

TDSQL-A for PostgreSQL

Operation Guide

Product Documentation



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Operation Guide




Viewing Instance Details

Last updated : 2021-07-05 17:25:04

This document describes how to view the details of a TDSQL-A for PostgreSQL instance in the console.

Directions

1. Log in to the [TDSQL-A for PostgreSQL](#) console and click an instance ID in the instance list or **Manage** in the **Operation** column to enter the instance details page.

Instance ID/Name	Status ▾	Region	Configuration	Private Network Address	Billing Mode	Creation Time ↕	Expiration Time ↕	Elimination Time	Operation
	Running	South China (Guangzhou)			Monthly Subscription	2021-07-05 10:40:12	2021-10-05 10:40:12		Manage More ▾

2. On the instance details page, you can view the basic information and configuration information of the instance.

Terminating Instance

Last updated : 2021-07-05 17:30:57

This document describes how to terminate a TDSQL-A for PostgreSQL instance in the console.

Overview




You can terminate instances in the console as needed. After an instance is terminated, its status will become **Isolated**, and it will be completely eliminated after 7 days. Isolated instances cannot be restored.

Note :

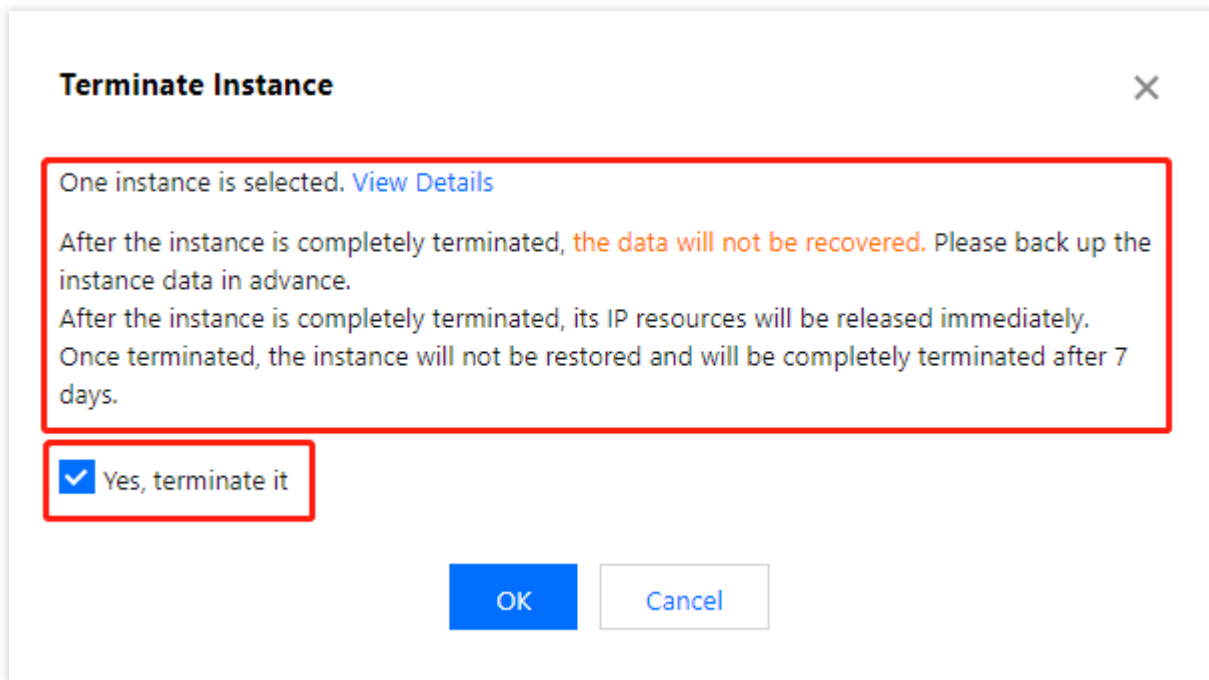
- After an instance is terminated, its data cannot be recovered, and its backup files will also be terminated, so the data cannot be restored in the cloud either.
- When the instance is terminated, its IP resources will be released simultaneously.

Directions




1. Log in to the [TDSQL-A for PostgreSQL console](#), select the target instance in the instance list, and click **More > Terminate** in the **Operation** column.

Instance ID/Name	Status ▾	Region	Configuration	Private Network Address	Billing Mode	Creation Time ↑	Expiration Time ⚙	Elimination Time	Operation
	Running	South China (Guangzhou)			Monthly Subscription	2021-07-05 10:40:12	2021-10-05 10:40:12		Manage More Restart Terminate Edit Tag

2. In the pop-up window, read and click "Yes, terminate it" and click **OK**.






3. After you confirm the termination, the instance status will change to **Isolated**.

Instance ID/Name	Status ▾	Region	Configuration	Private Network Address	Billing Mode	Creation Time ↑	Expiration Time ⌚	Elimination Time	Operation
	Isolated	South China (Guangzhou)			Monthly Subscription	2021-07-05 10:40:12	2021-10-05 10:40:12		Manage More ▾

4. Select the target instance in the instance list and click **More > Eliminate Now** in the **Operation** column.

Note :

The elimination operation will terminate the instance completely, and its data will not be recoverable. Please back up the data in advance.

