

# Tencent Cloud TCHouse-D Operation Guide Product Documentation





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# Operation Guide Cluster Operation Creating and Terminating

Last updated : 2024-06-27 10:45:33

# **Creating Cluster**

1. On the Tencent Cloud TCHouse-D page, click **Buy Now**, or log in to the Tencent Cloud TCHouse-D Console and click **Create Cluster** to proceed to the purchase page for configuration and purchase.

2. After completing the basic configuration, cluster configuration, and log configuration, the system will display the corresponding configuration costs. Click **Activate** to create a cluster.



### **Configuration Item Description**

Configuration Item	Note
Billing Mode	Pay-as-you-go, where you can apply for resources for on-demand use and receive a bill every hour. You will be charged based on actual usage at the time of settlement.
Region	Currently, Tencent Cloud TCHouse-D supports regions such as Hong Kong (China), Singapore, Frankfurt, Silicon Valley, Bangkok, and Virginia. We recommend selecting a region closest to your business needs. Once a region is selected, it cannot be changed after purchase.
Availability Zone (AZ)	Select AZs in different regions as needed on the purchase page.

Network	A VPC is an isolated, highly secure, and dedicated network environment. You can create or select an existing VPC network and subnet.
High Availability	You can choose to enable the high-availability read-write pattern: In the non-high-availability pattern, only 1 FE will be deployed. It is not recommended for production environments, especially for online queries or real-time read-write scenarios In the high-availability read pattern, at least 3 FEs will be deployed. One FE node is a follower, and the other two FE nodes are observers (achieving the high availability read of the cluster) High-availability read-write: At least 5 FEs are deployed, of which 3 FE nodes are followers (achieving high availability write of the cluster), and the other two FE nodes are observers (achieving high availability read of the cluster)
Compute Node Type	There are two types of compute nodes: Standard: 4-core 16 GB, 8-core 32 GB, 16-core 64 GB, 24-core 96 GB, 32-core 128 GB, 48- core 192 GB, 64-core 256 GB High-performance-type whose specifications include: 16-core 64 GB, 32-core 128 GB, 64-core 256 GB
Table Name Case Sensitivity	Table name case can't be modified after configuration, and it provides three patterns: Case Sensitivity Case-insensitive, stored as specified and compared in lowercase Case-insensitive, convert all table names to lowercase for storage
Cloud Disk Encryption	Cloud Disk Encryption is a free feature that effectively protects your data privacy, meets security and compliance requirements, requires no adjustments to business code, and has almost no impact on service performance. Encryption can only be set at the time of purchase, supports only cloud disks (not local disks), and encrypted and unencrypted disks cannot be converted.

# **View Cluster Information**

1. After the cluster is created, you can enter Tencent Cloud TCHouse-D Console, select the region where the cluster is located, and view the status information of all the clusters in this region from the cluster list.

6	Serving	Healthy	Standard, 3 node(s) 4-core 16GB, 200 GB	High IO, 3 node(s) 16-core 64 GB, 3570 GB	2.0	ap-hongkong-2	vpc-f0m0cm2m test	subnet- 6n9oimbn 10.22.13.1
Resource ID/Name	Status (progress)	Health status	FE node	BE node	Kernel version	AZ	Network	Subnet
Create cluster							Se	eparate search items wit
Cluster list 🔇 ap-	hongkong 5 • Other re	gions 5 🔻						

2. In the cluster list, click **Cluster ID/Name** to view specific details of the cluster and perform cluster-level operations.



In the cluster information page, you can view the basic information, cluster status, configuration information, and network information of the cluster.

You can modify the cluster name by clicking the edit icon next to **Cluster Name**.

Basic info		Cluste	er status		
uster ID	т.	Cluster	status Serving		
name 🖍					
mode Pay-as-you-go		Notw	ork info		
on time 2024-04-08 17:4	0:44	Netwo			
Change		AZ	ap-hongko	ong-2	
		VPC ID		-	
figuration info		Subnet			
			access address	Copy connection strin	
version vailability (HA)	2.0 (tencent-cdw-doris-2.0.7-f5a305b-0889e65) Read high availability	Node ir	connection address	Copy connection strin	a
de spec	Read nigh availability Standard, 4-core 16 GB / 3 node(s) / CLOUD_HSSD 200 GB				
spec	High IO, 16-core 64 GB / 3 node(s) / LOCAL_BASIC 3570 GB	No.	Node type	Node health statu	
names are case-sensitive.	Case-Sensitive	1	FE(master)	Healthy	
ud Block Storage Encryption	Enable	2	FE(observer)	Healthy	1
irity Groups	None 🖍	3	FE(observer)	Healthy	1
		4	BE	Healthy	1
		5	BE	Healthy	1
		6	BE	Healthy	1
		6			10

### **Terminating Cluster**

Click **Operation** > **Terminate** in the cluster list to terminate a cluster as prompted. After termination, resources will be released and data will be cleared within 24 hours.

Ferminate		×
1 Termination opti	ons > 2 Confirm	
Cluster ID	Cluster name	Spec
	xcfxfvsdf	4-core 16 GB, 200 GB, 3 (FE) node(s) 16-core 64 GB, 3570 GB, 3 (BE) node(s)
I have read and agree to	o the Refund Policy 🛂	
	Next: Confirm	Cancel

# Scale-Out and Scale-In

Last updated : 2024-06-27 10:46:00

## Overview

Tencent Cloud TCHouse-D cluster provides a scale-in and scale-out feature, which helps you to scale the number of nodes in the cluster.

Scale-out refers to reducing the number of service nodes. If the current scale and performance of the cluster do not meet usage requirements, you can enhance the performance through scale-out.

Scale-in refers to reducing the number of service nodes. If the current usage of the cluster is low, and there is no significant demand for a long period, you can use scale-in to reduce cluster scale and save cost.

Before scale-in and scale-out operations, please ensure the following:

The cluster is in a stable operating state.

The main account is not in arrears and there are no outstanding orders.

### Scale out

In the Scale-out process, the system can read and write, but there may be some fluctuations. The operation generally takes about 5-15 minutes. Please carry it out during non-peak business hours.

When the business is facing double growth in data storage volume and query volume, it is recommended to choose scale-out as a priority.

### Note:

For a non-high-availability cluster (with only one FE node), expanding to 3 or more FE nodes will by default switch to a read high-availability pattern.

If read-write high availability is not specified, even when expanding to more than 5 FE nodes, it will remain in the read high-availability pattern.

### **Operation Guide**

1. Sign in to Tencent Cloud TCHouse-D Console, and choose **Operation** > **Scale-out** for the cluster you wish to operate.

		运行良好	标准型,3个节点	标准型,3个节点		重庆一区			按量计费		水平扩容 垂直变配 钥毁 更多 ▼
ID/名称	状态(进度)	健康状态	FE节点	BE节点	内核版本	可用区	网络	子网	付费类型	创建时间	操作

2. In the cluster scale-out pop-up window, select the type and quantity of nodes to be scaled out, and you can calculate the change fee in real time. The standalone configuration of the new scale-out node is the same as the

existing configuration of the cluster.

egion/AZ       ap-hongkong/ap-hongkong-2         illing mode       Pay-as-you-go         igh availability       Read high availability         E node spec       4-core 16 GB / 3 node(s) / CLOUD_HSSD 200 GB         E node spec       16-core 64 GB / 3 node(s) / LOCAL_BASIC 3570 GB         ode to scale       • FE node         • Pay-as-you-go       BE node         hange to       • Non-high availability       • Read high availability         • Vou can increase the node count to 3-10003. If available resources are insufficient, please contact us.       For read high availability: The number of nodes must be greater than or equal to 3, with 1 node as a Follower, and the rest as Observers.         For read-write high availability: The number of nodes must be greater than or equal to 5, with 3 nodes as Followers and the remaining nodes as Observers.         etwork       vpc-f0m0cm2m / test         ubnet       subnet-6n9oimbn / 10.22.13.1         125 subnet IPs in total, 107available.       If no IP address is available in the current subnet, you can switch the subnet.			
<ul> <li>If a security group has been configured for the cluster, you cannot scale out the cluster in a new subnet. Make sure all ports of all IP addresses in the subnet are open before you scale out the cluster.</li> <li>Ruster ID/name cdwdoris-n3m4593c/xcfxfvsdf</li> <li>ap-hongkong/ap-hongkong-2</li> <li>agp-as-you-go</li> <li>Igh availability Read high availability</li> <li>E node spec 4-core 16 GB / 3 node(s) / CLOUD_HSSD 200 GB</li> <li>E node spec 16-core 64 GB / 3 node(s) / LOCAL_BASIC 3570 GB</li> <li>Ide to scale <b>P</b> FE node BE node</li> <li>Non-high availability <b>Read</b> high availability <b>Read</b>-Write high availability</li> <li>To u can increase the node count to 3-10003. If available resources are insufficient, please contact us.</li> <li>For read high availability: The number of nodes must be greater than or equal to 3, with 1 node as a Follower, and the rest as Observers.</li> <li>For read-write high availability: The number of nodes must be greater than or equal to 5, with 3 nodes as Followers and the remaining nodes as Observers.</li> <li>Retwork vpc-f0m0cm2m / test</li> <li>ubnet subnet-6n90imbn / 10.22.13.1</li> <li>125 subnet IPs in total, 107available.</li> <li>If no IP address is available in the current subnet, you can switch the subnet.</li> </ul>	jitters	s. Scale-out will take about 5 to 15 minutes. We recommend you perform this operation	
new subnet. Make sure all ports of all IP addresses in the subnet are open before you scale out the cluster.         Cluster ID/name       cdwdoris-n3m4593c/xcfxfvsdf         Region/AZ       ap-hongkong/ap-hongkong-2         Billing mode       Pay-as-you-go         High availability       Read high availability         Et node spec       4-core 16 GB / 3 node(s) / CLOUD_HSSD 200 GB         BE node spec       16-core 64 GB / 3 node(s) / LOCAL_BASIC 3570 GB         Node to scale <ul> <li>FE node</li> <li>BE node</li> <li>Non-high availability</li> <li>Read high availability</li> <li>Read-Write high availability</li> <li>To can increase the node count to 3-10003. If available resources are insufficient, please contact us.</li> <li>For read high availability: The number of nodes must be greater than or equal to 3, with 1 node as a Follower; and the reest as Observers.</li> <li>For read-write high availability: The number of nodes must be greater than or equal to 5, with 3 nodes as Follower; and the remaining nodes as Observers.</li> <li>For read-write high availability: The number of nodes must be greater than or equal to 5, with 3 nodes as Followers and the remaining nodes as Observers.</li> <li>Vetwork</li> <li>vpc-f0m0cm2m / test</li> <li>Subnet</li> <li>subnet-6n90imbn / 10.22.13.1</li> <li>125 subnet IPs in total, 107available.</li> <li>If no IP address is available in the current subnet, you can switch the subnet.</li> </ul>	Scale	-out is recommended if both your data storage needs and queries increase.	
Region/AZ       ap-hongkong/ap-hongkong-2         Billing mode       Pay-as-you-go         High availability       Read high availability         FE node spec       4-core 16 GB / 3 node(s) / CLOUD_HSSD 200 GB         BE node spec       16-core 64 GB / 3 node(s) / LOCAL_BASIC 3570 GB         Node to scale       • FE node         • FE node       BE node         Change to       Non-high availability       • Read high availability         • Non-high availability:       • Read high availability       • Read-Write high availability         • Vou can increase the node count to 3-10003. If available resources are insufficient, please contact us.       For read high availability: The number of nodes must be greater than or equal to 3, with 1 node as a Follower, and the rest as Observers.         For read-write high availability: The number of nodes must be greater than or equal to 5, with 3 nodes as Followers and the remaining nodes as Observers.         Revork       vpc-f0m0cm2m / test         Subnet       subnet-6n9oimbn / 10.22.13.1         125 subnet IPs in total, 107available.       If no IP address is available in the current subnet, you can switch the subnet.	new s	subnet. Make sure all ports of all IP addresses in the subnet are open before you scale	
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High availability       Read high availability         FE node spec       4-core 16 GB / 3 node(s) / CLOUD_HSSD 200 GB         BE node spec       16-core 64 GB / 3 node(s) / LOCAL_BASIC 3570 GB         Node to scale       Image: The node	Region/AZ	ap-hongkong/ap-hongkong-2	
FE node spec       4-core 16 GB / 3 node(s) / CLOUD_HSSD 200 GB         BE node spec       16-core 64 GB / 3 node(s) / LOCAL_BASIC 3570 GB         Node to scale       Image: FE node         Image: Non-high availability       Image: FE node         Change to       Non-high availability         Image: Non-high availability       Image: FE node         Change to       Non-high availability         Image: Non-high availability       Image: FE node         Image: Volume and the state science in the state of the state science in the state of the	Billing mode	Pay-as-you-go	
BE node spec       16-core 64 GB / 3 node(s) / LOCAL_BASIC 3570 GB         Node to scale       Image: FE node       BE node         Change to       Non-high availability       Image: Read-Write high availability         Image: The state of t	High availability	Read high availability	
Node to scale          • FE node           BE node          Change to       Non-high availability         • Read high availability           Read-Write high availability          You can increase the node count to 3–10003. If available resources are insufficient, please contact us.           For read high availability: The number of nodes must be greater than or equal to 3, with 1 node as a Follower, and the rest as Observers.          For read-write high availability: The number of nodes must be greater than or equal to 5, with 3 nodes as Followers and the remaining nodes as Observers.          Network       vpc-f0m0cm2m / test         Subnet          subnet-6n9oimbn / 10.22.13.1         125 subnet IPs in total, 107available.         If no IP address is available in the current subnet, you can switch the subnet.	FE node spec	4-core 16 GB / 3 node(s) / CLOUD_HSSD 200 GB	
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3. Click **Confirm**. After completing the payment, the cluster will start the scale-out process, which generally takes about 5-15 minutes.

4. After the scale-out is complete, go to the cluster details page where you can peek at the list of nodes after scale-out.

## Scale-in

It is recommended to perform scale-in operations on one node at a time. During the scale-in process, system reading and writing can still be carried out, but there might be some fluctuations.

Based on the requirements for architectural stability, there are the following requirements for the number of target nodes after scale-in:

The number of FE nodes needs to be odd.

The number of FE and BE nodes in a high-availability pattern cluster should be equal to or greater than 3. Minimum quantity requirements for node types: At least 1 FE node and at least 3 BE nodes are required. To ensure the safety of data and a reasonable number of replicas, before scale-in, the storage data of the node to be removed needs to be migrated to the normal node. The specific time of scale-in execution depends on the size of the data, ranging from a few minutes to several hours. Please carry it out during non-peak business hours.

