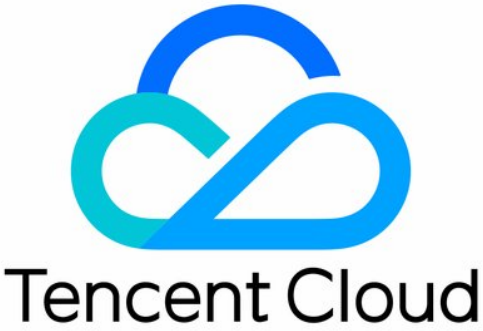
Cloud Automated Testing

Operation Guide

Product Documentation



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Creating Network Quality Task

Last updated：2023-12-22 11:14:21

This document describes how to create a network quality test task to monitor the reliability of the application network and route, DNS resolution accuracy, ICMP latency, and packet loss rate.

Directions

Creating a test task

1. Log in to the CAT console.
2. On the left sidebar, click **Tasks**.
3. Click **Create task** at the top of the **Tasks** page.
4. Configure the basic information as follows:

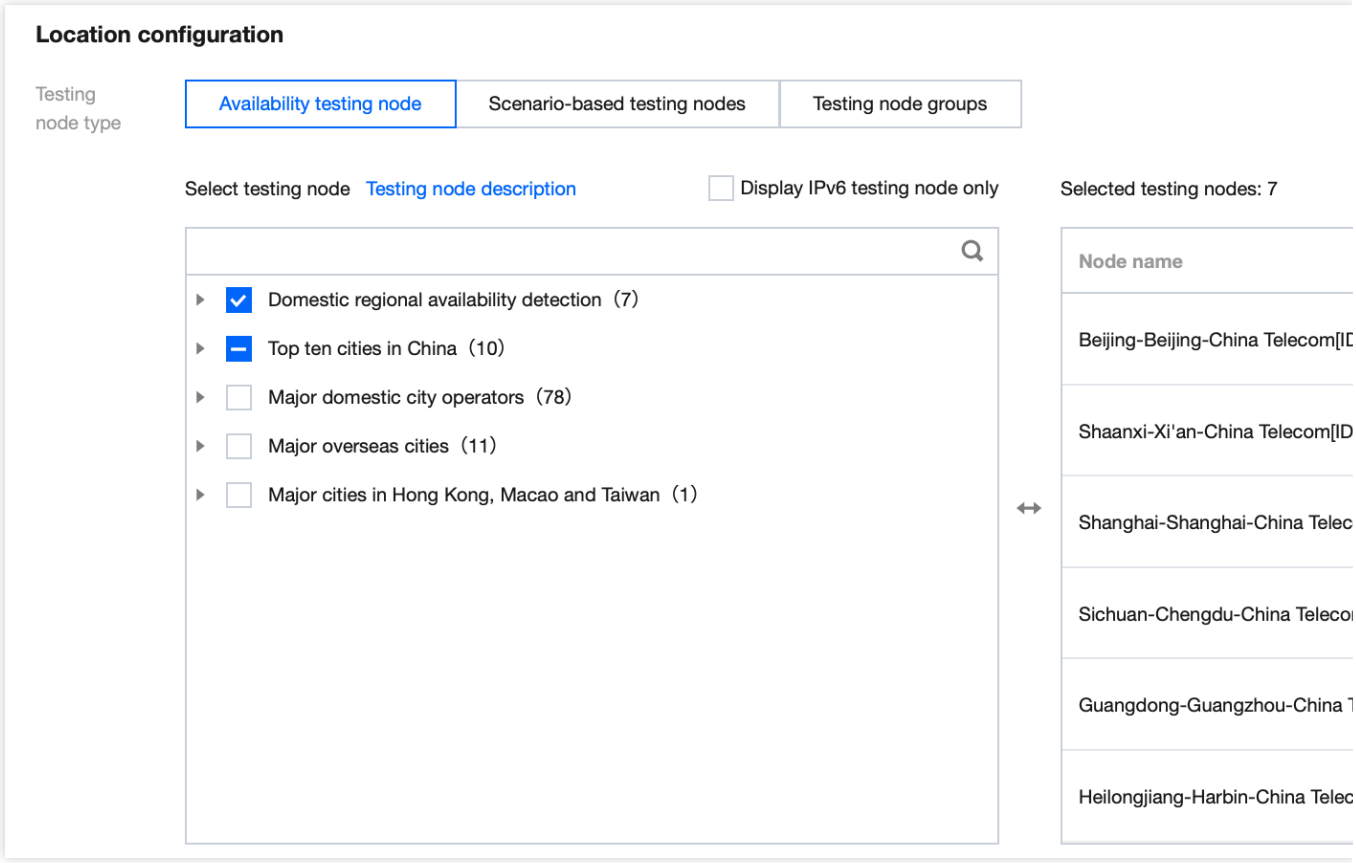
Configuration Item	Description
Test mode	Select Regular test.
Task type	Select Network quality on the PC or mobile.
Test address	Enter the target web application address starting with `http://` or `https://`. For example: 1. Domain: http://www.tencent.com 2. Domain and port: http://www.tencent.com:80 **Note:** You need to enter the port when using TCP or UDP in Ping monitoring.
Test task name	Enter a test task name.
Test frequency	It can be 1 minute, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 60 minutes, or 120 minutes. For example, if you select 5 minutes, each testing node will be tested once every five minutes.
Execution time	The task is performed every day by default. You can also customize an execution plan as needed. For example, you can set to execute a test task between 8:00 AM and 9:00 AM on any specified day of the week.
Task tag	CAT can be used with the Tencent Cloud resource tag feature to perform tag-based sub-

	account authorization and cost allocation.

5. Configure the testing node as follows:
i. Select the method: You can select **Recommended testing node group** or **Custom testing node group** (the former contains common nodes).
ii. Select testing nodes
Availability testing nodes: Only network quality and API monitoring tasks are supported. This option is suitable for network quality monitoring, API availability monitoring, and hijacking and blocking detection.
Scenario-based testing nodes: This option is suitable for page user experience and streaming lag monitoring, availability testing under poor network conditions, CDN selection, and path optimization. It covers global IDC, PC, and mobile testing nodes.
Recommended testing node group: Commonly used and recommended testing nodes.
Custom testing node group: Select the region, node type, and testing node on the right box. Node types are as detailed below:

Testing node Type	Description
IDC	It is the testing node deployed on the PC to test the PC user experience.
LastMile	It is the testing node deployed on the end user's PC to test the end user's experience on the PC.

My testing node group: You can select a common testing node group in **Scenario-based testing nodes** and click **Create testing node group** in the bottom-right corner. Then, you can directly select a common testing node you created from **My testing node group** when creating a task.



Suggestions for selection

IDC and **LastMile** have different network environments, and the former is more stable than the latter.

To test the business availability, you can select the more stable **IDC**.

To check the access experience and network conditions of end users, we recommend you select **LastMile** or **Mobile** to simulate the user access to an application.

6. Configure the test parameters (optional). By default, the system configures common test parameters. You can also customize test rules as follows:

Configuration Type	Configuration Item	Description	Default Value
IP type	-	It can be Auto, IPv4, or IPv6.	Auto
Ping monitoring	Protocol type	It can be ICMP, TCP, or UDP.	ICMP
	Test timeout period (sec)	Define the test timeout period. Value range: 0-60 (excluding `0`).	20 seconds
	Execution interval (sec)	Define the interval for executing Ping test tasks, which can be 0.5s, 1s, 2s, 3s, 4s, 5s, or 10s.	0.5s
	Packages	Enter the number of test data packages.	4

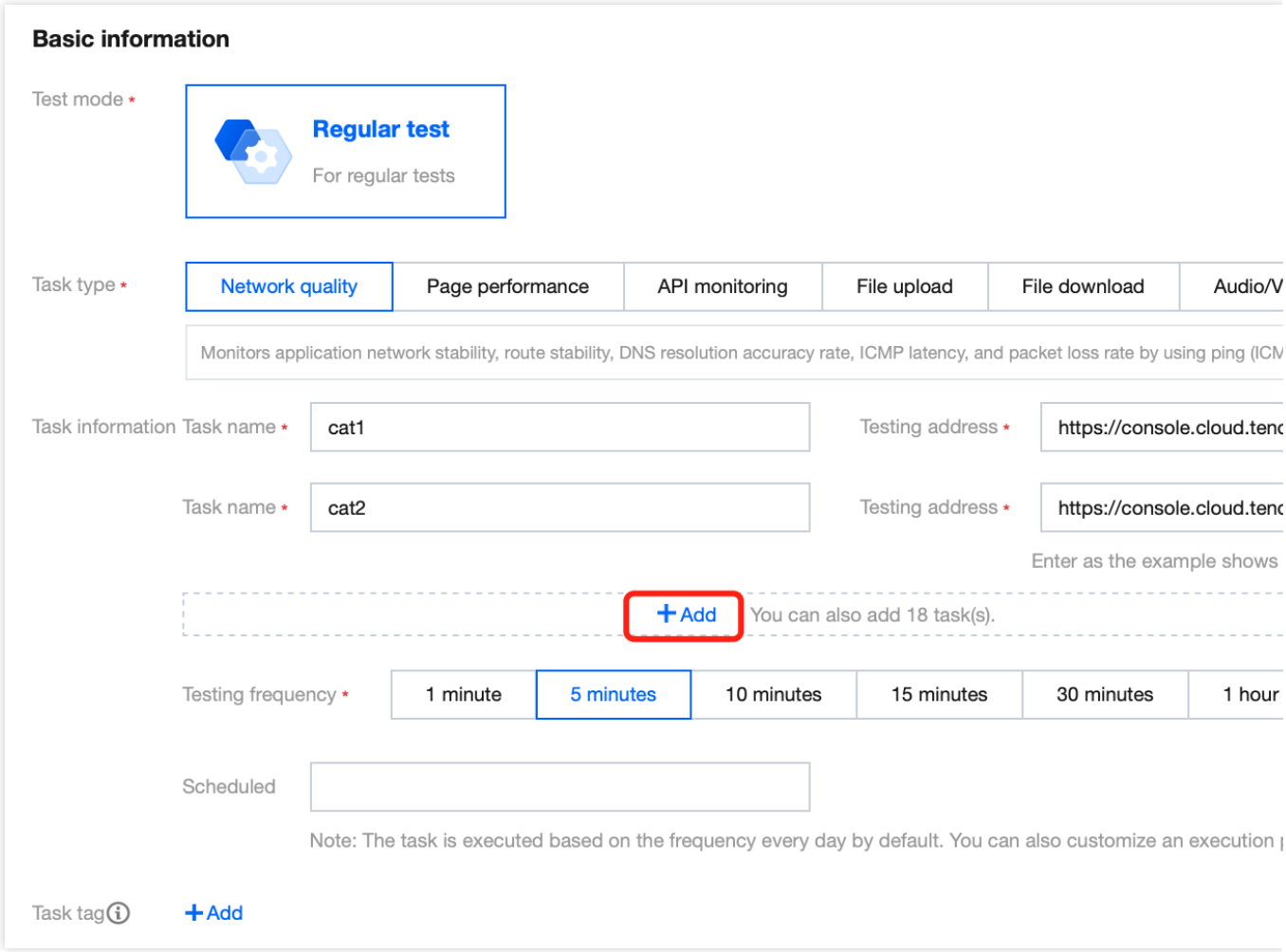
	Package size (KB)	Enter the size of the test data package.	32 KB
	Package split	Decide whether to split the test data package as needed.	Split
DNS monitoring	Test timeout period (s)	Define the test timeout period. Value range: 0-45.	5s
	Query method	It can be Recursive or Iterative.	Recursive
	Specify NS server	It specifies the server for DNS. Enter the NS service address.	-
	dig command	Whether to enable the test result in dig command format.	Disable
	DNS server type	It can be Auto, IPv4, or IPv6.	IPv4
TRACERT monitoring	Test timeout period (s)	Define the test timeout period. Value range: 0-300 (excluding `0`).	60s
	Maximum number of hops	Enter the number of hops. A route is one hop.	20
Hijacking monitoring	DNS hijacking allowlist	If the IP from the DNS query is not in the allowlist, hijacking occurred, and the hijacking result can be selected and viewed in the details of the testing statistics. For more information, see Hijacking Monitoring Parameter Description.	-
	DNS hijacking blocklist	If the IP from the DNS query is in the blocklist, hijacking occurred, and the hijacking result can be selected and viewed in the details of the testing statistics. For more information, see Hijacking Test Parameter Description.	-

Batch creating test tasks

Note:

You can create up to 20 test tasks in batch.

On the **Create task** page, click **+** below the **Task name** and enter the task name and address. The created test tasks will be displayed in the task list.



Creating Page Performance Task

Last updated：2023-12-22 11:14:48

This document describes how to create a page performance monitoring task to get the webpage experience data by ISP, region, browser version, operating system, or device, so that you can comprehensively know the page performance.

Directions

1. Log in to the CAT console.
2. On the left sidebar, click **Tasks**.
3. Click **Create task** at the top of the **Tasks** page.
4. Configure the basic information as follows:

Configuration Item	Description
Test mode	Select Regular test.
Task type	Select Page performance on the PC or mobile.
Test address	Enter the target web application address starting with `http://` or `https://`. For example: 1. Domain: http://www.tencent.com 2. Domain and port: http://www.tencent.com:80 **Note:** You need to enter the port when using TCP or UDP in Ping monitoring.
Test task name	Enter a custom test task name.
Test frequency	It can be 1 minute, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 60 minutes, or 120 minutes. For example, if you select 5 minutes, each testing node will be tested once every five minutes.
Execution time	The task is performed every day by default. You can also customize an execution plan as needed. For example, you can set to execute a test task between 8:00 AM and 9:00 AM on any specified day of the week.
Task tag	CAT can be used with the Tencent Cloud resource tag feature to perform tag-based sub-account authorization and cost allocation.

5. Configure the testing node as follows:

i. Select the method: You can select **Recommended testing node group** or **Custom testing node group** (the

former contains common nodes).

ii. Select the testing node:

Availability testing nodes: Only network quality and API monitoring tasks are supported. This option is suitable for network quality monitoring, API availability monitoring, and hijacking and blocking detection.

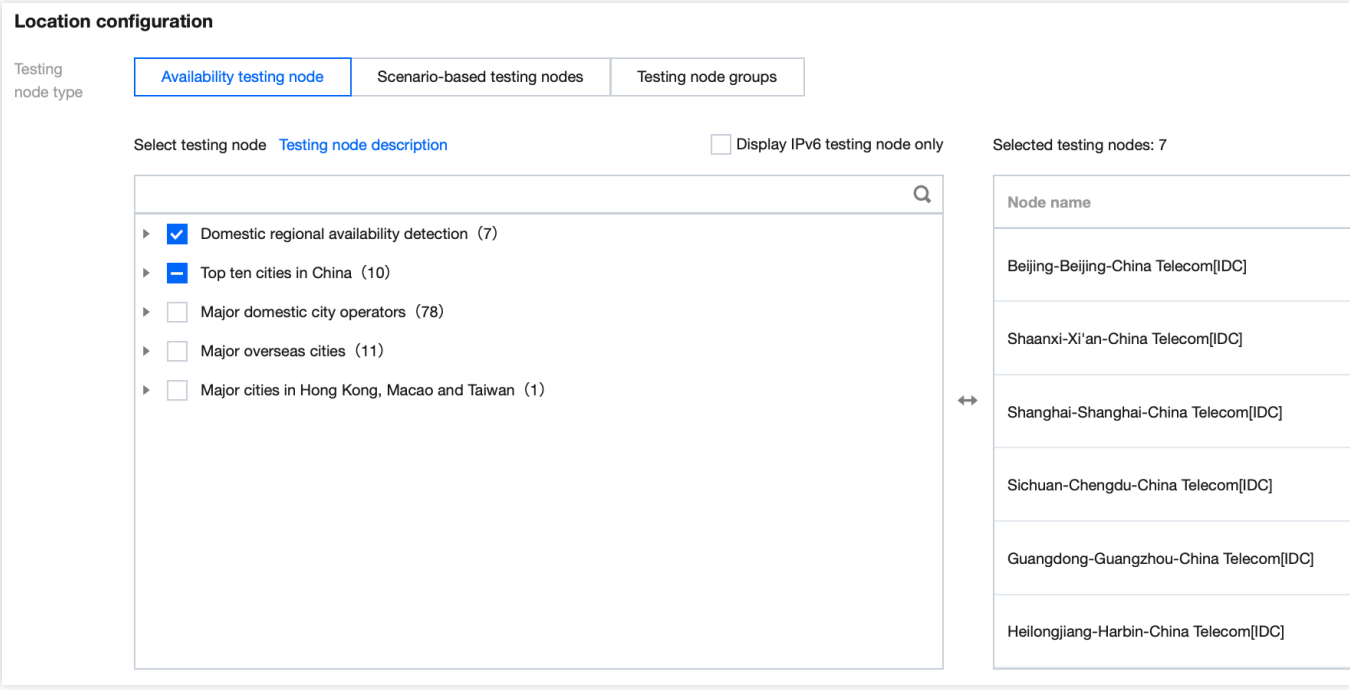
Scenario-based testing nodes: This option is suitable for page user experience and streaming lag monitoring, availability testing under poor network conditions, CDN selection, and path optimization. It covers global IDC, PC, and mobile testing nodes.

Recommended testing node group: Commonly used and recommended testing nodes.

Custom testing node group: Select the region, node type, and testing node on the right box. Node types are as detailed below:

Testing node Type	Description
IDC	It is the testing node deployed on the PC to test the PC user experience.
LastMile	It is the testing node deployed on the end user's PC to test the end user's experience on the PC.

My testing node group: You can select a common testing node group in **Scenario-based testing nodes** and click **Create testing node group** in the bottom-right corner. Then, you can directly select a common testing node you created from **My testing node group** when creating a task.



Suggestions for selection

IDC and **LastMile** have different network environments, and the former is more stable than the latter.

To test the business availability, you can select the more stable **IDC**.

To check the access experience and network conditions of end users, we recommend you select **LastMile** or **Mobile** to simulate the user access to an application.

6. Configure the test parameters (optional). By default, the system configures common test parameters. You can also customize test rules as follows:

Configuration Item	Description	Default Value
IP type	It can be Auto, IPv4, or IPv6.	Auto
Custom host	It supports polling by IP or random monitoring. Separate IP addresses by comma. For example: IPv4: 192.168.2.1,192.168.2.5:img.a.com|192.168.2.1?]:img.a.com| IPv6: [0:0:0:0:0:0:0:1][8080],[0:0:0:0:0:0:0:2][8081]:www.a.com|]	-
Traffic hijacking (elements to be identified)	When a 302 redirect from the page occurs, if the number of elements on the new page exceeds the set value, the page is hijacked. The hijacking details can be selected and viewed on the Test Statistics page.	-
Traffic hijacking (hijacking flag)	Set the key information of the match. The traffic hijacking monitoring collects data when the browsed page reported the 302 error code. The prerequisites are that the page has the 302 element and the monitored basic document reported the 302 error code.	-
Page tampering	A page is considered tampered with when elements that are not configured in the domain settings appear, such as pop-up ads, floating ads, and redirects.	-
DNS hijacking allowlist	If the IP from the DNS query is not in the allowlist, hijacking occurred, and the hijacking result can be selected and viewed in the details of the testing statistics. For more information, see Hijacking Monitoring Parameter Description.	-
DNS hijacking blocklist	If the IP from the DNS query is in the blocklist, hijacking occurred, and the hijacking result can be selected and viewed in the details of the testing statistics. For more information, see Hijacking Monitoring Parameter Description.	-

Creating API Monitoring Task

Last updated：2023-12-22 11:15:06

This document describes how to create a API monitoring task to test the API response performance and availability over the GET/POST protocol or port, so as to ensure the user experience and business availability.

Directions

1. Log in to the CAT console.
2. On the left sidebar, click **Tasks**.
3. Click **Create task** at the top of the **Tasks** page.
4. Configure the basic information as follows:

Configuration Item	Description
Test mode	Select Regular test.
Task type	Select API monitoring on the PC or mobile.
Test task name	Enter a custom test task name.
Test frequency	It can be 1 minute, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 60 minutes, or 120 minutes. For example, if you select 5 minutes, each testing node will be tested once every five minutes.
Execution time	The task is performed every day by default. You can also customize an execution plan as needed. For example, you can set to execute a test task between 8:00 AM and 9:00 AM on any specified day of the week.
Task tag	CAT can be used with the Tencent Cloud resource tag feature to perform tag-based sub-account authorization and cost allocation.

5. Configure the testing node as follows:
 i. Select the method: You can select **Recommended testing node group** or **Custom testing node group** (the former contains common nodes).
 ii. Select the testing node:
Availability testing nodes: Only network quality and API monitoring tasks are supported. This option is suitable for network quality monitoring, API availability monitoring, and hijacking and blocking detection.
Scenario-based testing nodes: This option is suitable for page user experience and streaming lag monitoring, availability testing under poor network conditions, CDN selection, and path optimization. It covers global IDC, PC, and

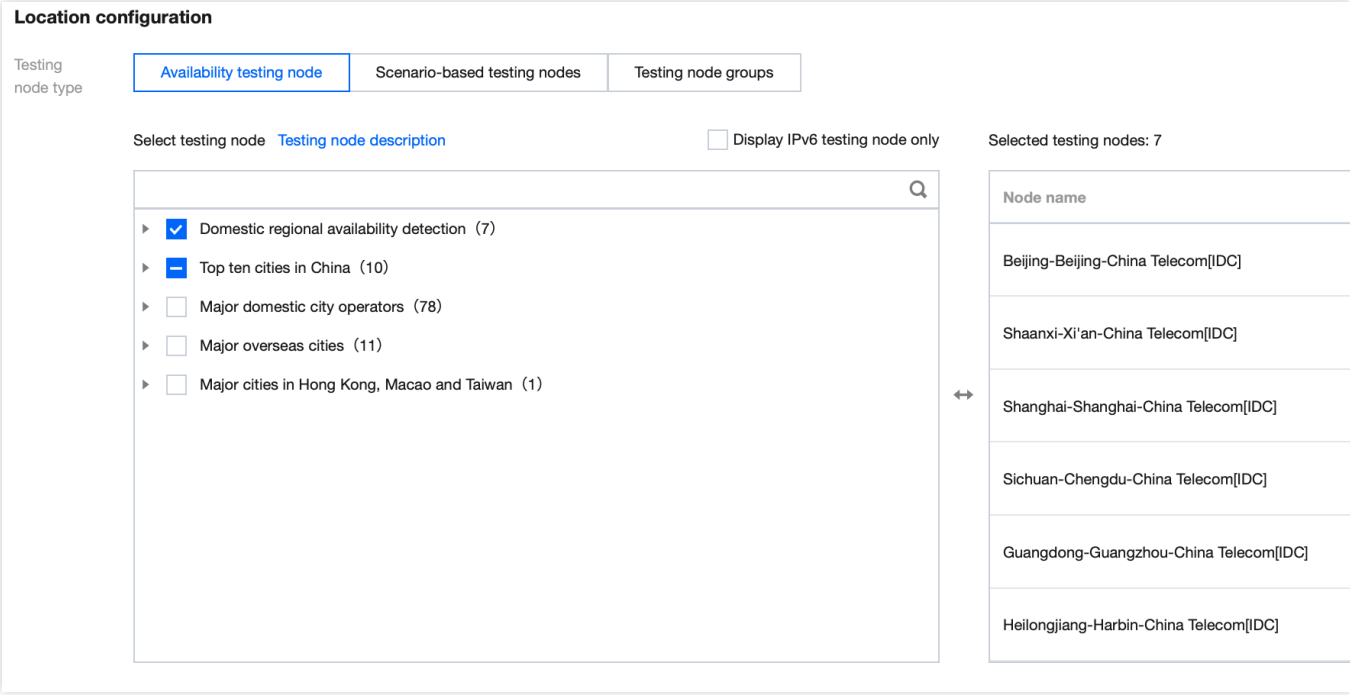
mobile testing nodes.

