

# **Content Delivery Network Statistics and Analysis Product Introduction**



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# Contents

## Statistics and Analysis

Statistics Overview

Statistics of Usage

Statistics of Access

Statistics of Status Codes

Origin Server Statistics

Network Status Monitoring

OPS Monthly Report

# Statistics and Analysis

## Statistics Overview

Last updated : 2018-09-19 15:54:08

CDN provides the following six tools for data analysis and query to help you understand these factors more clearly: how users are accessing your business resources, the statistical analysis of data consumption generated by your business on CDN, the bandwidth generated by your origin server when receiving back-to-origin requests as well as the speed:

Statistic	Description
<a href="#">Usage</a>	Query for real-time traffic and bandwidth consumption generated by projects and domains on CDN, provides TOP usage analysis regarding provinces and ISPs, provides analysis of popular URLs
<a href="#">Access</a>	Query for real-time number of requests generated by projects and domains, provides TOP analysis for number of requests of provinces and ISPs, provides analysis of popular URLs
<a href="#">Status Code</a>	Provides statistics of HTTP status codes returned by projects and domains, in response to user requests, including the statistics of 2XX, 3XX, 4XX, 5XX
<a href="#">Origin</a>	Query for real-time back-to-origin traffic and bandwidth of projects and domains, as well as the speed for back-to-origin accesses
<a href="#">Global Status</a>	Review the status of the entire CDN network
<a href="#">Monthly Report</a>	Provides analytical report regarding monthly CDN usage

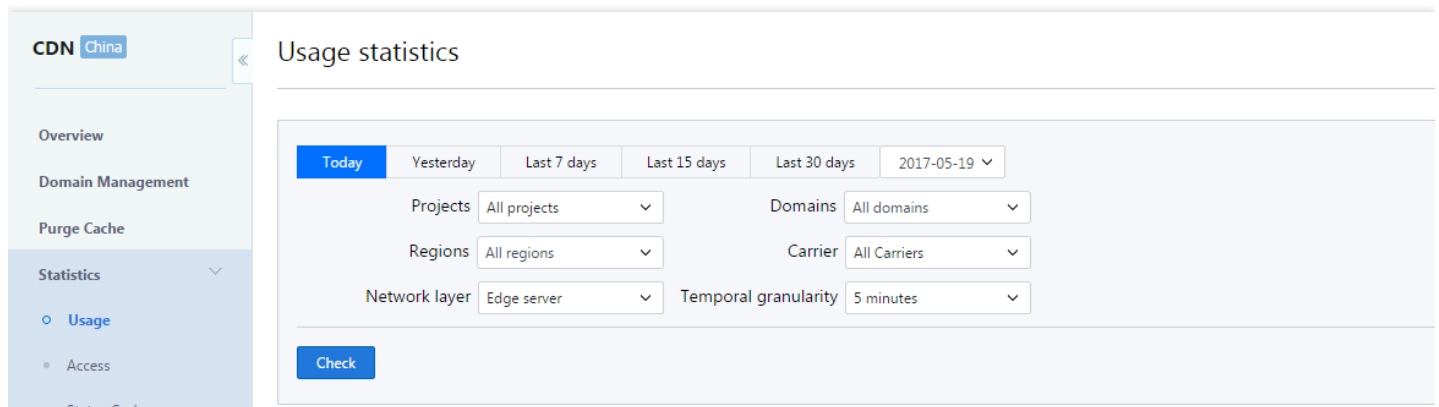
# Statistics of Usage

Last updated : 2018-03-19 19:23:54

Log in to [CDN Console](#), and click "Usage" page under "Statistics" to review the curve graph of detailed real-time bandwidth and traffic consumption as well as other data including the analysis of ISPs, provinces and popular URLs. You can also query for historical data. Details will be described below.