Instance ID/Name	Status ▾	Region	Configuration	Private Network Address	Billing Mode	Creation Time ↑	Expiration Time ⌚	Elimination Time	Operation
	Isolated	South China (Guangzhou)			Monthly Subscription	2021-07-05 10:40:12	2021-10-05 10:40:12	2021-07-12 11:09:42	Manage ▾ Eliminate Now

5. In the pop-up window, confirm that everything is correct and click **OK**.

6. After the instance is eliminated successfully, a prompt will pop up in the top-right corner of the instance list.

Instances

Eliminated the instance successfully

Create

Separate keywords with "|"; press Enter to separate filter tags

Instance ID/Name	Status	Region	Configuration	Private Network Address	Billing Mode	Creation Time	Expiration Time	Elimination Time	Operation
No data yet									

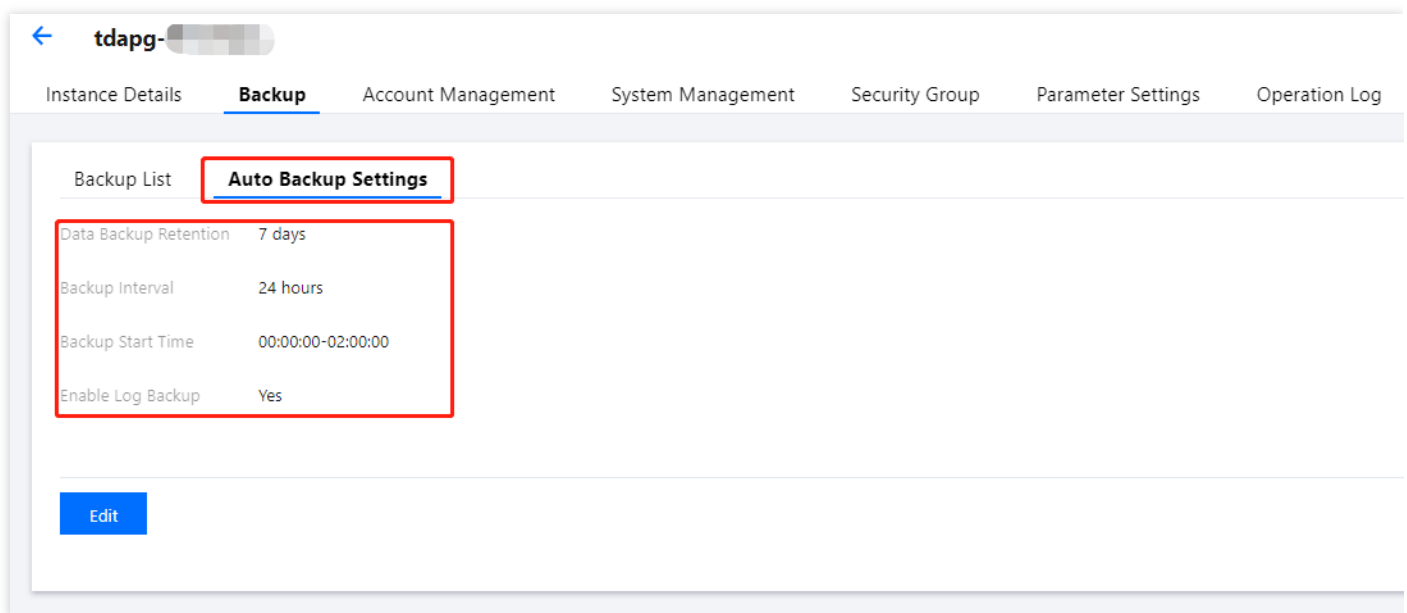
Backing up Database

Last updated : 2021-07-05 17:32:31

To prevent data loss or corruption, you can use auto backup to back up your database.

Auto Backup

1. Log in to the [TDSQL-A for PostgreSQL](#) console and click an instance ID in the instance list to enter the instance management page.
2. On the instance management page, select **Backup > Auto Backup Settings** and click **Edit**.



3. On the editing page, enter the target value according to the prompt of **Backup Start Time** and click **OK**.

Note :

- Currently, only the backup start time can be modified.
- Auto backups cannot be deleted manually. They will be deleted automatically upon expiration.


