLog > 1 </ EnableBackupLog >
  < LocalLogRetentionSpace > 30 </ LocalLogRetentionSpace >
</ ModifyBackupPolicyResponse >
```

JSON format

```
{
  "HighSpaceUsageProtection": "Disable",
  "DBInstanceId": "rm - bp1z3xxxxx",
  "RequestId": "E4BF5598 - ED12 - 4406 - AAA4 - F375428BE7 41",
}
```

```

" EnableBack upLog ":" 1 ",
" LocalLogRe tentionHou rs ":" 18 ",
" LocalLogRe tentionSpa ce ":" 30 "
}

```

Error codes

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

10.7 RestoreDBInstance

You can call this operation to restore backup sets to the old instances.



Note:

This operation is deprecated.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	RestoreDBInstance	The operation that you want to perform. Set this parameter to RestoreDBInstance .
DBInstanceId	String	Yes	rm-uf6wjk5xxxxx	The ID of the instance.
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.

Parameter	Type	Required?	Example	Description
BackupId	String	No	327329803	The ID of the backup set. You can call the #unique_180 API operation to query the IDs of backup sets.  Note: At least one of the BackupId and RestoreTime parameters must be entered.
RestoreTime	String	No	2011-06-11T16:00:00Z	The specified point in time within the backup retention period. Format: yyyy-MM-ddTHH:mm:ssZ.  Note: At least one of the BackupId and RestoreTime parameters must be entered.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	37441409-FFD1-40AA-8EC5-9ECF5E2F7C29	The ID of the request.

Examples

Sample requests

```
http(s)://rds.aliyuncs.com/?Action=RestoreDBInstance
&DBInstanceId=rm-uf6wjk5xxx-xx
&BackupId=327329803
```

&< Common request parameters >

Successful response examples

XML format

```
< RestoreDBInstanceResponse >
  < RequestId > 37441409 - FFD1 - 40AA - 8EC5 - 9ECF5E2F7C 29 </
  RequestId >
</ RestoreDBInstanceResponse >
```

JSON format

```
{
  "RequestId ":" 37441409 - FFD1 - 40AA - 8EC5 - 9ECF5E2F7C 29 "
}
```

Error codes

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

10.8 DescribeBackupTasks

This API is used to show the backup task list.

Request parameters

Parameter	Type	Required	Description
Action	String	Yes	Required parameter. Value: DescribeBackupTasks
DBInstanceId	String	Yes	Instance ID.
BackupJobId	String	No	Backup task ID.

Response parameters

Parameter	Type	Description
<Common response parameters>	String	See #unique_93 .
Items	List	List of backup tasks.

Items

Parameter	Type	Description
BackupStatus	String	Backup task status: - NoStart - Preparing - Waiting - Uploading - Checking - Finished
BackupJobId	String	Backup task ID.

10.9 View log files

This API is used to query log files of RDS instances and download links of the files.



Note:

It applies only to RDS for SQL Server instances.

Request parameters

Name	Type	Required or not	Description
Action	String	Yes	Required parameter. Value: DescribeLogBackupFiles
DBInstanceId	String	Yes	Instance ID
StartTime	String	Yes	Start time of the query. Format: yyyy-mm-dd' T' hh:mm:ssZ Example: 2018-10-31T08:40Z
EndTime	String	Yes	End time of the query. Format: yyyy-mm-dd' T' hh:mm:ssZ Example: 2018-10-31T08:40Z It must be later than the start time of the query.

Name	Type	Required or not	Description
PageSize	Integer	No	Maximum number of log files displayed on each page. • 30 • 50 • 100 Default value: 30
PageNumber	Integer	No	Page number. It must be greater than 0 and cannot exceed the largest value of the Integer data type. Default value: 1

Return parameters

Name	Type	Required
<Common Return Parameters>	String	For more information, see #unique_93 .
TotalRecordCount	Integer	Total number of log files
PageNumber	Integer	Page number
PageRecordCount	Integer	Number of log files displayed on a page
Items	List<LogBackupFiles>	Log file list

LogBackupFiles parameters

Name	Type	Required
FileSize	Long	Log file size. Unit: byte
LogBeginTime	String	Start time of a log file
LogEndTime	String	End time of a log file

Name	Type	Required
DownloadLink	String	HTTP download link NULL indicates that no download link is provided.
LinkExpirationTime	String	Link expiration time. Example: 2011-06-11T15:00:00Z If you attempt to download a log file after its download link has expired, an error message similar to the following is displayed: <pre><? xml version =" 1 . 0 " encoding =" UTF - 8 " ? > < Error > < Code > AccessDenied </ Code > < Message > Request has expired . </ Message > < Expires > 2012 - 12 - 25T09 : 47 : 52 . 000Z </ Expires > < ServerTime > 2012 - 12 - 25T09 : 49 : 00 . 000Z </ ServerTime > < RequestId > 50D9768CA8 01C2F10200 5C70 </ RequestId > < HostId > oss - test . aliyun - inc . com </ HostId > </ Error ></pre>

11 Migrate SQL Server to the cloud

11.1 Create a task of migrating data to RDS

Description

This API is used to restore backup files in an OSS instance to an RDS instance. It has the following constraints:

- This API is applicable only to SQL Server 2008 R2 instances.
- The source file must be the full backup file of the source database.

Request parameters

Parameter	Type	Required or not	Description
Action	String	Yes	API of the action, system required parameter. Set this parameter to <code>CreateMigrateTask</code> .
DBInstanceId	String	Yes	Instance ID
DBName	String	Yes	Database name
BackupMode	String	Yes	Task type. Currently, this parameter can only be set to <code>FULL</code> . Value range: • <code>FULL</code>: One-time full backup file migration • <code>DIFF</code>: One-time incremental backup file migration • <code>LOG</code>: Repeated incremental backup file migration

Parameter	Type	Required or not	Description
IsOnlineDB	String	Yes	Whether to bring the restored database online for user access. Value range: True and False . The default value is True . Currently, this parameter is invariably set to True .
OSSUrls	String	Yes	Sharing URL of the backup file in an OSS instance. The URL must be encoded. If multiple URLs are available for a backup file, separate them with . Currently, only one URL is allowed.

Response parameters

Parameter	Type	Description
<Public response parameters>	-	For more information, see #unique_93 .
RequestId	String	Request ID
DBInstanceId	String	Instance ID
DBName	String	Database name
TaskId	String	Task ID
MigrateTaskId	String	ID of the migration task

Parameter	Type	Description
BackupMode	String	Task type. Currently, this parameter can only be set to <code>FULL</code> . Value range: <code>FULL</code>: One-time full backup file migration <code>DIFF</code>: One-time incremental backup file migration <code>LOG</code>: Multiple migrations of incremental backup files

11.2 Obtain the migration task list

Description

This API is used to obtain the task records of migrating data to an RDS instance within a period of time. It has the following constraints:

- Currently, only SQL Server 2008 R2 instances are supported.
- The source file must be the full backup file of the source database.

Request parameters

Name	Type	Required or not	Description
Action	String	Yes	Name of the interface. Value: <code>DescribeMigrateTasks</code> .
DBInstanceId	String	Yes	Name of an RDS instance, for example, <code>rm-xetesting</code> .
StartTime	String	No	Start time, for example, <code>2017-10-20T01:00Z</code> .

Name	Type	Required or not	Description
EndTime	String	No	End time, for example, 2017-10-25T01:00Z. It must be later than the start time.
PageSize	Integer	No	Number of records per page. Optional values: 30, 50, and 100. The default value is 30.
PageNumber	Integer	No	Number of the page containing the expected data.

Response parameters

Parameter	Type	Description
DBInstanceId	String	Instance ID
PageRecordCount	Integer	Number of data file import records
PageNumber	Integer	Number of the page containing the expected data
TotalRecordCount	Integer	Total number of matching records
Items	List	Data set

Parameters for Items

Parameter	Type	Description
MigrateTaskId	String	ID of the migration task
DBName	String	Database name
CreateTime	String	Creation time of the migration task, in the format of YYYY-MM-DD'TT'HH:mm:ssZ, for example, 2017-05-30T12:11:4Z.

Parameter	Type	Description
EndTime	String	End time of the migration task, in the format of <code>YYYY-MM-DD'T'HH:mm:ssZ</code> , for example, <code>2017-05-30 T12:11:4Z</code> .
IsDBReplaced	String	Whether the migration overwrites existing data. Currently, only the value <code>True</code> can be returned. Value range: <code>False</code> : Existing data is not overwritten. <code>True</code> : Existing data is overwritten.
Status	String	Migration status. Value range: <code>NoStart</code> : Migration not started <code>Running</code> : Migration in progress <code>Success</code> : Migration succeeded <code>Failed</code> : Migration failed <code>Waiting</code> : Waiting to migrate incremental backup files

Parameter	Type	Description
BackupMode	String	Data migration task type. Currently, only the value <code>FULL</code> can be returned. Value range: <code>FULL</code> : One-time full backup file migration <code>DIFF</code> : One-time incremental backup file migration <code>LOG</code> : Multiple migration tasks of incremental backup files
Description	String	Description about the migration task

11.3 Check the file details about the task of migrating data to RDS

Description

This API is used to query details about cloud data migration tasks, including details about specific migrated files. It has the following constraints:

- This API is applicable only to SQL Server 2008 R2 instances.
- The source file must be the full backup file of the source database.

Request parameters

Parameter	Type	Required or not	Description
Action	String	Yes	Name of the API. Value: <code>DescribeOssDownloads</code> .
DBInstanceId	String	Yes	Instance ID
MigrateTaskId	String	Yes	ID of the migration task

Response parameters

Parameter	Type	Description
DBInstanceId	String	Instance ID
MigrateTaskId	String	ID of the migration task
Items	List	Import records

Parameters for Items

Parameter	Type	Description
FileName	String	Name of the backup file stored in an OSS instance
CreateTime	String	Creation time of the backup file in the download list
BackupMode	String	Data migration task type. Currently, only the value <code>FULL</code> can be returned. Value range: • <code>FULL</code> : One-time full backup file migration • <code>DIFF</code> : One-time incremental backup file migration • <code>LOG</code> : Multiple migrations of incremental backup files
FileSize	String	Size of the backup file. Unit: MB.

Parameter	Type	Description
Status	String	File status. Value range: • NoStart : Download not started • Downloading : Download in progress • Finished : Download completed • DownloadFailed : Download failed • VerifyFailed : MD5 verification failed • Deleted : Already deleted • DeleteFailed : Deletion failed • CheckSuccess : Check succeeded • CheckFailed : Check failed • Restoring : Restore in progress • Restored : Restore succeeded • RestoreFailed : Restore failed
IsAvailable	String	Availability status. Value range: • False : Unavailable • True : Available
Description	String	File description

11.4 CreateOnlineDatabaseTask

You can call this operation to open a database when migrating backup data to RDS.

Before performing this operation, we recommend that you view [Migrate full backup data to RDS for SQL Server 2012/2016/2017](#) or [Migrate incremental backup data to RDS for SQL Server 2012/2016/2017](#).

Debugging

You can use [API Explorer](#) to perform debugging. API Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateOnlineDatabaseTask	The operation that you want to perform. Set the value to CreateOnlineDatabaseTask.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
DBName	String	Yes	testDB	The name of the database.
MigrateTaskId	String	Yes	5652255443	The ID of the migration task.
CheckDBMode	String	Yes	AsyncExecuteDBCheck	The consistency check method for an open database. Valid values: - SyncExecuteDBCheck - AsyncExecuteDBCheck  Note: You can specify this parameter for ApsaraDB RDS for SQL Server.
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxx	The client token that is used to ensure the idempotency of requests. The parameter value is generated by the client and is unique among different requests. The value is a string of up to 64 ASCII characters.

Parameter	Type	Required	Example	Description
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID that Alibaba Cloud issues to a user for service access.

Response parameters

Name	Type	Example	Description
RequestId	String	1B2EBD14-36F6-4645-A3F9-DE19D321C18F	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = CreateOnlineDatabaseTask
& DBInstanceId = rm-uf6wjk5xxx-xxxx
& DBName = testDB
& MigrateTaskId = 5652255443
& CheckDBMode = AsyncExecuteDBCheck
&< Common request parameters >
```