## Query Criteria

The usage statistics page includes the following query criteria:



### Note:

- Time range: The earliest selectable time is 2015-01-01, you can select a query time span of up to 90 days;
- Project: Query for usage data based on project is supported;
- Domain: Query for usage data based on specified domain is supported;
- Region: Query for usage data based on specified region is supported. Currently you cannot select both "Region" and "Carrier", when you select regions, the carrier will need to be "All carriers";
- Carrier: Query for usage data based on specified carrier is supported. Currently you cannot select both "Region" and "Carrier", when you select a carrier, the region will need to be "All regions";
- Network layer: Query for usage data of edge nodes or intermediate nodes is supported;
- Temporal granularity: This refers to the temporal granularity with which bandwidth and traffic data will be presented. This is related to the selected time span:

If the selected time span is 1 day, you can query data with a temporal granularity of 5 minutes, 15 minutes, 30 minutes, 2 hours or 4 hours;

If the selected time span is 2-3 days, you can query data with a temporal granularity of 15 minutes, 30 minutes, 2 hours or 4 hours;

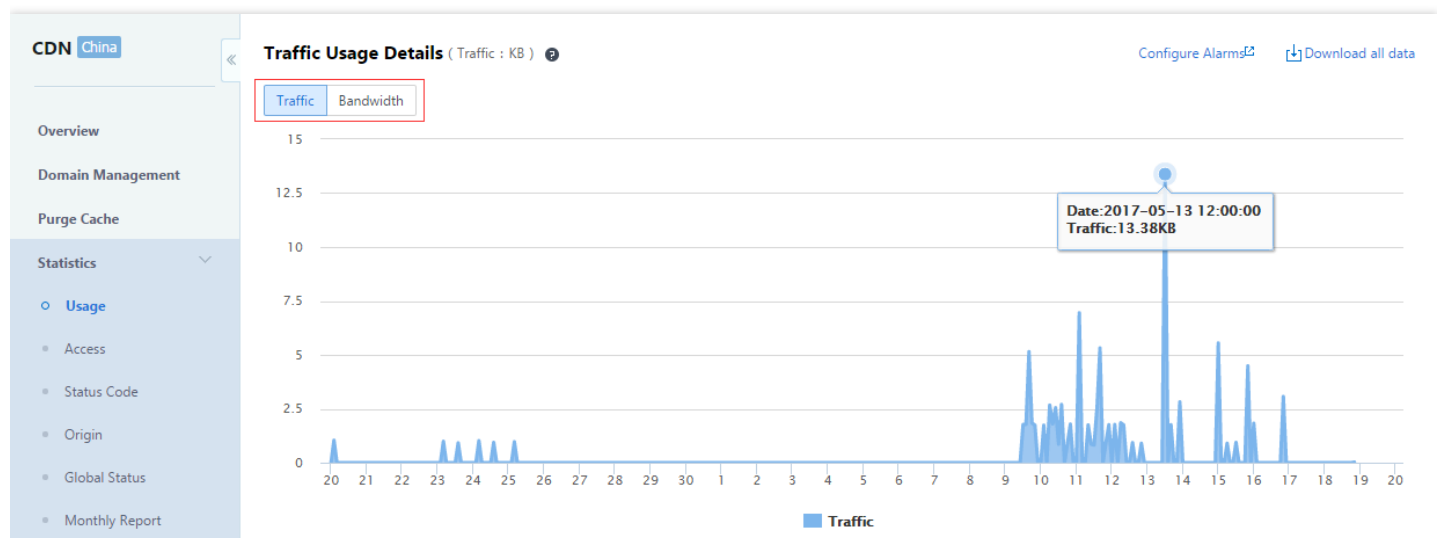
If the selected time span is 4-7 days, you can query data with a temporal granularity of 2 hours, 4 hours or 1 day;

If the selected time span is more than 30 days, you can only query data with a temporal granularity of 4 hours or 1 day;

## Data Result Description

### Statistics of Traffic and Bandwidth

Displays the curve graph of traffic and bandwidth statistical data:



#### Note:

- The minimum granularity for traffic and bandwidth statistics is five minutes, that is, the statistical data from 2016-10-25 15:00:00 to 15:04:59 will be shown at the statistical point of 2016-10-25 15:05:00;
- The latency of real-time data is about five minutes, that is, the statistical point of 2016-10-25 15:05:00 will appear around 2016-10-25 15:10:00;
- Accelerated domains that were once connected and then deleted will be displayed in gray in the "All domains" drop-down box;
- Note about statistics:

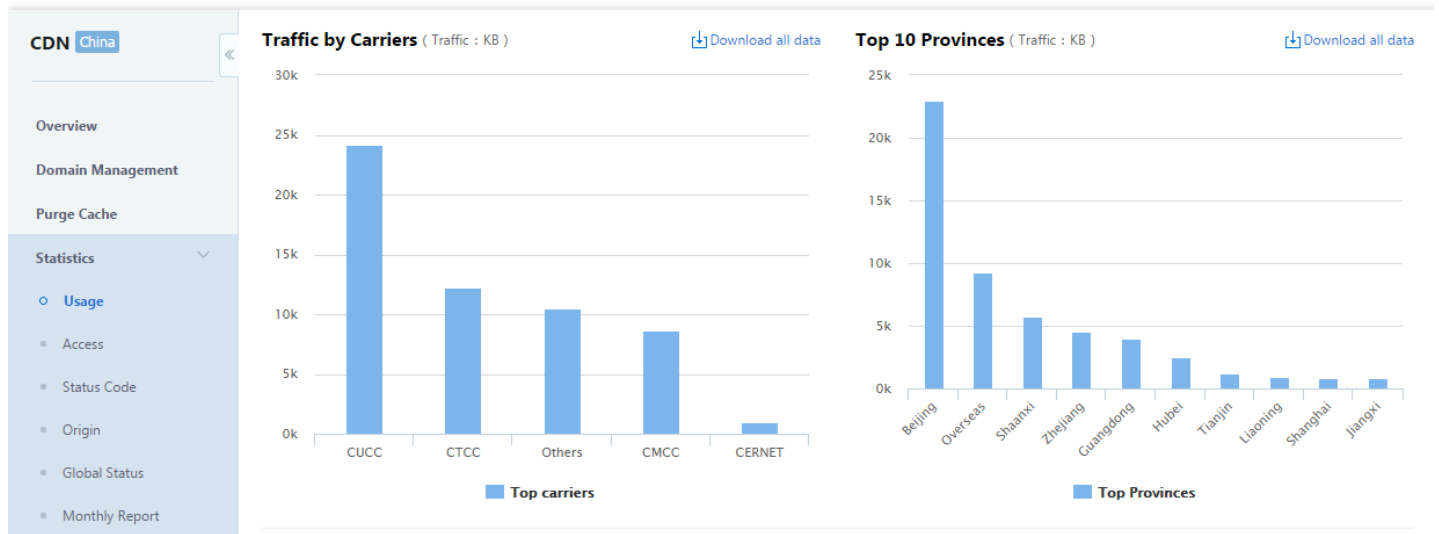
If the domain has not been connected to CDN for the specified time range, it will not be covered in statistics even if it is checked;

If the domain has been deleted for the specified time range, it will not be covered in statistics even if it is checked;

If the domain experienced three stages (not connected, connected and deleted) for the specified time range, the statistical data for unconnected and deleted time period will be filled by 0.

## Carrier and Province Analysis

The usage statistics are ranked and analyzed based on provinces and carriers:



### Note:

- Carrier and province data is analyzed through logs, thus the data belongs to application layer. There will be deviations between this data and the statistics of traffic and bandwidth NIC data in the previous figure;
- Latency of data statistics during peak hours is less than 30 minutes;
- The record of carrier and province data will only be kept for 90 days, if the query time range exceeds the limit of 90 days, the data will not be displayed.