### **Operation Guide**

1. Sign in to Tencent Cloud TCHouse-D Console, choose **Operation** > **Scale-in** in the cluster you want to operate.

Cluster list 🔇 ap	-hongkong 5 • Other re	gions 5 🔻						
Create cluster								Separate search items wi
Resource ID/Name	Status (progress)	Health status	FE node	BE node	Kernel version	AZ	Network	Subnet
xcfxfvsdf 💉	Serving	Healthy	Standard, 3 node(s) 4-core 16GB, 200 GB	High IO, 3 node(s) 16-core 64 GB, 3570 GB	2.0	ap-hongkong-2	test	10.22.13.1
20内核集群	Serving	Healthy	Standard, 1 node(s) 8-core 32GB, 200 GB	High IO, 3 node(s) 16-core 64 GB, 3570 GB	2.0	ap-hongkong-2	test	10.22.13.1

2. On the cluster scale-in page, select the node to be scaled in; the fee will be displayed in real-time.

3. Click **Confirm**. The cluster will begin the data migration and scale-in operations.



Remo recon	-in can be performed on only wing multiple BE nodes at a ti nmend you remove them one I s and writes on the cluster are	me may cause c oy one.	lata loss				More
Cluster ID/name	cdwdoris-n3m4593c/xcfxfvs	df	AZ		ap-hongkong-	2	
3illing mode	Pay-as-you-go	I	High ava	ilability	Read high ava	ilability	
Kernel version	2.0						
FE node spec	4-core 16 GB / 3 node(s) / C	LOUD_HSSD 20	00 GB				
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Node to scale	<b>O</b> FE node BE node						
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4. After the scale-in is complete, go to the cluster details page, where you can view the list of nodes after scale-in.

# **Configuration Adjustment**

Last updated : 2024-06-27 10:46:19

You can use the configuration adjustment feature to adjust the specifications of all FE/BE nodes within the cluster. The compute nodes will restart all nodes of the same type, making the system unreadable and unwritable. Please proceed during off-peak business hours. Upgrading the storage configurations will not affect the cluster's usage.

Standard nodes support both computing configuration adjustment and scaling up of storage configurations. High-performance nodes do not support scale-up and scale-down in either compute or storage specifications.

# **Operation Guide**

1. Log in Tencent Cloud TCHouse-D Console, and select **Operation > Scale up/down** in the cluster where the operation is needed.

Cluster list S ap-s	ingapore 4 • Other regio	ons 6 🔻						
Create cluster								Separate se
Resource ID/Name	Status (progress)	Health status	FE node	BE node	Kernel version	AZ	Network	Subnet
6	Serving	Healthy	Standard, 3 node(s) 4-core 16GB, 200 GB	Standard, 5 node(s) 8-core 32 GB, 200 GB	1.2	ap-singapore-2	test-vpc	test

2. In the Scale up/down pop-up for the cluster, select the type of node, computing configuration, and storage configuration to adjust.

When scaling up, the computing configuration and storage configuration of nodes can be independently or simultaneously scaled up.

When scaling down, only the computing configuration or storage configuration of a node can be scaled down individually.

	an perform specification adjustment on compute nodes. This operation restarts the	
reconf	figured nodes. Make sure that you perform this operation during off-peak hours.	
	torage specifications can be upgraded without a restart. This does not affect the cluster and write performance.	
	you reconfigure the computing specification of an FE node, the XMX parameter of the is automatically adjusted. You can view the parameter on the configuration management	
Cluster ID/name		
Region/AZ	ap-singapore/ap-singapore-2	
Billing mode	Pay-as-you-go	
High availability	High availability (HA)	
FE node spec	4-core 16 GB / 3 node(s) / CLOUD_SSD 200 GB	
BE node spec	8-core 32 GB / 5 node(s) / CLOUD_PREMIUM 200 GB	
BE node spec Node to scale	8-core 32 GB / 5 node(s) / CLOUD_PREMIUM 200 GB	
Node to scale	FE node BE node	
Node to scale	FE node     BE node       4-core 16 GB     8-core 32 GB     16-core 64 GB	
Node to scale	FE node       BE node         4-core 16 GB       8-core 32 GB       16-core 64 GB         24-core 96 GB(sold out)       32-core 128 GB       48-core 192 GB(sold out)	
Node to scale Compute spec	FE node       BE node         4-core 16 GB       8-core 32 GB       16-core 64 GB         24-core 96 GB(sold out)       32-core 128 GB       48-core 192 GB(sold out)         64-core 256 GB(sold out)       32-core 128 GB       48-core 192 GB(sold out)	
Node to scale Compute spec	• FE node       BE node         4-core 16 GB       8-core 32 GB       16-core 64 GB         24-core 96 GB(sold out)       32-core 128 GB       48-core 192 GB(sold out)         64-core 256 GB(sold out)       32-core 128 GB       48-core 192 GB(sold out)         64-core 256 GB(sold out)       48-core 192 GB(sold out)       48-core 192 GB(sold out)	
Node to scale Compute spec	FE node       BE node         4-core 16 GB       8-core 32 GB       16-core 64 GB         24-core 96 GB(sold out)       32-core 128 GB       48-core 192 GB(sold out)         64-core 256 GB(sold out)       32-core 128 GB       48-core 192 GB(sold out)         64-core 256 GB(sold out)       32-core 128 GB       48-core 192 GB(sold out)         64-core 256 GB(sold out)       32-core 128 GB       48-core 192 GB(sold out)         64-core 256 GB(sold out)       GB       32000 GB at most for a single node	

3. Click **Confirm**. The cluster will start the scaling operation, which generally takes 5 to 15 minutes.

# Monitoring and Alarm Configuration Cluster Monitoring

Last updated : 2024-06-27 10:46:35

Tencent Cloud TCHouse-D provides a wide range of monitoring metrics, allowing you to grasp the operating status of the cluster, and configure alarms based on metrics to pay attention to operation information in real time and achieve quick responses.

## Monitoring Overview

Log in to Tencent Cloud TCHouse-D Console, click on cluster **ID/Name** to enter the cluster detail page, and click on **Cluster Monitoring** to check various performance metrics of the cluster.

<ul> <li>♦</li> </ul>	Cluster Monitoring				
Cluster Info	BE metrics FE me	etrics Business monitoring			
Cluster Monitoring			Set a	alarms Select nodes Al	I nodes  Time range
Accounts	Press and hold the Alt/0	Dption key to scroll to zoom the chart and d	ag to move it.		
Data ^	My follows All	<ul> <li>Machine monitoring</li> </ul>			
<ul> <li>Backup And Restore</li> </ul>	Machine monitoring Compaction	BeUp 1.6		BrokerUp	
<ul> <li>Database Auditing</li> </ul>	Others			1.4	
Queries  Query Analysis		0.8			
• SQL Studio 🗹			0 10:45 10:50 10:55 11:00 11:05 11:10 11:15		30 10:35 10:40 10:45 10:50 10:55 11:00 11:05
<ul> <li>Configurations</li> <li>Modify Configurations</li> </ul>		-O- 10.22.0.12	- <b>O</b> - 10.22.0.3 - <b>O</b> - 10.22.0.35	-O	- 10.22.0.12 -O- 10.22.0.3 -O- 10.22.0.35
Change History		6.27 6.24			÷ ^
Nodes Log Analysis		6.21		0.8	
Operation Logs		6.18 6.15 6.12		0.4	Axon Ang
			40 10:45 10:50 10:55 11:00 11:05 11:10 11:15 -O- 10.22.0.3 -O- 10.22.0.35		- 10.22.0.12 -O- 10.22.0.3 -O- 10.22.0.35

### Note

You can view and export the data for specific monitoring metrics.

Monitoring collection interval is 10 seconds. The timing granularity exhibited can be selected by the user, and the smallest granularity is 1 minute. The monitoring data within the timing granularity are aggregated and shown. The

aggregation logic of metric data is to take the maximum.

# Feature Details

In general, cluster monitoring is divided into three modules: BE metric monitoring, FE metric monitoring, and business monitoring.

You can adjust the time range of monitoring data to view historical data in different time periods. You can also adjust the timing granularity of monitoring data to view data on different dimension levels.

The monitoring page supports auto-refresh, which updates monitoring charts automatically according to the refresh interval selected by the user, achieving real-time data viewing.

Cluster Monitoring				
BE metrics FE m	etrics Business monito	ring Sele	ect nodes	
		Set alarm	alarms Select nodes All nodes	▼ Time range
Press and hold the Alt/	Option key to scroll to zoom the o	hart and drag to move it.		
My follows All	<ul> <li>Machine monitorii</li> </ul>	ng		
Machine monitoring	BeUp	🌲 ★ 🖸 🚥	BrokerUp	
Compaction	1.6		1.6	
Others	1.4		1.4	
	1.2		1.2	
	1		1	
	0.8		0.8	
	0.6		0.6	
	0.4 10:20 10:25 10:30	10:35 10:40 10:45 10:50 10:55 11:00 11:05 11:10 11:15	0.4 10:20 10:25 10:30 10:35	10:40 10:45 10:50 10:55 11:00 11:05 11:10 11:15
	-0- 1	0.22.0.12 -O- 10.22.0.3 -O- 10.22.0.35	-0- 10.22.0	.12 10.22.0.3 10.22.0.35

You can add metrics that you wish to focus on to My Follows to quickly view them.

Add metrics to My follows: Click the star-button in the metric chart or the star-button next to the corresponding metric in the metric list.

View favorite metrics: You can switch to **My Follows** in the metric list and view all important metrics being focused.



# Tencent Cloud TCHouse-D Service Monitoring



Cluster monitoring data will be reported to Tencent Cloud Observability Platform, where you can retrieve the monitoring data.

# **FE Monitoring Metric**

Last updated : 2024-06-27 10:47:28

On the FE metric page, you can view various FE metrics, as shown in the table below.

Category	Metric Name	Unit	Metric Alarm Name
	FeUp	-	fe_up
	BrokerUp	-	broker_up
	CpuUsage	%	cpu_usage
	MemUsage	%	mem_usage
	DiskUsage	%	disk_usage
	NodeLoad1	-	node_load1
Machine Monitoring	NodeLoad5	-	node_load5
C	NodeLoad15	-	node_load15
	NodeNetworkTransmitBytesTotal	Bytes/s	node_network_transmit_bytes_total
	NodeNetworkReceiveBytesTotal	Bytes/s	node_network_receive_bytes_total
	NodeDiskReadsCompletedTotal	Count/s	node_disk_reads_completed_total
	NodeDiskWritesCompletedTotal	Count/s	node_disk_writes_completed_total
	SystemDiskUsage	%	system_disk_usage
	DorisFeQps	Count/s	doris_fe_qps
	DorisFeQueryLatencyMsQuantile075	ms	doris_fe_query_latency_ms_quantile_07
	DorisFeRps	Count/s	doris_fe_rps
Query	DorisFeQueryErrRate	%	doris_fe_query_err_rate
	DorisFeConnectionTotal	Count	doris_fe_connection_total
	DorisFeRequestTotal	Count	doris_fe_request_total
	DorisFeQueryTotal	Count/s	doris_fe_query_total
Load	DorisFeRoutineLoadRows	Count/s	doris_fe_routine_load_rows

DorisFeRoutineLoadErrorRows	Count/s	doris_fe_routine_load_error_rows
DorisFeJobAlterRollupRunning	Count	doris_fe_job_alter_rollup_running
DorisFeJobAlterSchemaChangeRunning	Count	doris_fe_job_alter_schema_change_runr
DorisFeJobLoadSparkUnknown	Count	doris_fe_job_load_spark_unknown
DorisFeJobLoadSparkPending	Count	doris_fe_job_load_spark_pending
DorisFeJobLoadDeleteUnknown	Count	doris_fe_job_load_delete_unknown
DorisFeJobLoadDeletePending	Count	doris_fe_job_load_delete_pending
DorisFeJobLoadInsertUnknown	Count	doris_fe_job_load_insert_unknown
DorisFeJobLoadInsertPending	Count	doris_fe_job_load_insert_pending
DorisFeJobLoadBrokerUnknown	Count	doris_fe_job_load_broker_unknown
DorisFeJobLoadBrokerPending	Count	doris_fe_job_load_broker_pending
DorisFeJobLoadMiniUnknown	Count	doris_fe_job_load_mini_unknown
DorisFeJobLoadMiniPending	Count	doris_fe_job_load_mini_pending
DorisFeJobLoadHadoopUnknown	Count	doris_fe_job_load_hadoop_unknown
DorisFeJobLoadHadoopPending	Count	doris_fe_job_load_hadoop_pending
DorisFeRoutineLoadReceiveBytes	Bytes/s	doris_fe_routine_load_receive_bytes
DorisFeJobInsertLoading	Count	doris_fe_job_insert_loading
DorisFeJobInsertFinished	Count	doris_fe_job_insert_finished
DorisFeJobInsertCancelled	Count	doris_fe_job_insert_cancelled
DorisFeJobRoutineLoadNeedSchedule	Count	doris_fe_job_routine_load_need_schedu
DorisFeJobRoutineLoadRunning	Count	doris_fe_job_routine_load_running
DorisFeJobRoutineLoadPaused	Count	doris_fe_job_routine_load_paused
DorisFeJobRoutineLoadStopped	Count	doris_fe_job_routine_load_stopped
DorisFeJobRoutineLoadCancelled	Count	doris_fe_job_routine_load_cancelled
DorisFeJobRoutineBrokerFinished	Count	doris_fe_job_routine_broker_finished