Successful response examples

XML format

```
< CreateOnlineDatabaseTaskResponse >
  < code > 200 </ code >
  < data >
    < RequestId > 1B2EBD14 - 36F6 - 4645 - A3F9 - DE19D321C1 8F </
RequestId >
  </ data >
  < requestId > 1B2EBD14 - 36F6 - 4645 - A3F9 - DE19D321C1 8F </
requestId >
  < successResponse > true </ successResponse >
</ CreateOnlineDatabaseTaskResponse >
```

JSON format

```
{
  " successResponse ": true ,
  " requestId ": " 1B2EBD14 - 36F6 - 4645 - A3F9 - DE19D321C1 8F ",
  " data ": {
    " RequestId ": " 1B2EBD14 - 36F6 - 4645 - A3F9 - DE19D321C1 8F "
  },
  " code ": " 200 "
}
```

Error codes

[View error codes](#)

12 Monitoring management

12.1 DescribeResourceUsage

You can call this operation to view the space occupied by an instance.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeResourceUsage	The operation that you want to perform. Set this parameter to DescribeResourceUsage.
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
AccessKeyId	String	No	LTAIfCxxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
DBInstanceId	String	rm-uf6wjk5xxx-xxxx	The name of the instance.
Engine	String	MySQL	The type of the database.

Parameter	Type	Example	Description
DiskUsed	Long	2337275904	The total space occupied by both data files and log files. Unit: byte. The value - 1 indicates no data.
DataSize	Long	2337275904	The total space occupied by data files. Unit: byte. The value - 1 indicates no data.
LogSize	Long	2337275904	The total space occupied by log files. Unit: byte. The value - 1 indicates no data.
BackupSize	Long	53002759	The total space occupied by backup data. Unit: byte. The value - 1 indicates no data.
ColdBackup Size	Long	2337275904	The total space occupied by cold backup data. Unit: byte. The value - 1 indicates no data.
SQLSize	Long	315052751	The total space occupied by SQL data. Unit: byte. The value - 1 indicates no data.
BackupOssDataSize	Long	8821760	The size of data files in the OSS backup sets. Unit: byte. The value 0 indicates no data.
BackupOssLogSize	Long	44180999	The size of log files in the OSS backup sets. Unit: byte. The value 0 indicates no data.
RequestId	String	A88722B7-DAEE-4822-BA8B-9B019FCB8D46	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = DescribeRe
sourceUsag e
& DBInstance Id = rm - uf6wjk5xxx xxxx
&< Common request parameters >
```

Successful response examples

XML format

```
< DescribeRe sourceUsag eResponse >
  < BackupOssD ataSize > 8821760 </ BackupOssD ataSize >
  < BackupOssL ogSize > 44180999 </ BackupOssL ogSize >
  < RequestId > A88722B7 - DAEE - 4822 - BA8B - 9B019FCB8D 46 </
RequestId >
  < DBInstance Id > rm - uf6wjk5xxx xxxx </ DBInstance Id >
  < DataSize > 2337275904 </ DataSize >
  < LogSize >- 1 </ LogSize >
  < BackupSize > 53002759 </ BackupSize >
  < SQLSize > 315052751 </ SQLSize >
  < ColdBackup Size >- 1 </ ColdBackup Size >
  < Engine > MySQL </ Engine >
  < DiskUsed > 2337275904 </ DiskUsed ></ DescribeRe sourceUsag
eResponse >
```

JSON format

```
{
  " BackupOssL ogSize ":" 44180999 ",
  " BackupOssD ataSize ":" 8821760 ",
  " DBInstance Id ":" rm - uf6wjk5xxx xxxx ",
  " RequestId ":" A88722B7 - DAEE - 4822 - BA8B - 9B019FCB8D 46 ",
  " LogSize ":"- 1 ",
  " DataSize ": 2337275904 ,
  " ColdBackup Size ":"- 1 ",
  " SQLSize ": 315052751 ,
  " BackupSize ": 53002759 ,
  " Engine ":" MySQL ",
  " DiskUsed ": 2337275904
}
```

Error codes

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

12.2 DescribeDBInstancePerformance

You can call this operation to view the performance data of an instance.

You can view the performance data of an instance over a specified period of time based on the performance parameters. Based on different editions, [monitoring](#)

[frequencies \(#unique_192\)](#), and query time ranges, three output formats are provided as follows:

- For editions excluding MySQL 5.7 High-availability Edition (with SSDs) and MariaDB editions
 - The monitoring frequency is 5 seconds:
 - When the query time range is greater than 7 days, the performance data is collected at 1-day intervals.
 - When the query time range is greater than 1 day but less than or equal to 7 days, the performance data is collected at 1-hour intervals.
 - When the query time range is greater than 1 hour but less than or equal to 1 day, the performance data is collected at 1-minute intervals.
 - When the query time range is less than or equal to 1 hour, the performance data is collected at 5-minute intervals.
 - The monitoring frequency is 60 seconds:
 - When the query time range is greater than 30 days, the performance data is collected at 1-day intervals.
 - When the query time range is greater than 7 days but less than or equal to 30 days, the performance data is collected at 1-hour intervals.
 - When the query time range is less than or equal to 7 days, the performance data is collected at 1-minute intervals.
 - The monitoring frequency is 300 seconds.
 - When the query time range is greater than 30 days, the performance data is collected at 1-day intervals.
 - When the query time range is greater than 7 days but less than or equal to 30 days, the performance data is collected at 1-hour intervals.
 - When the query time range is less than or equal to 7 days, the performance data is collected at 5-minute intervals.

- For MySQL 5.7 High-availability Edition (with SSDs) and MariaDB editions
 - When the query time range is greater than 30 days, the performance data is collected at 1-day intervals.
 - When the query time range is greater than 7 days but less than or equal to 30 days, the performance data is collected at 1-hour intervals.
 - When the query time range is less than or equal to 7 days, the performance data is collected at 1-minute intervals.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeDBInstancePerformance	The operation that you want to perform. Set this parameter to <code>DescribeDBInstancePerformance</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.

Parameter	Type	Required?	Example	Description
Key	String	Yes	MySQL_Sessions	The performance metrics you want to query. Multiple metrics are separated by commas (,). For more information, see #unique_193.  Note: When the key parameter is set to MySQL_SpaceUsage or SQLServer_SpaceUsage, the performance metrics can be queried only when the query time range is less than or equal to one day.
StartTime	String	Yes	2012-06-08T15:00Z	The start time of the query. Format: yyyy-MM-ddTHH:mm:ssZ.
EndTime	String	Yes	2012-06-18T15:00Z	The end time of the query. Format: yyyy-MM-ddTHH:mm:ssZ.

Response parameters

Parameter	Type	Example	Description
DBInstanceId	String	rm-uf6wjk5xxx xxxxxxx	The ID of the instance.
Engine	String	MySQL	The type of the database.
StartTime	String	2012-06-10T15:00Z	The start time of the query. Format: yyyy-MM-ddTHH:mm:ssZ.
EndTime	String	2012-06-19T15:00Z	The end time of the query. Format: yyyy-MM-ddTHH:mm:ssZ.

Parameter	Type	Example	Description
PerformanceKeys			The performance parameters of the instance.
Key	String	MySQL_Sessions	The performance parameters.
Unit	String	KB	The unit of the performance data.
ValueFormat	String	recv_k&sent_k	The format of the performance value. If the performance value is composed of multiple parameters, separate them with ampersands (&). For example, com_delete & com_insert & com_insert _select & com_replac e .
Values			The format of the array, such as { value1, value2, ... }.
Value	String	0.0&13.6	The performance value.
Date	String	2011-05-30T03:29:00Z	The date of the record. Format: yyyy-MM-ddTHH:mm:ssZ.
RequestId	String	A5409D02-D661-4BF3-8F3D-0A814D0574E7	The ID of the request.

Examples

Sample requests