Recommended testing node group: Commonly used and recommended testing nodes.

Custom testing node group: Select the region, node type, and testing node on the right box. Node types are as detailed below:

Testing node Type	Description
IDC	It is the testing node deployed on the PC to test the PC user experience.
LastMile	It is the testing node deployed on the end user's PC to test the end user's experience on the PC.
Mobile	It is the location deployed on the mobile phone to test the mobile user experience.

My testing node group: You can select a common testing node group in **Scenario-based testing nodes** and click **Create testing node group** in the bottom-right corner. Then, you can directly select a common testing node you created from **My testing node group** when creating a task.



Suggestions for selection

IDC and **LastMile** have different network environments, and the former is more stable than the latter.

To test the business availability, you can select the more stable **IDC**.

To check the access experience and network conditions of end users, we recommend you select **LastMile** or **Mobile** to simulate the user access to an application.

6. Configure the test parameters (optional). By default, the system configures common test parameters. You can also customize test rules as follows:

HTTP(s):

Configuration Item	Description	Default Value
Protocol type	It can be HTTP(s), SSL, TCP, or UDP.	Auto
Test address	Enter the target web application address starting with `http://`. For example: 1. Domain: http://www.tencent.com 2. Domain and port: http://www.tencent.com:80 **Note:** You need to select the request type for HTTP(s).	Plain text
Character encoding	The encoding type of the content sent, which can be **UTF-8**, **GBK**, **GB2312**, or **Unicode**.	UTF-8
Custom host	It supports polling by IP or random monitoring. Separate multiple IPs by comma. For example: IPv4: 192.168.2.1,192.168.2.5:img.a.com|192.168.2.1?]:img.a.com| IPv6: [0:0:0:0:0:0:0:1][8080],[0:0:0:0:0:0:0:2][8081]:www.a.com|]	-
IP type	The type of the accessed server. Valid values: `Auto` (randomly tests the performance of an IPv4 or IPv6 server); `IPv4` (tests the performance of a specified IPv4 server); `IPv6` (tests the performance of a specified IPv6 server).	-
Request configuration	Customize the **Header**, **Authentication**, **Query parameters**, and **Cookies** to be added to an HTTP request.	-
Verification method	Customize the method to verify API data requests, which can be **statusCode**, **body**, or **header**.	-

Other configuration items of SSL, TCP, and UDP:

Configuration Item	Description	Default Value
Request type	You can enter the request content, i.e., the request header information of the protocol, in plain text or binary streams.	-
Request content	Customize the request content for a API monitoring test.	-
Verification method	Customize the method to verify API data requests. No verification: Data integrity is not verified. Full match: The response data must be exactly the same as the entered data.	No verification

	Partial match: The response data need to contain part of or all the entered data, and the received data must be greater than the entered data in size. MD5: The response data is saved as a file for MD5 checksum calculation, and the obtained value needs to be exactly the same as the expected value.	

Creating File Transfer Task

Last updated：2023-12-22 11:28:02

This document describes how to create a file transfer task to test the speed of file upload/download and get the speed of application data transfer, which reflects the actual bandwidth fluctuations.

Directions

1. Log in to the CAT console.
2. On the left sidebar, click **Tasks**.
3. Click **Create task** at the top of the **Tasks** page.
4. Configure the basic information as follows:

Configuration Item	Description
Test mode	Select Regular test.
Task type	Select File transfer (upload/download) on the PC or mobile.
Test address	Enter the target web application address starting with `http://` or `https://`. For example: 1. Domain: http://www.tencent.com 2. Domain and port: http://www.tencent.com:80 **Note:** You need to enter the port when using TCP or UDP in Ping monitoring.
Test task name	Enter a custom test task name.
Test frequency	It can be 1 minute, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 60 minutes, or 120 minutes. For example, if you select 5 minutes, each testing node will be tested once every five minutes.

5. Configure the testing node as follows:

5.1 Select the method: You can select **Recommended location group** or **Custom location group** (the former contains common nodes).

5.2 Select the location:

Availability testing nodes: Only network quality and API monitoring tasks are supported. This option is suitable for network quality monitoring, API availability monitoring, and hijacking and blocking detection.

Scenario-based testing nodes: This option is suitable for page user experience and streaming lag monitoring, availability testing under poor network conditions, CDN selection, and path optimization. It covers global IDC, PC, and

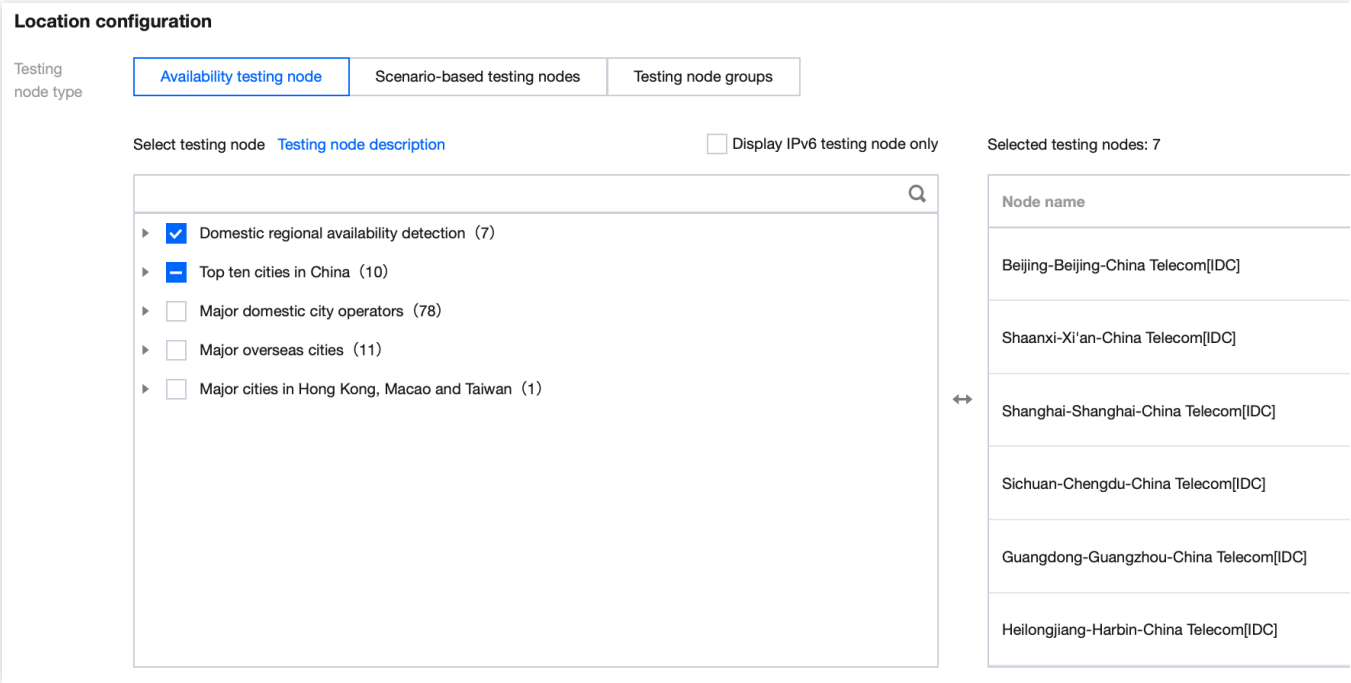
mobile testing nodes.

Recommended testing node group: Commonly used and recommended testing nodes.

Custom testing node group: Select the region, node type, and testing node on the right box. Node types are as detailed below:

Testing node Type	Description
IDC	It is the testing node deployed on the PC to test the PC user experience.
LastMile	It is the testing node deployed on the end user's PC to test the end user's experience on the PC.
Mobile	It is the location deployed on the mobile phone to test the mobile user experience.

My testing node group: You can select a common testing node group in **Scenario-based testing nodes** and click **Create testing node group** in the bottom-right corner. Then, you can directly select a common testing node you created from **My testing node group** when creating a task.



Suggestions for selection

IDC and **LastMile** have different network environments, and the former is more stable than the latter.

To test the business availability, you can select the more stable **IDC**.

To check the access experience and network conditions of end users, we recommend you select **LastMile** or **Mobile** to simulate the user access to an application.

6. Configure the test parameters (optional) as follows:

File upload:

Configuration Item	Description	Default Value
IP type	It can be Auto, IPv4, or IPv6.	Auto
Upload method	It can be POST or PUT.	POST
Download URL of the file to be uploaded	The specified file will be downloaded through the URL for the upload task. The file size should not exceed the set transferred file size.	-
File MD5	It is optional. If it is not specified, the file to be uploaded will be automatically generated by the testing node.	-
Transferred file size	Define the size of the file to be uploaded, which must be greater than 0 KB and smaller than or equal to 51,200 KB.	1,024 KB
Custom host	It supports polling by IP or random monitoring. Separate IP addresses by comma. For example: IPv4: 192.168.2.1,192.168.2.5:img.a.com|192.168.2.1?]:img.a.com| IPv6: [0:0:0:0:0:0:0:1][8080],[0:0:0:0:0:0:0:2][8081]:www.a.com|]	-

File download:

Configuration Item	Description	Default Value
IP type	It can be Auto, IPv4, or IPv6.	Auto
Transferred file size (KB)	Define the size of the file to be downloaded, which must be greater than 0 KB and smaller than or equal to 51,200 KB.	1,024 KB
Custom host	It supports polling by IP or random monitoring. Separate IP addresses by comma. For example: IPv4: 192.168.2.1,192.168.2.5:img.a.com|192.168.2.1?]:img.a.com| IPv6: [0:0:0:0:0:0:0:1][8080],[0:0:0:0:0:0:0:2][8081]:www.a.com|]	-
DNS hijacking allowlist	If the IP from the DNS query is not in the allowlist, hijacking occurred, and the hijacking result can be selected and viewed in the details of the testing statistics. For more information, see Hijacking Monitoring Parameter Description.	-

DNS hijacking blocklist	If the IP from the DNS query is in the blocklist, hijacking occurred, and the hijacking result can be selected and viewed in the details of the testing statistics. For more information, see Hijacking Monitoring Parameter Description.	-

Creating Audio/Video Experience Task

Last updated：2023-12-22 11:28:18

This document describes how to create an audio/video experience test task to test video playback on streaming media websites and in applications and get data such as the lag rate, lag duration, and time to first frame, so as to help you improve the video watch experience.

Directions

1. Log in to the CAT console.
2. On the left sidebar, click **Tasks**.
3. Click **Create task** at the top of the **Tasks** page.
4. Configure the basic information as follows:

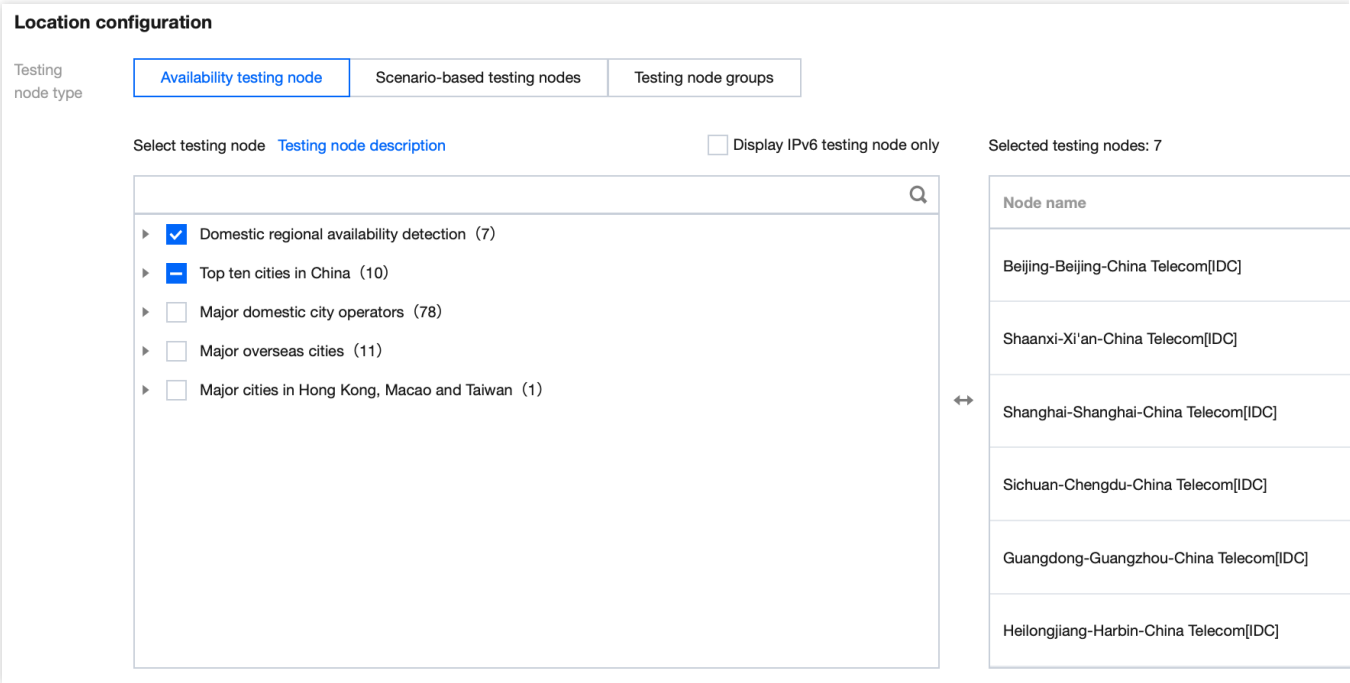
Configuration Item	Description
Test mode	Select Regular test.
Task type	Select Audio/Video experience on the PC or mobile.
Test address	Enter the target web application address starting with `http://` or `https://`. For MP4 RTMP streams, indicate mp4. For example: 1. http://www.tencent.com 2. RTMP stream: rtmp://host/server/mp4:res
Test task name	Enter a custom test task name.
Test frequency	It can be 1 minute, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 60 minutes, or 120 minutes. For example, if you select 5 minutes, each testing node will be tested once every five minutes.

5. Configure the testing node as follows:
 i. Select the method: You can select **Recommended testing node group** or **Custom testing node group** (the former contains common nodes).
 ii. Select testing nodes
Availability testing nodes: Only network quality and API monitoring tasks are supported. This option is suitable for network quality monitoring, API availability monitoring, and hijacking and blocking detection.

Scenario-based testing nodes: This option is suitable for page user experience and streaming lag monitoring, availability testing under poor network conditions, CDN selection, and path optimization. It covers global IDC, PC, and mobile testing nodes.
Recommended testing node group: Commonly used and recommended testing nodes.
Custom testing node group: Select the region, node type, and testing node on the right box. Node types are as detailed below:

Testing node Type	Description
IDC	It is the testing node deployed on the PC to test the PC user experience.
LastMile	It is the testing node deployed on the end user's PC to test the end user's experience on the PC.
Mobile	It is the testing node deployed on the mobile phone to test the mobile user experience.

My testing node group: You can select a common testing node group in **Scenario-based testing nodes** and click **Create testing node group** in the bottom-right corner. Then, you can directly select a common testing node you created from **My testing node group** when creating a task.



Suggestions for selection

IDC and **LastMile** have different network environments, and the former is more stable than the latter.
To test the business availability, you can select the more stable **IDC**.

To check the access experience and network conditions of end users, we recommend you select **LastMile** or **Mobile** to simulate the user access to an application.

6. Configure the test parameters (optional). By default, the system configures common test parameters. You can also customize test rules as follows:

Configuration Item	Description	Default Value
IP type	It can be Auto, IPv4, or IPv6.	Auto
Media type	It can be Video or Audio.	Video
Test duration (sec)	Customize the duration of each test. Value range: 0-60.	30s
Address type	Resource address: The actual address of the streaming media to be monitored. Page address: The page address of the streaming media to be monitored.	Page address
Custom host	It supports polling by IP or random monitoring. Separate IP addresses by comma. For example: IPv4: 192.168.2.1,192.168.2.5:img.a.com|192.168.2.1?]:img.a.com| IPv6: [0:0:0:0:0:0:0:1][8080],[0:0:0:0:0:0:0:2][8081]:www.a.com|]	-
Resource hijacking allowlist	Allow a DNS IP. If the IP from the DNS query is not in the allowlist, hijacking occurred, and the hijacking result can be selected and viewed in the details of the testing statistics. For more information, see Hijacking Monitoring Parameter Description.	-
Resource hijacking blocklist	Block a DNS IP. If the IP from the DNS query is in the blocklist, hijacking occurred, and the hijacking result can be selected and viewed in the details of the testing statitics. For more information, see Hijacking Monitoring Parameter Description.	-

Hijacking Parameter Description

Last updated：2023-12-27 15:19:29

This document describes how to configure DNS hijacking test parameters for network quality, page performance, file download, and audio/video experience tasks in CAT.

Hijacking categories

Hijacking falls into two categories:

DNS hijacking: For example, if `www.cloud.tencent.com` is resolved to another server, user access will fail, or a non-Tencent Cloud IP will be returned.

Page tampering: JS, HTML, and HTTP headers of intermediate pages are used for redirects, window opening, or frameset embedding and then rendering of the hijacked page on the user side. Common forms are pop-up ads, floating ads, redirects, etc.

DNS hijacking monitoring parameter format:

Input: `www.cloud.tencent.com:202.0.3.55|203.3.44.67`

Rule:

The part before the colon is the target domain.

The part after the colon is the match rule.

You can set multiple match rules and separate them by vertical bar.

The exact IP, IP wildcard, subnet mask, and CNAME can be set in a match rule.

Use case:

DNS hijacking allowlist:

Input	Description
`www.cloud.tencent.com:202.0.3.55|203.3.44.67`	Indicates that under the `www.cloud.tencent.com` domain name, except IPs starting with 202.0.3.55 and 203.3.44.67, the other IPs are not considered to be hijacked.
`www.cloud.tencent.com:202.0.3.*`	Indicates that IPs starting with `202.0.3.` under the `www.cloud.tencent.com` domain are not hijacked.
`www.cloud.tencent.com:202.0.3.1/27`	Indicates that IPs starting with the same first 27 digits as 202.0.3.1 under the `www.cloud.tencent.com` domain are not hijacked.

`www.cloud.tencent.com:*`	Indicates that all IPs under the `www.cloud.tencent.com` domain are not hijacked.

DNS hijacking blocklist:

Input	Description
`www.cloud.tencent.com:202.0.3.55|203.3.44.67`	Indicates that under the `www.cloud.tencent.com` domain name, except IPs starting with 202.0.3.55 and 203.3.44.67, the other IPs are considered to be hijacked.
`www.cloud.tencent.com:202.0.3.*`	Indicates that IPs starting with `202.0.3.` under the `www.cloud.tencent.com` domain are hijacked.
`www.cloud.tencent.com:202.0.3.1/27`	Indicates that IPs starting with the same first 27 digits as 202.0.3.1 under the `www.cloud.tencent.com` domain are hijacked.
`www.cloud.tencent.com:*`	Indicates that all IPs under the `www.cloud.tencent.com` domain are hijacked.

Pausing Task

Last updated：2023-12-22 11:28:51

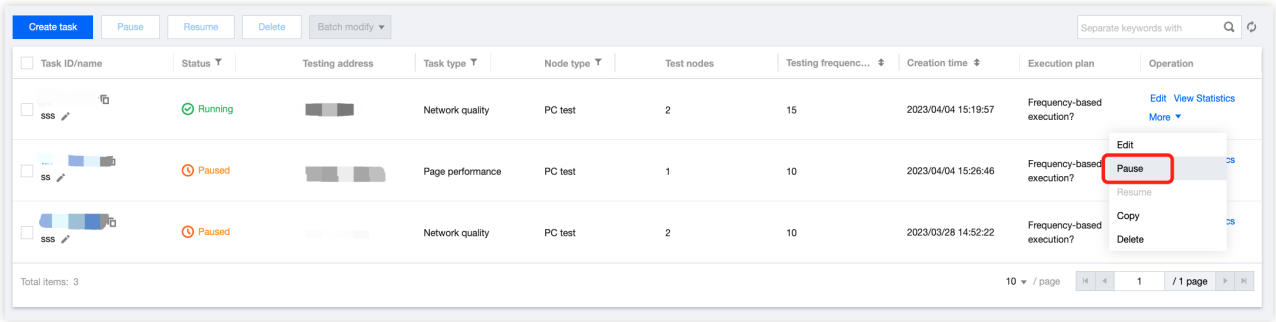
This document describes how to pause a test task, after which the Test Statistics page will not be able to display test data and billing will stop.

Directions

1. Log in to the CAT console.
2. On the left sidebar, click **Tasks**.

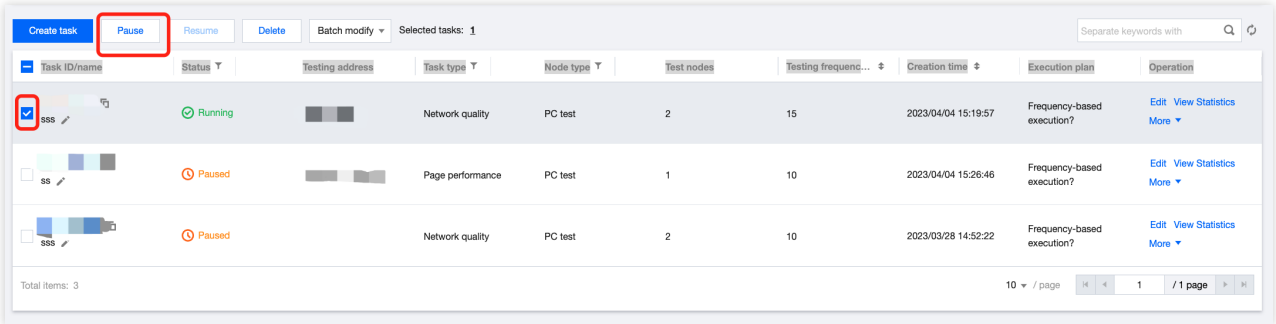
Pausing a test task

In the test task list, click **More** > **Pause** in the **Operation** column to pause a task.



Batch pausing test tasks

Select multiple tasks and click **Pause** in the top-right corner to pause them.



Resuming Task

Last updated：2023-12-22 11:29:09

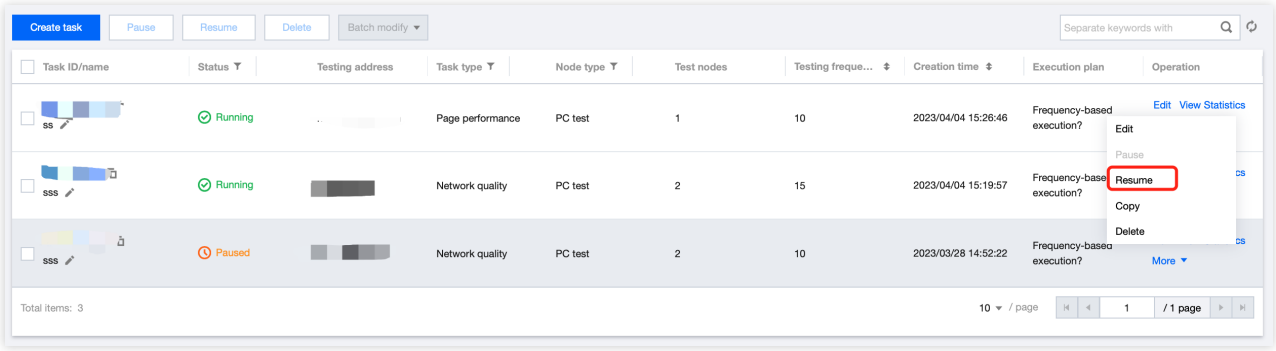
This document describes how to resume a test task, after which CAT will resume billing.