Configuration Item	Value
Data Backup Retention	7 days

Configuration Item	Value
Backup Time Interval	Once every 24 hours
Backup Start Time	00:00:00-02:00:00 AM
Enable Log Backup	No

Backup List **Auto Backup Settings**

Data Backup Retention 7 days

Backup Interval 24 hours

Backup Start Time 00 ~ 02 

Enable Log Backup

OK Cancel

Start time

End time

00

02

02

04

04

06

06

08

OK

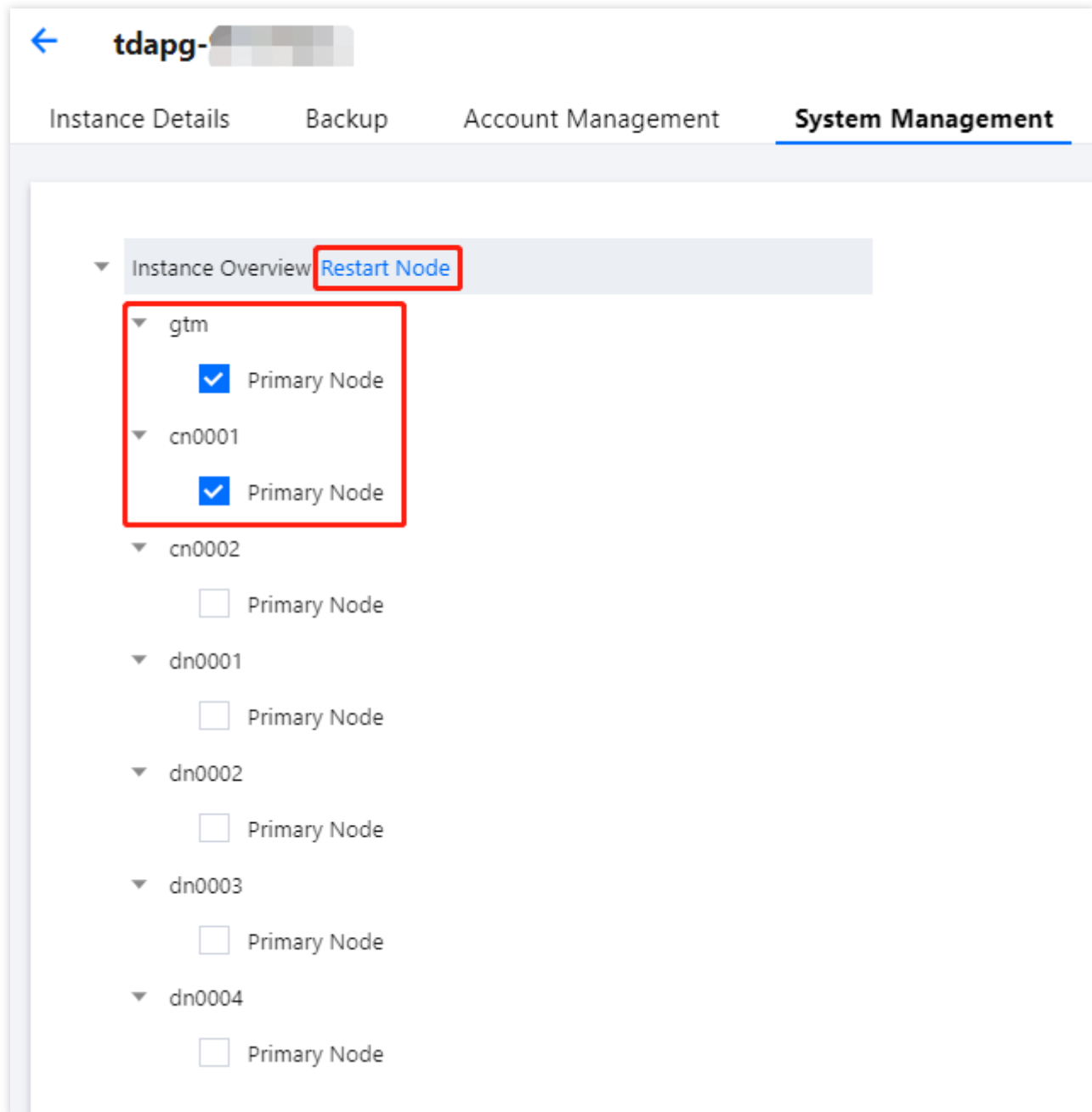
Monitoring Feature

Last updated : 2021-07-05 17:36:20

This document describes how to view and export the monitoring data of a TDSQL-A for PostgreSQL instance in the console.

Viewing Monitoring Data

1. Log in to the [TDSQL-A for PostgreSQL](#) console and click an instance ID in the instance list to enter the instance management page.
2. On the instance management page, select the **System Management** tab and select a time to view the monitoring data and load.



- On the **System Management** tab, click **Restart Node** and select GTM, CN, or DN nodes.

Note :

Node restart is a high-risk operation that makes the instance unavailable. Please evaluate its impact on your business before proceeding.

Restart TDSQL-A for PostgreSQL Node



Are you sure you want to restart the selected TDSQL-A for PostgreSQL node?