```

http ( s ):// rds . aliyuncs . com /? Action = DescribeDB
InstancePerformance
& DBInstance Id = rm - uf6wj5xxx xxxx
& Key = MySQL_Sessions
& StartTime = 2012 - 06 - 08T15 : 00Z
& EndTime = 2012 - 06 - 18T15 : 00Z
&< Common request parameters >

```

Successful response examples

XML format

```
< DescribeDB InstancePe rformanceR esponse >
  < RequestId > A5409D02 - D661 - 4BF3 - 8F3D - 0A814D0574 E7 </
  RequestId >
  < DBInstance ID > rm - uf6wjk5xxx xxxx </ DBInstance ID >
  < StartTime > 2012 - 06 - 11T15 : 00Z </ StartTime >
  < EndTime > 2013 - 10 - 17T15 : 00Z </ EndTime >
  < Engine > MySQL </ Engine >
  < Performanc eKeys >
    < Performanc eKey >
      < Key > MySQL_Netw orkTraffic </ Key >
      < Unit > KB </ Unit >
      < ValueForma t > recv_k & amp ; sent_k </ ValueForma t >
      < Values ></ Values >
    </ Performanc eKey >
  </ Performanc eKeys ></ DescribeDB InstancePe rformanceR
  esponse >
```

JSON format

```
{
  " DBInstance ID ":" rm - uf6wjk5xxx xxxx ",
  " RequestId ":" A5409D02 - D661 - 4BF3 - 8F3D - 0A814D0574 E7 ",
  " Performanc eKeys ":{
    " Performanc eKey ":[
      {
        " Values ":{
          " Performanc eValue ":[
            ],
          " Key ":" MySQL_Netw orkTraffic ",
          " Unit ":" KB ",
          " ValueForma t ":" recv_k & sent_k "
        }
      ]
    ],
    " EndTime ":" 2013 - 10 - 17T15 : 00Z ",
    " StartTime ":" 2012 - 06 - 11T15 : 00Z ",
    " Engine ":" MySQL "
  }
}
```

Error codes

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

12.3 DescribeDBInstanceMonitor

You can call this operation to view the monitoring frequency.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeDBInstanceMonitor	The operation that you want to perform. Set this parameter to DescribeDBInstanceMonitor.
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
ClientToken	String	No	ETnLKlblzc-zshOTUbOCz-xxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
Period	String	60	The monitoring period. Unit: second.
RequestId	String	30829FD4-1A84-4C2A-A625-2EADecB95CA3	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = DescribeDB
InstanceMo nitor
& DBInstance Id = rm - uf6wjk5xxx xxxx
&< Common request parameters >
```

Successful response examples

XML format

```
< DescribeDB InstanceMo nitorRespo nse >
  < period > 60 </ period >
  < requestId > 30829FD4 - 1A84 - 4C2A - A625 - 2EADECB95C A3 </
requestId ></ DescribeDB InstanceMo nitorRespo nse >
```

JSON format

```
{
  " requestId ":" 30829FD4 - 1A84 - 4C2A - A625 - 2EADECB95C A3 ",
  " period ":" 60 "
}
```

Error codes

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

12.4 ModifyDBInstanceMonitor

You can call this operation to modify the monitoring frequency.

Make sure that you fully know the billing methods and [price list](#) of RDS before using this operation.

Alibaba Cloud provides different monitoring frequencies for different instances. For more information, see [#unique_191](#).



Note:

You have to pay the extra fee for the second-level monitoring.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ModifyDBInstanceMonitor	The operation that you want to perform. Set this parameter to <code>ModifyDBInstanceMonitor</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
Period	String	Yes	60	The monitoring period. Valid values: 5 60 300 Unit: second.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.
ClientToken	String	No	ETnLKlblczshOTUbOCzxxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.

Response parameters

Parameter	Type	Example	Description
RequestId	String	52B9805C-432C-4ED1-83FD-2F916B6D2733	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = ModifyDBIn
stanceMoni tor
& DBInstance Id = rm - uf6wjk5xxx xxxx
& Period = 60
&< Common request parameters >
```

Successful response examples

XML format

```
< ModifyDBIn stanceMoni torRespons e >
  < requestId > 52B9805C - 432C - 4ED1 - 83FD - 2F916B6D27 33 </
  requestId ></ ModifyDBIn stanceMoni torRespons e >
```

JSON format

```
{
  " requestId ":" 52B9805C - 432C - 4ED1 - 83FD - 2F916B6D27 33 "
}
```

Error codes

HTTP status code	Error code	Error message	Description
404	InvalidDBInstanceId.NotFound	The DBInstanceId provided does not exist in our records.	The error message returned when the instance does not exist. Verify that the instance is managed by the logged-in account and has not been deleted.

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

13 Parameter management

13.1 DescribeParameterTemplates

You can call this operation to view database parameter templates.

This operation is applicable to the following database engine versions:

- MySQL 5.5, 5.6, 5.7, and 8.0
- SQL Server 2008 R2
- PostgreSQL 9.4 and 10.0
- PPAS 9.3 and 10.0
- MariaDB 10.3

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeParameterTemplates	The operation that you want to perform. Set this parameter to DescribeParameterTemplates.
Engine	String	Yes	MySQL	The type of the database. Valid values: • mysql • mssql • PostgreSQL • PPAS • MariaDB

Parameter	Type	Required?	Example	Description
EngineVersion	String	Yes	5.6	The version of the database. Valid values: - MySQL: 5 . 5 5 . 6 5 . 7 8 . 0 - SQL Server: 2008r2 - PostgreSQL: 9 . 4 10 . 0 - PPAS: 9 . 3 10 . 0 - MariaDB: 10 . 3
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.
Category	String	No	basic	The type of the instance. Valid values: - Basic - HighAvailability By default, all types of parameter templates are returned.

Response parameters

Parameter	Type	Example	Description
Engine	String	MySQL	The type of the database.
Engineversion	String	5.5	The version of the database.
ParameterCount	String	56	The number of parameters.
Parameters		N/A	The list of parameters.
ParameterName	String	auto_increment_increment	The name of the parameter.
ParameterValue	String	1	The default value of the parameter.
ForceModify	String	true	Indicates whether the parameter can be modified. Valid values: true false .
ForceRestart	String	false	Indicates whether the modified parameter takes effect only after a database restart. Valid values: true false .
CheckingCode	String	[10-3000]	The valid values of the parameter.
ParameterDescription	String	determines the starting point for the AUTO_INCREMENT column value.	The description of the parameter.
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = DescribePa
rameterTem plates
& Engine = MySQL
& EngineVers ion = 5 . 6
&< Common request parameters >
```

Successful response examples

XML format

```
< DescribePa rameterTem platesResp onse >
  < Engine > mssql </ Engine >
  < EngineVers ion > 2008r2 </ EngineVers ion >
  < ParameterC ount > 1 </ ParameterC ount >
  < Parameters >
    < TemplateRe cord >
      < CheckingCo de >[ 0 - 100 ]</ CheckingCo de >
      < ForceResta rt > True </ ForceResta rt >
      < Factor > 1 </ Factor >
      < ParameterD escription > This option sets the
default fill factor value
at the server scope . A fill factor is provided to
optimize index data storage
and performanc e . </ ParameterD escription >
      < ParameterN ame > fill factor </ ParameterN ame >
      < ParameterV alue > 0 </ ParameterV alue >
      < ForceModif y > True </ ForceModif y >
      < Unit > INT </ Unit >
    </ TemplateRe cord >
  </ Parameters >
  < RequestId > 7B96585A - 0FF2 - 4979 - 8FE5 - 7D147A29FD C0 </
RequestId >
</ DescribePa rameterTem platesResp onse >
```

JSON format

```
{
  " DescribePa rameterTem platesResp onse ":{
    " Parameters ":{
      " TemplateRe cord ":{
        " ForceModif y ":" True ",
        " ParameterD escription ":" This option sets the default
fill factor value
at the server scope . A fill factor is provided to
optimize index data storage
and performanc e .",
        " Factor ":" 1 ",
        " ParameterV alue ":" 0 ",
        " ForceResta rt ":" True ",
        " CheckingCo de ":"[ 0 - 100 ]",
        " ParameterN ame ":" fill factor ",
        " Unit ":" INT "
      }
    },
    " RequestId ":" 7B96585A - 0FF2 - 4979 - 8FE5 - 7D147A29FD C0 ",
```

```
" ParameterCount ":" 1 ",
" EngineVersion ":" 2008r2 ",
" Engine ":" mssql "
}
}
```

Error codes

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

13.2 DescribeParameters

You can call this operation to query the current parameter configurations of instances.