Directions

1. Log in to the CAT console.
2. On the left sidebar, click **Tasks**.

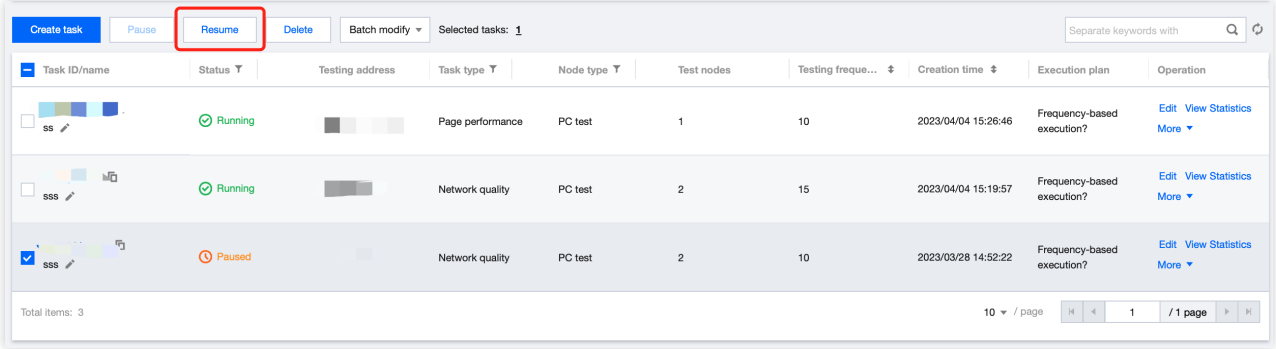
Resuming a test task

In the test task list, click **More** > **Resume** in the **Operation** column to resume a task.



Batch resuming test tasks

Select multiple tasks and click **Resume** in the top-left corner to resume them.



Instant Test
Overview

Last updated：2023-12-22 11:29:42

Instant tests are non-intrusive and can return test data in real time. If you perceive a problem in a scheduled test, you can quickly verify the problem.

Feature description

Retention period: Data of both instant tests and scheduled tests are retained for 30 days, including the details and metric data.
Billing rule: If you perform an instant test, the system will charge fees in pay-as-you-go mode based on the selected location, and the fees cannot be deducted from the plan.
Data return time: You can view the test data after one to three minutes.
Test again: After the test is performed again, the system will charge fees again in pay-as-you-go mode based on the selected location.

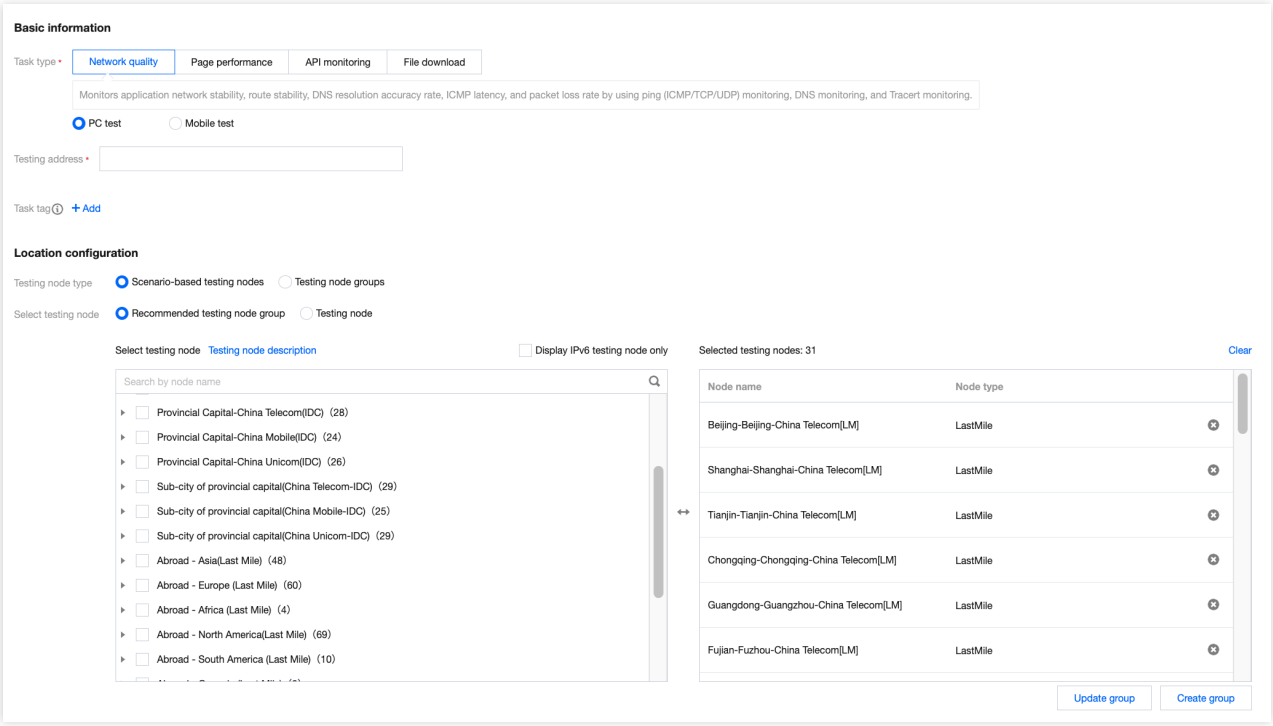
Creating Instant Test Task

Last updated：2023-12-22 11:30:00

This document describes how to create a test task.

Directions

1. Log in to the CAT console.
2. On the left sidebar, click **Instant test**.
3. Click **Create task** at the top of the task list page and configure the basic information as follows:
Select the test task type. Only network quality, page performance, and file download are supported for instant tests.
Select the address of the created scheduled test task or enter a new test address.
4. The test parameters are optional and can be configured as described in the following documents:
Creating Network Monitoring Task
Creating Page Performance Monitoring Task
Creating File Download Monitoring Task
5. After the configuration, click **Start test**. After the task is created successfully, you will be redirected to the historical diagnosis page. Wait for one to three minutes and you can view the test data.



Note:

If you perform an instant test, the system will charge fees in pay-as-you-go mode based on the selected testing node, and the fees cannot be deducted from the plan. An instant test is a single test, and its fees are calculated as the number of testing nodes x unit price. If you select 100 IDC testing nodes, and the unit price is 0.0048 USD/time, then the fees for a test will be 0.0048 x 100 = 00.48 USD.

Viewing the Historical Data of Instant Test

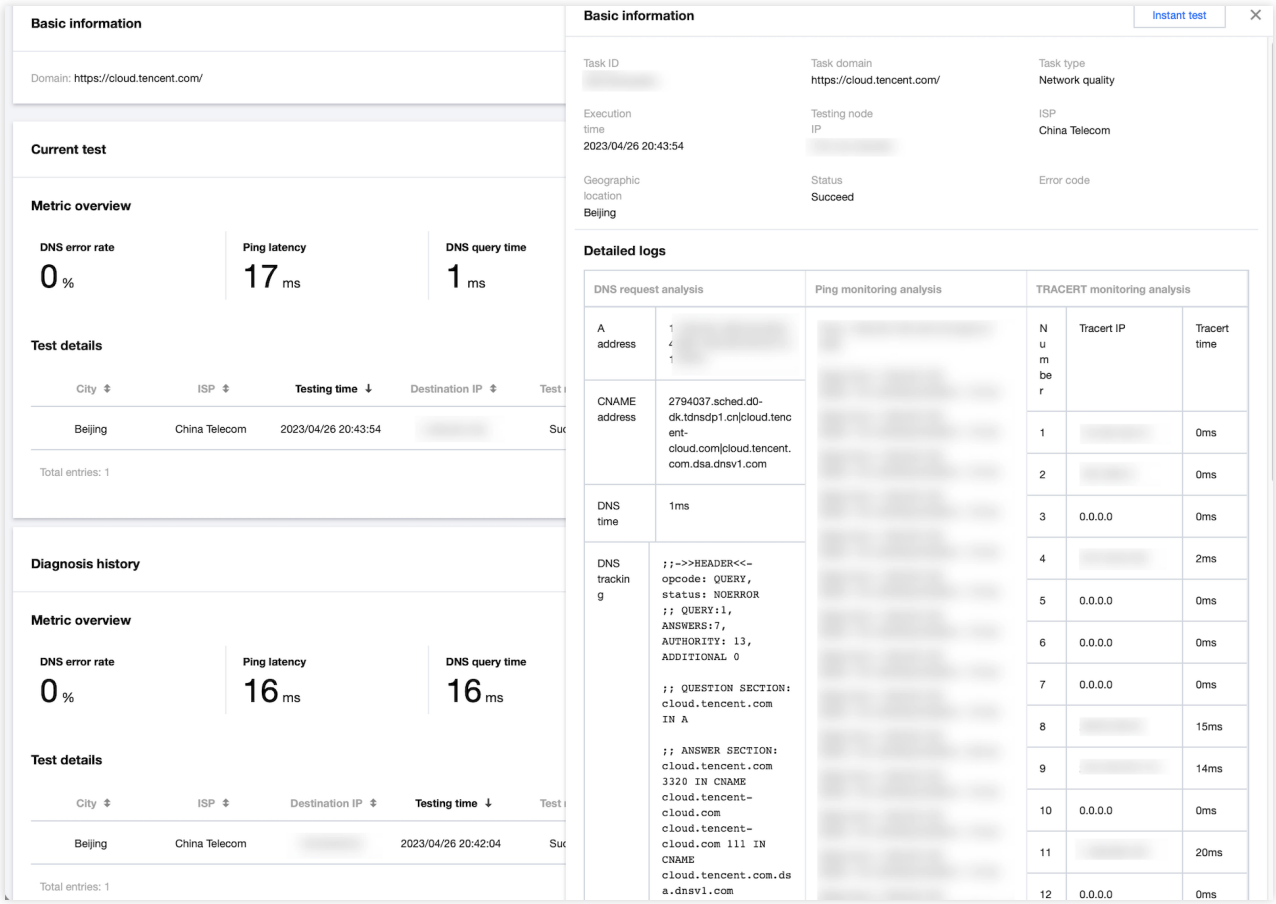
Last updated：2023-12-22 11:30:16

This document describes how to view the historical data of an instant test in the last 30 days.

Directions

Current test data

1. Log in to the CAT console.
2. On the left sidebar, click **Instant Test**.
3. Click **History** in the top-right corner of the page.
4. Find the target test task and click **View details** in the **Operation** column to view the test data in the last 30 days.

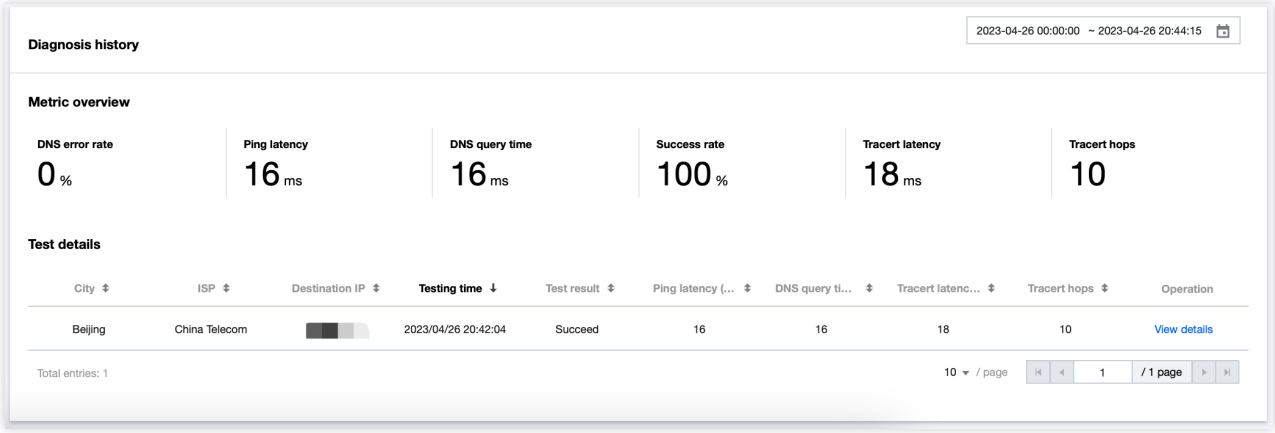


Diagnosis history

The diagnosis history records the historical data of a test task of a domain.

The **Metric overview** section on the **Diagnosis history** page displays the average values calculated based on the

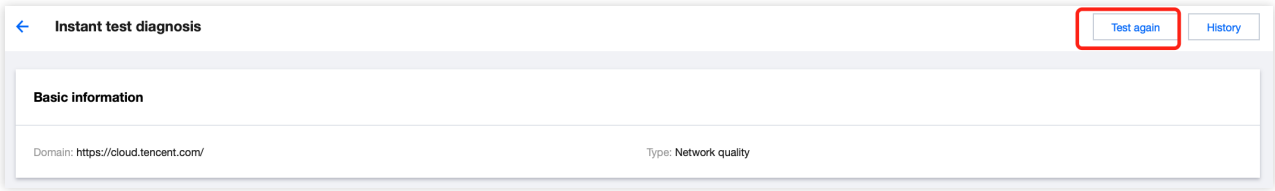
metric data within the specified time range of the filter.



Testing again

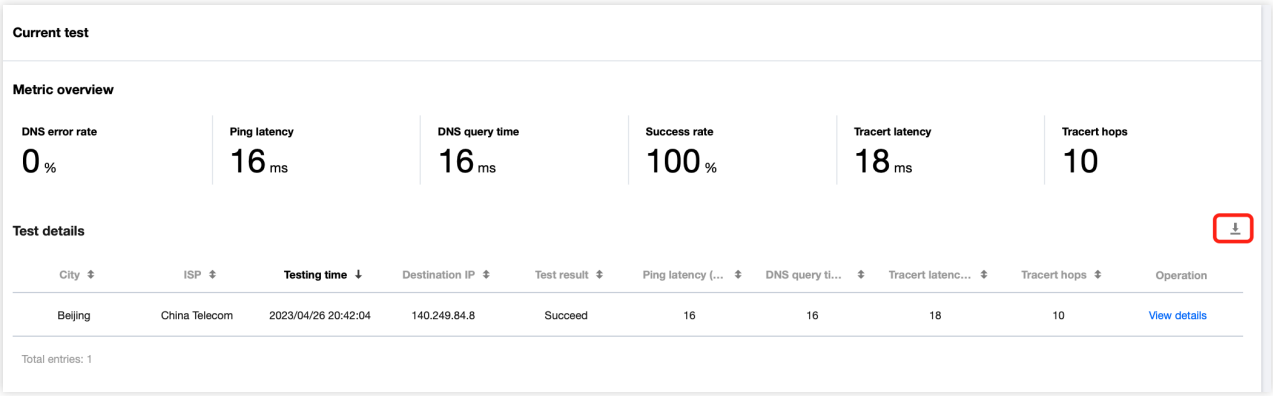
Click **Test again** in the top-right corner of the page. Then, the system will perform another test based on the current configuration.

After the test is performed again, the system will charge fees again in pay-as-you-go mode based on the selected location. The current test record is the historical record and will be updated one to three minutes after a new test is performed.



Exporting data

CAT retains instant test data for only 30 days. You can click the download button above **Test details** table to download the data, thereby meeting the requirements for a longer storage.



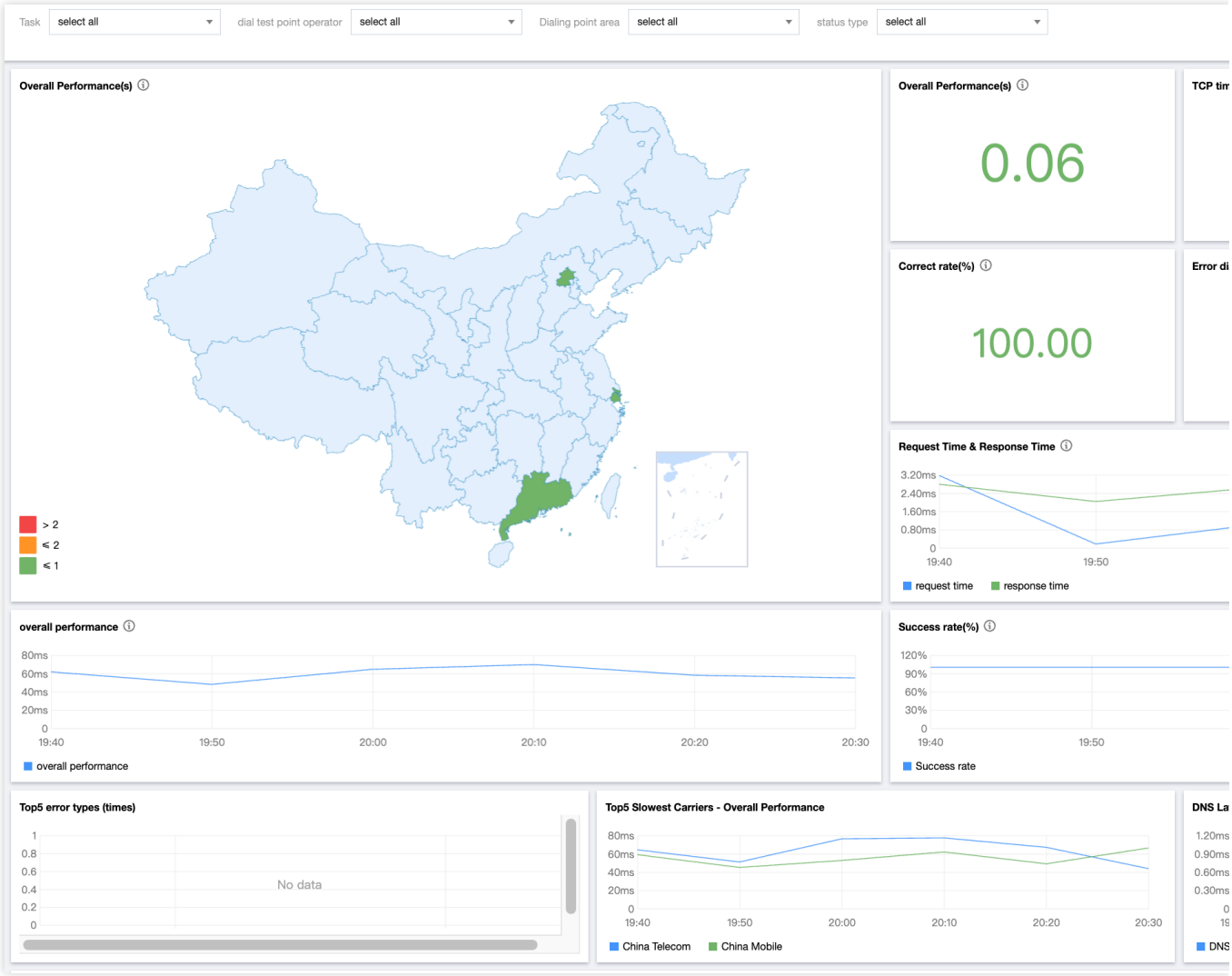
Testing Statistics
API Monitoring

Last updated：2023-12-22 11:31:07

After creating a API monitoring task successfully, you can analyze the overall API performance on the **Test Statistics** page.

Directions

1. Log in to the CAT console.
2. Click **Test Statistics** on the left sidebar and select **API monitoring**.
3. On the **Test Statistics** page, analyze the test data in multiple dimensions such as map, line chart, figure, and detailed data.



Metric description

Metric	Description
Overall performance (s)	The time from the start of the DNS process to the data receiving.
TCP time (s)	The time taken to establish a TCP connection between the client and the target server.
Success rate (%)	The rate of successful access requests to the target by the client performing the test tasks, which is calculated as the number of valid test tasks / total number of test tasks * 100%.
Accuracy (%)	The ratio of the data that passed the verification to all the returned correct data. Passing the verification means passing the verification in the verification method configured in the protocol configuration item.

Errors	Number of errors in the protocol test.
Valid tests	Number of valid data samples.
Request time (s)	The time taken to send a protocol request.
Response time (s)	The time taken for the client to receive the first response packet from the server after sending the data.
SSL handshake time (s)	The time taken by an SSL handshake.
Top 5 error types	The top five error types of the most errors.
Top 5 slowest ISPs	The top five ISPs with the poorest overall performance.

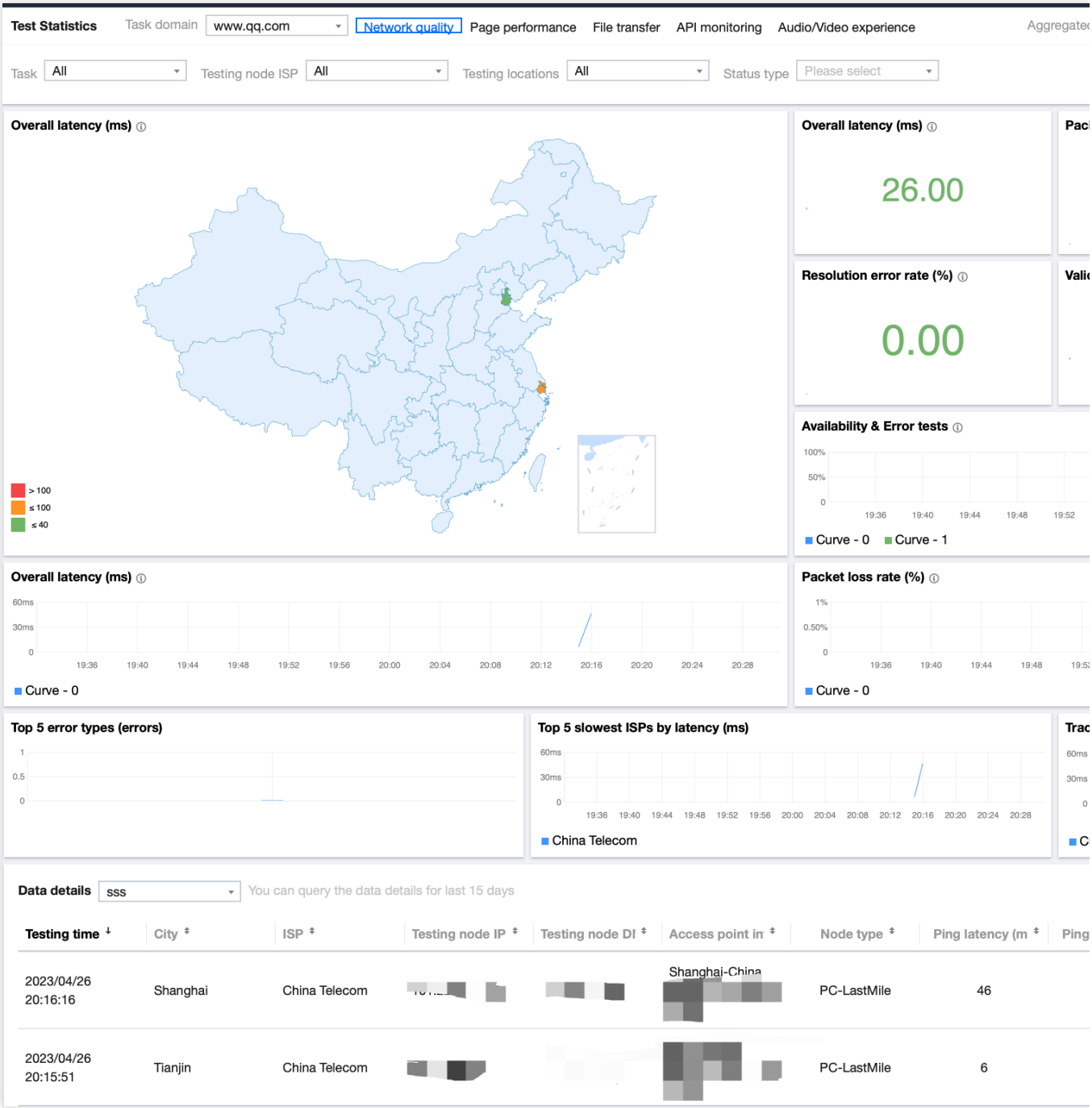
Network Quality

Last updated：2023-12-22 11:31:27

After creating a network quality test task successfully, you can analyze the overall network performance on the **Test Statistics** page.