1			
	DorisFeJobRoutineBrokerLoading	Count	doris_fe_job_routine_broker_loading
	DorisFeJobRoutineBrokerCancelled	Count	doris_fe_job_routine_broker_cancelled
	DorisFeTxnFailed	Count/s	doris_fe_txn_failed
	DorisFeTxnReject	Count/s	doris_fe_txn_reject
Scheduling	DorisFeScheduledTabletNum	Count	doris_fe_scheduled_tablet_num
and	DorisFeTxnBegin	Count/s	doris_fe_txn_begin
Transaction	DorisFeTxnSuccess	Count/s	doris_fe_txn_success
	DorisFeReportQueueSize	Count	doris_fe_report_queue_size
	DorisFeMaxTabletCompactionScore	Count	doris_fe_max_tablet_compaction_score
JVM	JvmOldGcCount	Count	jvm_old_gc_count
	JvmOldGcTime	ms	jvm_old_gc_time
	JvmThreadCount	Count	jvm_thread_count
	JvmThreadPeakCount	Count	jvm_thread_peak_count
	JvmYoungGcCount	Count	jvm_young_gc_count
	JvmYoungGcTime	ms	jvm_young_gc_time
	JvmThreadNewCount	Count	jvm_thread_new_count
	JvmThreadRunnableCount	Count	jvm_thread_runnable_count
	JvmThreadBlockedCount	Count	jvm_thread_blocked_count
	JvmThreadTimedWaitingCount	Count	jvm_thread_timed_waiting_count
	JvmThreadTerminatedCount	Count	jvm_thread_terminated_count
	JvmThreadWaitingCount	Count	jvm_thread_waiting_count
	JvmYoungSizeBytesUsed	Bytes	jvm_young_size_bytes_used
	JvmYoungSizeBytesPeakUsed	Bytes	jvm_young_size_bytes_peak_used
	JvmYoungSizeBytesMax	Bytes	jvm_young_size_bytes_max
	JvmHeapSizeBytesMax	Bytes	jvm_heap_size_bytes_max

JvmHeapSizeBytesCommitted	Bytes	jvm_heap_size_bytes_committed
JvmHeapSizeBytesUsed	Bytes	jvm_heap_size_bytes_used
JvmNonHeapSizeBytesCommitted	Bytes	jvm_non_heap_size_bytes_committed
JvmNonHeapSizeBytesUsed	Bytes	jvm_non_heap_size_bytes_used
JvmOldSizeBytesUsed	Count	jvm_old_size_bytes_used
JvmOldSizeBytesPeakUsed	Count	jvm_old_size_bytes_peak_used
 JvmOldSizeBytesMax	Count	jvm_old_size_bytes_max

# **BE Monitoring Metric**

Last updated : 2024-06-27 10:47:43

Category	Metric Name	Unit	Metric Alarm Name
	BeUp	-	be_up
	BrokerUp	-	broker_up
	CpuUsage	%	cpu_usage
	MemUsage	%	mem_usage
	DiskUsage	%	disk_usage
	NodeLoad1	-	node_load1
Machine Monitoring	NodeLoad5	-	node_load5
0	NodeLoad15	-	node_load15
	NodeNetworkReceiveBytesTotal	Bytes/s	node_network_receive_l
	NodeNetworkTransmitBytesTotal	Bytes/s	node_network_transmit_
	NodeDiskReadsCompletedTotal	Count/s	node_disk_reads_compl
	NodeDiskWritesCompletedTotal	Count/s	node_disk_writes_comp
	SystemDiskUsage	%	system_disk_usage
	DorisBeCompactionBytesTotalBase	Bytes/s	doris_be_compaction_b
	DorisBeCompactionDeltasTotalCumulative	Count/s	doris_be_compaction_d
	DorisBeCompactionBytesTotalCumulative	Bytes/s	doris_be_compaction_b
Compaction	DorisBeCompactionDeltasTotalBase	Count/s	doris_be_compaction_d
	DorisBeTabletBaseMaxCompactionScore	Count	doris_be_tablet_base_rr
	DorisBeTabletCumulativeMaxCompactionScore	Count	doris_be_tablet_cumulat
	DorisBeCompactionUsedPermits	Count	doris_be_compaction_u
	DorisBeCompactionWaittingPermits	Count	doris_be_compaction_w
	-		-

On the BE metric page, you can view various BE metrics, as shown in the table below.

Load	DorisBeStreamingLoadCurrentProcessing	Count	doris_be_streaming_loa
	DorisBeStreamingLoadRequestsTotal	Count/s	doris_be_streaming_loa
	DorisBeStreamingLoadDurationMs	ms	doris_be_streaming_loa
	DorisBeStreamLoadTxnRequestBegin	Count/s	doris_be_stream_load_t
	DorisBeStreamLoadTxnRequestCommit	Count/s	doris_be_stream_load_t
	DorisBeStreamLoadTxnRequestRollback	Count/s	doris_be_stream_load_t
	DorisBeLoadBytes	Bytes/s	doris_be_load_bytes
	DorisBeLoadRows	Count/s	doris_be_load_rows
	DorisBeLoadChannelCount	Count	doris_be_load_channel_
	DorisBeRoutineLoadTaskCount	Count	doris_be_routine_load_t
	DorisBeStreamLoadPipeCount	Count	doris_be_stream_load_r
	DorisBeFragmentRequestDurationUs	μs	doris_be_fragment_requ
	DorisBePlanFragmentCount	Count	doris_be_plan_fragment
	DorisBeFragmentRequestsTotal	Count/s	doris_be_fragment_requ
	DorisBeFragmentEndpointCount	Count	doris_be_fragment_end
Query	DorisBeFragmentThreadPoolQueueSize	Count	doris_be_fragment_threa
	DorisBeQueryScanRows	Count/s	doris_be_query_scan_rc
	DorisBeSegmentReadSegmentRowTotal	Count/s	doris_be_segment_read
	DorisBeSegmentReadSegmentReadTotal	Count/s	doris_be_segment_read
	DorisBeTimeoutCanceledFragmentCount	Count/s	doris_be_timeout_cance
Other	DorisBeMemoryPoolBytesTotal	Bytes	doris_be_memory_pool_
	DorisBeMemoryAllocatedBytes	Bytes	doris_be_memory_alloca
	DorisBeProcessFdNumUsed	Count	doris_be_process_fd_nu
	DorisBeProcessFdNumLimitSoft	Count	doris_be_process_fd_nL
	DorisBeProcessFdNumLimitHard	Count	doris_be_process_fd_nu

DorisBeProcessThreadNum	Count	doris_be_process_threa
DorisBeThriftUsedClientsBroker	Count	doris_be_thrift_used_clie
DorisBeThriftUsedClientsBackend	Count	doris_be_thrift_used_clie
DorisBeThriftUsedClientsFrontend	Count	doris_be_thrift_used_clie
DorisFeTabletMaxCompactionScore	Count	doris_fe_tablet_max_coi
DorisFeTabletNum	Count	doris_fe_tablet_num
DorisBeDisksAvailCapacityStorage	Bytes	doris_be_disks_avail_ca
DorisBeSmallFileCacheCount	Count	doris_be_small_file_cacl
DorisBeChunkPoolReservedBytes	Bytes	doris_be_chunk_pool_re
DorisBeAllSegmentsNum	Count	doris_be_all_segments_
DorisBeAllRowsetsNum	Count	doris_be_all_rowsets_n
DorisBeUnusedRowsetsCount	Count	doris_be_unused_rowse
DorisBeRowsetCountGeneratedAndInUse	Count	doris_be_rowset_count_
DorisBeCacheCapacitySegmentMetaCache	Bytes	doris_be_cache_capacit
DorisBeCacheCapacityIndexPageCache	Bytes	doris_be_cache_capacit
DorisBeCacheCapacityDataPageCache	Bytes	doris_be_cache_capacit
DorisBeCacheCapacityLastestSuccessChannelCache	Bytes	doris_be_cache_capacit
Cumulative Number of Tablets Scheduled by Tablet Scheduler	Count	doris_fe_tablet_status_c
Cumulative Number of Unhealthy Tablets Checked	Count	doris_fe_tablet_status_c
DorisBeCacheUsageSegmentMetaCache	Bytes	doris_be_cache_usage_
DorisBeCacheUsageIndexPageCache	Bytes	doris_be_cache_usage_
DorisBeCacheUsageDataPageCache	Bytes	doris_be_cache_usage_
DorisBeCacheUsageLastestSuccessChannelCache	Bytes	doris_be_cache_usage_
DorisBeCacheUsageDeletebitmapAggcache	Bytes	doris_be_cache_usage_
DorisBeCacheUsageRatioSegmentMetaCache	%	doris_be_cache_usage_

DorisBeCacheUsageRatioIndexPageCache	%	doris_be_cache_usage_
DorisBeCacheUsageRatioDataPageCache	%	doris_be_cache_usage_
DorisBeCacheUsageRatioLastestSuccessChannelCache	%	doris_be_cache_usage_
DorisBeCacheUsageRatioDeletebitmapAggcache	%	doris_be_cache_usage_

# **Business Monitoring Metrics**

Last updated : 2024-06-27 10:47:58

On the business monitoring page, you can view various business metrics, such as slow query statistics, as shown in the table below.

Metric Name	Unit	Metric Name
DorisSlowQueryRecordsCount	Count	doris_slow_query_records_count
DorisUnhealthyTableCount	Count	doris_unhealthy_tablet_count

You can identify situations where the monitoring statistics query time exceeds the threshold, carry out corresponding troubleshooting and optimization, and improve system performance.

### Note:

When configuring monitoring alarms for business monitoring metrics, you need to select "TCHouse-D/FE ALARM" in the policy type. The reason is that such metric monitoring actually depends on the FE node.

Configure Alarm Rule			
Monitoring Type	Cloud Product Monitoring APM RUM Cloud Probe Monitor		
Policy Type	TCHouse-D / FE ALARM <ul> <li>2 exist. You can create 298 more static threshold policiesThe current account has 0 policies for</li> </ul>		
Тад	Tag Key Tag Value X		
	+ Add () Paste		
Alarm Object	Instance ID V Select object V		
Trigger Condition	Select Template O Configure manually		
	Metric Alarm		
	When meeting any • of the following metric conditions, the metric will trigger an alarm. Enable alarm level fe		
	Threshold O Static Dynamic (i) Type (i)		
	If cpu_usage v (statistical perior v > v (i) 0 % at 1 consecution		

# Alarm Configuration

Last updated : 2024-06-27 10:48:25

Tencent Cloud supports the creation of comprehensive and flexible alarm policies. All monitoring metrics can be set to raise alarms for any anomalies. The monitoring object can be all the clusters under your management, or a specific cluster or node.

Alarm rules support single or multiple combined metrics. Each metric can define alarm conditions for different time granularities.

Tencent Cloud supports self-defined alarm notification recipients and methods, and also allows the saving of a type of alarm notification as a template for reuse in multiple alarm policies.

# **Operation Guide**

BE metrics PE metrics Business monitoring

1. Enter the cluster monitoring page, and click **Set alarms** to create a new alarm policy.

2. In the newly opened **Create Alarm Policy** window, fill in the basic alarm information as per the table below, filter the instance object (cluster name) requiring configuration, select metric items, and configure the monitoring threshold.

Setting Option	Note
Policy Name	Name of the alarm policy being configured
Monitoring Type	Default Tencent Cloud Product Monitoring
Policy Type	Default CDWDORIS/BE Alarms or CDWDORIS/FE Alarms
Alarm Object	Select a cluster or node using the instance ID
Trigger condition	Configure alarm policies and related thresholds for metrics
Notification Template	Choose an existing template or create a new notification template

3. After configuration, click **Finish** to submit the alarm policy. For more information on detailed Tencent Cloud Observability Platform alarm policy, please refer to Create Alarm Policy.

### **Best Practice**



On the cluster details page, select **Cluster Monitoring** on the left to view various performance metrics for the cluster. Click **Set alarms** to jump directly to the following page.

Tencent Cloud	Overview Products • Cloud Data Warehouse for PostgreSQL Cloud Data Warehouse Tencent Cloud Warehouse-D Cloud Virtual Machine +
Observability Platform	← Create Alarm Policy
B Monitor Overview	
🕒 Dashboard 🗸	1 Configure Alarm > (2) Configure Alarm Policy Notification
E Instance Group	Basic Info
Alarm Management	Policy Name Up to 60 characters
🛆 Alarm List	
Alarm ^ Configuration	Remarks It can contain up to 100 characters
Alarm Policy	
<ul> <li>Silence Alarm</li> </ul>	Configure Alarm Rule
<ul> <li>(Ô) Trigger Condition Template</li> </ul>	Monitoring Type Cloud Product Monitoring APM RUM
Notification Template	Policy Type cdwdrs_be_alarm  2 exist. You can create 298 more static threshold policies The current account has 0 policies for dynamic alarm thresholds, and 2 Tag Tag Key Tag Value X
Cloud Native Monitor	ang may ang may ang mana ang may ang mana ang may ang mana ang m
Managed Service for Prometheus	+ Add () Paste
G Managed Service	Alarm Object Instance ID v 3(10.22.0.12, 10.22.0.3, 10.22 v
for Grafana	Trigger Oselect Template OConfigure manually Condition
Monitoring Platform	
🗉 Event Bridge 🖌	Metric Alarm
Data Usage Monitoring	When meeting any v of the following metric conditions, the metric will trigger an alarm. Enable alarm level feature.
Cloud Product Monitoring	Threshold Ostatic Opynamic (
Cloud Virtual Machine	Туре ①
Cloud Block Storage	If e
E: Cloud Load Balance	Add Metric
Cloud Database 👻	
Private Network *	Previous step Next step: Configure Alarm Notification
Cloud Object Storage	
Cloud File Storage	

### **Configuring Basic Information**

According to Tencent Cloud Observability Platform rule, FE alarms and BE alarms need to be configured as two separate alarm policies.



Configu Policy	re Alarm		$\bigcirc$	Configure Ala Notification
Basic Info				
Policy Name	Up to 60 c	haracters		
Remarks	It can cont	tain up to 1	00 charact	ers

### **Configuring Alarm Policy**

Monitoring Type: Select Cloud Product Monitoring.

Policy Type: Choose "TCHouse-D/BE ALARM" or "TCHouse-D/FE ALARM" (Note: Alarm for business monitoring metrics needs to be configured under "FE ALARM" type).

Tag: Optional and self-defined.

Alarm Object: Choose the specific alarming node according to the region and instance ID.

Configure Alarn	n Rule		
Monitoring Type	Cloud Product Monitoring	HOT HOT APM RUM	
Policy Type	cdwdrs_be_alarm	▼ 2 exist. You can create 298	more static threshold policies The current account has 0 policies for dynamic alarm thresholds, and 20 more policies can be created.
Tag	Tag Key	Tag Value	×
	+ Add   Paste		
Alarm Object	Instance ID * 3(10.22.0.1	2,10.22.0.3,10.22 *	

Trigger Condition: Choose to configure manually, and define the rules as needed. Below is an example of configuration:

Metric Alarm
When meeting any • of the following metric conditions, the metric will trigger an alarm. Enable alarm level feature.
Threshold Ostatic Opynamic () Type ()
If e v (statistical perior v v 0 0 % at 1 consecutive v then Alarm once an
Add Metric Alarms for multiple counters can be configured in the same policy. Click here

### **Configuring Alarm Notification**



After completing the above alarm rule configuration, you need to specify the scope of alarm notification recipients when an exception occurs. On Tencent Cloud Observability Platform, you need to set the users who are expected to receive the alarms, API callbacks, etc. as templates, and then associate the templates with the alarms.