This operation is applicable to the following database engine versions:

- MySQL 5.5, 5.6, 5.7, and 8.0
- SQL Server 2008 R2
- PostgreSQL 9.4 and 10.0
- PPAS 9.3 and 10.0
- MariaDB 10.3

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	DescribeParameters	The operation that you want to perform. Set this parameter to DescribeParameters .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Parameter	Type	Required?	Example	Description
ClientToken	String	No	ETnLKlblzc zshOTUbOCz xxxxx	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.

Response parameters

Parameter	Type	Example	Description
Engine	String	MySQL	The database type.
Engineversion	String	5.5	The version of the database.
RunningParameters			The list of running parameters.
ParameterName	String	fill factor	The name of the parameter.
ParameterValue	String	0	The value of the parameter.
ParameterDescription	String	This option sets the default fill factor value at the server scope . A fill factor is provided to optimize index data storage and performance.	The description of the parameter.

Parameter	Type	Example	Description
ConfigParameters			The list of parameters being synchronized. After modifying and submitting parameters, you need to wait for the parameters to be synchronized with the instance. After synchronization, you can delete the parameters from the list.
ParameterName	String	fill factor	The name of the parameter.
ParameterValue	String	50	The value of the parameter.
ParameterDescription	String	This option sets the default fill factor value at the server scope. A fill factor is provided to optimize index data storage and performance.	The description of the parameter.
RequestId	String	1AD222E9-E606-4A42-BF6D-8A4442913CEF	The ID of the request.

Examples

Sample requests

```
http(s)://rds.aliyuncs.com/?Action=DescribeParameters
&DBInstanceId=rm-uf6wjk5xxx-xxxx
&<Common request parameters>
```

Successful response examples

XML format

```
<DescribeParametersResponse>
  <ConfigParameters>
    <DBInstanceParameter>
      <ParameterDescription> This option sets the
      default fill factor value
```

```

at the server scope . A fill factor is provided to
optimize index data storage
and performance . </ ParameterD escription >
    < ParameterN ame > fill factor </ ParameterN ame >
    < ParameterV alue > 50 </ ParameterV alue >
  </ DBInstance Parameter >
</ ConfigPara meters >
< Engine > mssql </ Engine >
< EngineVers ion > 2008r2 </ EngineVers ion >
< RunningPar ameters >
  < DBInstance Parameter >
    < ParameterD escription > This option sets the
default fill factor value
at the server scope . A fill factor is provided to
optimize index data storage
and performance . </ ParameterD escription >
    < ParameterN ame > fill factor </ ParameterN ame >
    < ParameterV alue > 0 </ ParameterV alue >
  </ DBInstance Parameter >
</ RunningPar ameters >
  < RequestId > 2A748162 - 8040 - 4D6B - 813E - 6910C8C033 F1 </
RequestId ></ DescribePa rametersRe sponse >

```

JSON format

```

{
  " ConfigPara meters ":{
    " DBInstance Parameter ":[
      {
        " ParameterD escription ":" This option sets the default
fill factor value
at the server scope . A fill factor is provided to
optimize index data storage
and performance .",
        " ParameterV alue ":" 50 ",
        " ParameterN ame ":" fill factor "
      }
    ]
  },
  " RequestId ":" 2A748162 - 8040 - 4D6B - 813E - 6910C8C033 F1 ",
  " RunningPar ameters ":{
    " DBInstance Parameter ":[
      {
        " ParameterD escription ":" This option sets the default
fill factor value
at the server scope . A fill factor is provided to
optimize index data storage
and performance .",
        " ParameterV alue ":" 0 ",
        " ParameterN ame ":" fill factor "
      }
    ]
  },
  " EngineVers ion ":" 2008r2 ",
  " Engine ":" mssql "
}

```

Error codes

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

13.3 ModifyParameter

You can call this operation to modify the parameters of an instance.

When you call this operation, the instance must be in the running state.

You can view the modifiable parameters in the console. For more information, see [#unique_200](#).

After you submit the request, RDS assigns a task to apply the modified parameters to the instance. If any of these parameters requires a database restart, RDS will restart the database.

Before assigning the task, RDS checks the parameters as follows:

- Do the parameters exist?
- Can the parameters be modified?
- Are the parameters valid?

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ModifyParameter	The operation that you want to perform. Set this parameter to ModifyParameter.
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the instance.

Parameter	Type	Required?	Example	Description
Parameters	String	Yes	<code>{"delayed_insert_timeout": "600", "max_length_for_sort_data": "2048"}</code>	The JSON strings of parameters and their values. All the parameter values are of the string type. Format: <code>{"parameter name 1": "parameter value1", "parameter name 2": "parameter value 2" ...}</code> .
ClientToken	String	No	<code>ETnLKlblczshOTUbOCzxxxxxxxxxx</code>	The client token that is used to guarantee the idempotency of requests. The client token is generated by the client and is unique among different requests. It is a string of up to 64 ASCII characters.
Forcerestart	Boolean	No	<code>false</code>	Indicates whether modified parameters take effect only after a database restart. Valid values: <code>true</code> : force restart enabled. (If a modified parameter takes effect only after a database restart, the <code>Forcerestart</code> parameter must be set to <code>true</code> . Otherwise, the parameter modification does not take effect.) <code>false</code> : force restart disabled. Default value: <code>false</code> .

Parameter	Type	Required?	Example	Description
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	542BB8D6-4268-45CC-A557-B03EFD7AB30A	The ID of the request.

Examples

Sample requests

```
http(s)://rds.aliyuncs.com/?Action=ModifyParameter
&DBInstanceId=rm-uf6wjk5xxx-xxxx
&Parameters={"delayed_insert_timeout":600,"max_length_for_sort_data":2048}
&<Common request parameters>
```

Successful response examples

XML format

```
<ModifyParameterResponse>
  <RequestId>542BB8D6-4268-45CC-A557-B03EFD7AB30A</RequestId>
</ModifyParameterResponse>
```

JSON format

```
{
  "RequestId": "542BB8D6-4268-45CC-A557-B03EFD7AB30A"
}
```

Error codes

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

14 Data migration

14.1 CreateUploadPathForSQLServer

You can call this operation to create a username and password to log on to the file server, and a path to upload files. You can upload data files based on this information. After uploading these data files, you can migrate the external data.

The operation must meet the following requirements:

- The instance is an RDS for SQL Server instance.
- The instance must be in the running state.
- The database must be in the running state.
- Up to 20 files can be created for a single database every day. A 24-hour period is considered as a single day. For example, if the last creation time was 2012-03-15 18:30:12, the next creation time must be later than 2012-03-16 18:30:12.



Notice:

This operation is not applicable to SQL Server 2017 Cluster Edition instances.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The operation that you want to perform. Set this parameter to <code>CreateUploadPathForSQLServer</code> .
DBInstanceId	String	Yes	The ID of the instance.
DBName	String	Yes	The name of the database.

Response parameters

Parameter	Type	Description
<Common response parameters>	N/A	For more information, see #unique_93 .
InternetFtpServer	String	The IP address of the file server on the public network.
InternetPort	Integer	The port of the file server on the public network.
IntranetFtpServer	String	The IP address of the file server on the internal network.
IntranetPort	Integer	The port of the file server on the internal network.
UserName	String	The username used to log on to the file server.
Password	String	The password used to log on to the file server.
FileName	String	The name of the data file, with the extension.

Sample requests

```
https://rds.aliyuncs.com/?Action=CreateUploadPathForSQLServer
&DBInstanceId=rianeurbfa-euq2u2a137-0572118496
&DBName=testdb01
&<Common request parameters>
```

Sample responses

- XML format

```
<CreateUploadPathForSQLServerResponse>
  <RequestId>66816822-CEC1-4C8D-AB26-2530A7D4DC-A5
</RequestId>
  <InternetFtpServer>10.230.239.1</InternetFtpServer>
  <InternetPort>3021</InternetPort>
  <IntranetFtpServer></IntranetFtpServer>
  <IntranetPort></IntranetPort>
  <UserName>MKEakJbyG</UserName>
  <Password>aT2Y_XN1GGn0Lzm</Password>
  <FileName>testdb01_1370572475975.bak</FileName>
</CreateUploadPathForSQLServerResponse>
```

- JSON format

```
{
```

```

A5 " " RequestId ":" 66816822 - CEC1 - 4C8D - AB26 - 2530A7D4DC
    " InternetFt pServer ":" 10 . 230 . 239 . 1 "
    " InternetPo rt ": 3021
    " IntranetFt pServer ":"
    " IntranetPo rt ":
    " UserName ":" MKEakJbyG "
    " Password ":" aT2Y_XN1GG n0Lzm "
    " FileName ":" testdb01_1 3705724759 75 . bak "
    }

```

14.2 DescribeFilesForSQLServer

You can call this operation to view the list of files on the file server.

You can obtain your account to upload data files to the file server through this operation. After the data files are uploaded, RDS updates their status. You can also call this operation to check whether the data files are available. If they are available, you can import data and obtain the information about the import process.



Note:

This operation is applicable only to RDS for SQL Server instances, except for SQL Server 2017 Cluster Edition instances.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The operation that you want to perform. Set this parameter to DescribeFilesForSQLServer.
DBInstanceId	String	Yes	The ID of the instance.
StartTime	String	Yes	The start time of the query. Format: YYYY-MM-DDThh:mmZ, for example, 2011-06-11T15:00Z.