Directions

1. Log in to the CAT console.
2. Click **Test Statistics** on the left sidebar and select **Network quality**.
3. On the **Test Statistics** page, analyze the test data in multiple dimensions such as map, line chart, figure, and detailed data.



Metric description

Metric	Description
Latency (ms)	The time taken by a message or packet to travel from source to destination, which is subject to the internet routing. If a channel is slow or too crowded, the latency may be high, or data packets may be lost.

Packet loss rate (%)	The ratio of the number of lost packets to the total number of transferred packets, which may be due to physical line failure, device failure, network congestion, route error, etc.
DNS query duration (ms)	The time taken to convert an input domain to an IP.
DNS error rate (%)	The ratio of DNS errors, which is calculated as the number of DNS errors / total number of domains * 100%.
Valid tests	Number of valid data samples.
Invalid tests	Number of invalid data samples.
Availability (%)	The rate of successful access requests to the target by the client performing the test task, which is calculated as the number of valid test tasks / total number of test tasks * 100%.
Tracert latency (%)	The average latency of all hops in a Tracert.
Tracert hops	Number of network devices passed.
Top 5 error types	The top five error types of the most errors.
Top 5 slowest ISPs	The top five ISPs with the highest average latency.

File Transfer

Last updated：2023-12-22 11:31:59

After creating a file transfer (upload/download) test task successfully, you can analyze the overall file transfer performance on the **Test Statistics** page.

Directions

1. Log in to the CAT console.
2. Click **Test Statistics** on the left sidebar and select **File transfer**.
3. On the **Test Statistics** page, analyze the test data in multiple dimensions such as map, line chart, figure, and detailed data.

Metric description

Metric	Description
Average transfer speed (KB/s)	The average speed of downloading or uploading the target file: Average transfer speed = number of bytes actually downloaded or uploaded / transfer duration.
Time to first packet (s)	Download: The time taken by the client to receive the first response packet from the server after initiating a download request. Upload: The time taken by the client to send a packet after initiating an upload request.
Success rate (%)	The ratio of successful transfers to the total number of transfers.
Transferred file size (KB)	Total number of uploaded or downloaded bytes, subject to the task type.
Errors	Number of error data samples.
Valid tests	Number of valid data samples.
Transfer duration (s)	Download: The time taken to download the target file. Upload: The time taken to receive the target file sent by the client.
DNS time	The time taken to convert an input domain to an IP.
TCP time	The time taken to establish a TCP connection when the target file is downloaded or uploaded.

Top 5 error types	The top five error types of the most errors.
Top 5 slowest regional ISPs	The top five ISPs with the lowest average transfer speed.

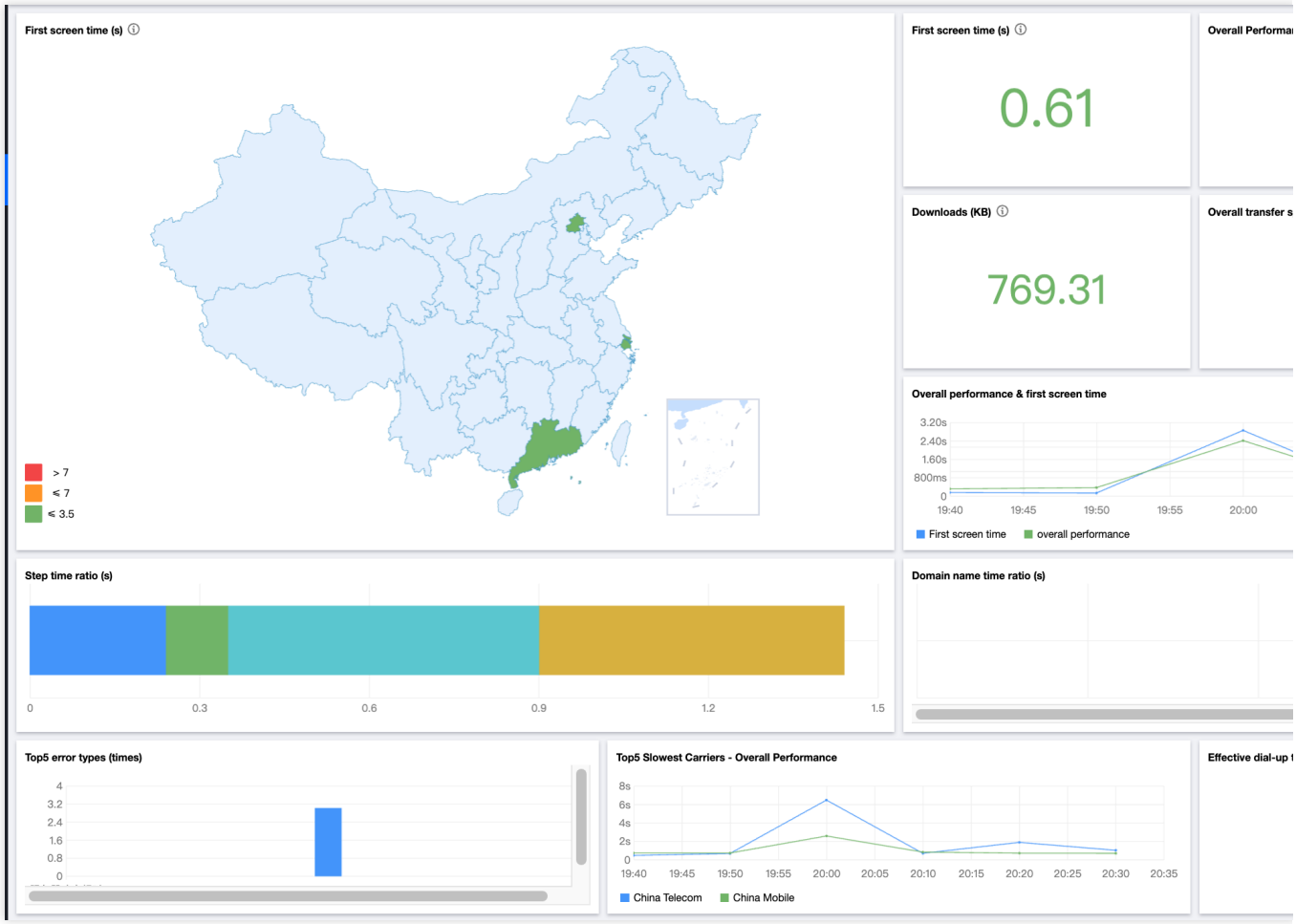
Page Performance

Last updated：2023-12-22 11:32:16

After creating a page performance test task successfully, you can analyze the overall webpage performance on the **Test Statistics** page.

Directions

1. Log in to the CAT console.
2. Click **Test Statistics** on the left sidebar and select **Page performance**.
3. On the **Test Statistics** page, analyze the test data in multiple dimensions such as map, line chart, figure, and detailed data.



Metric description

Metric	Description
Overall performance (s)	The time from starting browsing a page to receiving the last packet.
100 KB time (s)	The average time taken to load 100 KB of content: 100 KB time = overall performance / total number of downloaded bytes x 100.
Time to first screen (s)	The time from entering an URL to rendering an area on the page to a height greater than or equal to the specified height, which is 600 pixels by default. If the height is smaller than 600 pixels, the time is from starting browsing to the IE kernel sending the `Document Completed` event.
Availability (%)	The rate of successful access requests to the target by the client performing the test tasks: Availability = number of valid test tasks / total number of test tasks x 100%.
Downloaded size (KB)	The total size downloaded by the IE kernel during the browsing.
Overall speed (KB/s)	The average speed of loading a page: Overall speed = total number of downloaded bytes / overall performance.
Hijacks	Total number of hijack occurrences.
Rendering duration (s)	Rendering duration = overall performance – time taken to download basic documents.
Document completion duration (s)	The time from starting browsing a page to parsing the basic document.
Errors	Number of failed access requests in the test.
Top 5 error types	The top five error types of the most errors.
Top 5 slowest ISPs	The top five ISPs with the poorest overall performance.
Valid tests	Number of valid data samples.
Invalid tests	Number of invalid data samples.

Audio/Video Experience

Last updated：2023-12-22 11:32:34

After creating an audio/video experience monitoring task successfully, you can analyze the overall audio/video performance on the **Test Statistics** page.

Directions

1. Log in to the CAT console.
2. Click **Test Statistics** on the left sidebar and select **Audio/Video experience**.
3. On the **Test Statistics** page, analyze the test data in multiple dimensions such as map, line chart, figure, and detailed data.

Metric description

Metric	Description
Duration of the first buffer (s)	Duration of the first buffer = time to first frame – time to first video packet Lag duration: The cumulative duration of lag (buffer) after the start of video playback (excluding the first buffer).
Total buffer duration (s)	Total buffer duration = duration of the first buffer + duration of lag 1 + duration of lag N.
Total buffers	Total number of buffers = first buffer + number of lags.
Time to first video packet (s)	The time from getting the actual video address to getting the first video packet.
Average download speed (KB/s)	The speed at which the player downloads video resources during playback: Average download speed = total number of downloaded bytes / throughput duration.
Availability (%)	The percentage of successful streaming media tasks to the total number of test tasks.
Time to first frame (s)	The time from getting the actual video address to playing back the first video frame.
Total buffer duration (s)	Total buffer duration = duration of the first buffer + duration of lag 1 + duration of lag N.

Lag duration (s)	The cumulative duration of lag (buffer) after the start of video playback (excluding the first buffer). Lag duration = total buffer duration – duration of the first buffer.
Percentage of lag duration (%)	The ratio of the lag duration to the total playback duration, i.e., lag duration / total playback duration (up to 60s).
Lag rate (%)	Lag rate = total number of lag samples / number of valid test tasks. Total number of lag samples: Total number of samples buffered again during the playback of all videos.
Errors	Number of failed access requests in the test.
Top 5 error types	The top five error types of the most errors.
Top 5 slowest ISPs	The top five ISPs with the longest total buffer duration.
Resource DNS time	The time taken to resolve the domain of the resource server when the player downloads video resources.
Resource TCP connection duration	The time taken to establish a TCP connection when the player downloads video resources.

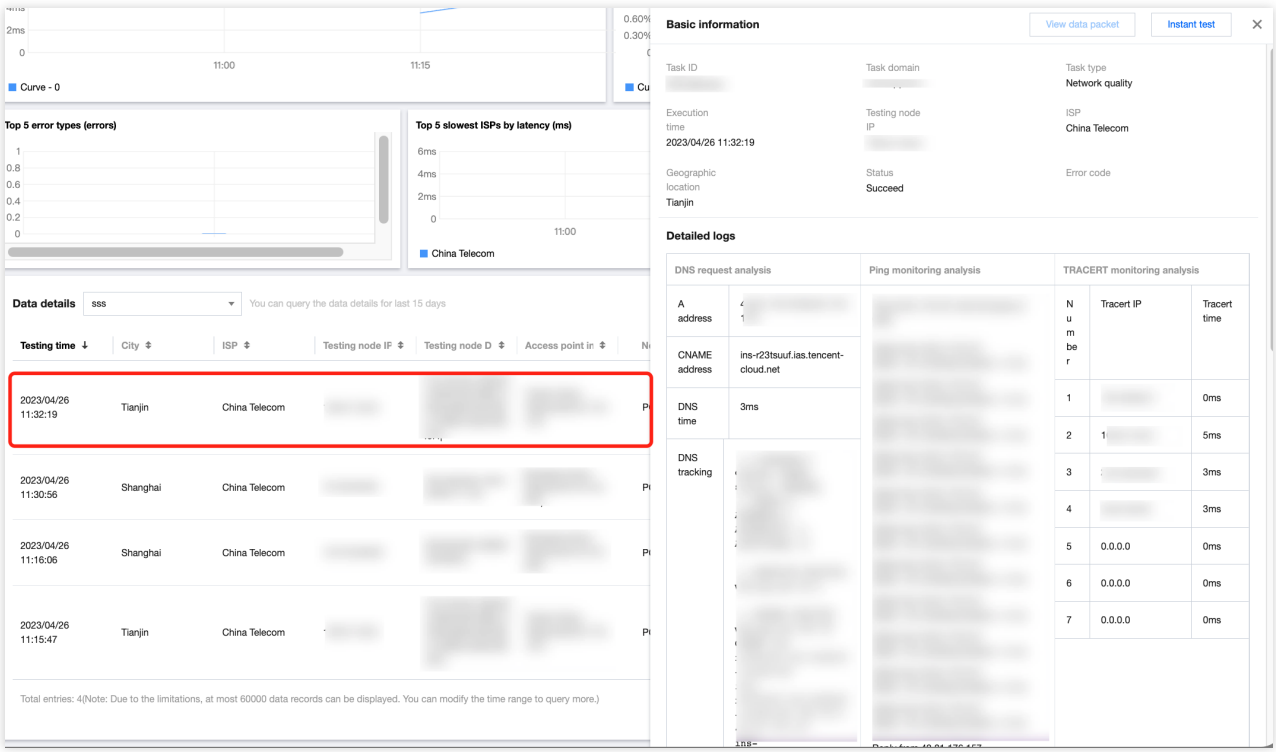
Viewing Log Details

Last updated：2023-12-22 11:32:49

This document describes how to view the detailed log data of a test task.

Directions

1. Log in to the CAT console.
2. Click **Test Statistics** on the left sidebar and select a test task.
3. Scroll down to the detailed data list and click any column to view the log data of the test task.



Task Comparison

Last updated：2023-12-22 11:33:04

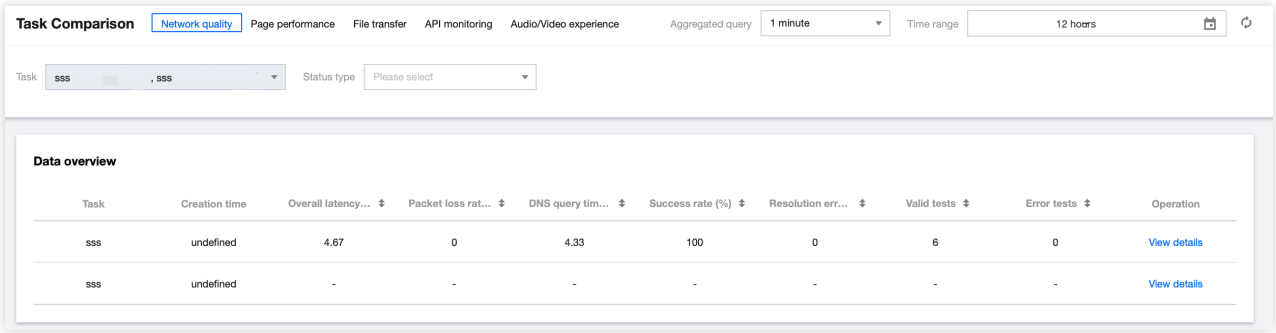
After creating multiple test tasks for the same scenario, you can leverage the task comparison feature to analyze their performance metrics. This feature applies to CDN quality comparison, horizontal comparison of website performance, etc.

Directions

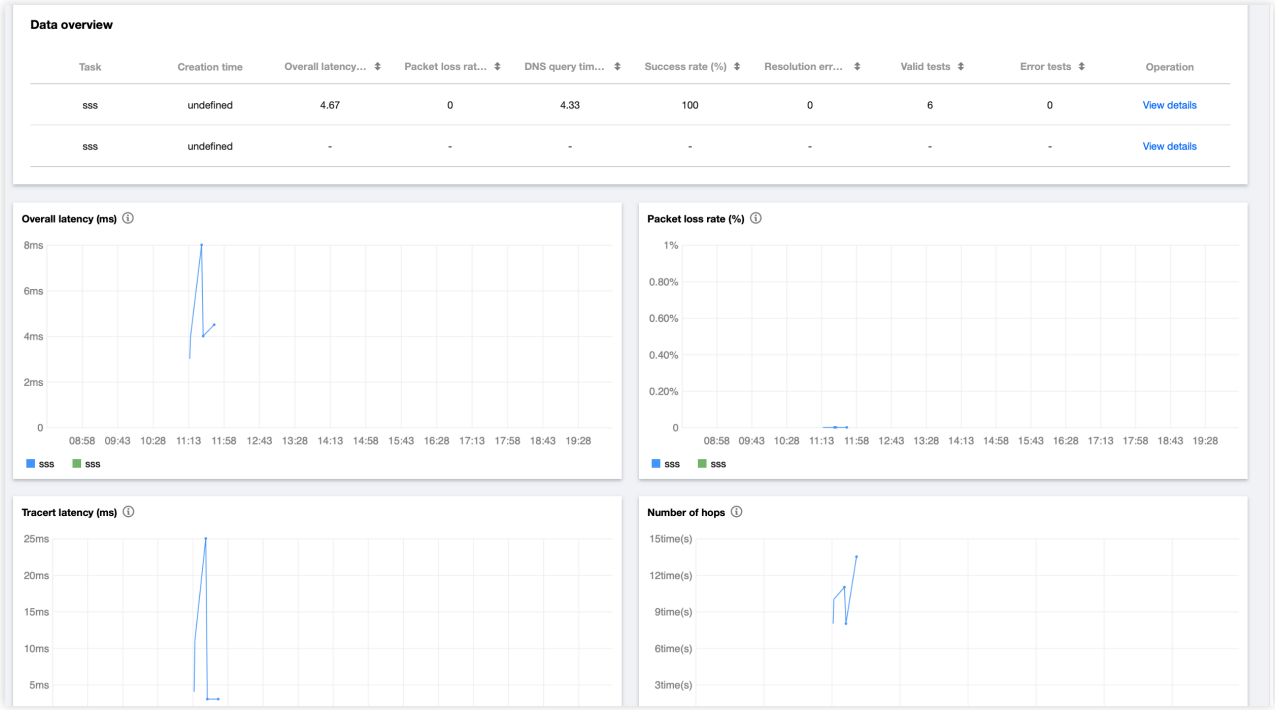
Note:

You can compare up to three test tasks.

1. Go to **Task Comparison** in the CAT console.
2. In the top-left corner of the **Task Comparison** page, select the target task scenario and task type.



3. Then, you can horizontally compare the data of different test tasks in multiple dimensions such as map, line chart, figure, and detailed data on the **Task Comparison** page.



Note:

For more information on metrics, see Test Statistics.

Access Management
Overview

Last updated：2023-12-22 11:33:21

If you have multiple users managing the CAT service, and they all share your Tencent Cloud account access key, you may face the following problems:
Your key will be easily compromised because it is shared by several users.
You cannot restrict the access from other users and your service will be vulnerable to the security risks caused by their misoperations.
You can avoid the above problems by allowing different users to manage different services through sub-accounts. By default, sub-accounts have no permissions to use CAT. Therefore, you need to create a policy to grant different permissions to sub-accounts.
Note:
You can skip this section if you don't need to manage permissions of CAT resources for sub-accounts. This won't affect your understanding and use of the other sections of the document.

Overview

Cloud Access Management (CAM) is a Tencent Cloud web service that helps you securely manage and control access to your Tencent Cloud resources. CAM allows you to create, manage or terminate users (user groups), and control who have access to which Tencent Cloud resources based on identity and policy management.
When using CAM, you can associate a policy with a user or user group to allow or forbid them to use specified resources to complete specified tasks. For more information on CAM policies, see Policy Syntax. For more information on how to use CAM policies, see Concepts.

Authorization method

CAT supports two authorization methods: resource-level authorization and authorization by tag.
Resource-level authorization: You can use policy syntax or the default policy to grant sub-accounts permissions to manage individual resources. For more information, see Policy Syntax and Granting Policy.
Authorization by tag: You can tag resources and grant sub-accounts permissions to manage resources with particular tags.

Policy Syntax

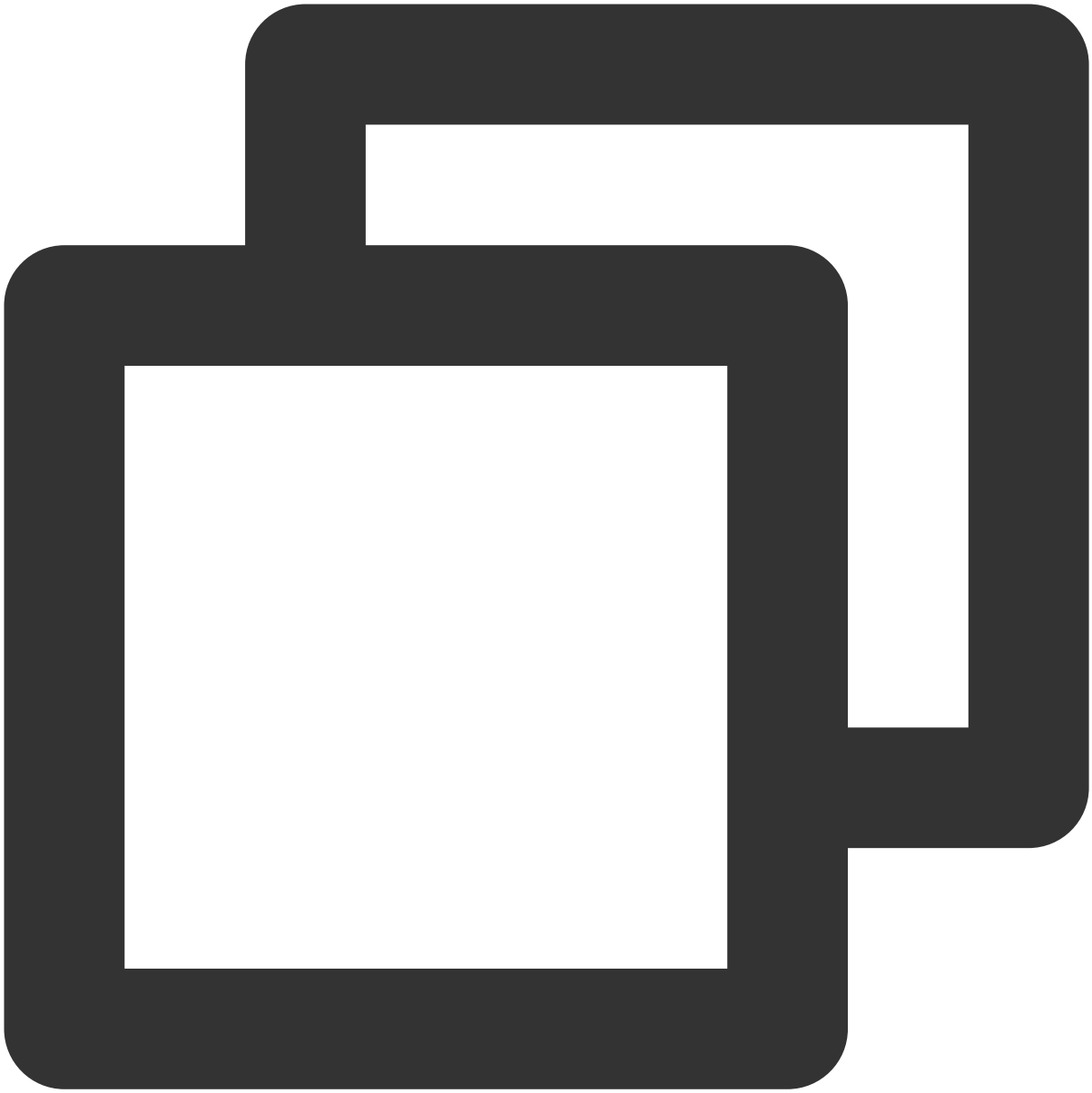
Last updated：2023-12-22 11:33:47

Overview

An access policy that employs the JSON-based access policy language is used to grant access to CAT resources. You can authorize a specified principal to perform actions on a specified CAT resource through the access policy language.
The access policy syntax describes the basic elements and usage of the policy. For the description of the policy syntax, see Concepts.