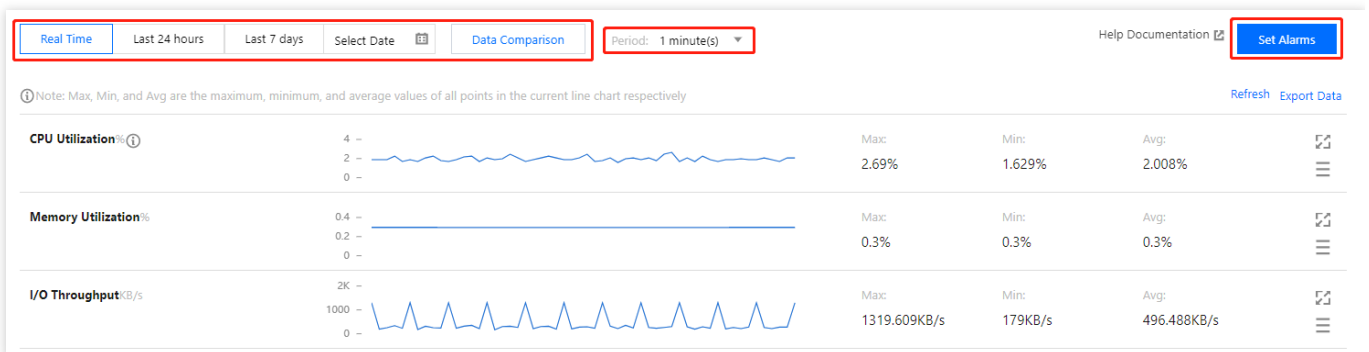
Node restart is a high-risk operation that makes the instance unavailable.
Please evaluate its impact on your business before proceeding.

☒ Yes, restart the selected TDSQL-A for PostgreSQL nodes

OK

Cancel

- View alarming and monitoring data at different time granularities. For example, you can click **Last 24 hours** to view the monitoring data for the last 24 hours.



- Click **Export Data** on the right and select the monitoring data to be exported.

Export Data

Time period: 2021-07-05 13:31:11 to 2021-07-05 14:31:11

Export Metric:

- ☒ Connections
- ☒ Average of Top 10 Shortest SQL
- ☒ Average of Top 10 Longest SQL
- ☐ Average SQL Execution Time
- ☐ Total Requests
- ☐ User Requests
- ☐ Read Requests
- ☐ UPDATE Requests

OK Cancel

Export Cancel

Monitoring Metrics

Cloud Monitor provides the following monitoring metrics for TDSQL-A for PostgreSQL instances in the instance dimension:

Metric	Parameter	Unit	Description
CPU Utilization	cpu_used_pct	%	Maximum value of CPU utilization of CN, DN, and GTM of the instance

Metric	Parameter	Unit	Description
Memory Utilization	mem_used_pct	%	Maximum value of memory utilization of CN, DN, and GTM of the instance
IO Throughput	iops	Counts/s	Throughput of primary and standby CN and DN disks of the instance
Cache Hit Rate	cache_hit_pct	%	Data cache hit rate
Connections	connections	-	Number of active connections of the instance
Average of Top 10 Shortest SQL Execution Time	sql_runtime_min	ms	Average value of the top 10 SQL statements with the shortest execution time
Average of Top 10 Longest SQL Execution Time	sql_runtime_max	ms	Average value of the top 10 SQL statements with the longest execution time
Average SQL Execution Time	sql_runtime_avg	ms	Average execution time of all SQL requests, excluding requests in transactions
Total Requests	total_requests	-	Sum of requests of all primary and standby CN and DN nodes per minute
User Requests	user_requests	-	Sum of business requests of all primary and standby CN and DN nodes per minute (excluding system requests)
Read Requests	read_requests	-	Total number of read requests per minute
UPDATE Requests	update_requests	-	Total number of update requests per minute
INSERT Requests	insert_requests	-	Total number of insertion requests per minute
DELETE Requests	delete_requests	-	Total number of deletion requests per minute

Metric	Parameter	Unit	Description
Write Requests	write_requests	-	Total number of write requests per minute
Other Requests	other_requests	-	Total number of requests other than reads and writes per minute
Failed Requests	error_requests	-	Sum of all failed requests recorded in the instance per minute
Prepared Transactions for Two-Phase Commit	two_phase_commit_trxs	-	Sum of transactions prepared 10 minutes ago of all primary and standby CN and DN nodes in the instance
Capacity Utilization	capacity_used_pct	%	Capacity utilization of the instance
Capacity Usage	capacity_usage	GBytes	Used capacity of the instance
Remaining XIDs	xid_remain	-	Minimum value of the remaining XIDs on all CNs and DNs of the instance
XLog Sync Lag Between Primary and Standby	xlog_diff	Bytes	Primary-Standby XLog sync delay. The smaller, the better
Primary-Standby Switches	master_switch	-	Sum of switches of all primary and standby nodes in the instance per minute

Operation Log

Last updated : 2021-07-05 17:43:29

This document describes how to view the slow log and error log details of a TDSQL-A for PostgreSQL instance in the console.

Slow Log Details

An SQL statement query that takes more time than the specified value is referred to as a "slow query", and the corresponding statement is called a "slow query statement". The process where a database administrator (DBA) analyzes slow query statements and finds out the reasons why slow queries occur is known as "slow query analysis".

1. Log in to the [TDSQL-A for PostgreSQL](#) console and click an instance ID in the instance list to enter the instance management page.
2. On the instance management page, select the **Operation Log** tab, click **Slow Log Details**, select a time to view the slow log information.

- You can query slow log information by time.