Configure Ala	arm Notification		Click here to vi
To add an alarm	recipient (group), you need to select a notification template	r create one below. You can click the template name to add API calibacka Learn More 🗹	
Notification Template	Select Template Create Template		
	You have selected 1 notification template, and 2 more c	in be selected.	
	Notification Template Name	When using it for the first time, you	can create a nev
	Preset Notification Template 🗹	template to the list below.	Alarm notifies the roo
Advanced Co	onfiguration(N/A, only metric alarm conditions are supported	o trigger elastic scaling)	

On Tencent Cloud Observability Platform, one alarm policy can be bound to multiple notification templates, and one notification template can also be used for multiple alarm policies. You can configure flexibly according to needs.

Alarm Policy A	0	Notification template Recipient M
Alarm Policy B	0	Notification template
Alarm Policy C	0	Recipient N
Alarm Policy D	0	Notification template receiver $\supset$
Aumroncyb		Notification template Recipient P

### **Viewing Alarm Configuration**

After completing the alarm configuration, you can preview existing policies in **Tencent Cloud Observability Platform > Alarm Management > Alarm Policies** and adjust the alarm policies as needed.

Observability Platform	Alarm Management						
B Monitor Overview	Alarm Records Policy M	anagement Basic Configuration	n				
() Dashboard +	<ol> <li>If you have any questions or</li> </ol>	r suggestions, scan QR code to join our	community on WeChat or WeCom.				
留 Instance Group							
Alarm Management	Create Policy Delete	More +					
Alarm List	Dolicy Name	Monitoring Type	Policy Type	Alarm Rule	Project <b>T</b>	Associated Instances	Notification Templ
Alarm - Configuration	policy-vdazvmov	Tencent Cloud services	TCHouse-D_BE ALARM	$e \ge 0\%,  (statistical period: 1 min) if the condition is met fo.$		1	Preset Notification 1
Alarm Policy     Silence Alarm	easonalarm1 policy-ru0j2hnd	Tencent Cloud services	TCHouse-D_BE ALARM	fe_up $\succ$ 0None. (statistical period: 1 min) if the condition i	. •	1	Preset Notification

# Account Privilege Management Account Privilege Management

Last updated : 2024-06-27 10:48:40

The Tencent Cloud TCHouse-D Console provides a visual interface for convenient and efficient account and privilege management of clusters.

### Account Management

1. Log in to Tencent Cloud TCHouse-D Console, click the target Cluster ID/Name and you can find the Accounts menu in the left list.

2. The Accounts page provides features for adding/deleting accounts, modifying privileges, resetting passwords.

← ● cdwdoris-n3m4593c	Accounts		
Cluster Info	• You can create a TCHouse-D a	ccount and grant it permissions such as management, query, and w	rite permissions on databases or tables.
Cluster Monitoring		ne cluster by modifying the host address that can be accessed by t a must reset the account password. This process may affect the rea	
Accounts	Add account		
Data			
Management	Account	Host (j)	Description
<ul> <li>Backup And Restore</li> </ul>	admin	%	grants for system user can't b
<ul> <li>Database Auditing</li> </ul>	eason	%	- <i>ji</i>
Queries			
Query Analysis			
• SQL Studio 🗹			

### **Adding Account**

1. Click the **Add account** button, fill in the database account, password, confirm password and description (optional), click **OK** to add a new account.

- 2. By default, new users have only read privileges for the information\_schema library and its tables.
- 3. Host: Supports individual IP addresses, or use % to imply no restrictions.

Account *	2-16 characters; supports lowercase letters, digits, and underscores; must start with a letter and
Password *	Enter Password
Confirm password *	Confirm Password
Host 🛈 *	%
Description	The description cannot exceed 256 characters and cannot start with http:// or https://

### **Deleting Account**

Deletion is irreversible. Please confirm that this account will not be used in the future before deleting.

After deletion, even if you immediately add an account with the same name, the privileges will be initialized.

### **Resetting Password**

Tencent Cloud TCHouse-D does not allow viewing existing account password, only allows password resets through the console.

If you forget your password, we suggest the following actions:

If you forget the Admin account password, please submit a ticket to Contact Us to reset the password.

If you forget the sub-account password, you can reset it through the console.

### **Permission Management**

The privilege management feature supports managing user privileges for database table data or Metadata, click **Modify permissions** to enter the privilege modification window. This window can also be used to **Permissions View**.

Modify permissions		
Account *	eason 🔻	
Host	%	
Grant Cluster Management Permissions ()	Enable	
Permission Configuration *		
	Permission Type Scope of application General permissions High-risk permissions	
	Global Permissions Globally Effective     Query     Insert     Alter     Delete     Create	
	Data Directory Name General permissions ⑦ High-risk permissions 🛕	
	<ul> <li>internal</li> <li>Query</li> <li>Insert</li> <li>Alter</li> <li>Delete</li> <li>Create</li> </ul>	
	Database/Table General permissions ⑦ High-risk permissions 🛕	
	▶ _internal_schema	
	▹ doris_audit_db       ▶ doris_audit_db     Query      Insert     Alter      Delete     Create	
	▹ information_schema	
	▶ mysql	
	Confirm	

### Authorization

Authorization scope: Supports granting cluster management privileges, or global, data catalog, database/table privileges.

### Granting cluster management privileges:

Once this privilege is activated, it grants the user cluster management privileges (Admin\_priv), including query, insertion, modification, deletion, and creation within global scope.

### Granting global, data catalog, database/table privileges:

Granting global privileges: Authorization will be effective globally.

Granting data catalog privileges: Authorization will apply to all databases and tables under the data catalog.

Granting database/table privileges: You can specify databases and tables for authorization.

### Note:

For external data sources with normal connectivity, we support granting query privileges to the corresponding catalog.

### **Privilege Category**

For internal data sources (internal), the privileges available include standard and high-risk privileges, as categorized below:

Standard privileges:

Query: Read-only privilege (Select) for databases and tables.

Insertion: Write privilege (Load, Insert, Delete) for databases and tables.



High-risk privileges:

Modify: Privilege to alter database tables, including renaming databases/tables, adding/deleting/changing columns, adding/deleting partitions, etc. (Alter).

Delete: Privilege to delete databases, tables, and views (Drop).

Create: Privilege to create databases, tables, and views (Create).

For external data sources (multi-catalog), only query privileges are supported.

### Modifying Access Host Address

You can use the console's settings to modify the host address authorized for your account, thereby restricting access to the cluster and enhancing its security.

### Note:

The admin account does not support host address modifications.

### **Setting Host**

When creating an account, you must set the host (default is %), support for individual IP address formats, and the use of % implies no restrictions.

Allows for the creation of accounts with the same name but different hosts; privileges, and passwords are independent of each other.

### Note:

Supports % for fuzzy matching (e.g., "192.%"), where "%" allows the user to sign in from any node.

### **Modifying Host**

Modifying the host address requires resetting the account's password. The account's read and write access may be affected during the modification process, so it is advised to disconnect with caution.



Modify Host		×
Resource ID/Name	cdwdoris-n3m4593c/eason	
Account	eason	
Host	%	
New Host 🛈 *	%	
New password *	Enter New password	Ø
Confirm password *	Confirm New password	Ø
	Confirm	
# Privilege Management Through a Client

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This document describes how Tencent Cloud TCHouse-D implements its privilege management from the kernel level.

## Overview

The kernel privilege management system refers to MySQL's mechanism, implementing table-level fine-grained control with role-based Access Control, and supports the allowlist mechanism.

Users and roles are associated, roles and privileges are associated; users are indirectly linked with privileges through roles.

When a role is deleted, users automatically lose all privileges of that role.

When the user and role dissociate, the user automatically loses all privileges of the role.

When the privileges of a role are added or deleted, the privileges of the user also change accordingly.

Authorizing a user is actually authorizing the user's default role. The default role cannot be deleted or assigned to others. When the user is deleted, the default role is also automatically deleted.









#### Glossary

#### User\_identity

In the privilege system, a user is recognized as a User Identity. User Identity consists of two parts: username and userhost. The username is made up of uppercase and lowercase English characters. Userhost indicates the IP from which the user link comes. User\_identity is presented in the form of username@'userhost', indicating username from userhost.

Another representation of user\_identity is username@['domain'], in which domain is a domain name that can be resolved through DNS or BNS (Baidu Naming Service) into a set of IP. Ultimately they are represented as a group of username@'userhost', so we will use username@'userhost' uniformly.

#### Privilege

The objects of privileges are nodes, data directories, databases, or tables, and different privileges represent different operation privileges.

#### Role

Doris can create self-defined named roles. A role can be considered as a collection of privileges. Newly created users can be assigned a role and are automatically granted the privileges that the role has. Subsequent changes in the role's privileges will also be reflected in the privileges of all users belonging to that role.

#### User\_Property

User properties directly subordinate to a user, not to a user identifier. That is, cmy@'192.%' and cmy@['domain'] both own the same set of user properties, which belong to user cmy, not to cmy@'192.%' or cmy@['domain']. User properties include but are not limited to: the maximum number of user connections, importing cluster configuration, etc.

#### **Supported Actions**

- 1. Create User: CREATE USER
- 2. Modify User: ALTER USER
- 3. Delete User: DROP USER
- 4. Authorize/Assign Role: GRANT
- 5. Revoking Authority/Role: REVOKE



6. Create Role: CREATE ROLE

7. Delete Role: DROP ROLE

8. View Current User Privileges and Role: SHOW GRANTS

9. View All User Privileges and Roles: SHOW ALL GRANTS

10. View Created Roles: SHOW ROLES

11. Set User Properties: SET PROPERTY

12. View User Properties: SHOW PROPERTY

13. Modify Password: SET PASSWORD

For detailed help on the above commands, you can access help in the MySQL client using help + command, such as HELP CREATE USER .

## **Specific Privileges**

#### Privilege Type

Doris currently supports the following privileges:

1. Node\_priv

Change privileges for nodes, including the addition, deletion, and offline operations of FE, BE, and Broker nodes.

Root users have this privilege by default. The user who has both Grant\_priv and Node\_priv can grant this privilege to other users.

This privilege can only be granted at the global level.

2. Grant\_priv

Privilege change privilege. Allows to execute operations including authorization, revocation, addition/deletion/change of user/ role etc.

However, users with this privilege cannot grant other users the node\_priv privilege unless they themselves have the node\_priv privilege.

3. Select\_priv

Read-only privileges to databases and tables.

4. Load\_priv

Write privileges to databases and tables, including Load, Insert, Delete, etc.

5. Alter\_priv

Change privileges to databases and tables, including renaming databases/tables, add/delete/change columns, add/delete partitions, etc.

6. Create\_priv

Privilege to create databases, tables, views.

7. Drop\_priv

Privilege to delete databases, tables, views.

8. Usage\_priv Privilege to use resources.

#### Privilege Hierarchy

According to the different scope of privileges, the privileges of the table can be divided into the following four levels:

1. GLOBAL LEVEL: the privileges on \*.\*.\* granted by the GRANT statement. The granted privileges are applicable to any table in any database.

2. CATALOG LEVEL: the privileges on ctl.\*.\* granted by the GRANT statement. The granted privileges are applicable to any table in the designated Catalog.

3. DATABASE LEVEL: the privileges on ctl.db.\* granted by the GRANT statement. The granted privileges are applicable to any table in the designated Database.

4. TABLE LEVEL: the privileges on ctl.db.tbl granted by the GRANT statement. The granted privileges are applicable to the designated table in a designated database.

Privilege levels for resources are divided into two levels:

1. GLOBAL LEVEL: the privileges on 🔹 granted by the GRANT statement. The granted privileges are applicable to resources.

2. RESOURCE LEVEL: the privileges on resource\_name granted by the GRANT statement. The granted privileges are applicable to a specific resource.

#### ADMIN/GRANT Privilege Description

The ADMIN\_PRIV and GRANT\_PRIV privileges owning the **Grant Privilege** are rather special. This document explains each operation related to these two privileges.

1. CREATE USER

The user with ADMIN privileges or GRANT privileges at the GLOBAL and DATABASE levels can create a new user. 2. DROP USER

A user with ADMIN privileges or GRANT privileges at the global level can delete a user.

3. CREATE/DROP ROLE

A user with ADMIN privileges or GRANT privileges at the global level can create a role.

4. GRANT/REVOKE

The user with ADMIN privileges or GLOBAL-level GRANT privileges can grant or revoke the privileges of any user. The user with CATALOG-level GRANT privileges can grant or revoke the privileges of any user for the specified CATALOG.

The user with DATABASE-level GRANT privileges can grant or revoke the privileges of any user for the specified database.

The user with TABLE-level GRANT privileges can grant or revoke the privileges of any user for the specified table in the specified database.

5. SET PASSWORD

The user with ADMIN privileges or GLOBAL-level GRANT privileges can change the password of any user.

Normal users can change the password for their corresponding UserIdentity. The corresponding UserIdentity can be viewed through the SELECT CURRENT\_USER(); command.

The user with non-GLOBAL-level GRANT privileges cannot change the password of existing users, it can only be specified when creating a user.

#### **Other Descriptions**

1. During Doris initialization, the following users and roles are automatically created:

Operator role: This role has Node\_priv and Admin\_priv, that is, all privileges on Doris.

Admin role: This role has Admin\_priv, that is, all privileges except node changes.

root@'%': root user, allowed to log in from any node as operator.

admin@'%': admin user, allowed to log in from any node as admin.

2. It is not supported to delete or change the privileges of the default created role or user.

3. There is only one user with the operator role, that is, Root. Multiple users can be created for the admin role.

4. Description of operations that may cause conflicts:

Domain and IP conflict:

Assuming the following user is created: CREATE USER cmy@['domain']; , and authorization: GRANT SELECT\_PRIV ON \*.\* TO cmy@['domain']

The domain is resolved to two IPs: ip1 and ip2. Then, we separately authorized cmy@'ip1' once: GRANT

ALTER\_PRIV ON \*.\* TO cmy@'ip1'; , then the privileges of cmy@'ip1' will be modified to SELECT\_PRIV,

ALTER\_PRIV. And when we change the privileges of cmy@['domain'] again, cmy@'ip1' will not change accordingly. Repeated IP conflict:

Assuming the following users are created: CREATE USER cmy@'%' IDENTIFIED BY "12345"; , CREATE USER cmy@'192.%' IDENTIFIED BY "abcde";

In terms of priority, '192.%' takes precedence over '%', so when the user cmy tries to log in to Doris using the password '12345' from the machine 192.168.1.1, Doris will be rejected.