Policy Syntax

CAM policy:



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

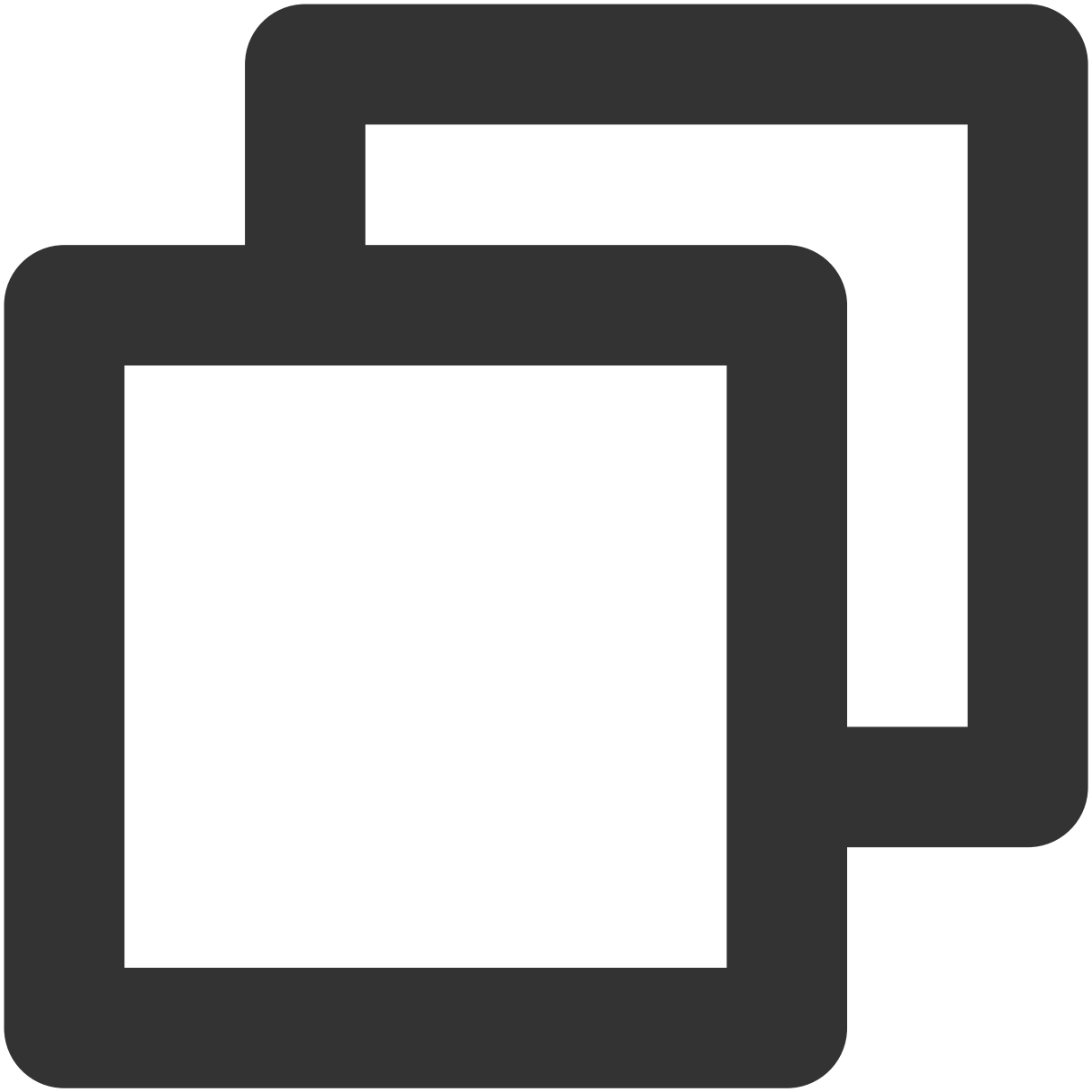
```
}
```

Element description

version is required. Currently, only "2.0" is allowed.
statement describes the details of one or more permissions. This element contains a permission or permission set of other elements such as `effect` , `action` , `resource` , and `condition` . One policy has only one statement.
effect describes whether the statement result is `allow` or `deny` . This element is required.
action specifies whether to allow or deny the operation. The operation can be an API (prefixed with `name`) or a feature set (a group of APIs, prefixed with `permid`). This element is required.
resource describes the details of an authorization. A resource is described in a six-part format. Detailed resource definitions vary by product. For more information on how to specify a resource, see the corresponding documentation for the product for which you want to write a resource statement. This element is required.
condition describes the condition for the policy to take effect. A condition consists of an operator, an action key, and an action value. A condition value may contain information such as time and IP address. Some services allow you to specify additional values in a condition. This element is optional.

Specifying an effect

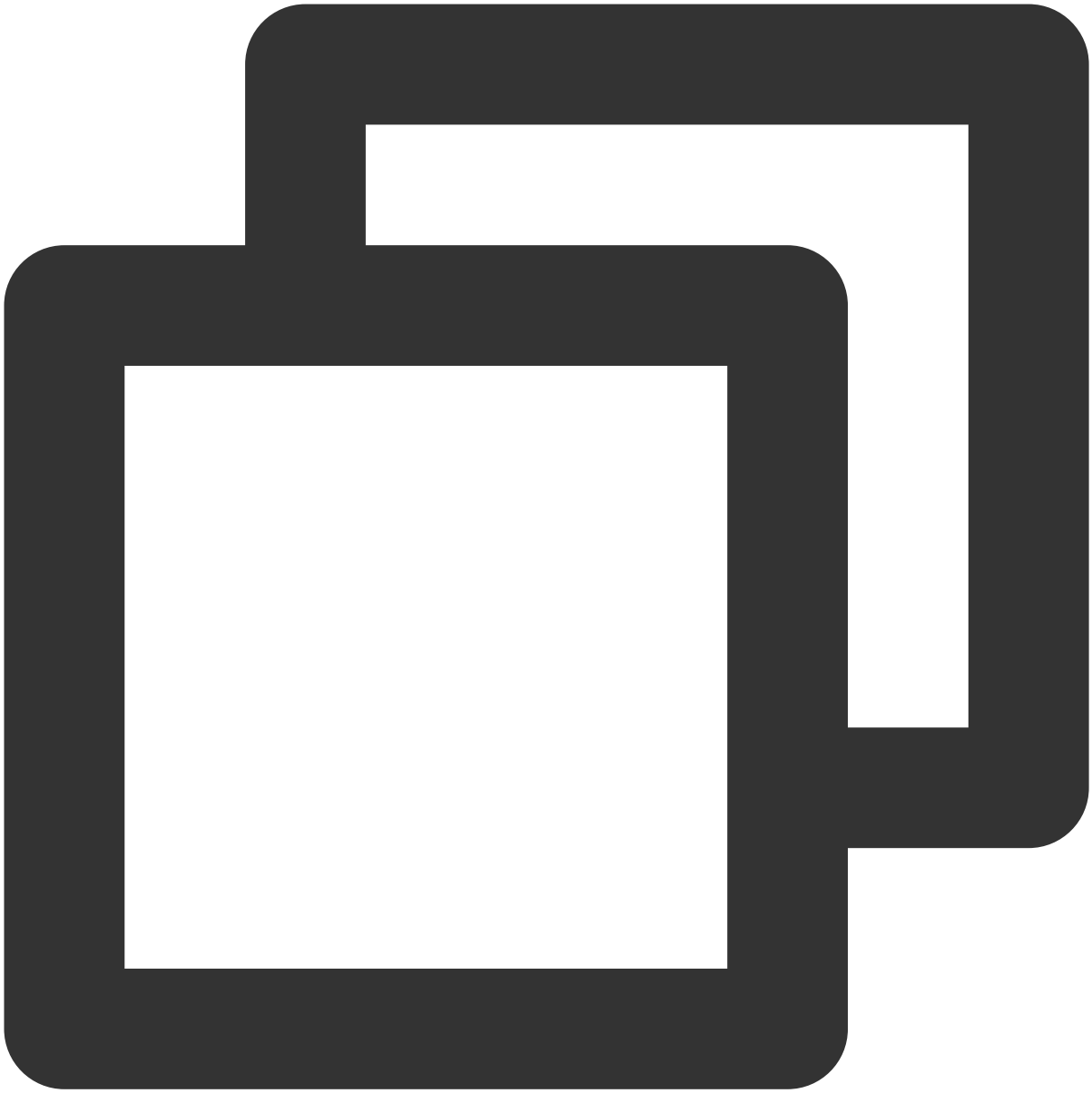
If you don't explicitly grant access to (`allow`) a resource, access is implicitly denied. You can also explicitly `deny` access to a resource to ensure that a user cannot access it, even if another policy has granted access to it. The following example specifies an `allow` effect.



```
"effect" : "allow"
```

Specifying an action

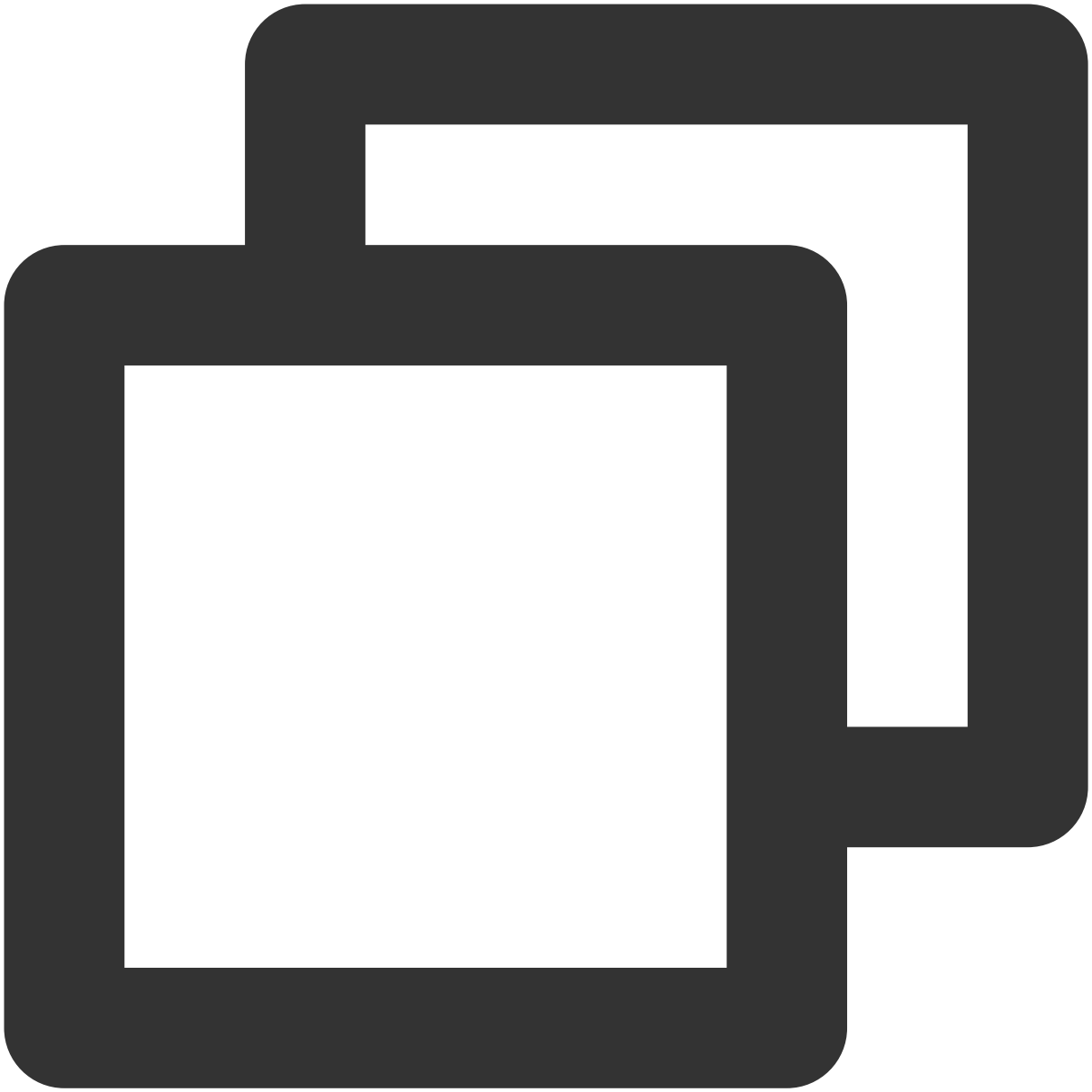
CAT defines console operations that can be specified in a policy. The specified operations are divided into reading part of APIs (`cat:Describe\\*`) and all APIs (`cat:\\*`) according to the operation nature.
The following example specifies an action that is allowed:



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

Specifying a resource

The `resource` element describes one or multiple operation objects, such as CAT resource. All the resources can be described with the following four-segment format.



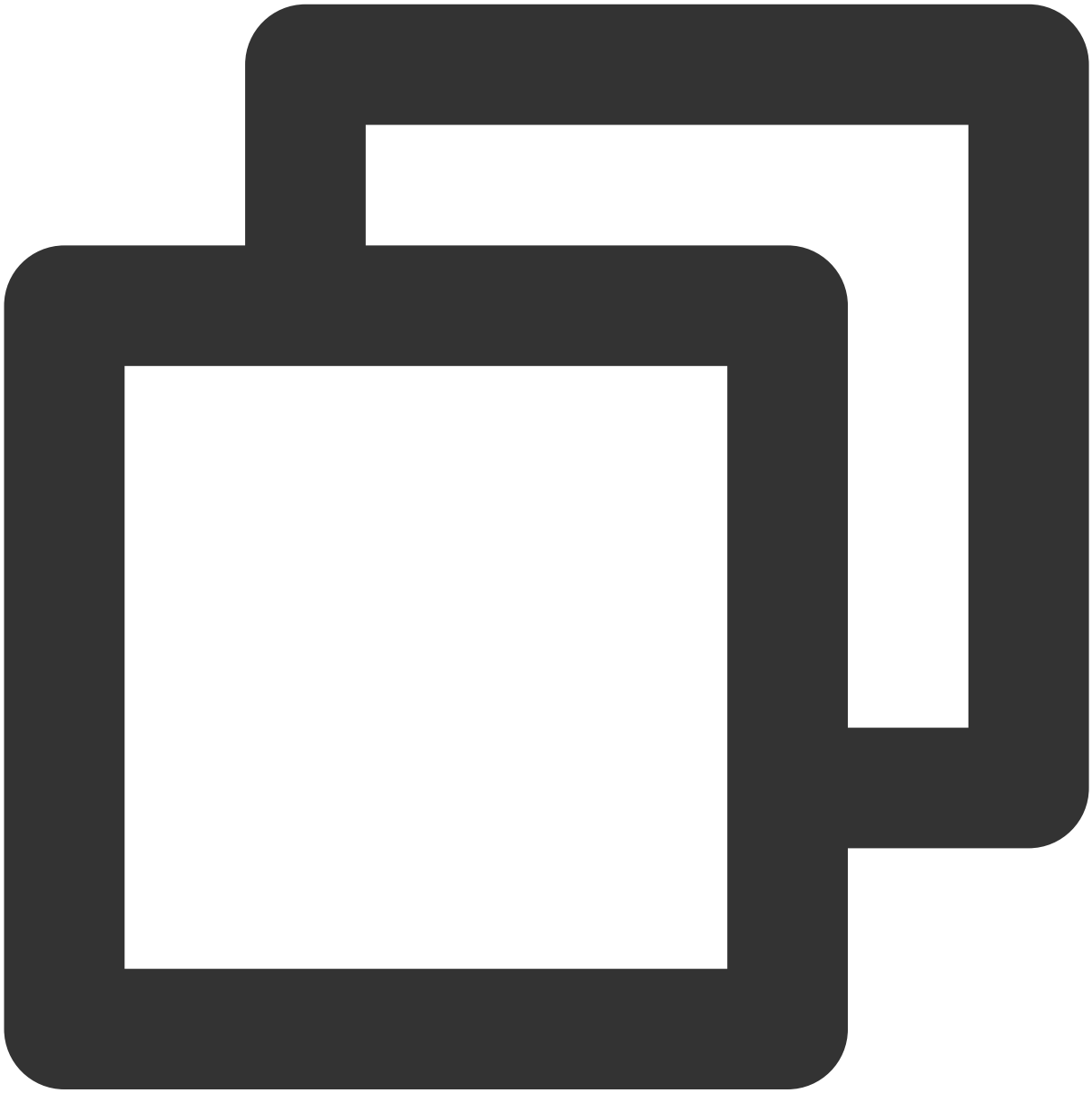
```
qcs:project_id:account:resource
```

The parameters are described as follows:

Parameter	Description	Required
qcs	Abbreviation for "qcloud service", which indicates a Tencent Cloud service.	Yes
service_type	Product name abbreviation, which is `cat` here.	Yes
account	Root account information of the resource owner, which is the root account ID in	Yes

	the format of `uin/${OwnerUin}` , such as `uin/100000000001` .	
resource	Resource details prefixed with `task` , such as `task-a4iiv123` .	Yes

Below is a sample four-segment description of a CAT resource:

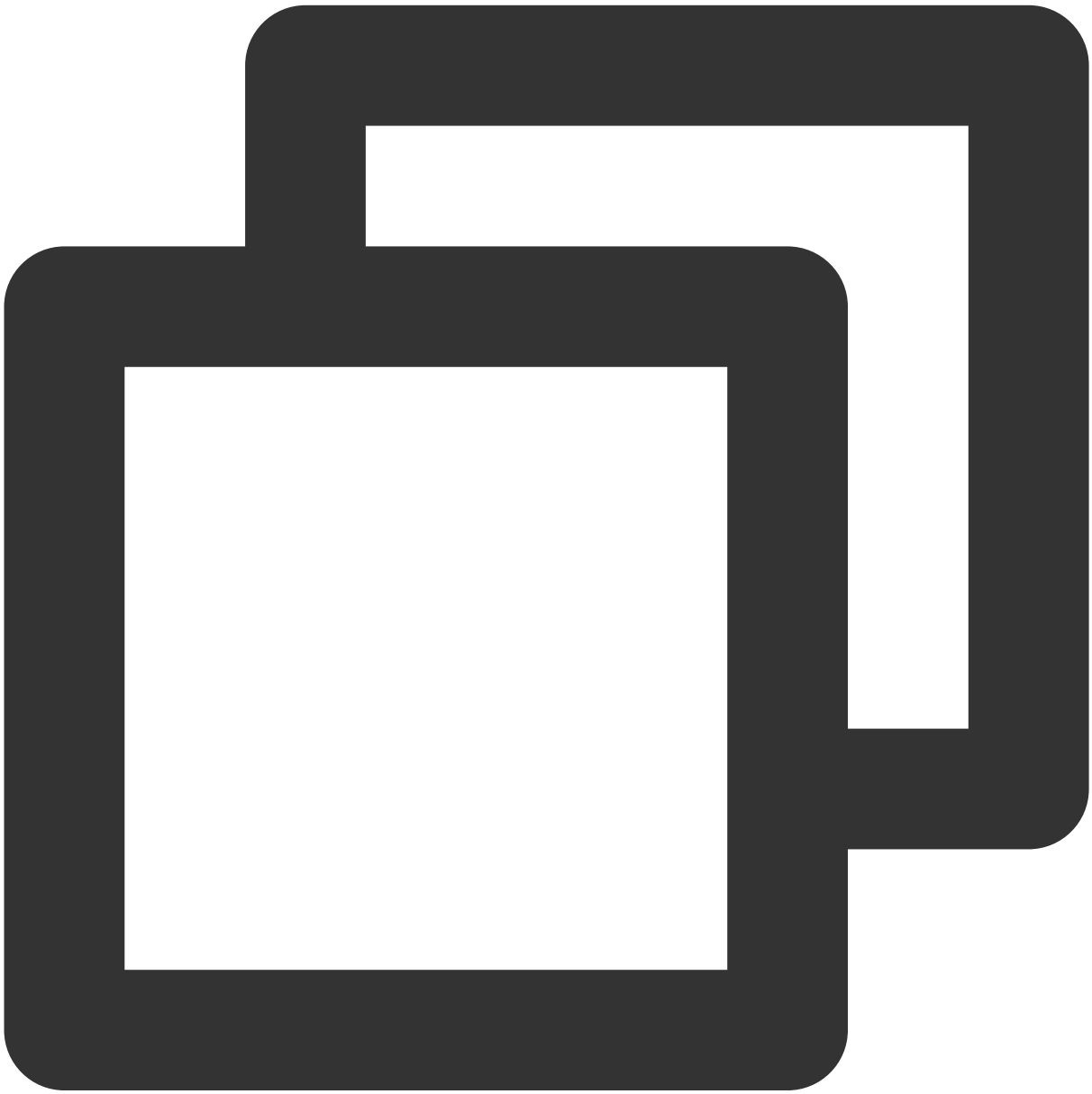


```
"resource":["qcs::cat:uin/1250000000:TaskId/task-a4iiv123"]
```

Examples

Grant the read and write permissions of specified resources based on resource ID. The root account ID is `1250000000` :

Sample: Granting the sub-user the permission to modify a test task (ID: `task-12345678`).



```
{
    "version": "2.0",
    "statement": [
        {
```

```
            "effect": "allow",
            "action":[
                "cat:ModifyProbeTask"
            ],
            "resource": [
                "qcs::cat:uin/1250000000:TaskId/task-a4iiv123"
            ]
        }
    ]
}
```

List of APIs supporting resource-level authorization

API	Description
CreateProbeTasks	Creates test tasks in batch.
DeleteProbeTask	Deletes a test task.
DescribeConsoleConfig	Gets the console configuration, for example, whether the tag is required when the current user is creating a task.
DescribeDetailedSingleProbeData	Queries the details of a test task based on time range, task ID, ISP, etc.
DescribePaymentState	Queries the billing status.
DescribeProbeMetricData	Lists the detailed data of a CAT metric.
DescribeProbeMetricTagValues	Lists the tag values of a CAT metric.
DescribeProbeNodeGroups	Queries node groups.
DescribeProbeNodes	Queries testing nodes.
DescribeProbeTasks	Queries the list of test tasks.
DescribeProbeTasksByAddresses	Lists the tasks aggregated by address.
ModifyProbeTask	Modifies a test task.
ResumeProbeTask	Resumes a test task.
SuspendProbeTask	Suspends a test task.
UpdateProbeTaskAttributes	Updates the attributes of a test task.
UpdateProbeTaskConfigurationList	Updates the configuration of test tasks in batch.

