Alibaba Cloud CLI

Best Practices

Best Practices

Installation instructions of Alibaba Cloud CLI for RDS

Alibaba Cloud CLI is a management tool created based on Alibaba Cloud APIs. With this tool, you can call Alibaba Cloud APIs and manage the RDS product.

Background information

Alibaba Cloud CLI is compiled based on Python and must run in Python environment. We recommended that you install Alibaba Cloud CLI using pip, which can be applied to Windows, Linux, and Mac OS.

For more information about Python, go to Python website. For more information about pip, go to pip website.

Prerequisites

Make sure that you have downloaded the Python 2.7.x installation package for Windows.

Go to Python official website to download Python 2.7.x installation package.

Make sure that your device has connected to the Internet.

Installation procedure

Install Python by following its installation wizard.

Note: When you install Python, enable pip. Otherwise, you cannot use pip to install Alibaba Cloud CLI.

Upgrade pip.

If you have installed pip version 7.x or later, skip to step 3.

If the version of pip installed on your device is too old, use the following command to upgrade pip to version 7.x or later first and then do as the follow-on steps.

Run the following command to upgrade pip.

```
cd C:\Python27
python -m pip install -U pip
```

If the following information is displayed, it indicates that pip has been successfully upgraded.

```
Successfully uninstalled pip-7.1.2
Successfully installed pip-8.1.2
```

Run the following command to install Alibaba Cloud CLI.

```
cd C:\Python27
cd Scripts
pip install aliyuncli
```

If the following information is displayed, it indicates that Alibaba Cloud CLI has been successfully installed.

```
Successfully installed aliyuncli-2.1.2 colorama-0.3.3 jmespath-0.7.1
```

Run the following command to install RDS SDK.

```
cd C:\Python27\Scripts
pip install aliyun-python-sdk-rds
```

If the following information is displayed, it indicates that RDS SDK has been successfully installed.

```
Successfully installed aliyun-python-sdk-rds-2.0.3
```

If your RDS SDK is not the latest version, run the following command to upgrade the existing RDS SDK.

```
```

```
pip install --upgrade aliyun-python-sdk-rds
```

Run the following command to verify the installation result.

```
cd C:\Python27\Scripts
aliyuncli rds help
```

If the help information is displayed, it indicates that RDS SDK has been successfully installed.

Note: you can also run the command aliyuncli rds help to query other commands, which can be used to verify the configuration result.

To create an AccessKey, log on to the console of Alibaba Cloud official website, click AccessKeys and then create an AccessKey according to the prompts.

Run the following command to configure the global parameters of Alibaba Cloud CLI.

```
cd C:\Python27\Scripts
aliyuncli configure
```

If the following information is displayed, enter the parameters listed.

```
Aliyun Access Key ID [None]: <Enter AccessKeyId>
Aliyun Access Key Secret [None]: <Enter AccessKeySecret>
Default Region Id [None]: <Enter the RegionId of your instance, such as **cn-hangzhou**. Run aliyuncli rds
DescribeRegions --output table to query the region list.>
Default output format [None]: <Enter your expected output format, json, text or table.>
```

Run the following command to verify the configuration.

```
cd C:\Python27\Scripts
aliyuncli rds DescribeAccounts --DBInstanceId xxxxx
```

If the information about your instance account is displayed, it indicates that your instance has connected to Alibaba Cloud.

Alibaba Cloud CLI is a management tool created based on Alibaba Cloud APIs. With this tool, you can call Alibaba Cloud APIs and manage your RDS.

Background information

Alibaba Cloud CLI is developed based on Python and runs in Python environment. We recommend that you install Alibaba Cloud CLI using pip, which can be applied to Windows, Linux, and Mac OS.

For more information about Python, go to Python website. For more information about pip, go to pip website.

Prerequisites

Download the Python 2.7.x installation package for Windows.

Go to Python official website download page to download Python 2.7.x installation package.

Connect your servers to the Internet.

Installation procedure

Install Python according to its installation wizard.

When installing Python, you must enable pip. Otherwise, you cannot use pip to install Alibaba Cloud CLI.

Install pip.

If you have installed pip version 7.x or later, skip to step 3.

If the version of pip installed on your device is too old, the installation of Alibaba Cloud CLI fails. You can use the following command to upgrade pip first.

Run the following command to upgrade pip.

```
pip install -U pip
```

If the following information is displayed, pip has been successfully upgraded.

```
Successfully uninstalled pip-7.1.2
Successfully installed pip-8.1.2
```

Run the following command to install Alibaba Cloud CLI.

```
sudo pip install aliyuncli
```

If the following information is displayed, Alibaba Cloud CLI has been successfully installed.

```
Successfully installed aliyuncli-2.1.2 colorama-0.3.3 jmespath-0.7.1
```

Run the following command to install RDS SDK.

```
sudo pip install aliyun-python-sdk-rds
```

If the following information is displayed, RDS SDK has been successfully installed.

```
Successfully installed aliyun-python-sdk-core-2.0.35 aliyun-python-sdk-rds-2.0.3
```

If your RDS SDK is not the latest version, run the following command to upgrade the existing RDS SDK.

```
sudo pip install --upgrade aliyun-python-sdk-rds
```

Run the following command to verify the installation result.

```
aliyuncli rds help
```

If the help information is displayed, RDS SDK has been successfully installed.