Parameter	Type	Required?	Description
EndTime	String	Yes	The end time of the query. It must be later than the query start time. Format: <code>YYYY-MM-DDThh:mmZ</code> , for example, <code>2011 - 06 - 11T16 : 00Z</code> .
PageSize	Integer	No	The number of records on each page. Valid values: <code>30 50 100</code> . Default value: <code>30</code> .
PageNumber	Integer	No	The page number. It must be greater than 0 and cannot exceed the maximum value of the given Integer. Default value: <code>1</code> .

Response parameters

The following table describes the response parameters.

Parameter	Type	Description
DBInstanceId	String	The ID of the instance.
TotalRecordCount	Integer	The total number of records.
PageNumber	Integer	The page number.
PageRecordCount	Integer	The number of SQL statements on the current page.
Items	List<SQLServerUploadFile>	None.

The following table describes the parameters in the `SQLServerUploadFile` field.

Parameter	Type	Description
DBName	String	The name of the database.

Parameter	Type	Description
FileName	String	The name of the data file, with the extension.
FileSize	Long	The size of the data file. Unit: byte.
InternetFtpServer	String	The file server on the public network.
InternetPort	Integer	The port of the file server on the public network.
IntranetFtpserver	String	The IP address of the file server on the internal network.
Intranetport	Integer	The port of the file server on the internal server.
UserName	String	The username used to log on to the file server.
Password	String	The password used to log on to the file server.
FileStatus	String	The status of files. Valid values: - Unavailable - Available - NotStarted - UploadFailed - Virus - Success
CreationTime	String	The generation time of the FTP file. Format: YYYY-MM-DD'T'HH:mm:ssZ, for example, 2011-05-30T12:11:4Z.

Sample requests

```
https://rds.aliyuncs.com/?Action=DescribeFilesForSQLServer
&DBInstanceId=rm-uf6wjk5xxx-x
&StartTime=2014-06-11T15:00Z
&EndTime=2014-06-11T16:00Z
```

&< Common request parameters >

Sample responses

- XML format

```
< DescribeFilelesForSQLServerResponse >
  < RequestId > 08A3B71B - FE08 - 4B03 - 974F - CC7EA6DB18 28
</ RequestId >
  < TotalRecordCount > 1 </ TotalRecordCount >
  < PageNumber > 1 </ PageNumber >
  < PageRecordCount > 1 < PageRecordCount >
  < Items >
    < SQLServerUploadFile >
      < DBName > testdb01 </ DBName >
      < FileName > testdb01_1_3705724759_75.bak </ FileName >
      < FileSize > 1243435 </ FileSize >
      < InternetFtpServer > 10 . 230 . 239 . 1 </ InternetFtpServer >
      < InternetPort > 3021 </ InternetPort >
      < IntranetFtpServer ></ IntranetFtpServer >
      < IntranetPort ></ IntranetPort >
      < Username > MKExxxxx </ Username >
      < Password > aT2Y_Xxxxxx </ Password >
      < FileStatus > Success </ FileStatus >
      < CreationTime > 2014 - 06 - 11T15 : 02 : 40Z </
CreationTime >
    </ SQLServerUploadFile >
  </ Items >
</ DescribeFilelesForSQLServerResponse >
```

- JSON format

```
{
  "PageNumber": 1,
  "TotalRecordCount": 1,
  "PageRecordCount": 1,
  "Items": [
    {
      "SQLServerUploadFile": {
        "DBName": "testdb01",
        "FileName": "testdb01_1_3705724759_75.bak",
        "FileSize": 1243435,
        "InternetFtpServer": "10.230.239.1",
        "InternetPort": 3021,
        "IntranetFtpServer": "",
        "IntranetPort": "",
        "Username": "MKExxxxx",
        "Password": "aT2Y_Xxxxxx",
        "FileStatus": "Success",
        "CreationTime": "2014-06-11T15:02:40Z"
      }
    }
  ],
  "RequestId": "08A3B71B - FE08 - 4B03 - 974F - CC7EA6DB1828"
```

}

14.3 DescribeImportsForSQLServer

You can call this operation to view the list of the SQL Server database import tasks and the status of import tasks, and determine whether the import tasks are completed.



Notice:

This operation is not applicable to SQL Server 2017 Cluster Edition instances.

Request parameters

Parameter	Type	Required?	Description
Action	String	Yes	The operation that you want to perform. Set this parameter to <code>DescribeImportsForSQLServer</code> .
DBInstanceId	String	Yes	The ID of the instance.
ImportId	Integer	No	The ID of the migration result.
StartTime	String	Yes	The start time of the query. Format: <code>YYYY-MM-DDThh:mmZ</code> , for example, <code>2011-06-11T15:00Z</code> .
EndTime	String	Yes	The end time of the query. It must be later than the query start time. Format: <code>YYYY-MM-DDThh:mmZ</code> , for example, <code>2011-06-11T16:00Z</code> .
PageSize	Integer	No	The number of records on each page. Valid values: <code>30</code> <code>50</code> <code>100</code> . Default value: <code>30</code> .

Parameter	Type	Required?	Description
PageNumber	Integer	No	The page number. It must be greater than 0 and cannot exceed the maximum value of the given Integer. Default value: 1 .

Response parameters

The following table describes the response parameters.

Parameter	Type	Description
TotalRecordCount	Integer	The total number of records.
PageNumber	Integer	The page number.
PageRecordCount	Integer	The number of SQL statements on the current page.
Items	List<SQLServerImport>	None.

The following table describes the parameters in the `SQLServerImport` field.

Parameter	Type	Description
ImportId	Integer	The migration ID.
FileName	String	The name of the file.
DBName	String	The name of the imported database.
ImportStatus	Integer	The import status. Valid values: - Pending - Importing - Success - Failed - Canceled - Canceling

Parameter	Type	Description
StartTime	String	The import time. Format: YYYY-MM-DD' T' HH:mm:ssZ, for example, 2011 - 05 - 30T12 : 11 : 40Z .

Sample requests

```
https :// rds . aliyuncs . com /? Action = DescribeIm_portsForSQ
LServer
    & DBInstance_Id = rianeurbfa_euq2u2a137_0572118496
    & StartTime = 2014 - 06 - 11T15 : 00Z
    & EndTime = 2014 - 06 - 11T16 : 00Z
    &< Common_request_parameters >
```

Sample responses

- XML format

```
< DescribeIm_portsForSQ_LServerRes_ponse >
  < RequestId > 08A3B71B - FE08 - 4B03 - 974F - CC7EA6DB18 28
</ RequestId >
  < TotalRecordCount > 1 </ TotalRecordCount >
  < PageNumber > 1 </ PageNumber >
  < PageRecordCount > 1 < PageRecordCount >
  < Items >
    < SQLServerImport >
      < DBName > testdb01 </ DBName >
      < FileName > testdb01_1_3705724759_75 . bak </ FileName >
      < ImportStatus > Success </ ImportStatus >
      < StartTime > 2014 - 06 - 11T15 : 11 : 40Z </ StartTime >
    </ SQLServerImport >
  </ Items >
</ DescribeIm_portsForSQ_LServerRes_ponse >
```

- JSON format

```
{
  " PageNumber ": 1 ,
  " TotalRecordCount ": 1 ,
  " PageRecordCount ": 1
  " Items ":
  { " SQLServerImport ":
    [
      {
        " DBName ": " testdb01 "
        " FileName ": " testdb01_1_3705724759_75 . bak "
        " ImportStatus ": " Success "
        " StartTime ": " Innodb "
      }
    ],
  },
  " RequestId ": " 08A3B71B - FE08 - 4B03 - 974F - CC7EA6DB18
28 "
```

```
}
```

14.4 ImportDatabaseBetweenInstances

You can call this operation to migrate data from other RDS instances.

During migration, the source instance is in the Migrating state, and the target instance is in the Importing state.

This operation must meet the following requirements:

- Only the dedicated CPU instances and dedicated hosts of MySQL and SQL Server are supported. For more information about the instance type, see [#unique_97](#).
- Only the database migration between different instances that belong to the same user is allowed.
- The instance is in the running state.
- The database is in the running state.
- The remaining storage space of the target instance must be larger than that of the source instance.
- For MySQL instances, the database to be migrated must exist in both the source and target instances. It also must be in the running state.



Note:

- SQL Server 2017 Cluster Edition instances are not supported.
- The database migration in batch mode is supported.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various API operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	ImportData baseBetweenInstances	The operation that you want to perform. Set this parameter to ImportData baseBetweenInstances .
DBInstanceId	String	Yes	rm-uf6wjk5xxx xxxx	The ID of the target instance.
SourceDBInstanceId	String	Yes	rm-g4a1jk8xxx xxxx	The ID of the source instance. It cannot be the same as that of the target instance.

Parameter	Type	Required?	Example	Description
DBInfo	String	Yes	{ "DBNames" : ["mydb" , "mydb2"] }	The database information of instances to be migrated. The format is a JSON string: - For MySQL instances, the parameter value is an array. The source database must have the same name as the target database. In the following example, a database named mydb and a database named mydb2 are migrated from the source instance to the target instance: <pre>{ " DBNames " : [" mydb ", " mydb2 "] }</pre> - The value of the SQL Server instance is a key-value pair. Key represents the name of the source database. Value represents the name of the target database. The SQL Server instance allows the source database to have a different name from the target database. In the following example, srcdb is migrated to destdb and srcdb2 is migrated to destmydb2. However, neither multiple source databases nor multiple target databases are allowed to have the same name. <pre>{ " DBNames " : { " srcdb " : " destdb ", " srcdb2 " : " destmydb2 " } }</pre>
AccessKeyId	String	No	LTAIfCxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
ImportId	String	85265475235	The ID of the import task.
RequestId	String	5A77D650-27A1-4E08-AD9E-59008EDB6927	The ID of the request.