5. Forget password

If you forget the password and cannot log in to Doris, you can use the following command to log in to Doris without a password on the machine where the Doris FE node is located: mysql-client -h 127.0.0.1 -P query\_port
-uroot , after logging in, you can reset the password through the SET PASSWORD command.

6. No user can reset the password of the root user, except for the root user.

7. The ADMIN\_PRIV privilege can only be granted or revoked at the GLOBAL level.

8. In possession of the GLOBAL level GRANT\_PRIV is actually equivalent to having ADMIN\_PRIV, as the

GRANT\_PRIV at this level allows the granting of any privilege. Please be cautious.

9. current\_user() and user()

Users can SELECT current\_user(); and SELECT user(); respectively view current\_user and user . Where current\_user indicates which identity the current user has been authenticated by the system with, and user is the user's actual user\_identity .



Example:

Assume a user1@'192.%' is created, and a user1 from 192.168.10.1 Log in to the system, then the current\_user is user1@'192.%', while user is user1@'192.168.10.1'. All privileges are granted to a current\_user, and the actual user owns all the privileges of the corresponding current\_user.

## Typical Use Cases

Here are some typical use cases of the Doris privileges system.

#### Scenario 1

Users of the Doris cluster are divided into administrators (Admin), development engineers (RD), and users (Client). The administrator owns all the privileges of the whole cluster, mainly responsible for cluster building, node management etc. Development engineers are responsible for business modeling, including database creation, data import and alteration, etc. Users access different databases and tables to access data. In this scenario, ADMIN or GRANT privileges can be granted to administrators. RD can be granted CREATE,DROP,ALTER,LOAD,SELECT privileges on any or specific databases and tables. For clients, SELECT privileges can be granted to administrators of the tables. For clients, SELECT privileges can be granted on any or specific databases and tables. Also, different roles can be created to simplify the authorization process for multiple users.

#### Scenario 2

There are multiple businesses within a cluster, each of which may use one or more data. Each business needs to manage its own users. In such a scenario, the admin user can create a user with the DATABASE level GRANT privileges for each database. This user can only authorize the specified database to users.

#### Blocklist

Doris itself does not support blocklist, only has an allowlist feature, but we can simulate a blocklist in some ways. Suppose a user named user@'192.%' is created first, indicating users from 192.\* are allowed to sign in. If now we want to prohibit users from 192.168.10.1 from signing in, we can create another user cmy@'192.168.10.1', and set a new password. As the priority of 192.168.10.1 is higher than that of 192.%', users from 192.168.10.1 will no longer be able to use the old password to log in.

## More help

For more detailed syntax on privilege management, refer to the GRANTS command manual. You can also input HELP GRANTS in the MySQL client command line to access more help information.

# Data Management Data Backup

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Tencent Cloud TCHouse-D supports the feature of transferring current data as a file through Broker Backup to a remote storage system and restoring the data to any cluster from the remote storage system. This feature can be used for one-time or regular snapshot backups and also implementations of data migration between different clusters.

## **Operation Guide**

1. Enter Cluster List and click Cluster ID/Name you want to back up.

2. On the cluster management page, click **Data Management** > **Backup And Restore** on the left to go to the Backup Recovery page. If the Backup service has not been turned on, authorization should be performed first, and a COS bucket for storing data should be selected.

Configure backup service						
Author	orize role > 2 Select COS bucket					
i) You	can configure only one COS bucket for backup.					
COS bucket	Select an existing COS bucket or create a COS bucket I	φ				
	Confirm Cancel					

3. After enabling the Backup service, the available operations include: periodic backup, one-time backup, crosscluster data migration. The Backup feature allows you to choose any database/table to backup, and the data will be stored permanently after a successful backup.

#### Note:

One-time Backup does not affect the periodic backup policy, but only one BACKUP or RESTORE task can be executed for the same database table at the same time.

The COS bucket path supports changes. After the changes, the new backup snapshot will be written to the new COS bucket, and the backup snapshot stored in the old COS bucket can still be restored.

After backing up the data to the COS, it will be stored as a single copy.

• A data backup or res							
	store task will fail if a cluster r	restart is performed, for example,	after scale-in/out, scale-up/do	wn, or parameter configuration. Ir	n this case, try again after the restar	t is complete.	
eriodic backup Or	ne-time backup Dat	a migration					
	ten benteren en						
Backup/Migration tas	sks Instances						
Backup/Migration tas	sks Instances	Q Ø					
	Creator T	Q 🗘 Task type T	Task status T	Execution times	Last execution status	Last running time 🗘	Operation
Enter a task name			Task status ▼ Completed	Execution times	Last execution status Backup successful.	Last running time \$ 2024-05-31 00:12:29	Operation View instance Edit More ▼
Enter a task name Task name	Creator T	Task type <b>T</b>				-	

## Data Backup Feature Description

You can perform data backup and data migration operations on the Backup Recovery page in Tencent Cloud TCHouse-D. Using the data backup feature, you can perform a one-time backup of the data or plan periodic backup tasks.

#### Note:

If the Backup or Restore task fails due to cluster restart (such as Scale-out, Scale-in, vertical configuration, parameter configuration operations, etc.), try again after system restart.

#### **One-time Data Backup**

When creating a one-time backup task, you can choose the execution method: scheduled execution, or immediate execution.

The granularity of backup can be chosen: backup by table, backup by database, or full backup.

	one backup task can be executed for the sam rt errors.	ne database or table at a time.	If there is already an ongoing bac	ckup task, subsequent tasks will	
After	data is backed up to COS, it will be stored as	a single replica.			
Scheduling co	onfigurations				
ask name *	20240606-16-03-Backup				
	6-36 characters; supports Chinese charact	ters, letters, digits, -, and _			
Destination COS bucket					
xecution	Scheduled Immediate				
nethod •					
nethod * Execution period *	Select date 📩 Select an execut	tion period 🔻			
Execution		tion period 🔻			
eriod *		lion period			
eriod * Backup scope	e	ion period 🔹	Selected: 0		
eriod * Backup scope	e Database Full	tion period	Selected: 0 Database/Table	Backup size	
eriod * Backup scope	e Database Full Select Database/Table		Database/Table	Backup size data tables	
eriod * Backup scope	e Table Database Full Select Database/Table Search by keyword	٩	Database/Table		
eriod * Backup scope	e Select Database Full Select Database/Table Search by keyword Database/Table  i	٩	Database/Table		
eriod * Backup scope	e Table Database Full Select Database/Table Search by keyword Database/Table  Internal_schema	٩	Database/Table		
eriod * Backup scope	e Select Database Full Select Database/Table Search by keyword Database/Table  i	٩	Database/Table		

#### Periodic Data Backup

When creating a periodic backup task, you can configure items including: effective cycle, scheduling cycle, and execution time. After the successful creation, the backup task will be executed at the specified time according to the scheduling cycle, within the effective cycle.

One-time Backup does not affect the periodic backup policy, but only one BACKUP or RESTORE task can be executed for the same database table at the same time.

Supports the creation of multiple periodic backup tasks, but if multiple tasks perform backup on the same table at the same time, subsequent tasks will all report errors. In order to ensure data integrity, you can re-backup through the "One-time Backup Data" feature after the previous backup task ends.



	dic backup task					
repo	y one backup task can be executed for the san ort errors.		a time. If th	nere is already an ongoing back	kup task, subsequent tasks will	
<ul> <li>Afte</li> </ul>	r data is backed up to COS, it will be stored as	s a single replica.				
Scheduling c	configurations					
ask name *	20240606-16-05-Backup					
	6-36 characters; supports Chinese charac	ters, letters, digits, -, and	d _			
Destination COS bucket						
Validity *	Select time Select time	ii -				
Frequency *	day(s) 👻					
Frequency * Execution period *	day(s)    Select an execution period					
Execution	Select an execution period					
Execution period *	Select an execution period					
Execution period * Backup scop	Select an execution period		Se	elected: 0		
Execution period * Backup scop	Select an execution period	Q	Se	elected: 0 Database/Table	Backup size	
Execution period * Backup scop	Select an execution period	Q. Size	Se	Database/Table	Backup size ata tables	
Execution period * Backup scop	Select an execution period		Se	Database/Table		
Execution period * Backup scop	Select an execution period  Select Database Full Select Database/Table Search by keyword Database/Table		Se	Database/Table		
Execution period * Backup scop	Select an execution period		Se	Database/Table		

## Data Recovery

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Tencent Cloud TCHouse-D supports backing up current data in the form of a file via Broker to a remote storage system, and can restore data to any cluster from the remote storage system. This feature can be used to take one-time or regular snapshot backups of data, or to migrate data between different clusters.

## **Operation Guide**

1. After entering the Backup Recovery page, you can view all tasks in the list below, click **Operation > View Instance** to view all instances under the corresponding task. For instances that have successfully backed up, you can click **Restore data** in **Operation** to perform recovery actions. In **Instances**, you can also view all instances that were recently executed.

Backup And Restore	Scale out Scale up/down
Backup service Chabled	
COS bucket	
• A data backup or restore task will fail if a cluster restart is performed, for example, after scale-in/out, scale-up/down, or parameter configuration. In this case, try again after the rest	estart is complete. More
Periodic backup One-time backup Data migration	
	Click here to restore data
Backup/Migration tasks Instances	
Snapshot start time 2024-05-30 ~ 2024-06-06 🛅	parate keywords with " "; press Enter to separate filter this ${\sf Q}$ $\phi$
Instance name Task name Task type ¥ Instance st ¥ Snapshot generation start - end & Backup path	Size befor Size after Operation
Backup         2024-05-31 00:12:29-2024-05-31 00:12:53           snapshot_qyzsq88p         One-time backup         successful.	276.25MB 92.09MB Backup details Restore data More T
Total items: 1	10 💌 / page 🛛 🖂 1 🔢 1 1 1 page 🕞 🕅

Click the Backup Path to view the COS path, COS bucket, snapshot path, and support one-click copy.

2. Click **Restore data** to specifically select the data tables planned for recovery, you can choose whether you want to use the backup table's configuration, including the number of table replicas, dynamic partition open status, etc. **Note:** 

Backup data will be restored to a database with the same name in the current cluster according to the table dimension, without the need to pre-create a database or table.

During data recovery, if a "table with the same name" exists under the target database, the recovery task will fail. It is recommended to avoid this by changing/deleting the target table.

(i) • Backup data will be restored to the curr		and the strength of the second s	al a success of the scheme back to
<ul> <li>If there is a "table with the same name" recommended to avoid it by changing/o</li> </ul>		covery task will fail. If there is a table with	the same name, it is
After data recovery, the backup table's	configurations, including the numbe	r of table replicas and the status of the dy	namic partition, will be retained.
estore Scope			
store Scope 🛛 🔾 Restore by Table 🔷 Resto	ore by Database OFull Restore		
lect Database/Table		Selected: 0	
Search by keyword	Q	Database/Table	Size
Database/Table	Size		
Database, table	0120	Select dat	ta tables
doris_audit_db			
	$\leftrightarrow$		
urce Kernel Version 2.0		Target Kernel Version 2.0.7	

3. After making your selection, click Confirm to start the backup recovery process.

Backup recovery generally requires a certain amount of time to wait, which is related to the amount of data, cluster scale, number of tables, number of shards, degree of parallelism, etc.

To increase the recovery speed, you can contact us to change the configuration through Ticket, but it will require more memory.

## **Cross-Version Recovery Description**

Tencent Cloud TCHouse-D supports restoring data backed up under an older kernel version to a new kernel version cluster, but does not support restoring data backed up in a new version to an older version. The current supported version correspondence is as follows:

Source Cluster Kernel Version	Target Cluster Kernel Version
0.15	0.15, 1.0.X
1.0.X	1.0.X, 1.1.0, 1.1.1, 1.1.2
1.1.0, 1.1.1, 1.1.2	1.1.X
1.1.3, 1.1.4, 1.1.5	1.1.3, 1.1.4, 1.1.5, 1.2.X
1.2.X	1.2.X



## **Cross-Cluster DataMigration**

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Tencent Cloud TCHouse-D supports backing up current data in the form of a file via Broker to a remote storage system, and can restore data to any cluster from the remote storage system. This feature can be used to take one-time or regular snapshot backups of data, or to migrate data between different clusters.

## Directions

1. Enter the Backup Recovery page, click **Data Migration**, and fill in the specific configuration information for crosscluster migration.

<ul><li>← ● </li></ul>	备份恢复         金份进行中         # 百支配         续员
集群信息	备创服务 💽 已开启
集群监控	C0S存储循
账户管理 数据管理 ^ ・ 备份恢复	<ul> <li>・ 数据备份或地型过程中合组集群重启(如进行水平扩容,水平指容,重直变起,参数定置等操作)而导致任务执行失败,语等待系统重虑后重新答试!</li> <li>・ 支持为当前集群设置周期备份、一次性备份:一次性备份不能被周期备份策略,但同一个建表同一时间只能有一个正在执行的 BACKUP 或 RESTORE 任务,</li> <li>・ 支持跨集群进行备份,即可以通过该方法将其他集群的数据通过备份和物質的方式进行数据迁移。這端备份需要用户输入有ADMIN权限的报号执行备份的命令。</li> </ul>
<ul> <li>数据库审计</li> </ul>	周期自分配置 一次性备份数据 数据迁移配置
<ul><li>     查询管理     <sup>^</sup> </li><li>     查询分析     </li></ul>	<b>备仍/迁移任务管理</b> 实例管理
· SQL工作区	请输入任务名称 Q Ø
配置管理 ^	任务各称
<ul> <li>修改配置</li> </ul>	暂无数据
・ 修改历史	井 0 条 10 ★ 条/页 14    1 /1页    H
节点管理	
操作记录	

2. The source of the data migration can be a Doris cluster or a COS bucket. Fill in the corresponding configuration information. After passing the connectivity check, you can choose the execution method, execution time, and migration range.

If you plan to migrate data from the Doris cluster, you need to fill in information including the source cluster FE\_Host, FE\_TCP\_PORT, and the USER ID and password with Admin privileges.

If you plan to migrate data from a COS bucket, you need to fill in the SecretId, SecretKey of the corresponding COS bucket, and the COS path for the data to be migrated.