Policy Management

Last updated：2023-12-22 11:34:02

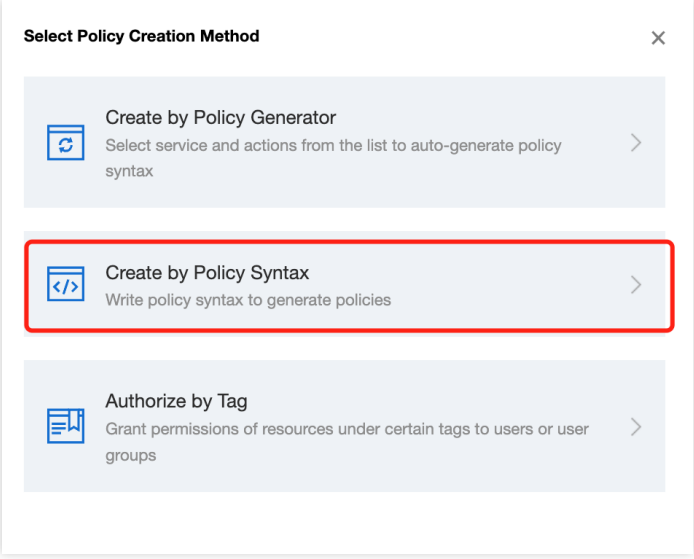
A sub-account has no CAT permissions by default and can access CAT resources only after being granted relevant permissions by the root account.

Prerequisites

Log in to the Tencent Cloud console with the root account or a sub-account with the `QcloudCamFullAccess` permission and create a sub-account as instructed in Creating Sub-user.

Custom policy

1. Use the root account or a sub-account with the `QcloudCamFullAccess` permission to log in to the **CAM** console and go to the **Policies** page.
2. Click **Create Custom Policy** > **Create by Policy Syntax** and select **Blank Template**. Edit the policy as instructed in Policy Syntax.

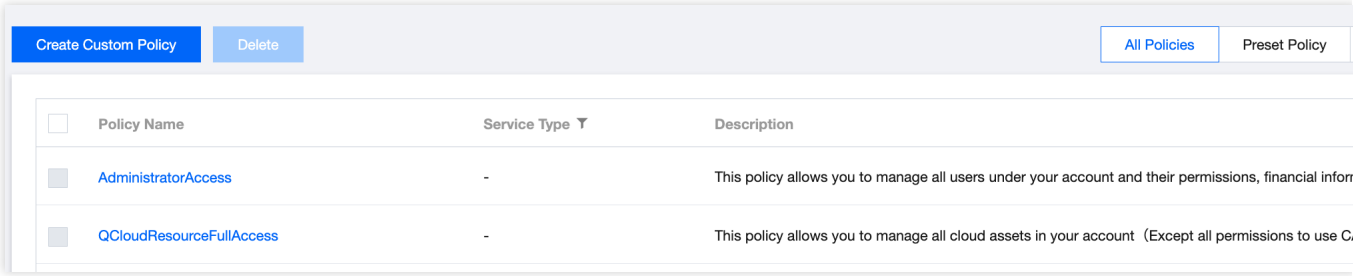


Policy authorization

Note:

CAT creates default permission policies `QcloudCATFullAccess` (full access to CAT) and `QcloudCATReadOnlyAccess` (read-only access to CAT) for you. You can search for a default policy for quick authorization. You can also use a custom policy for authorization. Then, the sub-account can access the relevant resources.

1. Use the root account or a sub-account with the `QcloudCamFullAccess` permission to log in to the **CAM** console and go to the **Policies** page.
2. Go to the policy management page and enter a policy name in the policy search box.
3. Select `QcloudRUMReadOnlyAccess` or `QcloudRUMFullAccess` and click **Associate Users/Groups** in the **Operation** column.



4. In the pop-up window, select the target user and click **OK**.

References
Testing Nodes
IDC Nodes in Hong Kong, Macao, and Taiwan (China)

Last updated：2023-12-22 11:34:24

CAT can get the page performance duration and network information in different ISP environments and display the top five slowest ISPs. The following are supported IDC testing nodes in different regions in Hong Kong (China), Macao (China), and Taiwan (China).

Provincial Administrative Region	Region	ISP
Hong Kong (China)	Hong Kong Special Administrative Region	Hong Kong_CityTelecom
		Hong Kong_HGC
		Hong Kong_PCCWLimited
		China Telecom
Taiwan (China)	Tainan	twhsnet.com

LastMile Nodes in Hong Kong, Macao, and Taiwan (China)

Last updated：2023-12-22 11:34:38

CAT can get the page performance duration and network information in different ISP environments and display the top five slowest ISPs. The following are supported LastMile testing nodes in different regions in Hong Kong (China), Macao (China), and Taiwan (China).

Provincial Administrative Region	Region	ISP
Hong Kong (China)	Hong Kong Special Administrative Region	Hong Kong_PCCWLimited
Taiwan (China)	Taipei	Taiwan_Chunghwa Telecom
	Taichung	Taiwan_Chunghwa Telecom

IDC Nodes Outside the Chinese Mainland

Last updated：2023-12-22 11:34:54

CAT can get the page performance duration and network information in different ISP environments and display the top five slowest ISPs. The following are supported IDC testing nodes in different regions outside the Chinese mainland.

Country	Region	ISP
Argentina	Buenos Aires	Argentina_Telecom
	Buenos Aires	gigared.com.ar
United Arab Emirates	Dubai	aeserver.com
Egypt	Cairo	citynethost.com
Australia	Sydney	Australia_Telstra
Pakistan	Islamabad	multinet.com.pk
Brazil	Brasilia	Brasil_Telecom
	Rio de Janeiro	Brasil_Veloxzone
	São Paulo	Brasil_Terremark
		psychz.net
Bolivia	La Paz	comteco.com.bo
Poland	Poland	Poland_Vectra
Germany	Frankfurt	Germany_DeutscheTelekom
		retn.net
	Munich	Germany_Cable&Wireless
Russia	Moscow	Russia_Synterra
		retn.net
	Saint Petersburg	Russia_MoscowSTComm
	Yekaterinburg	netangels.ru
France	Paris	France_Sfr

Philippines	Manila	Philippines_Convergeict
		Philippines_GlobeTelecom
		Web.ph.Inc
Colombia	Bogota	gtdcolombia.com
Costa Rica	San Jose	racsa.co.cr
South Korea	Seoul	gcore.lu
		Korea_Kornet
Canada	Toronto	Canada_Bell
Ghana	Accra	web4africa.com
Cambodia	Phnom Penh	Cambodia's_Telecom
Czech	Prague	upc.cz
Kenya	Nairobi	web4africa.com
Lombardy	Milan	Italia_Telecom
Malaysia	Kuala Lumpur	Malaysia_TMtelekom
		furcop.com
United States	Los Angeles	America_Corporate
	New York	US_nLayer
	Atlanta	US_Verizon
Bangladesh	Dhaka	XeonBD
Peru	Lima	ipxon.com
Mexico	Mexico City	host1plus.com
South Africa	Johannesburg	SouthAfrica_MWeb
		psychz.net
Nigeria and Canary Islands	Abuja and Las Palmas	web4africa.com
Japan	Tokyo	Japan_NTT

Sweden	Stockholm	Sweden_Telia
Thailand	Bangkok	Thailand_3BBBroadband
Türkiye	Istanbul	Turkey_Radore
Uruguay	Montevideo	antel.com.uy
Ukraine	Kyiv	Portugal_NOVISTelecom
Spain	Madrid	Spain_Telefonica
Athens	Athens	aweb.gr
Singapore	Singapore	Singapore_SingNet
		Singapore_SingTel
Hungary	Hungary	Deninet_KFT
India	Mumbai	Japan_NTT
Indonesia	Jakarta	Indonesia_PT_Telkom
		rajasa.co.id
United Kingdom	London	Italia_Bt
		Italia_BT
Vietnam	Ho Chi Minh City	Vietnam_Viettel
Chile	Viña del Mar	edis.at
	Santiago	Spain_TelefonicaInternational

LastMile Nodes Outside the Chinese Mainland

Last updated：2023-12-22 11:35:24

CAT can get the page performance duration and network information in different ISP environments and display the top five slowest ISPs. The following are supported LastMile testing nodes in different regions outside the Chinese mainland.

Country	Region	ISP
Argentina	Buenos Aires	Argentina_TechtelLMDSComunicaciones
		Argentina_TechtelLMDSComunicaciones
		Spain_Telefonica
	San Nicolás de los Arroyos	Argentina_Cablevision
United Arab Emirates	Dubai	UAE_Emirates_Telecom
	Abu Dhabi	UAE_Emirates_Telecom
Egypt	Cairo	Egypt_CityNet
		Egypt_RayaTelecom
		Egypt_TEData
Ireland	Dublin	Ireland_JoshuaJamesontrading
		US_AmazonIn
Tallinn	Tallinn	Estonia_Tele2
Austria	Vienna	Austria_Telekon
Australia	Melbourne	Australia_AAPTLimited
		Australia_Optus
	Sydney	Australia_AAPTLimited
		Australia_Telstra
		-Australia_Optus

Brazil	Curitiba	Brasil_Vivo
	São Paulo	Brasil_OiVelox
		Brasil_Telecom
		Brasil_Virtua
		Brasil_Vivo
		Brazil_Lacnic
	Rio de Janeiro	Brasil_Terremark
		Brasil_GlobalVillageTelecom
	Curitiba	Brasil_Vivo
		Brasil_GlobalVillageTelecom
	Coroados	Brasil_Terremark
	Campinas	Brasil_OiVelox
	Osasco	Brasil_Vivo
	Brasilia	Brasil_Vivo
		Brasil_Embratel
		Brazil_Embratel
		Brazil_Lacnic
	Porto Alegre	Brasil_Vivo
		Brazil_Lacnic
Belarus	Minsk	Belarus_Republican_Unitary_Telecom
Bulgaria	Sofia	Bulgaria_Max Telecom
Belgium	Brussels	Belgium_Telenet
Iceland	Hafnarfjörður	Iceland_Telecom
Poland	Gdańsk	Poland_Telecom
	Warsaw	Poland_Telecom

Germany	Berlin	Germany_COLT
		Germany_DTAG
		Germany_DeutscheTelekom
		Germany_Cable&Wireless
	Frankfurt	Germany_COLT
		Germany_Cable&Wireless
		Germany_DTAG
		Germany_DeutscheTelekom
	Munich	Germany_COLT
		Germany_Cable&Wireless
		Germany_DTAG
		Germany_DeutscheTelekom
	Nuremberg	Germany_DeutscheTelekom
Russia	Moscow	Russia_KrekLtd
		Russia_MoscowSTComm
		Russia_MoscowTelematiki
		Russia_Synterra
		Russia_Vimpelcom
	Saint Petersburg	Russia_KrekLtd
	Novosibirsk	Russia_Rostelecom
France	Alsace	France_Equant
	Paris	France_COLT
		US_AmazonInc
		France_Equant
		France_FreeSAS

		France_Orange
		France_Telecom
	Roubaix	France_Orange
		France_Telecom
	Toulouse	France_Telecom
	Marseille	France_Orange
Philippines	Manila	Philippines_Convergeict
		Philippines_PLDT
		Philippines_Global
Colombia	Bogota	Colombia_Telmex
Finland	Helsinki	Finland_TeliaSonera
Kazakhstan	Uralsk	Kazakhstan_Kazakhtelecom
South Korea	Busan	Korea_KT_Telecom
		Korea_Telecom
	South Korea	Korea_KT_Telecom
		Korea_SKm
	Seoul	Korea_KT_Telecom
		Korea_Kornet
		Korea_LG
		Korea_SK
		Korea_SKT
		Korea_Hanaro
		Korea_Telecom
Netherlands	Amsterdam	Netherlands_KPN
Canada	Toronto	Canada_Bell

		Canada_Rogers
	Montreal	Canada_Bell
	Vancouver	Canada_Bell
		Canada_Rogers
		Canada_UniversityofAlberta
Czech	Prague	Czech_havel_internet
Latvia	Riga	Latvia_Lattelecom
Lithuania	Šiauliai	Lithuania_Bite
Luxembourg	Luxembourg City	Luxembourg_Orange
Romania	Bucharest	Romania_PhaseSeven
		Romania_RCS_RDS
Malaysia	Kuala Lumpur	Malaysia_TMtelekom
		Malaysia_Telekom
		Malaysia_UniversitiSains
	Penang	Malaysia_Celcom
United States	Dallas	US_ComcastCable
		US_Level3
		US_Time_Warner_Cable
		US_Tulsa
		US_Verizon
	Philadelphia	US_Level3
		US_Verizon
	Washington	US_Level3
		US_Tulsa
		US_Verizon

	US_AT&T
San Francisco	US_Verizon
Kansas City	US_CenturyLink
	US_Level3
	US_Enzu
Los Angeles	US_AT&T
	US_CenturyLink
	US_ComcastCable
	US_Cox
	US_Level3
	US_Sprint
	US_Verizon
Miami	US_AT&T
	US_CenturyLink
	US_Sprint
	US_Verizon
New York	US_AT&T
	US_Akamai
	US_Aol
	US_Cogent
	US_CenturyLink
	US_ComcastCable
	US_Cox
	US_Level3
	US_Sprint

	US_Telia
	US_Time_Warner_Cable
	US_Tulsa
	US_Verizon
	US_WeHostWebSites
	US_nLayer
San Jose	US_ComcastCable
	US_Enzu
	US_Level3
	US_Verizon
	US_Tulsa
Tampa	US_Verizon
Seattle	US_AT&T
	US_Cogent
	US_Verizon
	US_Level3
	US_Tulsa
New Jersey	US_AT&T
	US_Cogent
	US_ComcastCable
	US_Cox
	US_Sprint
	US_Time_Warner_Cable
	US_Tulsa
	US_Verizon

Houston	US_ComcastCable
	US_Tulsa
Atlanta	US_AT&T
	US_Cox
	US_Level3
	US_Tulsa
	US_Verizon
Illinois	US_Level3
	US_Verizon
	US_Tulsa
	US_Cox
	US_Sprint
Chicago	US_AT&T
	US_CenturyLink
	US_ComcastCable
	US_Cox
	US_Level3
	US_Sprint
	US_Tulsa
	US_Verizon
	US_WeHostWebSites
Boston	US_ComcastCable
Oregon	US_AmazonInc
Virginia	US_AmazonInc
Columbus	US_Verizon

	Glenside	US_ComcastCable
	California	US_Cox
	Clarks Summit	US_Level3
	Reston	-US_WeHostWebSites
	Las Vegas	US_Level3
	San Diego	US_Level3
Moldova	Chișinău	Moldova_MoldTelecom
Mexico	Mexico City	Mexico_Uninet
South Africa	Johannesburg	SouthAfrica_MTN
Portugal	Lisbon	Portugal_NOVISTelecom
Japan	Tokyo	Japan_KDDI
		Japan_NTT
		Japan_Telecom
		Japan_SoftBank
		US_Cogent
	Fukuoka	Japan_NTT
		Japan_Telecom
	Osaka	Japan_NTT
Sweden	Motala	Sweden_Telia
	Stockholm	Sweden_Telia
		Sweden_TeliaSonera
Switzerland	Zurich	Switzerland_Swisscom
Serbia	Belgrade	Srbija_Telekom
Slovakia	Bratislava	Slovakia_Orange
Slovenia	Ljubljana	Slovenija_Telemach

Thailand	Bangkok	Thailand_3BBBroadband
		Thailand_CSLoxInfo
		Thailand_INet
		Thailand_KSCCommercialInternet
		Thailand_ThailandCATTelecom
		Thailand_TrueInternet
Türkiye	Istanbul	Turkey_Radore
		Turkey_Telekom
Spain	Barcelona	Spain_COLT
		Spain_TelefonicaInternational
	Madrid	Spain_COLT
		Spain_ONO
		Spain_TelefonicaInternational
Greece	Thessaloniki	Greece_OTE
Singapore	Singapore	Singapore_SingNet
		Singapore_SingTel
		Singapore_Starhub
		Singapore_HE
		US_Microsoft
New Zealand	Auckland	NewZealand_Telecom
Hungary	Budapest	Hungary_23VNET
Israel	Tel Aviv	Israel_Bezeq
Lombardy	Milan	Italia_BT
		Italy_Fastweb
		Italia_Telecom

Italy	Florence	Italia_BT
	Rome	Italia_Telecom
		Italy_NuovoPignone
		Italy_WINDTelecomunicazioni
India	Bangalore	India_AirTel
		India_BSNL
		India_Cellular
		India_Relinace
		India_TATA
	Delhi	India_AirTel
		India_BSNL
		India_Relinace
		India_TATA
	Hyderabad	India_BSNL
		India_Cellular
		India_Relinace
		India_TATA
	Chennai	India_AirTel
		India_BSNL
		India_Cellular
		India_Relinace
		India_TATA
		India_Vodafone
	Kavaratti	India_Relinace
	Mumbai	India_AirTel

		India_BSNL
		India_Cellular
		India_Relinace
		India_TATA
	Nagpur	India_Relinace
		India_TATA
	New Delhi	India_AirTel
		India_BSNL
		India_Relinace
		India_Vodafone
		India_TATA
	Kolkata	India_Relinace
	Rewa	India_BSNL
	Pune	India_AirTel
		India_Cellular
		India_TATA
Indonesia	Jakarta	Indonesia_Biznet
		Indonesia_LinkNet
		Indonesia_PT.Jupiter_Jala_Arta
		Indonesia_PTQuantumTeraNetwork
		Indonesia_PTRajaSepadanAbadi
		Indonesia_PT_Telkom
	Batam	Indonesia_PT_Telkom
	Bali	Indonesia_Biznet
		Indonesia_InternetMadjuAbadMillenindo

	Depok	Indonesia_PT.Global_Indonesia
		Indonesia_PT_Telkom
	Medan	Indonesia_PT_Telkom
	Surabaya	Indonesia_PT_Telkom
United Kingdom	Hampshire	UK_Telecom
	London	UK_NHSTelecom
		UK_Telecom
		UK_VirginMedia
	Rugby	UK_Telecom
Vietnam	Hanoi	Vietnam_VNTP
	Ho Chi Minh City	Vietnam_Telecom
		Vietnam_VNTP
		Viettel_Telecom
		Vietnam_DC
	Vietnam	Vietnam_DC
Chile	Santiago	Chile-VTRBanda
		Chile_Movistar
Piedmont	Turin	Italia_Telecom
Venezuela	Caracas	Venezuela_NetUno

IDC Nodes in the Chinese Mainland

Last updated：2023-12-22 11:35:45

CAT can get the page performance duration and network information in different ISP environments and display the top five slowest ISPs. The following are supported IDC testing nodes in different regions in the Chinese mainland.

Provincial Administrative Region	Region	ISP
Beijing	Beijing	China Telecom
		China Unicom
		China Mobile Tietong
		China Mobile
Tianjin	Tianjin	China Telecom
		China Unicom
		China Mobile
Hebei	Baoding	China Telecom
		China Unicom
	Qinhuangdao	China Telecom
	Shijiazhuang	China Telecom
		China Unicom
		China Mobile
	Tangshan	China Unicom
Shanxi	Taiyuan	China Telecom
		China Unicom
Inner Mongolia	Hohhot	China Telecom
		China Unicom
		China Mobile
Liaoning	Shenyang	China Telecom

		China Unicom
		China Mobile
Jilin	Changchun	China Telecom
		China Unicom
		China Mobile
Heilongjiang	Harbin	China Telecom
		China Unicom
		China Mobile
Shanghai	Shanghai	China Telecom
		China Unicom
		China Mobile
Jiangsu	Changzhou	China Unicom
	Lianyungang	China Unicom
	Nanjing	China Telecom
		China Unicom
		China Mobile
	Nantong	China Telecom
	Suzhou	China Telecom
	Wuxi	China Telecom
		China Unicom
		China Mobile
Zhejiang	Hangzhou	China Telecom
		China Unicom
		China Mobile
	Jinhua	China Unicom

	Wenzhou	China Telecom
Anhui	Hefei	China Telecom
		China Unicom
		China Mobile
	Suzhou	China Unicom
	Wuhu	China Telecom
Fujian	Fuzhou	China Telecom
		China Unicom
		China Mobile
	Longyan	China Unicom
	Nanping	China Unicom
	Putian	China Unicom
	Quanzhou	China Unicom
	Sanming	China Unicom
	Xiamen	China Unicom
	Zhangzhou	China Unicom
Jiangxi	Fuzhou	China Unicom
	Nanchang	China Telecom
		China Unicom
		China Mobile
Shandong	Jinan	China Telecom
		China Unicom
		China Mobile
	Qingdao	China Unicom
Henan	Luoyang	China Unicom

	Zhengzhou	China Unicom
Hubei	Wuhan	China Telecom
		China Unicom
		China Mobile
Hunan	Changsha	China Telecom
		China Unicom
		China Mobile
	Chenzhou	China Telecom
	Hengyang	China Unicom
Guangdong	Dongguan	China Telecom
	Foshan	China Telecom
	Guangzhou	China Telecom
		China Unicom
		China Mobile
	Shantou	China Unicom
	Shenzhen	China Telecom
Guangxi	Nanning	China Telecom
		China Unicom
		China Mobile
Chongqing	Chongqing	China Telecom
		China Unicom
Sichuan	Chengdu	China Telecom
		China Mobile
	Deyang	China Telecom
	Meishan	China Telecom

Guizhou	Guiyang	China Telecom
		China Unicom
		China Mobile
Yunnan	Kunming	China Telecom
		China Unicom
Shaanxi	Xi'an	China Telecom
		China Unicom
		China Mobile
	Xianyang	China Unicom
Gansu	Lanzhou	China Telecom
		China Unicom
	Tianshui	China Telecom
Ningxia	Yinchuan	China Telecom
Xinjiang	Urumqi	China Telecom

LastMile Nodes in the Chinese Mainland

Last updated：2023-12-22 11:37:31

CAT can get the page performance duration and network information in different ISP environments and display the top five slowest ISPs. The following are supported LastMile testing nodes in different regions in the Chinese mainland.