Note: you can also run the command aliyuncli rds help to query other commands, which can be used to verify the configuration.

Create an AccessKey. Log on to the Alibaba Cloud console to create an AccessKey according to the prompts.

Run the following command to configure the global parameters of Alibaba Cloud CLI.

```
sudo aliyuncli configure
```

If the following information is displayed, enter the parameters listed.

```
Aliyun Access Key ID [None]: <Enter Access Key ID>
Aliyun Access Key Secret [None]: <Enter Access Key Secret>
Default Region Id [None]: <Enter the RegionId of your instance, such as **cn-hangzhou**. Run aliyuncli rds
DescribeRegions --output table to query the region list.>
Default output format [None]: <Enter your desired output format, json, text or table.>
```

Run the following command to verify the configuration.

```
aliyuncli rds DescribeAccounts --DBInstanceId xxxxx
```

If the information about your instance account is displayed, it indicates that your instance has connected to Alibaba Cloud.

Instance export function

For RDS products, Alibaba Cloud CLI supports exporting DB instances to files, which is an extended function of the tool. You can choose an instance ID to export the corresponding instance to a file. The exported file content is in the json format, which is convenient for you to view or use in programming. The exported file is also an import file template. You can personalize modifications according to the file, and then import the file to create multiple DB instances.

Command example:

```
aliyuncli rds ExportDBInstance --DBInstanceId XXXXX --filename test
```

DBInstanceId: This is a required parameter, indicating the ID of the instance to be exported.

filename: This is a required parameter, indicating the file to which of the instances is to be exported. It can be an absolute path or a single filename. If it is a single filename, the default path ~/.alicloudcli/ is chosen.

Instance import function

For RDS products, Alibaba Cloud CLI supports instance creation by file import to easily create multiple identical DB instances. You can create multiple identical instances by specifying a template file and calling a command.

Command example:

```
aliyuncli rds ImportDBInstance --filename test --count 5
```

Parameters description:

filename: Template file, which can be a filename or an absolute path. If it is a single filename, the system searches the file under the ~/.alicloudcli/ path.

count: Indicates the number of DB instances to be created. This value of this parameter is a number. If this number exceeds the maximal value of instances that can be created at one time, a DB instance is created by default. We strongly recommend that you use the file exported with the alicloudcli rds ExportDBInstance command as a template to edit. Do not create separate templates to avoid mistakes.

Note: For more information on the numbers of instances that can be created at one time, see the relevant documents of each product.

Special notice:

Currently DB instances created through RDS open APIs can only be charged on the Pay-As-You-Go basis.

The following provides instructions and examples to illustrate CDN commands.

Type one: service operation commands

OpenCdnService

Command instructions:

This command is used to activate CDN. You can perform domain name operations only after you have activated the CDN service. A single user can activate the service only once. Before activating the service, your account must have passed real-name registration.

Example:

```
aliyuncli cdn OpenCdnService --InternetChargeType PayByTraffic
```

DescribeCdnService

Command instructions:

This command is used to query the CDN service status. This includes the current billing type, service activation time, the billing type that will take effect next time, and the current service status.

Example:

```
aliyuncli cdn DescribeCdnService
```

ModifyCdnService

Command instructions:

This command is used to change the CDN service billing type.

Example:

```
aliyuncli cdn ModifyCdnService --InternetChargeType PayByTraffic
```

Type two: domain name operation commands

DescribeUserDomains

Command instructions:

This command is used to query all domain names and statuses under a user name. Domain name statuses include running (indicating normal state of the domain name service), OK, stopped, configuring, and configuration failed.

DescribeCdnDomainDetail

Command instructions:

This command is used to obtain the basic information of the specified CDN domain configuration.

AddCdnDomain

Command instructions:

This command is used to add CDN domain names. Only one CDN domain name can be added at a time. A single user can add up to 20 domain names.

Restrictions:

Before creating a CDN domain name, you must first activate the CDN service. The CDN domain name must already have got ICP Filing number from MIIT. If the origin site content is not on the Alibaba Cloud platform, it must be reviewed. The review is completed in one business day.

StartCdnDomain

Command instructions:

This command is used to activate a deactivated CDN domain name, changing the DomainStatus to online.

Note: If your account has any outstanding payment or the domain name is invalid, you cannot call this interface to enable the CDN domain name properly.

StopCdnDomain

Command instructions:

This command is used to deactivate a CDN domain name, changing the DomainStatus to offline.

Note: After a CDN domain name is deactivated, its information is retained and the system automatically performs origin retrieval processing for requests to the CDN domain name. If, for the

moment, you do not need the CDN domain name, we recommend that you use the StopCdnDomain interface to suspend it.