#### Note:

If you want to migrate data from a created Tencent Cloud TCHouse-D cluster and the target and the far end are in the same VPC, it is recommended to use **Doris cluster** as data source.

If you want to cross VPC migration, or migrate backup data from any specified COS bucket, it is recommended to use **COS** as data source.

创建迁移任务		×
<ul> <li>迁移;</li> </ul>	会将源端Doris集群/COS桶中的数据、元数据迁移至当前集群。 过程中存在"同名表",迁移任务会失败。如存在同名表,建议通过更改/删除目标端表的方式规避。 DS中迁移数据时,若数据来源为自建Doris集群,请确保备份仓库下快照间不存在库/表重复。	
调度配置		
迁移任务名称 *	20240204-11-19-迁移	
	长度限制为6-36个字符,只允许包含中文、字母、数字、-、_	- 1
迁移数据来源	O Doris集群 ○ COS	
源端集群链接	HOST • 请输入DORIS FE HOST TCP PORT • 9030	1
	USER • 请输入USER PASSWORD • 请输入PASSWORD	18
	连接	
中转COS桶	<ul> <li>■ 默认cos桶 terry-test-1301087413</li> <li>● 自定义cos桶 ①</li> </ul>	
执行方式 *	○ 定时执行 ○ 立即执行	
执行时间 *	选择日期 🖬 请选择执行时间 🔻	
迁移范围		
迁移粒度 *	○ 按表迁移 ● 按库迁移 ● 全量迁移	
	选择数据库/表 已选择 0 张表	
	迁移取消	

3. After completing the configuration of the data source for the migration, you can set the execution method and time, and choose the library, table to be migrated, and click **Migrate** to execute.

4. When you are migrating data from the Doris cluster, by default, the data will be synchronized to the COS bucket on the target end. You can choose to restore data after the backup is completed during the configuration.

5. When you are migrating data from a COS bucket, the data will be automatically synchronized to the Doris cluster at the target end after the migration is completed.

#### Note:

Backup data will be restored to the database with the same name in the current cluster by table dimension, and there is no need to create a library table in advance.

## **Cross-Cluster Migration Feature Description**

#### **Migrating from Doris Cluster**

If you want to migrate data between two clusters in the same VPC, you can set the Doris cluster as the source of the data migration. To establish a connection with the remote cluster, you need to fill in information including the source cluster FE\_Host, FE\_TCP\_PORT, and the USER ID and password with Admin privileges.



After the migration is completed, the data of the remote Doris cluster will be synchronized to the COS bucket designated by the target cluster. You can also configure your own defined COS bucket, specify the migration COS path, and migrate the data to the CosPath/doris\_manage\_backup path.

迁移数据来源	<mark>○</mark> Doris集群	cos		
源端集群链接	HOST *	请输入DORIS FE HOST	TCP PORT *	9030
	USER *	请输入USER	PASSWORD *	请输入PASSWORD
	连接			
中转COS桶	默认cos桶 <mark>◯</mark> 自定义cosネ	terry-test-1301087413 甬 (ĵ)		
	Secretio	d ◆ 请输入SecretId	SecretKey *	请输入SecretKey
	请输入	,CosPath	连接检查	

You can choose whether to restore the data after migration completion. If checked, the data will be migrated to the specified COS bucket and also automatically synchronized to the target Doris cluster.

#### **Migrating from COS Bucket**

Once you have completed the data backup in the remote cluster, the backup instances will be stored in the selected COS bucket, and you can implement cross-cluster data migration based on this.

#### Note:

The data migration feature does not support cross-region. It is suggested to copy the data in the remote COS bucket to the COS bucket in the target region before migration.

To initiate a backup task that migrates from COS, you need to choose COS as the source of the migration data, and fill in the corresponding key of the remote COS bucket and the COS path of the data to be migrated.

User-defined key: You can create and manage user-defined keys on the API Key Management page. This key can be used to manage all the Tencent Cloud resources under your account. Keep it safe.

loud Access lanagement	API Key Management						
ashiboard sens ·	Soly target     W/ N/ to yopen the part scart denty of permission. To can expend a the Theore Could escores unity part account with Theoretic Unit (M).						
ser Groups silcles		1 For your property and service security. States level to low property and cleares 1 registring. France do not updated a finite your level new formation by any means (such as GRAds). For details, and Security Secting Finiter (S					
oles entity Providens ~ coess Key ^ API Keys	Last access to	ne" refers to the last time the key was used	to call TencentCloud API 3.0 APIs. It simply indicat	ignature when you call a Tencent Cloud API EF. For details, see so if the key has been activity used recently and is thus used to sys will only be visible at creation, please save them in a safe pla	determine whether the key		
	Create Key						
	APPID	Kay	0	reation Time	Last Access Time ①	Status	Operation
						On	Disable More Access Records
	100				100	0n	Disable More Access Records

The COS path to be migrated is formatted as https://\$domain/\$backup\_dir/\$snapshot\_dir.

\$domain: domain name (can be found in the Overview page of the corresponding bucket in Cloud Object Storage).

\$backup\_dir: The path of the folder where the file is located.

\$snapshot\_dir: Backup version snapshot folder path.

After the migration, the data will be automatically synchronized to the target Doris cluster.

#### **Cross-Version Migration Version Description**

Tencent Cloud Warehouse-D supports migrating data from old kernel version clusters to new kernel version clusters, but does not support migrating data backed up from new versions to old versions. The supported version correspondence is as shown in the following table:

Source Cluster Kernel Version	Target Cluster Kernel Version
0.15	0.15, 1.0.X
1.0.X	1.0.X, 1.1.0, 1.1.1, 1.1.2
1.1.0, 1.1.1, 1.1.2	1.1.X
1.1.3, 1.1.4, 1.1.5	1.1.3, 1.1.4, 1.1.5, 1.2.X
1.2.X	1.2.X

## **Database Auditing**

Last updated : 2024-06-27 10:51:43

The Database Auditing feature displays the historical information of all SQL operations within the cluster and supports search, filtering, and download.

Information displayed includes: time, client address, database name, user account, SQL type, SQL statement, returned rows, scanned rows, and execution time.

#### Note:

To ensure data security, Tencent Cloud Warehouse-D currently does not support collecting audit logs via ES/CLS. If needed, you can query the audit tables doris\_audit\_tbl\_\_\_ in the default library doris\_audit\_db\_\_\_ for analysis.

### **Operation Guide**

Log in to Tencent Cloud TCHouse-D Console, and select **Data Management > Database Auditing** from the left side list to enter the audit page.

← ● cdwdoris-n3m4593c	Database Auditing							
Cluster Info	Today Yesterday	Last 7 days Last 15 days	2024-06-06 00:00:00	~ 2024-06-06 16:49:09				
Cluster Monitoring	Time ↓	Client address	Catalog T	Database <b>T</b>	User account <b>T</b>	SQL type T		
Accounts					No data yet			
Data ^ Management	0 record(s) found. Up to the	0 record(s) found. Up to the latest 6,000 records are displayed. To view the complete data, download the database audit log.						
<ul> <li>Backup And Restore</li> </ul>								
Database     Auditing								

Select a time range: Supports customizing the time range to seek any time frame's audit log.

Search and filter: To precisely locate query records, you can filter the audit logs by the SQL statement. You can also filter by database name, user account, SQL type, and more.

Download data: Support exporting audit logs within a certain time range, with a single export limit of 20,000 records. If this limit is exceeded, adjust the time range.

#### Note:

During download, the conditions set by the user for search and the filters for database name, user account, and SQL type columns on the page will be retained.



Download database audit log	×
Cluster ID	
Log time 2024-06-06 00:00:00 ~ 2024-06-06 23:59:59	
Up to 20,000 log entries can be exported at a time. To export more entries, please set an appropriate time range and try again.	
Confirm	
Confirm Cancel	

# Query Management Query Analysis

Last updated : 2024-06-27 10:52:03

On the Query Analysis page, you can analyze query details of those with the Profile feature enabled. On this page, you can view SQL details, query plan, and execution details, presented in both graphical and textual format. With these capabilities, developers can understand query execution in finer detail and carry out targeted debugging and optimization.

## **Operation Guide**

1. Log in to Tencent Cloud TCHouse-D Console, select the target **Cluster ID/Name** from the cluster list, and switch to the Query Analysis page.

← •		Query Analysis Query Analysis	Import Analysis	Slow querie	S					
Cluster Info										
Cluster Monitoring		i • To use qu	ery analysis, you first ne	ed to enable the C	uery Profile feature	e. You can enter se	et enable_profile=true when qu	erying via the client c	or tick "Enable Query Ana	lysis Profile" via the S
Accounts										
Data Management	^	Request ID		Status <b>T</b>	User <b>T</b>	Host <b>T</b>	Start time ↓	End time	Running ti	SQL
<ul> <li>Backup And Restore</li> </ul>								No d	ata yet	
- Database Auditing		Total items: 0								
Queries	^									
Query Analysis										
<ul> <li>SQL Studio </li> </ul>										

2. The queries that you want to analyze need to have the Profile feature enabled in advance. The enabling methods include SQL workspace enabling and client enabling:

Enable SQL Studio: When using **SQL Studio** for queries, you can check **Enable query profile** while editing the query.

Welcome 🗦 Console info	mation	×		
Table   View	¢	SQL 1	× +	
Search	Q	Running	🚊 Forma	Enable query profile
▶		1		
collations	- 11			
column_privileges	- 11			
column_statistics	- 11			
columns	- 1			
engines	- 11			

Enable Client: When using other methods for queries, enter set enable\_profile=true in the command line to enable the Profile feature.

Note:

Query and Analysis only applies to SQL with the Profile feature enabled. This feature may have some impact on query performance.

3. For profile enabled queries, you can view Request ID, Query Status, Operation Time, etc. in the Query and Analysis list. By clicking **Request ID** or **Details** button in the SQL column, you can proceed with detailed analysis.

Query Analysis									
Query Analysis	Import Analysis	Slow queries	S						
(i) • To use q	uery analysis, you first nee	ed to enable the G	uery Profile feat	ure. You can enter se	t enable_profile=true when c	querying via the client or	tick "Enable Query Anal	ysis Profile" via the SQL worl	kspace
Request ID		Status <b>T</b>	User <b>T</b>	Host <b>Y</b>	Start time ↓	End time	Running ti	SQL	
						No da	ta yet		
Total items: 0									

4. On the Query Analysis detail page, you can view into the SQL Details, Query Plan, and Execution Details of the corresponding Request ID:

SQL Details: You can view the specific statement of the executed SQL, with support for copying with a single click.

Query Plan: It presents the current query plan in graphic or text format.

Execution Details: It presents the execution details of a query in graphic or text format.



## Slow Query Analysis

Last updated : 2024-06-27 10:52:17

## **Operation Guide**

1. Log in to Tencent Cloud TCHouse-D Console, and select the target cluster by **ID/Name** in the cluster list to enter the cluster details page.

2. After switching to the Query Analysis page, you can switch to **Slow Queries** sub-page to perform slow query analysis.

<b>←</b> ●		Query Analysis								
		Query Analysis	Import Analysis	Slow querie	s					
Cluster Info										
Cluster		Slow query time -	0.5 + s	Last 15 minutes	Last 30 minutes	Last hour	2024-06-13 10:15:54	~ 2024-06-13 10:45:54		
Monitoring		User	Access source a	dd Initial requ	est ID Catalog	т	Database Name 🔻	SQL type ▼	SQL statement	Execution st
Accounts										
Data	~							No data y	et	
Management		Total items: 0								
<ul> <li>Backup And</li> </ul>										
Restore										
<ul> <li>Database Auditing</li> </ul>										

3. This page, by default, displays slow SQL taking more than 500 ms. You can adjust the threshold for judging slow query SQL duration as needed, supporting a minimum setting of 100 ms.

## Features

You can set the time range for analysis, including the last 15 minutes, last 30 minutes, last hour, or a custom time period.

It supports sorting the slow queries list by execution duration, or filtering based on database name, or SQL types: Database Name: If you did not specify the database during the query, this column will be displayed as NULL. SQL Type: query and non-query.

Query Analysis	Import Analysis	Slow queries	s					
low query time —	0.5 + s	Last 15 minutes	Last 30 minutes	Last hour	2024-06-13 10:15:54	~ 2024-06-13 10:45:54	Ċ.	
User	Access source	add Initial requ	est ID Catalog	T	Database Name 🝸	SQL type 🔻	SQL statement	Execution start time
						All		
						Non-Query		
Total items: 0						Query		
						OK Reset		

# Modify Configurations Modify Configurations Through Console

Last updated : 2024-06-27 10:52:32

Tencent Cloud TCHouse-D supports flexible parameter configuration methods. You can comprehensively and intuitively set parameters such as BE/FE/Broker in the console and support to view historical modification records.

## **Operation Guide**

1. Log in to Tencent Cloud TCHouse-D Console, and click **Cluster ID/Name** in the cluster list to view cluster details. Select **Configurations> Modify Configurations** from the left sidebar to enter the parameter configuration page.

• cc	Modify Configurations						Scale out Scale up/o
Cluster Info	Configuration file Upload	Configurations	Parameter Hot Update				
Cluster Monitoring	apache_hdfs_broker.conf	Apply to cluster	Undo all changes Restart service			Only parameters with changes	Enter a parameter n
Accounts	be.conf	Parameter name	Reference value	Current Configuration Value	Value range	Restart	Operation
ata ^	fe.conf	broker_ipc_port (i)		8000		Yes	-
Backup And	core-site.xml	client_expire_seconds	s (j)	300		Yes	
Restore	hdfs-site.xml	XMX (j)	2g	2g 🖌	>=2g, <=4g	Yes	Delete
Database Auditing	hive-site.xml	Add parameter					
ueries ^	odbcinst.ini	Add parameter					
Query Analysis							
SQL Studio 🗹							
onfigurations							
Modify Configurations							
Change History							
odes							
g Analysis							
peration Logs							

2. The configuration parameters corresponding to Broker, BE and FE support configuration management, and parameter hotspot update. Whole file modification is supported for XML configuration files.

#### Note:

To ensure the stability of the service, the feature to upload configuration files has been disabled. If you need to add new configuration files, contact us by Submit a ticket.

## Modifying Configuration Parameters

The configuration parameters corresponding to Broker, BE, and FE support configuration management, and the parameter hot updates. Configuration modification will be applied to the node after a restart, and parameter hot updates will take effect immediately without restarting.

#### **Configuration Management**



For parameters in the configuration file, you can view the reference value, the current configuration value, and the range of modifications. Parameters in the conf configuration file can be added, deleted, or modified.