Slow Log Details

Select time range2021-07-04 14:40:18 ~ 2021-07-05 14:40:18DatabaseAll

Execution Time

Jul 2021

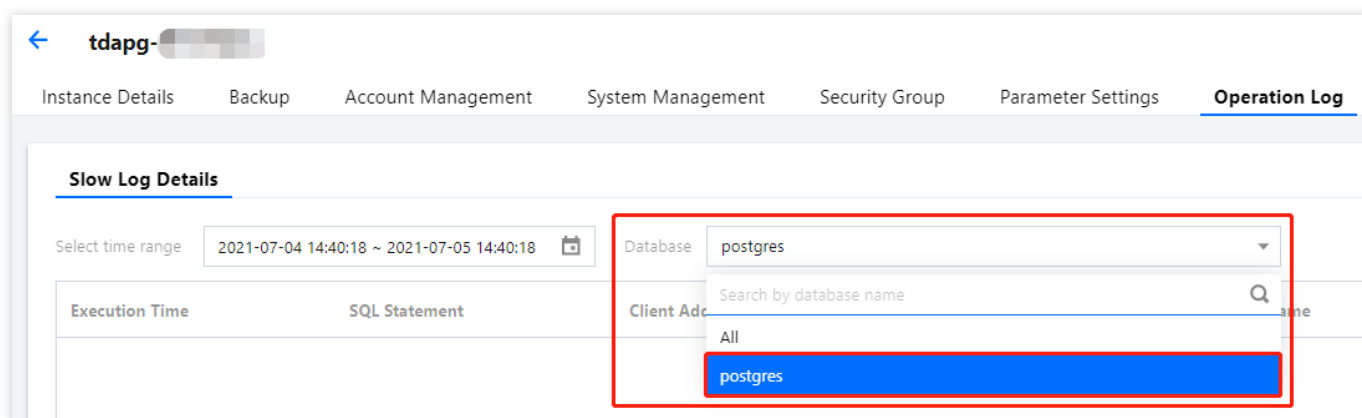
Su	Mo	Tu	We	Th	Fr	Sa
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Aug 2021

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

Select timeOK

- You can also search by database name.



Security Group

Last updated : 2021-07-05 17:46:02

A [security group](#) is a stateful virtual firewall capable of filtering. As an important means for network security isolation provided by Tencent Cloud, it can be used to set network access controls for one or more TencentDB instances. Instances with the same network security isolation demands in one region can be put into the same security group, which is a logical group. TencentDB and CVM share the security group list and are matched with each other within the security group based on rules. For more information on rules and restrictions, please see [Security Group Description](#).

Note :

As TDSQL-A for PostgreSQL does not have active outbound traffic, outbound rules are not applicable to it.

Configuring Security Group

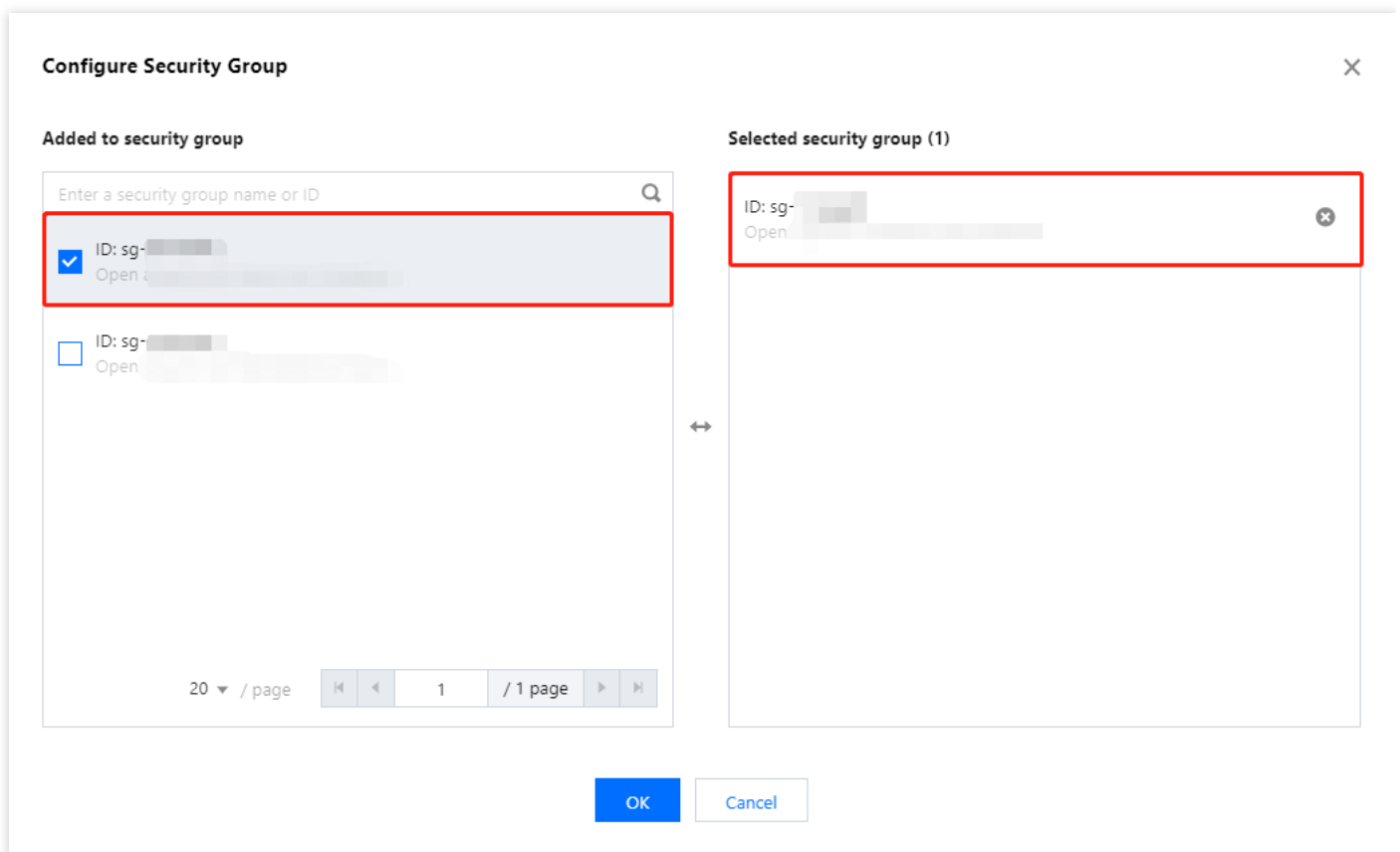
1. Log in to the [TDSQL-A for PostgreSQL](#) console and click an instance ID in the instance list to enter the instance management page.
2. On the instance management page, select the **Security Group** tab and click **Configure Security Group**.