DeleteCdnDomain

Command instructions:

This command is used to delete the current CDN domain name. Only one CDN domain name can be submitted at a time. After DeleteCdnDomain is called successfully, all the records associated with the CDN domain name are deleted. If you only want to temporarily suspend the CDN domain name, we recommend that you use the StopCdnDomain interface.

Note: When using this command, we recommend that you restore the domain name A record at the DNS provider before deleting the domain name, to make sure the domain name can still be accessed after deletion.

Type three: refresh and push commands

RefreshObjectCaches

Command instructions:

This command is used to refresh the file content on a node. It refreshes the specified URL content to the Cache node. Only one URL can be submitted each time.

Restrictions: For a single ID, up to 2,000 URL push and refresh requests and up to 100 directory push and refresh requests can be submitted daily.

Refresh and push interfaces include the RefreshObjectCaches and PushObjectCache interfaces.

PushObjectCache

Command instructions:

This command is used to actively push content from the origin site to the L2 Cache node. Upon first access, you can directly hit cache to relieve pressure on the origin site.

Restrictions: For a single ID, up to 2,000 URL push and refresh requests can be submitted daily. You must note that no directory push request is supported currently. Refresh and push interfaces include the RefreshObjectCaches and PushObjectCache interfaces.

DescribeRefreshTasks

Command instructions:

This command is used to check whether push and refresh statuses have taken effect for the whole site.

Note: The push and refresh statuses can be queried by task ID or URL. If neither the taskid nor objectpath is specified, it queries the first page of data (20 records) in the past seven days by default. A taskid and objectpath can be specified at the same time, with a logical relationship of AND. Only

the data in the past seven days can be queried.

Type four: resource monitoring commands

DescribeCdnMonitorData

Command instructions:

This command is used to obtain the domain name metric data with a minimum granularity of five minutes. This includes the request hit rate, bytes hit rate, QPS, traffic, and average response time.

Note: When StartTime and EndTime are not specified, data of the past 24 hours is read by default. You can specify a start time and an end time to query data in a specific period. Data of the latest 30 days can be obtained with one domain at most.

Type five: log obtaining command

DescribeCdnDomainLogs

Command instructions:

This command is used to obtain the address for downloading the original access log of the specified domain name.

Note: Log content is retained for two weeks at most.

RDS complex commands

The example of the DescribeSlowLogs command is as follows.

```
aliyuncli rds DescribeSlowLogs --DBInstanceId xxxxx --StartTime 2015-09-24Z --EndTime 2015-09-24Z --DBName
hms --PageSize 30 --PageNumber 1
```

Note: The incorrect time format cannot be identified. The PageSize parameter is used to specify the number of data items displayed on each page, and only several fixed values are allowed.

ECS complex commands

The examples of the AddBackendServers command are as follows. Notice the parameter forms following InstanceIds.

```
aliyuncli ecs DescribeInstances --RegionId cn-hangzhou --InstanceIds "['i-23hello']"
```

```
aliyuncli ecs DescribeInstances --RegionId cn-hangzhou --InstanceIds "['i-23hello' , 'i-34hello']"
```

SLB complex commands

The example of the AddBackendServers command is shown as follows. Notice the parameter forms following BackendServers.

```
aliyuncli slb AddBackendServers --LoadBalancerId 14fd07a7569-cn-ningxia-am7-c01 --BackendServers
"[{'ServerId':'i-21os1d7jr'} , {'ServerId':'i-21h2knaxy'}]"
```

The example of the RemoveBackendServers command is shown as follows. Notice the parameter forms following BackendServers.

```
aliyuncli slb RemoveBackendServers --LoadBalancerId 14ffe8a7a47-cn-hangzhou-dg-a01 --BackendServers "['i-
23glad1uz' , 'i-236tbrnzn']"
```

CMS complex commands

The example of the DescribeMetricDatum command is shown as follows.

```
aliyuncli cms DescribeMetricDatum --MetricName MySQL_CpuUsage --StartTime 2015-10-08T00:00:00Z --EndTime
2015-10-08T00:01:00Z --Dimensions "{instanceId:'rds2izeze2izeze'}" --Period 5m --NextToken 1 --Length 100
```

Note:

> CMS has only one action. All parameter obtaining is determined according to the incoming parameters such as Dimensions "{instanceId:'rds2izeze2izeze'}", and the incoming time is GTM time CMS.
>
> The preceding command returns both CPU and memory information. When a certain information item is needed, you can use the Dimensions "{instanceId:'rds445qv67ce32y4v1gi', type:'cpuusage'}" parameter to filter.

Multiple profile usage

To use the corresponding configuration of profile, you must include the profile XXX parameter, for example:

```
aliyuncli ecs DescribeInstanceStatus
```

In this case, the default configuration is used, which is also the global configuration.

```
aliyuncli ecs DescribeInstanceStatus –-profile test
```

In this case, the configuration under test is used, which takes effect for one time.