Modifying parameters: You can define parameters within a certain range. After editing, click **Apply to Cluster** to save and distribute. The modifications will take effect after rebooting the respective node by clicking **Restart Service**.

Adding parameters: You can add new configuration parameters in the corresponding configuration file. Like modifying parameters, the new parameters will take effect after saving, distributing, and restart.

Deleting parameters: Some parameters support deletion. After saving, distributing, and rebooting the corresponding node, deletion will take effect. The cluster will run according to the default parameters. Be cautious.

dify Configurations					Scale out Scale up/do
onfiguration file Upload	Configurations Parameter Hot Update				
pache_hdfs_broker.conf	Apply to cluster Undo all changes Resta	irt service		Only parameters with changes	Enter a parameter n
e.conf	Parameter name Reference value	Current Configuration Value	Value range	Restart	Operation
a.conf	audit_log_enable_compress (i) false	true		Yes	
ore-site.xml	edit_log_port (j)	9010		Yes	-
dfs-site.xml	http_port (j)	8030		Yes	-
hive-site.xml odbcinst.ini	JAVA_OPTS_FOR_JDK_9 ()	<ul> <li>-Diog4/2.format/MsgNoLookups=true -Xmx\$ XCSurvivorRator8 - XX:MaxTenutripThreahr XX:-GMXClassInfoadmatenabled -XX:- CMSParatieRmankEnabled - XX:CMSInitiatingOccupancyFraction=80 - XX:FinitiatingOccupancyFraction=80 - XX:FinitiatingOccupancyFraction=80 - XX:FinitiatingOccupancyFraction=80 - XX:FinitiatingOccupancyFraction=80 - XX:FinitiatingOccupancyFraction=80 - XX:FinitiatingOccupancyFraction=80 - XX:FinitiatingOccupancyFractingOccupancyFraction=80 - XX:FinitingOccupancyFraction=</li></ul>		Ves	
	lower_case_table_names (j)	0		Yes	-
	query_port (j)	9030		Yes	
	rpc_port (j)	Running value 12g		Yes	-
	sys_log_enable_compress (i) false	Rule: >=8g, <=16g		Yes	
	sys_log_level (i) INFO	Confirm Cancel		Yes	
	XMX (i) 12g	12g 💉	>=8g, <=16g	Yes	Delete

#### Parameter Hot Update

For parameters in the configuration file, you can view the reference values, current running values, and modification ranges. After modifying parameters, click **Hot Update** to apply modification. The parameter hot update will take effect immediately after the modification, with no cluster restart needed.

#### Note:

The parameter hot update for the FE node will apply to all FE nodes in the cluster, and the parameter hot update for the BE node will only apply to the current BE node.



odify Configurations						Scale out Scale up/dow
Configuration file Upload	Configurations Parameter	r Hot Update				
apache_hdfs_broker.conf	() The parameter hot update of	the FE node will take effect on all	FE nodes under the current cluster, while the p	parameter hot update of the BE node will or	nly take effect on the current BE node.	
be.conf	Select nodes 10.22.0.2	~			Only display parameters that support hot updates.	Enter a parameter n Q
fe.conf	Parameter name	Reference value	Current value	Value range	Oper	ation
core-site.xml ndfs-site.xml	balance_load_score_threshold	0	0.1			
hive-site.xml	balance_slot_num_per_path (j)	10	1 🖉	>=1, <=20	Hot u	pdate
odbcinst.ini	bdbje_file_logging_level	***INFO***	INFO			
	bdbje_heartbeat_timeout_second	30	30			
	bdbje_lock_timeout_second	1	5			
	bdbje_replica_ack_timeout_seco nd	10	10			

#### Modifying XML File

For XML configuration files, you can edit the entire file as needed. Click **Apply to Cluster** to save and distribute modification. The configuration modifications will take effect after restarting the service.

#### Note:

While modifying the configuration items, if the value contains special characters like <, >, & etc., the console won't escape them. To ensure the correct handling of special characters, follow XML Standards for configuration.

onfiguration file Upload	• When modifying configuration items via the console, if the value contains special characters such as <> 8, the console will not perform escape processing. To ensure the correct handling of special characters, please follow the <u>XML Standards</u> for configuration settings.	More
pache_hdfs_broker.conf		
e.conf	Apply to cluster Undo changes Restart service	
.conf	1 <7xml version="1.0" encoding="utf-8"?> 2 3 <1Autogenerated by Cloudera Manager>	
ore-site.xml	<pre>s &lt;</pre>	
dfs-site.xml	6	
ve-site.xml		
dbcinst.ini		

## **View Modification History**

In the cluster list, click **Cluster ID/Name** to view cluster details. Select **Configurations > Change History** from the left sidebar to enter the configuration modification records page.

Supports viewing the parameter modification records within any selected time range. You can specifically view the modification time, the account ID of the person who made the changes, and the change description.

If you want to understand the differences in the configuration file before and after a specific modification, you can click **Operation > Comparison** for detailed viewing.

÷	Change History				Scale out Scale up/down
Cluster Info	Today Last 7 days Last 15 d	lays Last 30 days 2024-06-13 ~ 2024-06-13			φ
Cluster Monitoring	Configuration file T	Modified at	Modified by	Change description	Operation
Accounts	be.conf	2024-06-13 11:30:41	200023294239		Comparison
Data ^	Total items: 1				10 - / page H - 1 / 1 page > H
<ul> <li>Backup And Restore</li> </ul>					
<ul> <li>Database Auditing</li> </ul>					
Queries					
<ul> <li>Query Analysis</li> </ul>					
<ul> <li>SQL Studio Z</li> </ul>					
Configurations					
<ul> <li>Modify Configurations</li> </ul>					
Change History					

# Modify Configurations Through Client

Last updated : 2024-06-27 10:52:46

In addition to the Console, you can also configure parameters through the client. This document will introduce related configuration methods.

## FE Parameter Configuration

The configuration file of FE, fe.conf, is usually placed in the conf/ directory of the FE deployment path. Another configuration file, fe\_custom.conf, is used to record configuration items that users dynamically configure and persist at runtime.

After the FE process starts, it will first read the configuration items in fe.conf, and then read the configuration

items in fe\_custom.conf . The configuration items in fe\_custom.conf will overwrite the same configuration
items in fe.conf .

The location of thefe\_custom.conffile can be configured through thecustom\_config\_dirconfigurationitem infe.conf.

#### Viewing Configuration Items

After FE starts, you can view the configuration items of FE in the MySQL client using the following command: ADMIN SHOW FRONTEND CONFIG; The meanings of each column in the results are as follows:

Key: name of the configuration item.

Value: current value of the configuration item.

Type: value type of the configuration item, whether it's integer or character string.

IsMutable: Whether it can be dynamically configured. If true, it means that this configuration item can be dynamically configured at runtime. If false, it means that this configuration item can only be configured in fe.conf and will take effect after restarting FE.

MasterOnly: Whether it's a configuration item unique to the Master FE node. If true, it means that this configuration item only makes sense in the Master FE node and has no meaning for other types of FE nodes. If false, it means that this configuration item is meaningful in all FE nodes.

Comment: description of the configuration item.

You can also open the FE front page http://fe\_host:fe\_http\_port/variable in your browser. You can view the currently effective FE configuration items in Configure Info.

#### **Setting Configuration Items**

There are two ways to configure FE's configuration items:

#### 1. Static Configuration

Add and set configuration items in the conf/fe.conf file. The configuration items in fe.conf will be read at the start of the FE process. Configuration items not in fe.conf will use the default value.

2. Dynamic Configuration Through the MySQL Protocol

After FE starts, you can set configuration items dynamically with the following command. This command requires administrative rights.



ADMIN SET FRONTEND CONFIG ("fe\_config\_name" = "fe\_config\_value");

Not all configuration items support dynamic configuration. By using the ADMIN SHOW FRONTEND CONFIG;

command, the IsMutable column of command results reveals whether it supports dynamic configuration.

#### Configuration items modified in this way will be invalidated after the restart of the FE process.

For more help with this command, the HELP ADMIN SET CONFIG; command can provide information.

3. Dynamic Configuration Through the HTTP Protocol

For more specific details, please refer to Set Config Action. This method can also persistently modify the configuration items. The configuration items will be persisted in the fe\_custom.conf file, and they will still be effective after FE restarts.

#### **Application Example**

1. Modifying async\_pending\_load\_task\_pool\_size

With ADMIN SHOW FRONTEND CONFIG; , you can see that this configuration item cannot be dynamically configured ( IsMutable is false). You need to add async\_pending\_load\_task\_pool\_size=20 in fe.conf , then restart the FE process to apply this configuration.

2. Modifying dynamic\_partition\_enable

With ADMIN SHOW FRONTEND CONFIG; , you can see that this configuration item can be dynamically configured (IsMutable is true) and it is a configuration unique to Master FE. First, we can connect to any FE and execute the following command to modify the configuration:





ADMIN SET FRONTEND CONFIG ("dynamic\_partition\_enable" = "true");`

Then you can use the following command to check the modified value:





set forward\_to\_master=true;
ADMIN SHOW FRONTEND CONFIG;

After you modify it in this way, if the Master FE restarts or a Master switch happens, the configuration will become invalid. This configuration can be permanently enabled by directly adding the configuration item in fe.conf and restarting FE.

3. Modifying max\_distribution\_pruner\_recursion\_depth

With ADMIN SHOW FRONTEND CONFIG; , you can see that this configuration item can be dynamically configured (IsMutable is true) and it is not a configuration unique to Master FE.

Similarly, we can modify this configuration through the command to modify the configuration dynamically. Since this configuration is not unique to the Master FE, you need to connect separately to different FEs and dynamically modify the configuration. This ensures that all FEs use the modified configuration value.

#### **Configuration Item List**

For a detailed list of configuration items applicable to FE, see FE Configuration Items.

## **BE** Parameter Configuration

The configuration file for BE, be.conf, is usually located in the conf/ directory of the BE deployment path. Another configuration file, be\_custom.conf, is used to record configuration items that users dynamically configure and persist during running.

After the BE process starts, it will first read the configuration items in be.conf, and then read the configuration items in be\_custom.conf. The configuration items in be\_custom.conf will overwrite the same items in be.conf.

#### **Viewing Configuration Items**

Users can view the current configuration items by accessing the BE Web page at

http://be\_host:be\_webserver\_port/varz

#### **Setting Configuration Items**

There are two ways to configure BE's configuration items:

1. Static Configuration

Add and set configuration items in the conf/be.conf file. The configuration items in be.conf will be read when BE starts. Items not in be.conf will use the default values.

2. Dynamic Configuration

After BE starts, the following command can be used to dynamically set configuration items.





curl -X POST http://{be\_ip}:{be\_http\_port}/api/update\_config?{key}={value}'

The following command can be used to persist modifications to the configuration. The modified configuration items will be stored in the be\_custom.conf file.




curl -X POST http://{be\_ip}:{be\_http\_port}/api/update\_config?{key}={value}&persist=

#### **Application Example**

1. Modifying max\_base\_compaction\_concurrency in a static way

Add max\_base\_compaction\_concurrency=5 in the be.conf file, and then restart the BE process to apply
the configuration.

2. Modifying streaming\_load\_max\_mb dynamically

After BE starts, use the following command to dynamically set the configuration item streaming\_load\_max\_mb :





curl -X POST http://{be\_ip}:{be\_http\_port}/api/update\_config?streaming\_load\_max\_mb=

If the return value is as follows, the setting is successful.





```
{
    "status": "OK",
    "msg": ""
}
```

The configuration will lose its effect after the BE is restarted. If you want to persist modifications, use the following command:





curl -X POST http://{be\_ip}:{be\_http\_port}/api/update\_config?streaming\_load\_max\_mb=

### **Configuration Item List**

For a detailed list of configuration items applicable to BE, see BE Configuration Items.

## **User Configuration Items**

The User level configuration is only valid for individual users. Each user can set their own user properties, which will not affect each other.

### **Viewing Configuration Items**

After FE starts, users can view a User's configuration items in the MySQL client using the following command:

```
SHOW PROPERTY [FOR user] [LIKE key pattern] ; For specific syntax, use the command help show property; .
```

#### **Setting Configuration Items**

After FE starts, in the MySQL client, use the following command to modify a User's configuration items:

```
SET PROPERTY [FOR 'user'] 'key' = 'value' [, 'key' = 'value'] ; For specific syntax, use the
command help set property; .
```

User-level configuration items will only be effective for specified users and will not affect the configuration of other users.

### Application Example

1. Modify user Billie's max\_user\_connections .

Use SHOW PROPERTY FOR 'Billie' LIKE '%max\_user\_connections%'; to view the current maximum number of connections for user Billie, which is 100.

```
Use SET PROPERTY FOR 'Billie' 'max_user_connections' = '200'; to change the current
```

maximum number of connections for user Billie to 200.

### **Configuration Item List**

For a detailed list of user configuration items, see User Configuration Items.

# Node Management

Last updated : 2024-06-27 10:53:07

## Feature Overview

The Nodes page displays the status list for various roles in the cluster, which include FE, BE, BROKER. For each role, the health status, process status, node IP and last restart time are displayed (which corresponds to the time of the last manual service restart operation on the Role Management page).

On the Nodes page, you can perform restart, and start operations on each node. The types of restart include immediate restart, graceful restart, and rolling restart. Batch execution for the same type of nodes is supported.

<b>←</b> ●	Nodes		
Cluster Info	Restart Graceful restart		
Cluster Monitoring	Role T	Node health status	Node IP
Accounts	FE(master)	Healthy	10.22.0.2
Data Management	A BROKER	Healthy	10.22.0.2
Backup And	FE(observer)	Healthy	10.22.0.6
<ul> <li>Database</li> </ul>	BROKER	Healthy	10.22.0.6
Auditing	FE(observer)	Healthy	10.22.0.11
Queries <ul> <li>Query Analysis</li> </ul>	BROKER	Healthy	10.22.0.11
<ul> <li>SQL Studio </li> </ul>	BE	Healthy	10.22.0.12
Configurations	BROKER	Healthy	10.22.0.12
<ul> <li>Modify Configurations</li> </ul>	BE	Healthy	10.22.0.3
Change History	BROKER	Healthy	10.22.0.3
Nodes	BE	Healthy	10.22.0.35
Log Analysis Operation Logs	BROKER	Healthy	10.22.0.35

To ensure the high availability of each node, in addition to user's manual operations, each node runs a daemon process. If any node is detected to have an abnormal exit, the daemon process will immediately launch the corresponding node.