The screenshot displays the Tencent Cloud console interface for configuring a security group. At the top, the instance ID 'tdapg-9l75192w' is shown. The navigation bar includes tabs for 'Instance Details', 'Backup', 'Account Management', 'System Management', 'Security Group' (which is highlighted), 'Parameter Settings', and 'Operation Log'. A 'Restart Instance' button is located in the top right corner. Below the navigation bar, a blue banner states: 'Security groups of TDSQL-A for PostgreSQL now support custom port numbers and protocols. [Learn More](#)'. The main content area is divided into two sections. The first section, 'Added to security group', contains a table with columns for Priority, Security Group ID, Security Group Name, and Operation. A red box highlights the 'Edit' and 'Configure Security Group' buttons. The second section, 'Rule Preview', has two sub-tabs: 'Inbound Rules' and 'Outbound Rules'. The 'Inbound Rules' tab is active, showing a table with columns for Source, Port, Policy, and Remarks. A red box highlights the first rule in this table.

Priority	Security Group ID	Security Group Name	Operation
1			


Rule Preview			
Inbound Rules			
Source	Port	Policy	Remarks
0.0.0.0/0	ALL	Allow	--

3. In the pop-up window, select the security group to be bound and click **OK**.



4. After the security group is successfully configured, you can view its information at the bottom of the **Security Group** tab.

Deleting Security Group

1. Log in to the [TDSQL-A for PostgreSQL](#) console and click an instance ID in the instance list to enter the instance management page.
2. On the instance management page, select the **Security Group** tab, and click  in the **Operation** column to delete a security group. The corresponding rules will be deleted at the same

time.

Instance DetailsBackupAccount ManagementSystem ManagementSecurity GroupParameter SettingsOperation Log

Security groups of TDSQL-A for PostgreSQL now support custom port numbers and protocols. [Learn More](#)

Added to security group

EditConfigure Security Group

Priority	Security Group ID	Security Group Name	Operation
1	sg- <div></div>	<div></div>	<div>↑ ↓</div> <div></div>
2	sg- <div></div>	<div></div>	<div>↑ ↓</div> <div></div>

Save

Cancel

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Setting Instance Parameters

Last updated : 2021-07-05 18:09:01

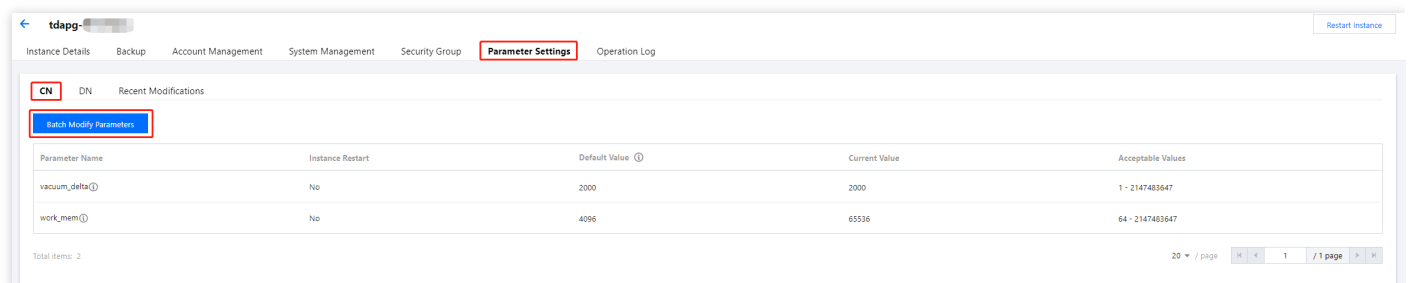
This document describes how to view and modify certain parameters and query parameter modification records in the TDSQL-A for PostgreSQL console.