Provincial Administrative Region	Region	ISP
Beijing	Beijing	Beijing Gehua CATV Network
		Great Wall Broadband Network
		China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile Tietong
		China Mobile
Tianjin	Tianjin	Great Wall Broadband Network
		China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile
Hebei	Baoding	China Telecom
		China Unicom
		China Mobile
	Cangzhou	China Telecom
		China Unicom
		China Mobile
	Chengde	China Telecom
		China Unicom

	China Mobile
Handan	China Telecom
	China Unicom
	China Mobile
Hengshui	China Telecom
	China Unicom
	China Mobile
Langfang	China Telecom
	China Unicom
	China Mobile
Qinhuangdao	China Telecom
	China Unicom
	China Mobile
Shijiazhuang	Great Wall Broadband Network
	China Broadnet
	China Telecom
	National Education Examinations Authority
	China Unicom
	China Mobile
Tangshan	China Telecom
	China Unicom
	China Mobile
Xingtai	China Telecom
	China Unicom
	China Mobile

	Zhangjiakou	China Telecom
		China Unicom
		China Mobile
Shanxi	Changzhi	China Telecom
		China Unicom
		China Mobile
	Datong	China Telecom
		China Unicom
		China Mobile
	Jincheng	China Telecom
		China Unicom
		China Mobile
	Jinzhong	China Telecom
		China Unicom
		China Mobile
	Linfen	China Telecom
		China Unicom
		China Mobile
	Lüliang	China Telecom
		China Unicom
	Shuozhou	China Telecom
		China Unicom
		China Mobile
	Taiyuan	Great Wall Broadband Network
		China Telecom

		China Unicom
		China Mobile
	Xinzhou	China Telecom
		China Unicom
		China Mobile
	Yangquan	China Telecom
		China Unicom
		China Mobile
	Yuncheng	China Telecom
		China Unicom
		China Mobile
Inner Mongolia	Alxa League	China Unicom
		China Mobile
	Bayannur	China Unicom
	Baotou	China Telecom
		China Unicom
		China Mobile
	Chifeng	China Telecom
		China Unicom
	Ordos	China Telecom
		China Unicom
		China Mobile
	Hohhot	China Telecom
		China Unicom
		China Mobile

	Hulunbuir	China Telecom
		China Unicom
		China Mobile
	Tongliao	China Telecom
		China Unicom
		China Mobile
	Wuhai	China Unicom
	Ulanqab	China Telecom
		China Unicom
	Xilingol League	China Unicom
	Hinggan League	China Telecom
Liaoning	Anshan	China Telecom
		China Unicom
		China Mobile
	Benxi	China Unicom
		China Mobile
	Chaoyang	China Unicom
	Dalian	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Dandong	China Telecom
		China Unicom
		China Mobile
	Fushun	Great Wall Broadband Network

		China Telecom
		China Unicom
		China Mobile
	Fuxin	China Telecom
		China Unicom
		China Mobile
	Huludao	China Telecom
		China Unicom
		China Mobile
	Jinzhou	China Telecom
		China Unicom
		China Mobile
	Liaoyang	China Telecom
		China Mobile
	Panjin	China Telecom
		China Unicom
		China Mobile
	Shenyang	China Telecom
		China Unicom
		China Mobile
	Tieling	China Unicom
		China Mobile
	Yingkou	Great Wall Broadband Network
		China Telecom
		China Unicom

Jilin	Baicheng	China Telecom
		China Unicom
		China Mobile
	Baishan	China Telecom
		China Unicom
		China Mobile
	Changchun	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Jilin	China Telecom
		China Unicom
		China Mobile
	Liaoyuan	China Telecom
		China Unicom
		China Mobile
	Siping	China Telecom
		China Unicom
		China Mobile
	Songyuan	China Telecom
		China Unicom
		China Mobile
	Tonghua	China Telecom
		China Unicom
	Yanbian	China Telecom

		China Unicom
		China Mobile
Heilongjiang	Daqing	China Unicom
		China Mobile
	Harbin	Great Wall Broadband Network
		China Broadnet
		China Telecom
		China Unicom
		China Mobile Tietong
		China Mobile
	Hegang	China Telecom
		China Unicom
	Jixi	China Unicom
	Jiamusi	China Mobile
	Mudanjiang	China Unicom
		China Mobile
	Qitaihe	China Telecom
		China Unicom
	Qiqihar	China Telecom
		China Unicom
		China Mobile
	Shuangyashan	China Unicom
	Suihua	China Unicom
	Yichun	China Unicom
		China Mobile

Shanghai	Shanghai	Great Wall Broadband Network
		China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile Tietong
		China Mobile
Jiangsu	Changzhou	China Telecom
		China Unicom
		China Mobile
	Huai'an	China Telecom
		China Unicom
		China Mobile
	Lianyungang	China Telecom
		China Unicom
		China Mobile
	Nanjing	Great Wall Broadband Network
		China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile
	Nantong	China Telecom
		China Unicom
		China Mobile
	Suzhou	China Telecom
		National Education Examinations Authority

		China Unicom
		China Mobile
	Suqian	China Broadnet
		China Telecom
		China Unicom
		China Mobile
	Taizhou	China Telecom
		China Unicom
		China Mobile
	Wuxi	China Telecom
		China Unicom
		China Mobile
	Xuzhou	China Telecom
		China Unicom
		China Mobile
	Yancheng	China Telecom
		China Unicom
		China Mobile
	Yangzhou	China Telecom
		China Mobile
	Zhenjiang	China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile
Zhejiang	Hangzhou	

		China Telecom
		China Unicom
		China Mobile
	Huzhou	China Telecom
		China Unicom
		China Mobile
	Jiaxing	China Telecom
		China Unicom
		China Mobile
	Jinhua	China Telecom
		China Unicom
		China Mobile
	Lishui	China Telecom
		China Unicom
		China Mobile
	Ningbo	China Telecom
		China Unicom
		China Mobile
	Shaoxing	China Telecom
		China Unicom
		China Mobile
	Taizhou	China Telecom
		China Unicom
		China Mobile

	Wenzhou	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Zhoushan	China Telecom
		China Unicom
		China Mobile
	Quzhou	China Telecom
Anhui	Anqing	China Telecom
		China Mobile
	Bengbu	China Telecom
		China Mobile
	Chizhou	China Telecom
		China Unicom
		China Mobile
	Chuzhou	China Telecom
		China Mobile
	Fuyang	China Telecom
		China Unicom
		China Mobile
	Hefei	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Huaibei	China Telecom

		China Mobile
	Huainan	China Telecom
		China Unicom
		China Mobile
	Huangshan	China Telecom
		China Mobile
	Lu'an	China Telecom
		China Unicom
		China Mobile
	Ma'anshan	China Telecom
		China Unicom
		China Mobile
	Suzhou	China Telecom
		China Mobile
		Great Wall Broadband Network
	Tongling	China Telecom
	Wuhu	China Telecom
		China Unicom
		China Mobile
	Xuancheng	China Telecom
		China Mobile
		China Unicom
	Bozhou	China Telecom
		China Unicom
		China Mobile

Fujian	Fuzhou	China Telecom
		China Unicom
		China Mobile Tietong
		China Mobile
	Longyan	China Telecom
		China Unicom
		China Mobile
	Nanping	China Telecom
		China Unicom
		China Mobile
	Ningde	China Telecom
		China Unicom
		China Mobile
	Putian	China Telecom
		China Unicom
		China Mobile
	Quanzhou	China Telecom
		China Unicom
		China Mobile
	Sanming	China Telecom
		China Unicom
		China Mobile
	Xiamen	Great Wall Broadband Network
		China Telecom
		China Unicom

		China Mobile
	Zhangzhou	China Telecom
		China Unicom
		China Mobile
Jiangxi	Fuzhou	China Telecom
		China Unicom
		China Mobile
	Ganzhou	China Telecom
		China Unicom
		China Mobile
	Ji'an	China Telecom
		China Unicom
		China Mobile
	Jingdezhen	China Telecom
	Jiujiang	China Telecom
		China Unicom
		China Mobile
	Nanchang	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Pingxiang	China Telecom
		China Unicom
		China Mobile
	Shangrao	China Telecom

		China Mobile
	Xinyu	China Telecom
		China Unicom
		China Mobile
	Yichun	China Telecom
		China Unicom
		China Mobile
	Yingtan	China Telecom
Shandong	Binzhou	China Telecom
		China Unicom
		China Mobile
	Dezhou	China Telecom
		China Unicom
		China Mobile
	Dongying	China Telecom
		China Unicom
		China Mobile
	Heze	China Telecom
		China Unicom
		China Mobile
	Jinan	China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile
	Jining	China Telecom

		China Unicom
		China Mobile
	Laiwu	China Telecom
		China Mobile
	Liaocheng	China Telecom
		China Unicom
		China Mobile
	Linyi	China Telecom
		China Unicom
		China Mobile
	Qingdao	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Rizhao	China Telecom
		China Unicom
		China Mobile
	Tai'an	China Telecom
		China Unicom
		China Mobile
	Weihai	China Telecom
		China Unicom
		China Mobile
	Weifang	China Telecom
		China Unicom

		China Mobile
	Yantai	China Telecom
		China Unicom
		China Mobile
	Zaozhuang	China Telecom
		China Unicom
		China Mobile
	Zibo	China Telecom
		China Unicom
		China Mobile
Henan	Anyang	China Telecom
		China Unicom
		China Mobile
	Hebi	China Telecom
		China Unicom
		China Mobile
	Jiyuan	China Unicom
		China Mobile
	Jiaozuo	China Telecom
		China Unicom
		China Mobile
	Kaifeng	China Telecom
		China Unicom
		China Mobile
	Luoyang	China Telecom

		China Unicom
		China Mobile
	Nanyang	China Telecom
		China Unicom
		China Mobile
	Pingdingshan	China Telecom
		China Unicom
		China Mobile
	Sanmenxia	China Telecom
		China Unicom
		China Mobile
	Shangqiu	China Telecom
		China Unicom
		China Mobile
	Xinxiang	China Telecom
		China Unicom
		China Mobile
	Xinyang	China Telecom
		China Unicom
		China Mobile
	Xuchang	China Telecom
		China Unicom
		China Mobile
	Zhengzhou	China Telecom
		National Education Examinations Authority

		China Unicom
		China Mobile
	Zhoukou	China Telecom
		China Unicom
		China Mobile
	Zhumadian	China Telecom
		China Unicom
		China Mobile
	Luohe	China Telecom
		China Unicom
		China Mobile
	Puyang	China Telecom
		China Unicom
Hubei	Ezhou	Great Wall Broadband Network
		China Unicom
	Enshi	China Telecom
		China Unicom
	Huanggang	China Telecom
		China Unicom
		China Mobile
	Huangshi	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Jingmen	China Telecom

	China Mobile
Jingzhou	China Telecom
	China Unicom
	China Mobile
Qianjiang	China Telecom
	China Unicom
Shiyan	China Telecom
	China Unicom
	China Mobile
Suizhou	China Telecom
Wuhan	Great Wall Broadband Network
	China Telecom
	China Unicom
	China Mobile
Xiantao	China Telecom
	China Mobile
Xianning	China Telecom
	China Mobile
Xiangyang	China Telecom
	China Unicom
	China Mobile
Xiaogan	China Telecom
	China Unicom
	China Mobile
Yichang	China Telecom

		China Unicom
		China Mobile
Hunan	Changde	China Telecom
		China Mobile
	Changsha	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Chenzhou	China Telecom
		China Unicom
		China Mobile
	Hengyang	China Telecom
		China Unicom
		China Mobile
	Huaihua	China Telecom
		China Unicom
		China Mobile
	Loudi	China Telecom
		China Unicom
		China Mobile
	Shaoyang	China Telecom
		China Unicom
		China Mobile
	Xiangtan	China Telecom
		China Unicom

		China Mobile
	Xiangxi	China Telecom
		China Unicom
		China Mobile
	Yiyang	China Telecom
		China Unicom
		China Mobile
	Yongzhou	China Telecom
		China Unicom
	Yueyang	China Telecom
		China Unicom
		China Mobile
	Zhangjiajie	China Telecom
		China Mobile
	Zhuzhou	China Telecom
		China Unicom
		China Mobile
Guangdong	Chaozhou	China Telecom
		China Mobile
	Dongguan	Great Wall Broadband Network
		China Broadnet
		China Telecom
		China Unicom
		China Mobile
	Foshan	China Telecom

		China Unicom
		China Mobile
		Great Wall Broadband Network
	Guangzhou	Great Wall Broadband Network
		China Broadnet
		China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile
	Heyuan	China Telecom
	Huizhou	China Telecom
		China Unicom
		China Mobile
	Jiangmen	China Broadnet
		China Telecom
		China Unicom
		China Mobile
	Jieyang	China Telecom
		China Unicom
		China Mobile
	Maoming	China Telecom
		China Mobile
	Meizhou	China Telecom
		China Unicom
		China Mobile

	Qingyuan	China Telecom
		China Unicom
		China Mobile
	Shantou	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Shanwei	China Telecom
		China Mobile
	Shaoguan	China Telecom
		China Unicom
		China Mobile
	Shenzhen	Great Wall Broadband Network
		Shenzhen Topway Video Communication
		China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile
	Yangjiang	China Telecom
		China Unicom
		China Mobile
	Yunfu	China Telecom
		China Unicom
	Zhanjiang	China Telecom
		China Unicom

		China Mobile
	Zhaoqing	China Telecom
		China Unicom
		China Mobile
		China Broanet
	Zhongshan	China Telecom
		China Unicom
		China Mobile
	Zhuhai	China Telecom
		China Unicom
		China Mobile
Guangxi	Baise	China Telecom
		China Mobile
	Beihai	China Telecom
		China Unicom
		China Mobile
	Chongzuo	China Telecom
		China Mobile
	Fangchenggang	China Telecom
		China Unicom
		China Mobile
	Guilin	China Telecom
		China Unicom
		China Mobile
	Guigang	China Telecom

		China Mobile
	Hechi	China Telecom
		China Mobile
	Hezhou	China Telecom
		China Mobile
	Laibin	China Telecom
		China Mobile
	Liuzhou	China Telecom
		China Unicom
		China Mobile
	Nanning	China Broadnet
		China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile Tietong
		China Mobile
	Qinzhou	China Telecom
		China Unicom
		China Mobile
	Wuzhou	China Telecom
		China Unicom
		China Mobile
	Yulin	China Telecom
		China Unicom
		China Mobile

Hainan	Dongfang	China Telecom
		China Mobile
	Haikou	China Telecom
		China Unicom
		China Mobile
	Qionghai	China Unicom
	Sanya	China Telecom
		China Unicom
		China Mobile
	Wanning	China Telecom
		China Mobile
	Wenchang	China Telecom
		China Mobile
		China Unicom
	Danzhou	China Telecom
		China Mobile
Chongqing	Chongqing	Great Wall Broadband Network
		China Broadnet
		China Telecom
		China Unicom
		China Mobile
Sichuan	Ngawa	China Telecom
	Bazhong	China Telecom
		China Unicom
		China Mobile

	Chengdu	Great Wall Broadband Network
		China Broadnet
		China Telecom
		National Education Examinations Authority
		China Unicom
		China Mobile
	Dazhou	China Telecom
		China Unicom
		China Mobile
	Deyang	China Telecom
		China Unicom
		China Mobile
	Ganzi	China Telecom
		China Mobile
	Guang'an	China Telecom
		China Unicom
		China Mobile Tietong
		China Mobile
	Guangyuan	China Telecom
	Leshan	China Telecom
		China Unicom
		China Mobile
	Liangshan	China Telecom
		China Mobile
	Meishan	China Telecom

	China Unicom
	China Mobile
Mianyang	China Telecom
	China Unicom
	China Mobile
Nanchong	China Telecom
	China Unicom
	China Mobile
Neijiang	China Telecom
	China Unicom
	China Mobile
Panzhihua	China Telecom
	China Unicom
	China Mobile
Suining	China Telecom
	China Unicom
	China Mobile
Ya'an	China Telecom
	China Unicom
	China Mobile
Yibin	China Telecom
	China Unicom
	China Mobile
Ziyang	China Telecom
	China Mobile

	Zigong	China Telecom
		China Unicom
		China Mobile
	Luzhou	China Telecom
		China Unicom
		China Mobile
Guizhou	Anshun	China Telecom
		China Mobile
	Bijie	China Telecom
		China Unicom
		China Mobile
	Guiyang	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Guizhou	China Telecom
		China Unicom
		China Mobile
	Liupanshui	China Telecom
		China Mobile
	Qiandongnan	China Telecom
		China Unicom
		China Mobile
	Qiannan	China Telecom
		China Unicom

		China Mobile
	Qianxinan	China Telecom
		China Unicom
		China Mobile
	Tongren	China Telecom
		China Unicom
		China Mobile
	Zunyi	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
Yunnan	Baoshan	China Telecom
		China Mobile
	Chuxiong	China Telecom
		China Mobile
	Dali	China Telecom
		China Mobile
	Dehong	China Telecom
		China Mobile
	Diqing	China Telecom
		China Unicom
		China Mobile
	Honghe	China Telecom
		China Unicom
		China Mobile

	Kunming	Great Wall Broadband Network
		China Telecom
		China Unicom
		China Mobile
	Lijiang	China Telecom
		China Unicom
		China Mobile
	Lincang	China Telecom
		China Mobile
	Pu'er	China Telecom
	Qujing	China Telecom
		China Unicom
		China Mobile
	Wenshan	China Telecom
		China Mobile
	Xishuangbanna	China Telecom
		China Unicom
		China Mobile
	Yuxi	China Telecom
		China Unicom
		China Mobile
	Zhaotong	China Telecom
		China Mobile
Tibet	Changdu	China Telecom
		China Mobile

	Lhasa	China Telecom
		China Unicom
		China Mobile
	Linzhi	China Telecom
		China Unicom
	Nagqu	China Telecom
	Shigatse	China Telecom
	Shannan	China Telecom
Shaanxi	Ankang	China Telecom
		China Unicom
		China Mobile
	Baoji	China Telecom
		China Unicom
		China Mobile
	Hanzhong	China Telecom
		China Mobile
	Shangluo	China Telecom
		China Unicom
		China Mobile
	Tongchuan	China Telecom
	Weinan	China Telecom
		China Unicom
		China Mobile
	Xi'an	China Telecom
		China Unicom

		China Mobile
	Xianyang	China Telecom
		China Unicom
		China Mobile
	Yan'an	China Telecom
		China Unicom
		China Mobile
	Yulin	China Telecom
		China Mobile
Gansu	Baiyin	China Telecom
	Dingxi	China Telecom
	Jinchang	China Telecom
	Jiuquan	China Telecom
		China Unicom
	Lanzhou	China Telecom
		China Unicom
		China Mobile
	Linxia	China Telecom
	Longnan	China Telecom
		China Unicom
		China Mobile
	Pingliang	China Telecom
		China Mobile
	Qingyang	China Telecom
		China Mobile

	Tianshui	China Telecom
		China Mobile
	Zhangye	China Telecom
Qinghai	Golog	China Telecom
	Haibei	China Unicom
		China Mobile
	Haidong	China Telecom
		China Unicom
		China Mobile
	Hainan Prefecture	China Telecom
		China Unicom
		China Mobile
	Haixi	China Telecom
		China Mobile
	Huangnan	China Mobile
	Xining	China Telecom
		China Unicom
		China Mobile
	Yushu	China Telecom
		China Unicom
		China Mobile
Ningxia	Guyuan	China Telecom
		China Mobile
	Shizuishan	China Telecom
		China Unicom

		China Mobile
	Wuzhong	China Telecom
		China Mobile
	Yinchuan	China Telecom
		China Unicom
		China Mobile
	Zhongwei	China Telecom
		China Unicom
		China Mobile
Xinjiang	Aksu	China Telecom
		China Mobile
	Altay	China Telecom
	Bayingolin	China Telecom
	Bortala	China Telecom
		China Unicom
	Changji	China Telecom
	Hami	China Telecom
	Hotan	China Telecom
		China Unicom
		China Mobile
	Kashgar	China Telecom
		China Mobile
	Karamay	China Telecom
		China Mobile
	Shihezi	China Telecom

		China Mobile
	Tacheng	China Telecom
	Urumqi	China Telecom
		China Unicom
		China Mobile
	Ili	China Telecom

Mobile Nodes in the Chinese Mainland

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CAT can get the page performance duration and network information in different ISP environments and display the top five slowest ISPs. The following are supported mobile testing nodes in different regions in the Chinese mainland.

Provincial Administrative Region	Region	ISP
Beijing	Beijing	China Telecom 3G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
Tianjin	Tianjin	China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Mobile 4G
Hebei	Baoding	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Chengde	China Mobile 4G
	Hengshui	China Unicom Wi-Fi
	Langfang	China Unicom 4G
		China Mobile 4G
	Qinhuangdao	China Mobile 4G
	Shijiazhuang	China Telecom 3G

		China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Mobile 2.5G
		China Mobile 3G
		China Mobile 4G
	Tangshan	China Telecom 4G
		China Mobile 4G
	Zhangjiakou	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
Shanxi	Taiyuan	China Telecom 3G
		China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Unicom Wi-Fi
		China Mobile 3G
		China Mobile 4G
	Yangquan	China Telecom 4G
		China Unicom Wi-Fi
	Yuncheng	China Mobile 4G
Inner Mongolia	Hohhot	China Telecom 3G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G

		China Unicom 4G
		China Mobile 4G
Liaoning	Dalian	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Shenyang	China Telecom 3G
		China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Mobile 4G
Jilin	Changchun	China Telecom 3G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G
	Yanbian	China Telecom Wi-Fi
Heilongjiang	Harbin	China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Mobile 4G
	Hegang	China Telecom 4G
	Mudanjiang	China Telecom 4G
		China Mobile 4G
Shanghai	Shanghai	Great Wall Broadband Network
		China Telecom 3G

		China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Unicom Wi-Fi
		China Mobile 3G
		China Mobile 4G
Jiangsu	Changzhou	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
		China Mobile Wi-Fi
	Nanjing	China Telecom 2.5G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
		China Mobile Wi-Fi
	Suzhou	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G
	Wuxi	China Telecom 4G
		China Unicom 4G
		China Mobile 4G

	Yancheng	China Telecom 4G
		China Telecom Wi-Fi
		China Mobile 4G
	Zhenjiang	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
Zhejiang	Hangzhou	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
		China Mobile Wi-Fi
	Jiaxing	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G
	Jinhua	China Telecom 4G
		China Telecom Wi-Fi
	Ningbo	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G
	Shaoxing	China Mobile 4G
	Taizhou	China Telecom 4G

	Wenzhou	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G
Anhui	Hefei	China Telecom 2.5G
		China Telecom 3G
		China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
	Huaibei	China Telecom Wi-Fi
	Ma'anshan	China Mobile 4G
	Bozhou	China Telecom 4G
Fujian	Fuzhou	China Telecom 3G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 4G
		China Mobile Wi-Fi
	Nanping	China Telecom 4G
	Ningde	China Mobile 4G
	Quanzhou	China Unicom 4G
	Sanming	China Telecom Wi-Fi

		China Mobile Wi-Fi
	Xiamen	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G
Jiangxi	Ganzhou	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Jingdezhen	China Unicom 4G
	Jiujiang	China Telecom 4G
	Nanchang	China Telecom 2.5G
		China Telecom 3G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 4G
	Xinyu	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G
Shandong	Dongying	China Mobile 4G
	Jinan	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G

		China Unicom 4G
		China Mobile 4G
	Jining	China Telecom 4G
	Linyi	China Mobile Wi-Fi
	Qingdao	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Rizhao	China Mobile 4G
	Tai'an	China Mobile 4G
	Weifang	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Yantai	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Zaozhuang	China Unicom Wi-Fi
	Zibo	China Telecom Wi-Fi
Henan	Jiaozuo	China Mobile 4G
	Kaifeng	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Luoyang	China Unicom 4G
		China Mobile 4G
		China Mobile Wi-Fi
	Pingdingshan	China Unicom Wi-Fi

	Xinxiang	China Unicom 4G
	Zhengzhou	China Telecom 2.5G
		China Telecom 3G
		China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Unicom Wi-Fi
		China Mobile 3G
		China Mobile 4G
		China Mobile Wi-Fi
Hubei	Huanggang	China Unicom 4G
	Wuhan	China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
	Xianning	China Unicom 4G
		China Mobile 4G
		China Mobile Wi-Fi
Hunan	Changsha	China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
	Shaoyang	China Telecom Wi-Fi

		China Mobile 4G
	Yueyang	China Mobile 4G
Guangdong	Dongguan	China Unicom 4G
		China Unicom Wi-Fi
		China Mobile 4G
	Foshan	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Guangzhou	China Telecom 2.5G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Unicom Wi-Fi
		China Mobile 3G
		China Mobile 4G
	Huizhou	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Jiangmen	China Telecom Wi-Fi
		China Mobile 4G
	Maoming	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G

		China Mobile Wi-Fi
	Meizhou	China Mobile 4G
	Qingyuan	China Telecom 4G
		China Mobile 4G
	Shaoguan	China Telecom 4G
		China Mobile 4G
	Shenzhen	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
	Yunfu	China Telecom 4G
	Zhanjiang	China Mobile Wi-Fi
	Zhaoqing	China Telecom 4G
		China Unicom 4G
	Zhongshan	China Telecom Wi-Fi
		China Mobile 4G
Guangxi	Beihai	China Telecom 4G
	Guilin	China Mobile 4G
	Guigang	China Telecom 4G
	Liuzhou	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
	Nanning	China Telecom 4G

		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
	Qinzhou	China Telecom Wi-Fi
	Yulin	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G
Hainan	Haikou	China Telecom 3G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 4G
Chongqing	Chongqing	China Telecom 2.5G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
Sichuan	Chengdu	China Telecom 3G
		China Telecom 4G

	China Telecom Wi-Fi
	China Unicom
	China Unicom 3G
	China Unicom 4G
	China Mobile 3G
	China Mobile 4G
	China Mobile Wi-Fi
Dazhou	China Telecom 4G
	China Mobile 4G
Deyang	China Telecom 4G
	China Telecom Wi-Fi
	China Mobile 4G
	China Mobile Wi-Fi
Leshan	China Telecom 4G
Liangshan	China Mobile 4G
Meishan	China Telecom 4G
	China Unicom 4G
	China Mobile 4G
Mianyang	China Telecom 4G
	China Telecom Wi-Fi
	China Mobile 4G
	China Mobile Wi-Fi
Nanchong	China Telecom 4G
	China Unicom Wi-Fi
	China Mobile 4G

	Panzhihua	China Telecom Wi-Fi
	Ziyang	China Telecom 2.5G
		China Telecom 4G
	Zigong	China Telecom Wi-Fi
Guizhou	Guiyang	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
Yunnan	Kunming	China Telecom 3G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
Shaanxi	Baoji	China Telecom 4G
	Hanzhong	China Telecom Wi-Fi
	Xi'an	China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 3G
		China Unicom 4G
		China Mobile 3G
		China Mobile 4G
	Yulin	China Telecom 4G
Gansu	Lanzhou	China Telecom 4G
		China Unicom 4G

		China Mobile 4G
	Linxia	China Unicom 4G
		China Mobile 4G
Qinghai	Xining	China Telecom 4G
		China Unicom 4G
		China Mobile 4G
Ningxia	Yinchuan	China Telecom
		China Telecom 2.5G
		China Telecom 4G
		China Telecom Wi-Fi
		China Unicom 4G
		China Mobile 4G
Xinjiang	Urumqi	China Telecom 4G
		China Unicom 3G
		China Unicom 4G
		China Mobile 4G

Error Codes
API Monitoring Tasks

Last updated：2023-12-22 11:38:30

This document describes the error codes for CAT API monitoring tasks. The following error codes, if any, will be counted into top five error types in testing statistics.