Examples

Sample requests

```
http ( s ) : // rds . aliyuncs . com / ? Action = ImportData
baseBetweenInstances
& DBInstance Id = rm - uf6wjk5xxx xxxx
& SourceDBInstance Id = rm - g4a1jk8xxx xxxx
& DBInfo = { " DBNames " : [ " mydb " , " mydb2 " ] }
& < Common request parameters >
```

Successful response examples

XML format

```
< ImportData baseBetweenInstances Response >
  < ImportId > 2122321 </ ImportId >
  < RequestId > 5A77D650 - 27A1 - 4E08 - AD9E - 59008EDB69 27
</ RequestId >
</ ImportData baseBetweenInstances Response >
```

JSON format

```
{
  " ImportId " : 2122321 ,
  " RequestId " : " 5A77D650 - 27A1 - 4E08 - AD9E - 59008EDB69 27 "
}
```

Error codes

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

14.5 CancelImport

You can call this operation to cancel the migration task of RDS instances.

This operation is applicable to the dedicated CPU instances and dedicated hosts of MySQL and SQL Server. For more information about the migration task, see [#unique_207](#).

**Note:**

This operation is not applicable to SQL Server 2017 Cluster Edition instances.

Debugging

You can use [OpenAPI Explorer](#) to perform debugging. OpenAPI Explorer allows you to perform various API operations to simplify API usage. For example, you can retrieve APIs, call APIs, and dynamically generate SDK example code.

Request parameters

Parameter	Type	Required?	Example	Description
Action	String	Yes	CancelImport	The operation that you want to perform. Set this parameter to <code>CancelImport</code> .
DBInstanceId	String	Yes	rm-uf6wjk5xxx-xxxx	The ID of the instance.
ImportId	Integer	Yes	8562584	The ID of the migration task. Note: This parameter is returned when the migration task is initiated. For more information, see #unique_207.
AccessKeyId	String	No	LTAIfCxxxxxxxx	The AccessKey ID issued by Alibaba Cloud for users to access services.

Response parameters

Parameter	Type	Example	Description
RequestId	String	17F57FEE-EA4F-4337-8D2E-9C23CAA63D74	The ID of the request.

Examples

Sample requests

```
http ( s ):// rds . aliyuncs . com /? Action = CancelImpo rt
& DBInstance Id = rm - uf6wjk5xxx xxxx
& ImportId = 8562584
&< Common request parameters >
```

Successful response examples

XML format

```
< CancelImpo rtResponse >
  < RequestId > 17F57FEE - EA4F - 4337 - 8D2E - 9C23CAA63D 74
</ RequestId >
</ CancelImpo rtResponse >
```

JSON format

```
{
  " RequestId ":" 17F57FEE - EA4F - 4337 - 8D2E - 9C23CAA63D 74 "
}
```

Error codes

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

15 Tag management

15.1 Bind tags

Description

This API is used to bind the existing or newly created tags to instances. The limitations are as follows:

- Each tag is composed of a TagKey and a TagValue. The TagKey cannot be blank, while the TagValue can be blank.
- The TagKey and TagValue values cannot start with aliyun.
- The TagKey and TagValue are not case sensitive.
- The maximum length of TagKey is 64 characters and the maximum length of TagValue is 128 characters.
- Each instance can be bound to a maximum of 10 tags. Each tag bound to the same instance must have a unique TagKey. If tags with duplicate TagKeys are bound to the same instance, the tag bound last overwrites the existing tag.

Request Parameters

Name	Type	Required or not	Description
Action	String	Yes	Required parameter. Value: AddTagsToResource.
RegionId	String	Yes	Region where the instance is located. For example, cn-hangzhou.
DBInstanceId	String	Yes	• Instance ID. Up to 30 IDs can be entered at a time. • Format: instance1,instance2,instance3 •

Name	Type	Required or not	Description
Tags	JSON string	Yes	• The list of tags to be bound, including the TagKeys and TagValues. • Up to 5 pairs of value can be entered at a time. • The TagKey cannot be blank, but the TagValue can. • Format sample: { “key1” :” value1 ” , “key2” :” ” }.

Return Parameters

Name	Type	Description
<Public Return Parameters>	None	For more information, see #unique_93 .

15.2 Query tags

Description

This API is used to query information about tags bound to RDS instances under the current account. The limitations are as follows:

- If the user enters an instance ID, all tags bound to this instance are queried and the other filter conditions are not valid.
- When you query tags, if only TagKey is provided and no TagValue is provided, results for all tags matching the TagKey condition are returned. If both TagKey and TagValue are provided, only results for tags matching both conditions are returned.

Request Parameters

Name	Type	Required or not	Description
Action	String	Yes	Required parameter. Value: DescribeTags.
RegionId	String	Yes	Region where the instance is located. For example, cn-hangzhou.
DBInstanceId	String	No	Instance ID. If this parameter is entered, all other filter conditions are invalid.

Name	Type	Required or not	Description
Tags	Json String	No	- The list of tags to be queried, including the TagKey and TagValue. - The TagKey cannot be blank, but the TagValue can. - Format sample: { "key1" : "value1" }.

Return Parameters

Name	Type	Description
<Public Return Parameters>	None	For more information, see #unique_93 .
Items	List<TagInfos>	Arrays composed of tag information

TagInfos

Name	Type	Description
TagKey	String	TagKey
TagValue	String	TagValue
DBInstanceIds	List<DBInstanceId>	IDs of instances bound to this tag

DBInstanceIds

Name	Type	Description
DBInstanceId	String	Instance ID

15.3 Unbind tags

Description

This API is used to unbind tags bound to an instance. The limitations are as follows:

- Up to 10 tags can be unbound at one time.
- If a tag is unbound from all instances, it is removed automatically.
- When you unbind tags, if only TagKey is provided and no TagValue is provided, tags matching TagKey criteria are unbound.

Request Parameters

Name	Type	Required or not	Description
Action	String	Yes	Required parameter. Value: RemoveTagsFromResource.
RegionId	String	Yes	Region where the instance is located. For example, cn-hangzhou.
DBInstanceId	String	Yes	Instance ID
Tags	Json String	Yes	• The tags to be unbound, including the TagKey and TagValue. • The TagKey cannot be blank, but the TagValue can. • Format sample: { "key1" : "value1" }.

Return Parameters

Name	Type	Description
<Public Return Parameters>	-	For more information, see #unique_93 .

16 RAM authorization

Description

Your Alibaba Cloud account has full access to all resources under the account.

You can grant the access and management permissions to sub-accounts (which are also called RAM users) by creating an authorization policy. In an authorization policy, an Alibaba Cloud Resource Name (ARN) is used as the unique identifier of resources. This topic introduces the format of ARNs.



Note:

For RDS, the resources are `dbinstance`.

Request parameters

Resource type	ARN format
dbinstance	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid acs:rds:\$regionid:\$accountid:dbinstance/ acs:rds:::dbinstance/

Parameters

Parameter	Description
\$ regionid	Region ID, which can be replaced with *
\$ dbinstanceid	Instance ID, which can be replaced with *
\$ accountid	Alibaba Cloud account ID, which can be replaced with *

RDS API authentication rules

When you use a RAM user account to access RDS through an API, RDS checks whether the RAM user has permissions. The following table lists the authentication rules.

API	Authentication rule
CreateDBInstance	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DeleteDBInstance	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeDBInstances	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
SwitchDBInstanceNetType	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ModifyDBInstanceDescription	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ModifyDBInstanceMaintainTime	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
PurgeDBInstanceLog	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DeleteDatabase	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ModifyDBDescription	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeFilesForSQLServer	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeImportsForSQLServer	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
CancelImport	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ResetAccountPassword	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
RevokeAccountPrivilege	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DeleteAccount	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
CreateBackup	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
CreateTempDBInstance	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid

API	Authentication rule
ModifyBackupPolicy	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeDBInstancePerformance	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeSlowLogRecords	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeBinlogFiles	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeSQLLogRecords	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeOptimizeAdviceOnMissPK	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeOptimizeAdviceOnMissIndex	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeParameters	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
CreatePrepaidDBInstanceForChannel	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ModifyPrepaidDBInstanceSpec	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
CreatePostpaidDBInstanceForChannel	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ModifyPostpaidDBInstanceSpec	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeDBInstanceAttribute	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
RestartDBInstance	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ModifySecurityIps	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
UpgradeDBInstanceEngineVersion	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
CreateDatabase	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid

API	Authentication rule
DescribeDatabases	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
CreateUploadPathForSQLServer	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ImportDataBaseBetweenInstances	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
CreateAccount	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
GrantAccountPrivilege	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeAccounts	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ModifyAccountDescription	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeBackups	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeBackupPolicy	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeResourceUsage	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeSlowLogs	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeErrorLogs	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeSQLLogReports	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeOptimizeAdviceOnStorage	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeOptimizeAdviceOnExcessIndex	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
DescribeOptimizeAdviceByDBA	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid
ModifyParameter	acs:rds:\$regionid:\$accountid:dbinstance/\$dbinstanceid