Note :

To ensure the instance stability, the console allows you to modify certain parameters only as displayed on the parameter configuration page in the console.

Batch Modifying Parameters

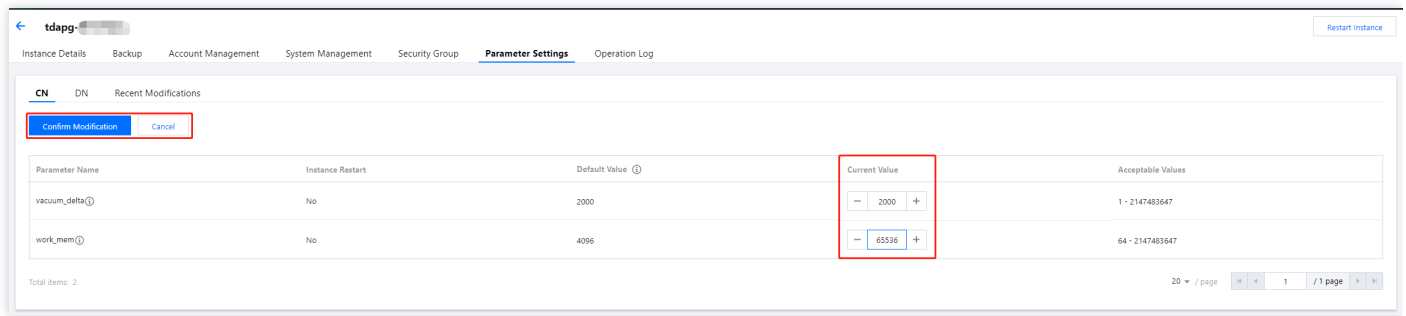
1. Log in to the [TDSQL-A for PostgreSQL](#) console and click an instance ID in the instance list to enter the instance management page.
2. On the instance management page, select the **Parameter Configuration** tab and click **Batch Modify Parameters**.



3. Enter the target parameter value as prompted in the **Acceptable Values** column and click **Confirm** to save the change. You can click **Cancel** to cancel the operation.

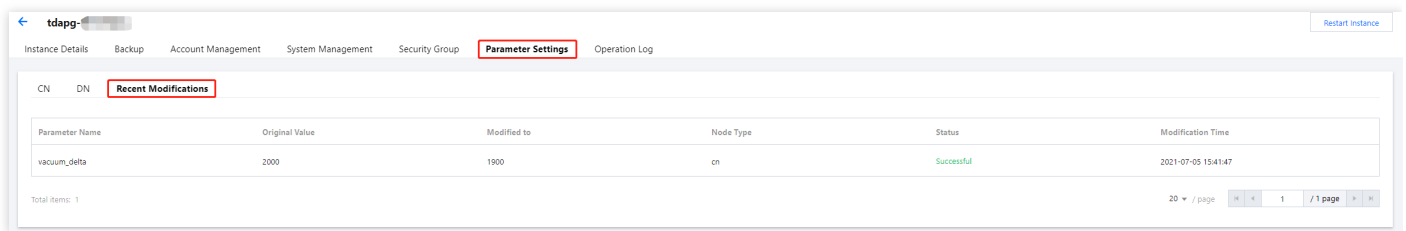
Note :

CN and DN nodes can be modified separately.



Viewing Parameter Modification Record

1. Log in to the [TDSQL-A for PostgreSQL](#) console and click an instance ID in the instance list to enter the instance management page.
2. On the instance management page, select **Parameter Configuration > Recent Modification Records** to view recent parameter modifications.



Access Management Overview

Last updated : 2021-07-02 16:42:56

Issues

If you have multiple users managing different Tencent Cloud services such as CVM, VPC, and TencentDB, and they all share your Tencent Cloud account access key, you may face the following problems:

- The risk of your key being compromised is high since multiple users are sharing it.
- Your users might introduce security risks from misoperations due to the lack of user access control.

Solution

You can avoid the problems above by allowing different users to manage different services through sub-accounts. By default, a sub-account does not have permissions to use Tencent Cloud services or resources. Therefore, you need to create a policy to grant different permissions to the sub-accounts.

[Cloud Access Management \(CAM\)](#) is a web-based Tencent Cloud service that helps you securely manage and control access permissions to your Tencent Cloud resources. Using CAM, you can create, manage, and terminate users (groups), and control the specified Tencent Cloud resources that can be used by the specified user through identity and policy management.

When using CAM, you can associate a policy with a user or user group to allow or forbid them to use specified resources to complete specified tasks. For more information on CAM policies, please see [Policy Syntax](#). For detailed directions, please see [Policy](#).