#### Note:

The restart operation generally takes 20-30 seconds. The page will automatically refresh to access the latest status during the execution.

Your operations on the Nodes page will be recorded on the Operation Logs page for any time reference.

# Log Analysis

Last updated : 2024-06-27 10:53:32

Tencent Cloud TCHouse-D supports log collection, and you can enable Log Service for clusters as needed. Log Service supports both ES and CLS forms.

#### Note

ES service currently only supports the Beijing, Shanghai, Guangzhou. For billing information, see ES Billing Overview. CLS is a type of postpaid service. Please keep sufficient funds to avoid affecting your log upload and display. For billing information, see Log Service Billing Overview.

# Enabling Log Service

You can enable Log Service when creating a new cluster or at any time while the cluster is running. Such operations are explained in detail below.

## **Enabling During New Cluster Creation**

During the creation of a cluster, you can choose to enable Log Service as needed. If you choose ES Log Service (currently supports Beijing, Shanghai, Guangzhou regions), you need to select a project space for management. If you have never created it before, click **Create new project space** to quickly create it. The log analysis feature is provided by ES Serverless service. For details, see ES Serverless Service Overview.



If you choose CLS Log Service, you need to select or create a CLS log set in the same region as the cluster. CLS logs are stored for 30 days by default.

#### Note

A new log Topic will be created in the log set you configured. You can preview your log Topic on the CLS Log Service page. Do not delete the configured log topic; otherwise it will cause the log retrieval page to query failure.

Log		
Log analysis	✓ Enable	
	After enabling the log analysis feature, the primary logs of FE/BE/Broker will be recorded in real	time.
CLS	CLS ~	
	Cloud Log Service is provided by Tencent Cloud CLS.	
Logset	Please select 🗸	
	Select an existing logset, or create a logset	

#### **Enabling or Modifying Existing Clusters**

If you didn't enable Log Service when creating the cluster, you can log in to the Tencent Cloud TCHouse-D Console at any time and configure the Log Service through **Operation > More > Create log service** configuration in the cluster list. For unauthorized users, you need to authorize first, and then configure the log set.

eate log service		×
t CLS	v	
Grant permission	> 2 Select logset	
icent Cloud Warehouse-D n S resources.	eeds to access CLS to get log data. Please activate CLS and grant Tencent Cloud Warehouse-D	access to

# Log Search

After enabling Log Service, you can easily retrieve logs from the console to assist in operations.

### **Operation Instruction**

1. Log in to Tencent Cloud TCHouse-D Console, click **Cluster ID/Name** from the **Cluster List** to enter cluster details page, and switch to the **Log Analysis** page.

2. Both **Node Log** and **Search** page modes are supported. In the **Node Log** mode, you can view logs by node IP and log type, and perform log analysis using features such as specifying time ranges and keyword search.



← ● cdwdoris-n3m4593c	Log Analysis	Scale out Scale up/down
Cluster Info	After enabling the log analysis feature, FE/BE/Broker's main logs (fe.log, be.INFO, spache_hdfs, brokeclog) will be recorded in real-time, enabling quick location and analysis of cluster issues.	Go to CLS Log Analysis 🛽
Cluster Monitoring		
Accounts	Page mode Node log Search Node IP 10.22.0.2 v Log type FE log BE log Broker log	
Data	Time range Today Last 7 days Last 15 days Last 30 days 2024-06-17 00:00:00 - 2024-06-17 17:36:44	
Management	Auto Ine feed 💽 Auto refresh 💽 Keyword 🕐 Combine keywords with AND or C Search at nodes	
<ul> <li>Backup And Restore</li> </ul>		
<ul> <li>Database Auditing</li> </ul>	[Tips]:The last line is the latest record. Scroll up t to view history (press Ctrl+F to filter by keywords)	
Queries ^		
<ul> <li>Query Analysis</li> </ul>		
<ul> <li>SQL Studio </li> </ul>		
Configurations ^		
<ul> <li>Modify Configurations</li> </ul>		
Change History		
Nodes		
Log Analysis		
Operation Logs		

3. In **Search mode**, you can conveniently set search keywords, retrieve logs within a selected time range, and group the filtered results by node IP. The syntax and rules of keywords are detailed in Syntax and Rules. The query results display the most recent 100 records for each node by default.

og Analysis		Scale out Scale up/dow
After enabling the log	analysis feature, FE/BE/Broker's main logs (fe.log, be.INFO, apache_hdfs_broker.log) will be recorded in real-time, anabling quick location and analysis of cluster issues.	Go to CLS Log Analysis 🗹
Page mode Node log Auto refresh	Search         Log type         FE log         BE log         Broker log         Time range         Today         Last 7 days         Last 30 days         2024-06-17 00:00:00 ~ 2024-06-17 17:39:01         Time           ywood ③         Combine keywords with AND or C         Search al nodes         <	
Select node IP	View and analyze logs	
Node list	Time Log content	
10.22.0.2	> 2024-06-17 17:38:58 [Q 2024-06-17 17:38:57,160 INFO (thrift-server-pool-32)6450912) [ReportHandler.handleReport():198] receive report from be 10003. type: TASK, current queue size: 1	
10.22.0.6	> 2024-06-17 17:38:58 EQ 2024-06-17 17:38:57,160 INFO (Thread-58)108) [ReportHandler.taskReport[):551] finished to handle task report from backend 10003, diff task num: 0. cost: 0 ms	
10.22.0.11	2024-06-17 17:38:54 [Q. 2024-06-17 17:38:53,027 INFO (thrift-server-pool-0[155) [ReportHandler.handleReport[):198] receive report from be 10004. type: TASK, current queue size: 1	
	> 2024-06-17 17:38:54 [Q 2024-06-17 17:38:53,027 INFO (Thread-58)108) [ReportHandler.taskReport);551] finished to handle task report from backend 10004, diff task num: 0. cost: 0 ms	
	> 2024-06-17 17:38:53 [Q 2024-06-17 17:38:52,399 INFO (mysql-nio-pool-1284)8657971) [QeProcessorImpl.unregisterQuery():131] deregister query id 4ca7264a695b49fb-840cb030741470ef	
	> 2024-06-17 17:38:51 [Q 2024-06-17 17:38:50,975 INFO (thrift-server-pool-30)6450910) [ReportHandlerhandleReport]):198] receive report from be 10002. type: TASK, current queue size: 1	
	> 2024-06-17 17:38:51 TQ 2024-06-17 17:38:50.975 INFO (Thread-58)108) ReportHandlertaskReport):5511 finished to handle task report from backend 10002, diff task num: 0, cost: 0 ms	

### How to Correctly Read FE/BE Log?

In many cases, problems need to be investigated through logs, so here we explain the format and view methods of FE/BE logs.

#### FE Log

FE log mainly includes:

fe.log: main log. It includes all content except fe.out.

Fe.warn.log: subset of the main log. It records only WARN and ERROR level logs.

A typical example of an FE log is as follows:





2021-09-16 23:13:22,502 INFO (tablet scheduler|43) [BeLoadRebalancer.selectAlternat

#### Where:

2021-09-16 23:13:22,502 : log time.

INFO : log level, INFO by default.

(tablet scheduler | 43) : thread name and thread id. Through the thread id, we can view the context information of this thread and facilitate troubleshooting.

BeLoadRebalancer.selectAlternativeTabletsForCluster():85 : class name, method name, and line number.

cluster is balance xxx : log content.

#### **BE Log**

BE log mainly includes:

be.INFO: main log. This is actually a soft link, linked to the latest be.INFO.xxxx.

be.WARNING: subset of the main log. It only records WARN and FATAL level logs. This is a soft link, linked to the newest be.WARN.xxxx.

A typical example of an BE log is as follows:



I0916 23:21:22.038795 28087 task\_worker\_pool.cpp:1594] finish report TASK. master h



10916 23:21:22.038795 : log level and date and time. Capital letter I indicates INFO, W indicates WARN, and F indicates FATAL.

28087 : Thread id. With the thread id, you can view the context information of the thread, making it easier to troubleshoot the thread.

task\_worker\_pool.cpp:1594 : code file and line number.

finish report TASK xxx : log content.

# SQL Studio

Last updated : 2024-06-27 10:53:48

Through the SQL Studio, you can quickly connect to the cluster and carry out a series of operations using SQL commands.

# **Operation Guide**

1. After logging in to Tencent Cloud TCHouse-D Console, you can access **SQL Studio** by clicking on the left list. Select the target **Resource ID/Name** in the cluster list. You can also find the entrance under Queries.

	Cluster Info							Scale out Scale up/do
Cluster Info	Basic info		CI	luster status				
Cluster Monitoring	Cluster ID cdwdoris-iavdp	wz4 1 <u>6</u>	Ch	luster status Serving				
Accounts	Cluster name test12M2 🖋							
Data ^ Management	Billing mode Pay-as-you-go Creation time 2024-03-27 10:		Ne	etwork info				
<ul> <li>Backup And Restore</li> </ul>	Tag Doristlijk Chan	go	AZ	Z PC ID	ap-singapore-2			
<ul> <li>Database Auditing</li> </ul>	Configuration info		Sul	ubnet ID				
Queries ^				DBC access address				
Query Analysis	Kernel version	1.2 (tencent-cdw-doris-1.2.8-4a67fdc-a7d2ef9)		TTP connection address				
<ul> <li>SQL Studio </li> </ul>	High availability (HA) FE node spec	Read high availability Standard, 4-core 16 GB / 3 node(s) / CLOUD_SSD 200 GB	No	ode info	Node type	Node health status	Node IP	Cluster VPC IP
Configurations	BE node spec	Standard, 8-core 32 GB / 5 node(s) / CLOUD_PREMIUM 200 GB	1		FE(master)	Healthy	10.0.1.152 🖻	9.0.16.42 🗈
<ul> <li>Modify Configurations</li> </ul>	Table names are case-sensitive.	Case-Insensitive (Convert all table names to lowercase for storage.)						
Change History	Cloud Block Storage Encryption	Enable	2		FE(observer)	Healthy	10.0.1.159 🖺	9.0.16.15 🛅
Nodes	Security Groups	sg-iksnuusa 🎽	3		FE(observer)	Healthy	10.0.1.10 🖻	9.0.16.16 🖺
.og Analysis			4		BE	Healthy	10.0.1.219 🖺	9.0.16.3 🖺
Operation Logs			5		BE	Healthy	10.0.1.238 🖺	9.0.16.37 🖺
			6		BE	Healthy	10.0.1.99 🖻	9.0.16.26 🖺
			7		BE	Healthy	10.0.1.147 1	9.0.16.35 🖺
			8		BE	Healthy	10.0.1.243 1	9.0.16.28 🖺
			1	Total items: 8			10 - / page H 4	1 /1 page ▶

 Once you enter the SQL Studio, you first need to connect to a cluster. Data operations depend on the data privileges of the logged in account, which can be granted in the Accounts of the corresponding cluster. See Privilege Management Through the Console for details.

Connect Tencent Cloud Warehouse-D of Connect	
Atta sources ① C. We Catalog or database nam Q.	
	Get started with SQL Studio
	01 - 02 - 03 - 04 - 05
	Benet a kurving The operations that Accounts with for accounts with Claix "Orange account rested on perform the data operation of the second to be a final
	In. grant an account the and tables in the analysis. 502. Studio. data spears. spears. Spears. Studio. Spears. Spea
	Generation
nconnected clusters 0	

3. When connecting to a cluster, you need to select a region, cluster ID, and enter a valid account and password. Click **Accounts** to go to the console page for account operation.

#### Note:

Please use the account with host % to log in to SQL Studio.

(i) • Use an a	account whose host is %	to log in to the SQL wor	kspace.	
Region	S ap-singapore 4	Other regions 6		•
Cluster	test12M2			•
Account	admin		<i>▼</i> ¢	)
			Accounts	2
Password				
Data connectivity	Test			

4. In SQL Studio, you can view the SQL statement execution records. Search and filtering are supported.

Data sources 🕦 🛛 + 😋	Welcome 🛢 Console information	. x	
	Table View ¢	E SQL 1 X + Southeast Asia (Singapore) d	efault_cluster eason Switch user Log of
👻 🚔 internal	Search Q	Running      Format     Enable query profile	Target node Random + (
Information_schemajdefault	> III backends	1	
	→ III character_sets		
	▶		
	▶		
	► I columns		
	► I engines		
	→ ■ events		
	> III files		
	global_variables		
	► m key_column_usage		
	▶		
	► I referential_constraints		
	► I routines		
	Terrowsets		
	▶		
	Image: Sector material in the sector mater		
	m session_variables	Execution log	¢
	Image:	Separate keywords with "\": press Enter to separate filter Q	
	▶		
connected clusters 0	Image: table_privileges	No. Start time Execution d., Executi., Y Node Y Executing u., Executed SQL Query result Exception details	
	▶	No data yet	
	>		a k ≼ 1 /1page ≽
		toan norms: ↓ 10 ▼ / page	i / i page
	h III signa		

5. Clicking the button in the left list allows you to easily create external data sources.

ata source type *	Hive	Iceberg	Hudi	ES	JDBC			
ata source type *	Hive	Iceberg	Hudi	ES	JDBC			
atalog name •	Max 50 c	haracters; supp	orts digits, I	letters, and	d underscores	;); cannot start with a digit		
sername *	Enter a u	sername						
ive metadata address *	Example:	thrift://172.21.0	0.1:7004					
ata storage method •	🔾 On HDF	s On CC	S					
roperties setting method	O Manual	Commor	n configurati	ions-based	u⊚	L file-based (?)		
roperties	Paramet	er name *				Input Values •	Remarks	Op
	dfs.nan	neservices				your-nameservice	Required when data source high a	Remov
	dfs.ha.r	namenodes.you	r-nameservi	ice		nn1,nn2	Required when data source high a	Remov
	dfs.nan	nenode.rpc-add	lress.your-na	ameservic	e.nn2	XXX,XXX,XXX,XXX:8088	Required when data source high a	Remov
	dfs.nan	nenode.rpc-add	lress.your-na	ameservic	e.nn1	XXX,XXX,XXX,XXX;8088	Required when data source high a	Remov
	dfs.clie	nt.failover.proxy	.provider.yo	ur-namese	ervice	org.apache.hadoop.hdfs.server.namen	Required when data source high a	Remov
						Add parameter		
onnectivity test	Test							

#### Note:

The tables of built-in data sources can be created through DDL statements in the SQL compilation box, and external data sources only support queries.

6. Click Switch User to switch accounts. After use, click Log Out to exit SQL Studio.