17 Appendix

17.1 Client error code table

Public errors

Error code	Description	HTTP status code
MissingParameter	The input parameter "parameter name" that is mandatory for processing this request is not supplied .	400
InvalidParameter	The specified parameter "Action or Version" is not valid.	400
InvalidAccessKeyId. NotFound	The Access Key ID provided does not exist in our records.	404
IncompleteSignature	The request signature does not conform to Aliyun standards.	400
IllegalTimestamp	The input parameter "Timestamp" that is mandatory for processing this request is not supplied .	400
InvalidOwnerId	The specified OwnerId is not valid.	400
InvalidOwnerAccount	The specified OwnerAccount is not valid.	400
InvalidOwner	OwnerId and OwnerAccount can't be used at one API access.	400
Throttling	Request was denied due to request throttling.	400
InvalidAction	The specified action is not valid.	403

Error code	Description	HTTP status code
ActionUnauthorized	The specified action is not available for you	403
UnsupportedHTTPMethod	This http method not supported.	403
UnsupportedParameter	The parameter "<parameter name>" is not supported.	400
Forbidden.InstanceNotFound	The specified DB instance does not exist.	404
Forbidden.RAM	The user is not authorized to operate the specified resource, or this operation does not support RAM.	403
Forbidden.NotSupportRAM	This action does not support accessed by RAM mode.	403
Forbidden.RiskControl	This operation is forbidden by Aliyun Risk Control system.	403
InsufficientBalance	Your account does not have enough balance.	400
Forbidden.Authentication	This operation is forbidden by Aliyun Realname Authentication system.	403
Invalid<parameter name>.ValueNotSupported	The specified parameter "parameter name" is not valid.	400
Invalid<parameter name>.Malformed	The specified parameter "parameter name n" is not valid.	400
InvalidParameter	The specified parameter "parameter name n" is not valid.	400

Specific errors

Error code	Description	HTTP status code
InvalidRegionId.NotFound	The DBInstanceId provided does not exist in our records.	404
InvalidSecurityIPList.Duplicate	The Security IP address is not in the available range or occupied.	400
InvalidSecurityIPListLength.Malformed	The security IP address is beyond the available range or is already used.	400
InvalidEngineVersionInRegion.NotAvailable	The EngineVersion in the Region is not available.	403
InvalidEngineInRegion.NotAvailable	The Engine in the Region is not available.	403
InvalidDBInstanceClassInRegion.NotAvailable	The DBInstanceClass in the Region is not available.	403
OperationDenied	The resource is out of usage.	403
RegionUnauthorized	There is no authority to create instance in the specified region.	403
QuotaExceeded.CreateInstance	The quota of create instance exceeds.	403
InvalidDBInstanceId.NotFound	The specified DBInstanceId does not exist.	404
MissingParameter	The input parameters "DBInstanceClass" and "DBInstanceStorage" all blank or no change.	400
OperationDenied.DBInstanceType	The operation is not permitted due to type of instance.	400
OperationDenied.DBInstanceStorageReduce	The operation is not permitted due to reduce storage.	403

Error code	Description	HTTP status code
OperationDenied.DBInstanceStatus	The operation is not permitted due to instance status.	403
DependencyViolation	The operation is not permitted due to instance mount read only or guard instance.	403
InvalidConnectionStringPrefix.Duplicate	The connection string is not in the available range or occupied.	400
QuotaExceeded.SwitchTime	The quota of switch time exceed.	400
OperationDenied.LockMode	The operation is not permitted due to lock of instance.	403
InvalidSecurityIps.Duplicate	The quota of security IP exceeds.	400
OperationDenied.CurrentEngineVersion	The operation is not permitted due to specified current version .	400
OperationDenied.ReadOnlyDBInstanceLower	The operation is not permitted due to higher read only instance version	403
OperationDenied.GuardDBInstanceLower	The operation is not permitted due to higher guard instance version .	403
OperationDenied.MasterDBInstanceState	The status of the specified master instance does not support this operation.	403
QuotaExceeded.DBName	The quota of db exceeds.	400
InvalidDBName.Duplicate	The specified DB name is invalid or already exists.	400
InvalidParameter.Keyword	The specified DBName is a reserved keyword.	400
OperationDenied.DBStatus	The status of the database does not support this operation.	403

Error code	Description	HTTP status code
OperationDenied.DBInstanceEngine	The operation is not permitted due to engine of instance.	403
FTPServiceUnavailable	The service is unavailable now; wait several minutes and try again.	403
QuotaExceeded.Upload	The quota of file exceeds.	403
InvalidFileName.NotCompleted	The specified "FileName" is not completed .	404
InvalidFileName.NotAvailable	The specified "FileName" is not Available .	404
QuotaExceeded.FileSize	The quota of file size exceeds.	403
QuotaExceeded.DBInstanceStorage	The quota of instance storage exceeds.	403
InvalidDBInfo.Malformed	The specified parameter "DBInfo" is not valid or db not exist.	400
OperationDenied.Region	The operation is not permitted due to different region.	403
OperationDenied.Engine	The operation is not permitted due to different engine.	403
OperationDenied.DBInstanceId	The operation is not permitted due to DBInstanceId and SourceDBInstanceId is same.	403
InvalidTaskId.NotFound	The ImportId provided does not exist in our records.	400
OperationDenied.IncorrectTaskStatus	The operation is not permitted due to status of import.	403
InvalidAccountName.keyword	The specified AccountName is a reserved keyword.	400

Error code	Description	HTTP status code
InvalidAccountName.Duplicate	The specified AccountName already exists.	400
QuotaExceeded.AccountName	The quota of account exceeds.	403
OperationDenied.AccountStatus	The status of the account does not support this operation.	403
InvalidDBName.NotFound	The specified ImageId does not exist.	404
OperationDenied.AccountType	The operation is not permitted due to type of account.	403
OperationDenied.BackupJobExists	You cannot perform this operation; a backup job exists.	403
OperationDenied.NoDatabase	The operation is not permitted due to no database.	403
InvalidStartTimeAndEndTime.Malformed	The EndTime must be later than or equal to the StartTime.	400
OperationDenied.BackupJobExists	You cannot perform this operation; a backup job exists.	403
InvalidBackupId.NotFound	The BackupId provided does not exist in our records.	404
OperationDenied.NotFoundBackup	The operation is not permitted due to no backup.	403
OperationDenied.BackupStatus	The operation is not permitted due to type of backup.	403
OperationDenied.BackupMethod	The operation is not permitted method of backup.	403

Error code	Description	HTTP status code
OperationDenied.TempDBInstanceExists	You cannot perform this operation; a temp instance exists.	403
Forbidden.Authentication	The operation is forbidden by Aliyun Realname Authentication System.	403
IncorrectDBInstanceConnType	Current DB instance conn type does not support this operation.	404
IncorrectVpcId.Mismatch	The specified parameter "VpcId" is not valid.	400
IntranetNetTypeNotExists	Current DB instance net type does not support this operation.	404
InvalidDBInstanceName.NotFound	The DBInstanceId provided does not exist in our records.	403
InvalidConnectionMode.ValueNotSupported	The specified parameter "ConnectionMode" is not valid.	400
InvalidConnectionString.DuplicateSpecified	connection string already exists in the Aliyun RDS.	403
InvalidConnectionString.DuplicateSpecified	connection string or port want to be modified is the same with current net type .	400
InvalidConnectionStringPrefix.Duplicated	The specified connection string already exists.	403
InvalidCurrentConnectionString.NotFound	Specified current connection string doesn't exist.	400
InvalidDBInstanceId.NotFound	The specified DBInstanceId does not exist.	400
InvalidDBInstanceId.QuotaExceeded	The quota of instance id exceeds.	400
InvalidDBInstanceNetType.NotFound	The Specified DB instance net type is not found.	404

Error code	Description	HTTP status code
InvalidDBInstanceNetType. ValueNotSupport	The specified parameter "DBInstanceNetType" is not valid.	400
InvalidDBInstanceType. ValueNotSupport	The specified parameter "DBInstanceType" is not valid.	400
InvalidEngineVersion. Malformed	The specified parameter "EngineVersion" is not valid.	400
InvalidInstanceNetworkType. ValueNotSupported	The specified parameter "InstanceNetworkType" is not valid.	400
InvalidParameter	The specified parameter "dbInstanceId" is not valid.	400
InvalidPort.Malformed	Specified port is not valid.	400
InvalidPrivateIpAddress. Duplicated	Specified private IP address is duplicated.	400
InvalidPrivateIpAddress. Mismatch	Specified private IP address is not in the CIDR block of virtual switch.	400
InvalidVPCId.NotFound	The specified connection string or port does not match the current network type.	400
InvalidVSwitchId. Mismatch	Specified instance and virtual switch are not in the same zone.	400
InvalidVSwitchId. NotFound	Specified virtual switch is not found in specified VPC.	400
NetTypeExists	Specified net type already existed.	400
NetTypeExists	Specified public net type already existed.	403
OperationDenied. DBInstanceNetType	The network type of the specified instance does not support this operation.	403