You can skip this section if you do not need to manage permissions to TDSQL-A resources for sub-accounts. This will not affect your understanding and use of the other sections of the document.

Getting started

A CAM policy must authorize or deny the use of one or more TDSQL-A for PostgreSQL operations. At the same time, it must specify the resources that can be used for the operations (which can be all resources or partial resources for certain operations). A policy can also include the conditions set for the manipulated resources.

Note :

- We recommend you manage TDSQL-A for PostgreSQL resources and authorize TDSQL-A for PostgreSQL operations through CAM policies. Although the user experience does not change for existing users who are granted permissions by project, we do not recommend you continue to manage resources and authorize operations in a project-based manner.
- Effectiveness conditions cannot be set for TDSQL-A for PostgreSQL for the time being.

Authorization Policy Syntax

Last updated : 2021-07-02 16:42:56

CAM Policy Syntax

```
{
  "version": "2.0",
  "statement":
  [
    {
      "effect": "effect",
      "action": ["action"],
      "resource": ["resource"],
      "condition": {"key": {"value"}}
    }
  ]
}
```

- **version** is required. Currently, only the value "2.0" is allowed.
- **statement** describes the details of one or more permissions. It contains a permission or permission set of multiple other elements such as `effect` , `action` , `resource` , and `condition` . One policy has only one `statement` .
 - **effect** is required. It describes the result of a statement. The result can be "allow" or an "explicit deny".
 - **action** is required. It describes the allowed or denied operation. An operation can be an API or a feature set (a set of specific APIs prefixed with "permid").
 - **resource** is required. It describes the details of authorization. A resource is described in a six-segment format. Detailed resource definitions vary by product.
 - **condition** is required. It describes the condition for the policy to take effect. A condition consists of operator, action key, and action value. A condition value may contain information such as time and IP address. Some services allow you to specify additional values in a condition.

TDSQL-A for PostgreSQL Operations

In a CAM policy statement, you can specify any API operation from any service that supports CAM. APIs prefixed with `name/tdapg:` should be used for TDSQL-A for PostgreSQL. To specify multiple operations in a single statement, separate them with commas as shown below:

```
"action":["name/tdapg:action1","name/tdapg:action2"]
```

You can also specify multiple operations by using a wildcard. For example, you can specify all operations beginning with "Describe" in the name as shown below:

```
"action":["name/tdapg:Describe*"]
```

If you want to specify all operations in TDSQL-A for PostgreSQL, use the `*` wildcard as shown below:

```
"action":["name/tdapg:*"]
```

TDSQL-A for PostgreSQL Resource Path

Each CAM policy statement has its own applicable resources.

Resource paths are generally in the following format:

```
qcs:project_id:service_type:region:account:resource
```

- **qcs**: is the abbreviation of `qcloud service` and indicates that the resource is a Tencent Cloud resource. It is required.
- **project_id**: describes the project information, which is only used to enable compatibility with legacy CAM logic and can be left empty.
- **service_type**: describes the product abbreviation such as `tdapg`.
- **region**: describes the region information, such as `bj`.
- **account**: describes the root account of the resource owner, such as `uin/12345678`.
- **resource**: describes the detailed resource information of each product, such as `instance/instance_id` or `instance/*`.

Authorizable Resource Types

Last updated : 2021-07-02 16:42:56

TDSQL-A for PostgreSQL supports resource-level authorization. You can grant a specified sub-account the API permission of a specified resource.

APIs supporting resource-level authorization include:

Note :

TDSQL-A for PostgreSQL API operations not listed here do not support resource-level permissions. You can still authorize a user to perform such an API operation, but you must specify `*` as the resource element of the policy statement.

API Name	Description	Six-Segment Example of Resource
DescribeAccounts	Queries TencentDB instance account	<code>qcs::tdapg:gz:uin/2113345772:instance/tdapg-i8edslnn</code>
DescribeBackupDetails	Queries TencentDB instance backup details	<code>qcs::tdapg:gz:uin/2113345772:instance/tdapg-i8edslnn</code>
DescribeBackupLists	Queries TencentDB instance backup list	<code>qcs::tdapg:gz:uin/2113345772:instance/tdapg-i8edslnn</code>
DescribeBackupRules	Queries TencentDB instance backup rule	<code>qcs::tdapg:gz:uin/2113345772:instance/tdapg-i8edslnn</code>
DescribeInstanceDetails	Queries instance details	<code>qcs::tdapg:gz:uin/2113345772:instance/tdapg-i8edslnn</code>
DescribeInstances	Queries instance list	<code>qcs::tdapg:gz:uin/2113345772:instance/tdapg-i8edslnn</code>
ModifyInstanceName	Renames TencentDB instance	<code>qcs::tdapg:gz:uin/2113345772:instance/tdapg-i8edslnn</code>

API Name	Description	Six-Segment Example of Resource
ResetAccountPassword	Resets TencentDB account password	qcs:: tdapg:gz:uin/2113345772:instance/tdapg- i8edslnn
SetBackupRules	Sets TencentDB instance backup rule	qcs:: tdapg:gz:uin/2113345772:instance/tdapg- i8edslnn