Error Code	Definition	Description
600	DNS resolution failed.	This error code will be reported if the network is abnormal or the DNS server or domain is incorrect.
601	Server connection failed.	Currently, only TCP-based protocols are supported for protocol monitoring. This error code will be reported if server connection times out after socket creation. The timeout period can be configured in the task.
602	Failed to send the network data.	The network is disconnected.
603	No response was received after connection to the server.	This error code will be reported by the client if no data is received or data receiving times out after request sending.
604	Task execution timed out.	The protocol test allows for sending protocol packets multiple times to the remote server. This error code will be reported if the time taken to send the protocol packet once exceeds the configured time limit. The time limit can be configured flexibly on the platform.
605	The data to be sent configured in the task is invalid.	Currently, the protocol test supports sending text or buffer. In text mode, data is sent without conversion. In buffer mode, the client needs to convert text into a hex buffer. This error code will be reported if an error occurs during the conversion.
606	The data to be verified configured in the task is invalid.	The protocol test will verify the content returned by the server in four ways: no verification, full match, partial match, and MD5 (recommended if the returned content is large in size). If the buffer mode is set, the content needs to be converted to a hex buffer for verification. This error code will be reported if an error occurs during the conversion.
607	Failed to verify the keyword.	This error code will be reported if no verified keyword is contained in the data returned by the server.

608	SSL handshake failed.	The port is incorrect or the network is disconnected.
609	The step timed out.	If one of the steps in a protocol task times out, no further steps will be performed and this error code will be reported.

Network Quality Tasks

Last updated：2023-12-22 11:38:52

This document describes the error codes for CAT network quality tasks. The following error codes, if any, will be counted into top five error types in testing statistics.

Error Code	Definition	Description
601	No server was found during the ping test.	In a ping test, DNS query is performed to resolve the domain to be pinged to an IP, and then the ICMP packet is sent. This error code will be reported if an error occurs during domain resolution.
602	The number of tracert hops exceeds the limit.	By default, there can be up to 30 hops in a tracert test. If the number of hops is set to a value smaller than 30, the configuration applies. This error code will be reported if the number of IPs in a tracert exceeds the limit.
603	The network environment test timed out.	This error code applies to DNS query, ping, and tracert tests.
605	The tracert server is unreachable.	The server will be regarded as unreachable if the tracert operation times out and already has five hops.
606	CNAME query failed.	CNAME query failed in the DNS process.
608	The local DNS server could not be found.	This error code will be reported if the local DNS server address cannot be obtained.
609	The DNS requests of all NS servers failed.	Multiple NS servers are available for DNS query. The client will get the list of all NS servers and perform query operations one by one. DNS query is regarded as successful if one of the requests returns the DNS record successfully. This error code will be reported if the DNS requests of all NS servers fail.
610	The NS root servers could not be resolved.	The iteration process requires the 13 NS root servers in the international domain system and cannot start if these servers cannot be resolved.
611	The intermediate NS server could not be resolved.	The iteration process requires resolving the NS server under each domain in a top-down manner and will fail if the NS server under any domain fails to be resolved.
612	The domain does not exist.	The NS server returned an error code to notify the local server that the domain does not exist.

613	Another error was returned by the NS server.	The NS server returned another error code.
614	Failed to send the request.	All echo requests failed.
615	The request returned that the target network is unreachable.	All echo requests returned that the network is unreachable.
616	The request returned that the protocol is unreachable.	All echo requests returned that the protocol is unreachable.
617	The request returned that the port is unreachable.	All echo requests returned that the port is unreachable.
618	The packet is too large and needs to be split.	All echo requests returned that the packet needs to be split.
619	The request timed out.	All echo requests timed out.
620	The TTL timed out during transfer.	The TTL of all echo requests timed out during transfer.
621	The TTL timed out during packet reassembling.	The TTL of all echo requests timed out during packet reassembling.
622	The target address is invalid.	All echo requests returned the invalid target address.
623	The address is invalid.	The entered task address is invalid.
624	The custom NS server address is invalid.	You need to check whether the custom NS server is correct, which can be an IP or domain.
625	The server refused connection.	This error code will be reported if the port of the server is not open during a TCP ping.

File Transfer Tasks

Last updated：2023-12-22 11:39:13

This document describes the error codes for CAT file transfer tasks. The following error codes, if any, will be counted into top five error types in multidimensional analysis.

Error Code	Definition	Description
600	DNS resolution failed.	This error code will be reported if the network is abnormal or the DNS server or domain is incorrect.
601	Server connection failed.	HTTP and FTP protocols are supported in the download test. This error code will be reported if server connection times out or encounters an error.
602	The server refused login.	This error code will be reported if the server does not return the 230 response code after the client has sent the username and password during the FTP download.
603	The request protocol is not supported by the server.	This error code will be reported if a non-HTTP or -FTP URL is configured.
604	The PASV mode is not supported by the server.	The FTP server does not support the PASV mode, which is supported only for CAT's FTP download.
605	Redirect failed.	Before the download, CAT will check whether the configured URL in the task has a redirect, and if so, it resolves the target URL before starting one or more download threads. This error code indicates that a TCP-layer but not HTTP-layer error has occurred before the redirect, which is caused by DNS or TCP connection failure in most cases (if the error is an HTTP error, the corresponding HTTP error code will be reported).
606	The URL is invalid.	The URL is invalid. Check whether the configured URL is correct.
607	The protocol is invalid.	This error code will be reported, for example, if the URL is `http://www.baidu.com/` and the transfer protocol is HTTP, but HTTP is not supported for the task.
608	The connection to the server was terminated unexpectedly.	The connection to the server was terminated.
609	The connection to the server was reset.	The issue is related to the local ISP connection, specifically, poor connection linkage and rate.

610	The SSL certificate has expired.	You need to install the SSL certificate to access HTTPS websites. This error code will be reported if the certificate expires. The system error code is 12037.
611	The domain in the certificate is incorrect.	This error code will be reported if the domain field in the SSL certificate is invalid, for example, the website to be accessed is `www.123.com`, but the domain field is `www.124.com`. The system error code is 12038.
612	The client certificate is required.	The server requires installing the SSL certificate on the client. The system error code is 12044.
613	Request sending timed out.	This error code will be reported if no data is returned after a request is sent by the client to the server.
614	The file does not exist.	The file does not exist on the FTP server.
615	Failed to open the file.	Failed to open the file on the FTP server.
616	Failed to find the file.	Failed to find the file on the FTP server.
617	Failed to set the working directory.	An error occurred while setting the working directory for the upload or download task.
618	The password is incorrect.	The login password is incorrect. Check whether the password is correct.
619	The username is incorrect.	The login username is incorrect. Check whether the username is correct.
620	The operation was not completed.	The operation was not completed, as the session with the server was terminated.
621	Failed to upload the file.	Failed to upload the file due to a certain cause.
622	Failed to log in to the server.	The request to log in to the FTP server failed.
623	The CA is invalid.	The SSL certificate used by the server is not issued by the valid CA. The system error code is 12045.
624	An SSL certificate error occurred.	The system error code is 12055.
625	The SSL certificate is invalid.	The system error code is 12169.
626	A redirect occurred during the transfer.	This error code will be reported if redirect is disabled for the transfer task but a redirect occurs.

627	Failed to verify the string.	This error code will be reported if the configured string cannot be found in the response header after the successful download.
628	The response data is invalid.	The response data from the server could not be parsed.
629	The download is incomplete.	This error code will be reported if the size of the actually downloaded part is smaller than the `Content-Length` and configured value when the response header contains the `Content-Length` field, or if the size of the actually downloaded part is smaller than the configured value when the response header does not contain the `Content-Length` field, which means the actual file size cannot be obtained.
630	Download timed out.	This error code will be reported if the download task times out and the download is not completed.
631	An HTTP to HTTPS redirect error occurred.	This error code will be reported if the HTTP to HTTPS redirect fails due to the security mechanism of the server running Windows Server 2012.
632	Failed to verify the MD5 checksum.	The MD5 checksum does not match that configured in the task after the download.
633	Redirect failed.	This error code will be reported if the number of redirects exceeds the system default value of `10` and the redirect is stopped by the system.
634	The SSL algorithms do not match.	The client and server algorithms do not match, which may be that the SSL protocol version was not selected or the Windows XP system version does not support the latest SSL protocol version.
635	User confirmation is required for redirect.	It corresponds to the `ERROR_HTTP_REDIRECT_NEEDS_CONFIRMATION` (12168) error code of WinINet, indicating that the redirect needs to be confirmed by the user.
636	Server response timed out.	The server response was not received within the monitoring period after the file of the specified size was uploaded over HTTP successfully.
637	Failed to send the request data.	The request data was not sent after an HTTP connection was established.
638	SSL handshake failed.	For HTTPS, in most cases, the request data was not sent due to SSL handshake failure, or the SSL handshake is successful but no error was reported and no request data was sent.

639	The SSL certificate was not revoked.	The system error code is 12056.
640	The SSL certificate was revoked.	The system error code is 12170.
641	Client authorization was not configured on the computer.	The system error code is 12046.
642	The requested resource requires Fortezza authentication.	The system error code is 12054.
643	The function failed due to a security check.	The system error code is 12171.
644	The SSL content is incomplete.	The system error code is 12041.
645	The SSL certificate was revoked.	The system error code is 12057.
646	An error occurred while SSL was loading the SSL libraries.	The system error code is 12157.
647	SSL connection failed.	The cURL system error code is 35.
648	The SSL certificate of the remote server is incorrect.	The cURL system error code is 51.
649	The specified SSL encryption engine could not be found.	The cURL system error code is 53.
650	Failed to set the selected SSL encryption engine as the default option.	The cURL system error code is 54.
651	The local client certificate is incorrect.	The cURL system error code is 58.
652	Unable to use the specified key.	The cURL system error code is 59.
653	Unable to use the known CA certificate to verify the SSL certificate.	The cURL system error code is 60.
654	Failed to recognize transfer	The cURL system error code is 61.

	encoding.	
655	Failed to request the SSL level.	The cURL system error code is 64.
656	Failed to initialize the SSL engine.	The cURL system error code is 66.
657	An error (which may be the directory error) occurred while reading the SSL CA certificate.	The cURL system error code is 77.
658	Failed to terminate the SSL connection.	The cURL system error code is 80.
659	Failed to load the certificate revocation list.	The cURL system error code is 82.
660	Certificate revocation check failed.	The cURL system error code is 83.
661	The keys do not match.	The cURL system error code is 90.
662	The CA is invalid.	The cURL system error code is 91.
663	An internal error occurred in cURL, which needs to be located based on the log.	-
664	An error occurred in cURL while receiving network data.	The cURL system error code is 56.
665	The specified file to be uploaded is invalid.	The content could not be downloaded, or the MD5 verification failed.
720	Failed to get the target IP.	Failed to get the target IP or the list of target IPs in the transfer task.
721	An unknown network error occurred.	An unknown system error occurred.
722	The DNS query duration in the transfer task is too long.	The DNS query duration in the transfer task is longer than 20 seconds.
723	Failed to get the size of the downloaded part or the download duration from the response header.	The size of the downloaded part or the download duration could not be obtained from the response header.

Page Performance Tasks

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This document describes the error codes for CAT page performance tasks. The following error codes, if any, will be counted into top five error types in multidimensional analysis.

Error Code	Definition	Description
300	HTTP/1.1 300 Multiple Choices	-
301	HTTP/1.1 301 Moved Permanently	-
303	HTTP/1.1 303 See Other	-
305	HTTP/1.1 305 Use Proxy	-
400	HTTP/1.1 400 Bad Request	-
401	HTTP/1.1 401 Unauthorized	-
402	HTTP/1.1 402 Payment Required	-
403	HTTP/1.1 403 Forbidden	-
404	HTTP/1.1 404 Not Found	-
405	HTTP/1.1 405 Method Not Allowed	-
406	HTTP/1.1 406 Not Acceptable	-
407	HTTP/1.1 407 Proxy Authentication Required	-
408	HTTP/1.1 408 Request Time-out	-
409	HTTP/1.1 409 Conflict	-
410	HTTP/1.1 410 Gone	-
411	HTTP/1.1 411 Length Required	-
412	HTTP/1.1 412 Precondition Failed	-
413	HTTP/1.1 413 Request Entity Too Large	-

414	HTTP/1.1 414 Request-URI Too Large	-
415	HTTP/1.1 415 Unsupported Media Type	-
416	HTTP/1.1 416 Requested range not satisfiable	-
417	HTTP/1.1 417 Expectation Failed	-
500	HTTP/1.1 500 Internal Server Error	-
501	HTTP/1.1 501 Not Implemented	-
502	HTTP/1.1 502 Bad Gateway	-
503	HTTP/1.1 503 Service Unavailable	-
504	HTTP/1.1 504 Gateway Time-out	-
505	HTTP/1.1 505 http version not supported	-
601	DNS resolution failed.	This error code will be reported if the network is abnormal or the DNS server or domain is incorrect.
602	Server connection failed.	This error code will be reported if the network is abnormal or the server does not work properly.
603	The request protocol is not supported by the server.	This error code will be reported, for example, if the URL is `http://www.baidu.com/` and the protocol is HTTP, but HTTP is not supported by the server.
604	The connection to the server was terminated unexpectedly.	This error code will be reported if the network fluctuates or the request is canceled by the user.
605	The connection to the server was reset.	The issue is related to the local ISP connection, specifically, poor connection linkage and rate.
606	Redirect failed.	This error code will be reported if the policy changes or all redirect attempts fail.
607	The URL is invalid.	The format of the URL configured in the task does not conform to the standard HTTP or HTTPS protocol.
617	The network protocol is not supported.	Only HTTP and HTTPS protocols are supported for browsing or transaction tests.

622	Direct access is not allowed.	The network could not be accessed directly at this point.
623	Requests are pending.	The request operation could not be completed as certain requests are pending.
624	The program is being redirected from HTTP to HTTPS.	The program is being redirected from the non-HTTPS connection to the HTTPS connection.
625	The program is being redirected from HTTPS to HTTP.	The program is being redirected from the non-HTTP connection to the HTTP connection.
626	Unable to find the HTTP header.	It is usually because the custom header is written in an incorrect format.
627	No header was returned by the server.	-
628	The response data is invalid.	The response data from the server could not be parsed.
629	The HTTP header is invalid.	It is usually because the custom header is written in an incorrect format.
630	The request parameter is invalid.	The handle parameter passed to `HTTPQueryInfo` is invalid.
631	The HTTP header already exists and could not be added.	-
632	The HTTP request was not redirected.	-
633	The HTTP cookie requires confirmation.	-
634	The HTTP cookie was rejected by the server.	-
635	The redirect requires user confirmation.	-
636	A secure channel error occurred.	An internal error occurred while loading the SSL libraries. The system error code is 12157.
637	The program could not cache the file.	-
638	The server is unreachable.	-

639	The proxy server is unreachable.	-
640	The operation was canceled.	The handle was canceled before the operation was completed.
641	The operation on the element was terminated.	The operation in the IE kernel is invalid. Specifically, the kernel had established a session for downloading the element and allocated resources such as the handle and context ID, but it directly closed the session (`InternetCloseHandle`) without establishing the socket connection.
642	No response was received for the request sent for the element.	No data was returned after the request was sent. Specifically, no data was returned by the server after the browser sent the request (the sending completion event was received).
643	Incomplete element data was returned.	The data packet received for the element is abnormal. Specifically, the received data packet cannot form a complete HTTP response header, or its data is abnormal. In this case, there is a time point when the first data packet was received.
645	The connection was reset after the redirect.	For more information on the cause, see error code 605.
646	Rendering timed out after the redirect.	This error code will be reported if the basic document elements are not downloaded for the first five elements after the redirect.
647	Basic document download timed out.	This error code will be reported if the basic document elements are not downloaded for the first five elements and no redirect has occurred.
648	First screen rendering timed out.	The height was not rendered to `400` after the basic document elements were loaded.
649	The page elements were not completely loaded.	The page elements had not been completely loaded when the monitoring timed out.
650	Failed to verify the string.	This error code will be reported if the configured string is not found in the page source code, basic document URL, and page title.
651	The page was redirected.	This error code will be reported if redirect is disabled but a page redirect occurs.
655	Server connection timed out.	It is usually due to the network.
656	Request sending timed out.	It is usually due to the network.
657	Server response timed out.	It is usually due to the network.

658	Data receiving timed out.	It is usually due to the network.
659	DNS query failed.	This error code will be reported if the network is abnormal or the DNS server or domain is incorrect.
660	Element download timed out.	The element load duration exceeds the configured page timeout period.
662	The key element was not downloaded.	This error code will be reported if the key element is used to check whether page load ends but the download of the key element is not detected.
664	A certificate error occurred.	An SSL certificate error occurred. The system error code is 12055.
670	SSL connection failed (mainly due to a certificate error).	Check the error based on the result.
671	The domain field in the SSL certificate is invalid.	The system error code is 12038.
672	The SSL certificate has expired.	The system error code is 12037.
673	The SSL certificate was revoked.	The system error code is 12057.
674	The server requires installing the SSL certificate on the client.	The system error code is 12044.
675	The SSL certificate was not revoked.	The system error code is 12056.
676	The SSL certificate was revoked.	The system error code is 12170.
677	The SSL certificate is invalid.	The system error code is 12169.
678	The SSL certificate used by the server is not issued by the valid CA.	The system error code is 12045.
679	Client authorization was not configured on the computer.	The system error code is 12046.
680	The requested resource requires Fortezza authentication.	The system error code is 12054.
681	The function failed due to a security check.	The system error code is 12171.
682	The SSL content is incomplete.	The downloaded SSL content is incomplete. The system error code is 12041.

688	The specified window was not found.	A window was specified for executing a certain action during transaction playback, but the specified window was not found.
692	The task configuration is invalid, as the task was configured to return no data.	The task was configured to return no data, usually for script configuration. If you do not care about the data in a step, you can configure the step to return no data.
697	The new window was not opened.	The page was not opened after the browsing operation.
698	The environment does not satisfy the conditions.	Check whether the local environment satisfies certain conditions before browsing, for example, whether the required software is installed.
703	The local browsing environment may be abnormal.	Before returning the test results regularly to the server, the client will filter the browsing results. If it finds out that the ratio of 600 segmentation faults exceeds the threshold set by the server, it will consider all browsing data as noise data and place this error code in the returned result.
704	There is no network communication.	This error code will be reported if no network data is found during data analysis after the browsing is completed.
705	The request had stopped before the right basic document was obtained.	The basic document (redirect not disabled) in the browsing task returned the 301/302 response code, but the browser did not redirect and continue the request.
718	The target IP was not obtained.	-
719	The time to first screen is too long.	The data is abnormal if the time to first screen exceeds five minutes.
720	This error code is set for testing the cache.	When cache is used in the general page performance task, this error code will be reported so as to discard the result and perform the task again.
721	JS download or execution failed in the browsing task.	This error code will be reported if the custom JS is configured in the task and the client fails to download or execute the JS file.

Audio/Video Experience Tasks

Last updated：2023-12-22 11:39:50

This document describes the error codes for CAT audio/video test tasks. The following error codes, if any, will be counted into top five error types in testing statistics.

Error Code	Definition	Description
601	DNS resolution failed.	This error code will be reported if the network is abnormal or the domain is incorrect.
602	Server connection failed.	This error code will be reported if the network is abnormal or the server does not work properly.
605	The network is abnormal during receiving.	The network is abnormal during receiving.
660	Connection timed out.	This error code will be reported if the server cannot be connected to for a long time due to slow network.
661	The URL is invalid.	The URL is invalid. Check whether the configured URL is correct.
662	The protocol is not supported.	This error code will be reported, for example, if the URL is `http://www.baidu.com/` and the transfer protocol is HTTP, but HTTP is not supported in the streaming media task.
664	No resources could be found.	No video resource was scraped during page browsing.
665	Playback failed.	An error occurred while playing back the streaming media.
666	No stream was not found.	The server notified that there was no video stream when the stream was requested.
667	The streaming media was not played back within the timeout period.	The streaming media was not played back within the timeout period.
669	The time to first frame exceeds the threshold.	The time to first frame exceeds the threshold set by the server.
671	The video playback was interrupted.	In the M3U8 task, an error occurred in the transport stream (TS) request.
700	A serious lag occurred, where the playback duration is shorter	-

	than 5% of the monitoring duration and the size of the total download exceeds 5 MB.	
701	A playback status error occurred (the data is insufficient but the obtained data was played back).	In the M3U8 task, the playback duration exceeds 30 seconds and the buffer data is smaller than 3 MB before the playback.
702	The duration of the first buffer is too long (exceeding five seconds).	The duration of the first buffer exceeds five seconds and the download speed during the first five seconds exceeds 100 KB/s, indicating that data was discarded abnormally.
703	There are consecutive M3U8 files, with no TS files.	1. There are two or more consecutive M3U8 files (if the interval between their start time is greater than or equal to the refresh cycle, it is abnormal; otherwise, it is normal, as the server did not update the M3U8 files). 2. The second M3U8 file starts after the last TS file ends. This error code will be reported if both conditions are met.
704	The connection failed but the IP is 0.0.0.0.	-
705	The playback duration exceeds the monitoring duration (the time difference of no greater than five seconds is allowed).	The device performance is poor; for example, it takes 30 seconds to play back a 20-second video.
706	The playback duration is longer than the total duration of all TS files.	-
707	The first playback duration is shorter than the value set in the buffer.	-
708	The streaming media was buffered too many times, and more than three lags occurred per test minute.	-