Error code	Description	HTTP status code
OperationDenied.DBInstanceStatus	The specified connection string or port does not match the current network type.	403
OperationDenied.DBInstanceType	The operation is not permitted due to type of instance.	403
OperationDenied.LockMode	The instance is locked.	403
OperationDenied.Switch	Specified instance cannot be switched.	400
OperationDenied.Switch	Specified instance cannot be switched to VPC.	403
OperationDenied.SwitchToVPC	Specified instance cannot be switched to VPC.	403
OperationDenied	The requested resource is sold out in the specified zone; try other types of resources or other regions and zones.	403
OperationDenied	The vpc cloudinstanceIp is use, please check params.	406
OperationDenied	The vpc service is error, please check params.	400
PARAMETER_ERROR	The vpc request parameter may not be null.	406
PARAMETER_MUST_NOT_NULL	The parameter must not be null.	406
PublicConnectionExists	PublicConnection exists.	403
bpcIzNoNotEqualsRdsMultIzNo	Specified vpc IzNo not equal rds IzNo.	400

17.2 Server error code table

Error code	Description	HTTP status code
ServiceUnavailable	The request has failed due to a temporary failure of the server.	503
InternalServerError	The request processing fails due to some unknown error, exception or. failure .	500

17.3 Instance status table

Status	Description
Creating	An instance is being created.
Running	An instance is active.
Deleting	An instance is being deleted.
Rebooting	An instance is being rebooted.
DBInstanceClassChanging	An instance is being upgraded or downgraded.
TRANSING	Migration is underway.
EngineVersionUpgrading	Version migration is being performed.
TransingToOthers	Data is being migrated to other RDS instances.
GuardDBInstanceCreating	Production disaster preparedness example.
A disaster recovery instance is being created	Backup recovery is being performed.
Importing	Data is being imported.
ImportingFromOthers	Data is being imported from other RDS instances.
DBInstanceNetTypeChanging	Switching between intranet and Internet.
GuardSwitching	Switching disaster recovery.
INS_CLONING	An instance is being cloned.

17.4 Performance parameter table

RDS for MySQL

API parameter	Meaning
MySQL_NetworkTraffic	Average inbound traffic to a MySQL instance per second and average outbound traffic from a MySQL instance per second. Unit: KB.
MySQL_QPSTPS	Average number of SQL statement execution times per second and average number of transactions per second
MySQL_Sessions	Number of currently active connections and total number of current connections
MySQL_InnoDBBufferRatio	Read hit rate of the InnoDB buffer pool, utilization rate of the InnoDB buffer pool , and percentage of dirty data blocks in the InnoDB buffer pool
MySQL_InnoDBDataReadWriten	InnoDB average volume of data reads per second and InnoDB average volume of data writes per second. Unit: KB
MySQL_InnoDBLogRequests	Average times of reading data from the InnoDB buffer pool per second and average times of writing data to the InnoDB buffer pool per second
MySQL_InnoDBLogWrites	Average number of log write requests per second, Average number of physical writes performed on log files per second , and average number of fsync() writes completed on log files per second
MySQL_TempDiskTableCreates	Number of temporary tables automatically created in the hard drive during MySQL statement execution
MySQL_MyISAMKeyBufferRatio	Average Key Buffer utilization rate of MyISAM per second, average Key Buffer read hit rate of MyISAM per second, and average Key Buffer write hit rate of MyISAM per second

API parameter	Meaning
MySQL_MyISAMKeyReadWrites	Average times of reading data from the buffer pool by MyISAM per second , average times of writing data to the buffer pool by MyISAM per second, average times of reading data from the hard disk by MyISAM per second, and average times of writing data to the hard disk by MyISAM per second
MySQL_COMDML	Average times of DELETE statement execution per second, average times of INSERT statement execution per second, average times of INSERT_SELECT statement execution per second, average times of REPLACE statement execution per second, average times of REPLACE_SELECT statement execution per second, average times of SELECT statement execution per second, and average times of UPDATE statement execution per second
MySQL_RowDML	Average number of rows read from the InnoDB table per second, average number of rows updated in the InnoDB table per second, average number of rows deleted from the InnoDB table per second, average number of rows inserted into the InnoDB table per second, and average number of physical writes performed on log files per second
MySQL_MemCpuUsage	CPU usage by a MySQL instance (expressed as a percentage of the operating system' s CPU) and memory usage by a MySQL instance (expressed as a percentage of the operating system' s memory)
MySQL_IOPS	IOPS (I/O requests per second) of a MySQL instance

API parameter	Meaning
MySQL_DetailedSpaceUsage	Space usage by a MySQL instance: total space usage by the ins_size instance + data_size data space + log_size log space + tmp_size temporary space + other_size system space
MySQL_CPS	Number of connections per second
slavestat	Read-only instance delay

RDS for SQL Server

API Parameter	Meaning
SQLServer_Transactions	Average number of transactions per second
SQLServer_Sessions	Total number of current connections
SQLServer_BufferHit	Buffer hit rate
SQLServer_FullScans	Average times of full table scan per second
SQLServer_SQLCompilations	Number of SQL compilations per second
SQLServer_CheckPoint	Number of times checkpoints are written to pages per second
SQLServer_Logins	Login times per second
SQLServer_LockTimeout	Lock timeout times per second
SQLServer_Deadlock	Deadlock times per second
SQLServer_LockWaits	Number of lock waits per second
SQLServer_NetworkTraffic	Average inbound/outbound traffic to/from a MySQL instance per second. Unit: KB
SQLServer_QPS	Average times of SQL statement execution per second
SQLServer_InstanceCPUUsage	CPU usage by a SQL Server instance (expressed as a percentage of the operating system's CPU)
SQLServer_IOPS	IOPS (I/O request per second) of a MS SQL instance
SQLServer_SpaceUsage	Space usage by a SQL Server instance

17.5 Forbidden keywords table

RDS for MySQL

Parameter field	Field keyword description
DBName/ AccountName	accessible, account, action, actual, add, after, against, aggregate, all, algorithm, alter, always, analyse, analyze, and, any, as, asc, ascii, asensitive, at, auto_increment, autoextend_size, avg, avg_row_length, backup, before, begin, between, bigint, binary, binlog, bit, blob, block, bool, boolean, both, btree, by, byte, cache, call, cascade, cascaded, case, catalog_name, chain, change, changed, channel, char, character, charset, check, checksum, cipher, class_origin, client, close, coalesce, code, collate, collation, column, column_format, column_name, columns, comment, commit, committed, compact, completion, compression, compressed, encryption, concurrent, condition, connection, consistent, constraint, constraint_catalog, constraint_name, constraint_schema, contains, context, continue, convert, cpu, create, cross, cube, current, current_date, current_time, current_timestamp, current_user, cursor, cursor_name, data, database, databases, datafile, date, datetime, day, day_hour, day_microsecond, day_minute, day_second, deallocate, dec, decimal, declare, default, default_auth, definer, delayed, delay_key_write, desc, describe, des_key_file, deterministic, diagnostics, directory, disable, discard, disk, distinct, distinctrow, div, do, double, drop, dual, dumpfile, duplicate, dynamic, each, else, elseif, enable, enclosed, end, ends, engine, engines, enum, error, errors, escape, escaped, event, events, every, exchange, execute, exists, exit, expansion, export, expire, explain, extended, extent_size, false, fast, faults, fetch, fields, file, file_block_size, filter, first, fixed, float, float4, float8, flush, follows, for, force, foreign, format, found, from, full, fulltext, function, general, group_replication, geometry, geometrycollection, get_format, get, generated, global, grant, grants, group, handler, hash, having, help, high_priority, host, hosts, hour, hour_microsecond, hour_minute, hour_second, identified, if, ignore, ignore_server_ids, import, in, index, indexes, infile, initial_size, inner, inout, insensitive, insert_method, install, instance, int, int1, int2, int3, int4, int8, integer, interval, into, io, io_after_gtid, io_before_gtid, io_thread, ipc, is, isolation, issuer, iterate, invoker, join, json, key, keys, key_block_size, kill, language, last, leading, leave, leaves, left, less, level, like, limit, linear, lines, linestring, list, load, local, localtime, localtime, lock, locks, logfile, logs, long, longblob, longtext, loop, low_priority, master, master_auto_position, master_bind, master_connect_retry, master_del

RDS for SQL Server

Parameter field	Field keyword description
DBName/ AccountName	root, admin, eagleye, master, aurora, sa, sysadmin, administrator, mssql, public, securityadmin, serveradmin, setupadmin, processadmin, diskadmin, dbcreator, bulkadmin, tempdb, msdb, model, distribution, mssqlsystemresource, guest, add, except, percent, all, exec, plan, alter, execute, precision, and, exists, primary, any, exit, print, as, fetch, proc, asc, file, procedure, authorization, fillfactor, public, backup, for, raiserror, begin, foreign, read, between, freetext, readtext, break, freetexttable, reconfigure, browse, from, references, bulk, full, replication, by, function, restore, cascade, goto, restrict, case, grant, return, check, group, revoke, checkpoint, having, right, close, holdlock, rollback, clustered, identity, rowcount, coalesce, identity_insert, rowguidcol, collate, identitycol, rule, column, if, save, commit, in, schema, compute, index, select, constraint, inner, session_user, contains, insert, set, containstable, intersect, setuser, continue, into, shutdown, convert, is, some, create, join, statistics, cross, key, system_user, current, kill, table, current_date, left, textsize, current_time, like, then, current_timestamp, lineno, to, current_user, load, top, cursor, national, tran, database, nocheck, transaction, dbcc, nonclustered, trigger, deallocate, not, truncate, declare, null, tsequal, default, nullif, union, delete, of, unique, deny, off, update, desc, offsets, updatetext, disk, on, use, distinct, open, user, distributed, opendatasource, values, double, openquery, varying, drop, openrowset, view, dummy, openxml, waitfor, dump, option, when, else, or, where, end, order, while, errlvl, outer, with, escape, over, writetext, galaxy