## Domain Bandwidth/Traffic Usage Details

Domains and their detailed traffic and bandwidth are displayed according to selected query criteria (sorted from high to low). You can click "Download all data" to download detailed data:

Domain	Category	Traffic	Peak Bandwidth
[Redacted]	[Redacted]	96.07KB	333bps

Total 1 items

Lines per page: 10

**Note:**

- The details of domain bandwidth and traffic are statistics of NIC data;
- The record of detailed bandwidth and traffic data will only be kept for 90 days, if the query time range exceeds the limit of 90 days, the data will not be displayed.

**TOP100 URL**

TOP100 analysis for traffic usage and bandwidth usage towards individual URL resources is carried out according to the selected query criteria, to help you locate popular resources:

URL	Traffic Usage	Bandwidth Usage
[Redacted]	50.83KB	1bps
[Redacted]	861B	0bps
[Redacted]	802B	0bps
[Redacted]	396B	0bps
[Redacted]	396B	0bps
[Redacted]	396B	0bps

Total 13 items

Lines per page: 10

**Note:**



- TOP100 URL analysis is done through logs, there will be a latency of 1-2 hours;
- The record of TOP100 data will only be kept for 90 days, if the query time range exceeds the limit of 90 days, the data will not be displayed.

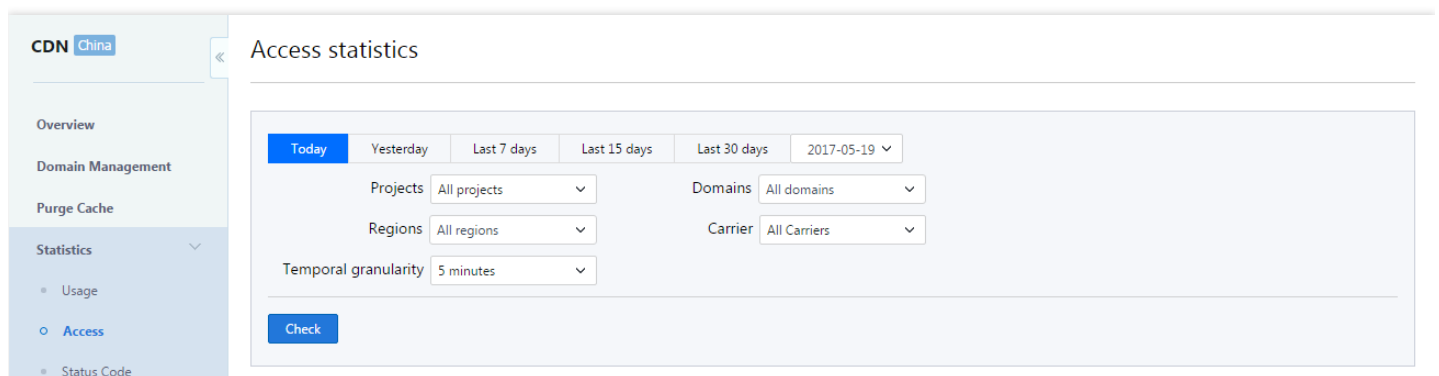
# Statistics of Access

Last updated : 2018-03-19 19:24:24

Log in to [CDN Console](#), and click "Access" page under "Statistics" to review real-time statistics of request quantity, number of IP visits, hit rates. You can check the historical record within 90 days.

## Query Criteria Instruction

The following criteria are supported when querying access statistics:



### Note:

- Time selection: The query for access statistics for the last 90 days is supported with a query span of up to 90 days.
- Project: Query for usage data based on project is supported;
- Domain: Query for usage data based on specified domain is supported;
- Region: Query for usage data based on specified region is supported. Currently you cannot select both "Region" and "Carrier", when you select regions, the carrier will need to be "All carriers";
- Carrier: Query for usage data based on specified carrier is supported. Currently you cannot select both "Region" and "Carrier", when you select a carrier, the region will need to be "All regions";
- Temporal granularity: This refers to the temporal granularity with which bandwidth and traffic data will be presented. This is related to the selected time span:

If the selected time span is 1 day, you can query data with a temporal granularity of 5 minutes, 15 minutes, 30 minutes, 2 hours or 4 hours;

If the selected time span is 2-3 days, you can query data with a temporal granularity of 15 minutes, 30 minutes, 2 hours or 4 hours;

If the selected time span is 4-7 days, you can query data with a temporal granularity of 2 hours, 4

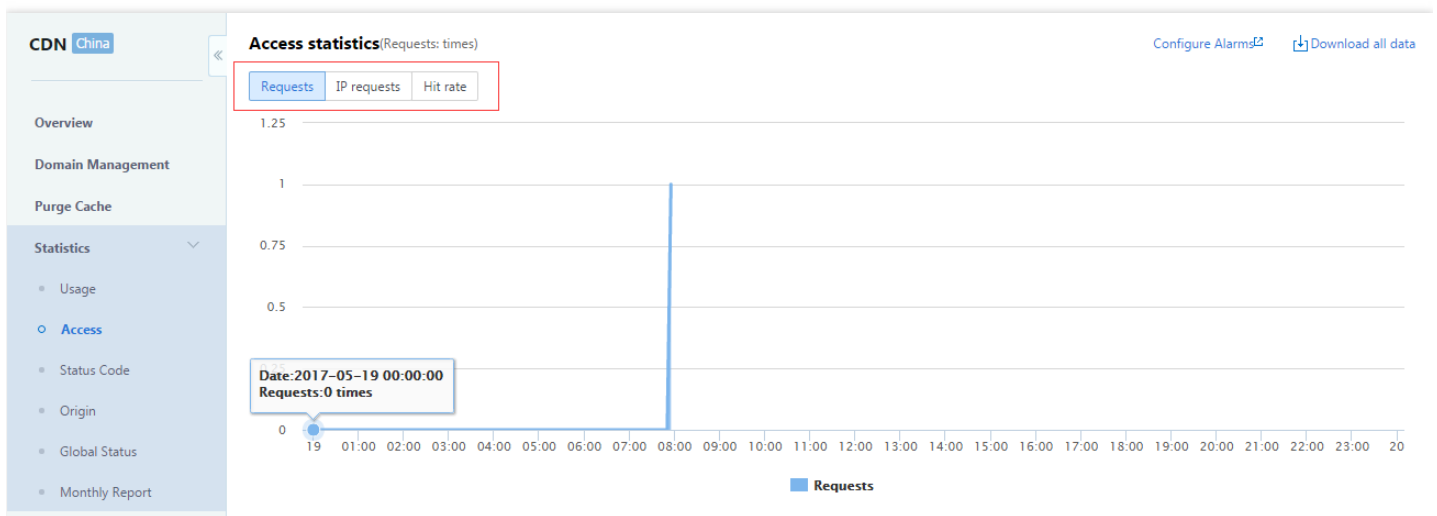
hours or 1 day;

If the selected time span is more than 30 days, you can only query data with a temporal granularity of 4 hours or 1 day;

## Data Result Description

### Access Statistics

The figure shows the data under the specified query criteria:



- Network-wide statistics for number of requests of OC nodes;
- Statistics for number of IP visits: This statistic is obtained by calculating all request IPs within 5 minutes after removing duplicates;
- Hit rate:  $\text{Hit rate (\%)} = (\text{number of requests} - \text{number of back-to-origin requests}) / \text{number of requests}$ .

#### Note:

- For access statistics, there is a statistical point every five minutes, that is, the statistical data from 2016-10-25 15:00:00 to 15:04:59 will be presented at the statistical point of 2016-10-25 15:05:00;
- The latency of real-time data is about five minutes, that is, the statistical point of 2016-10-25 15:05:00 will appear around 2016-10-25 15:10:00;
- All domains connected within 90 days will be covered in the "All Domains" drop-down box, including those that have been deleted;
- Note about statistics:

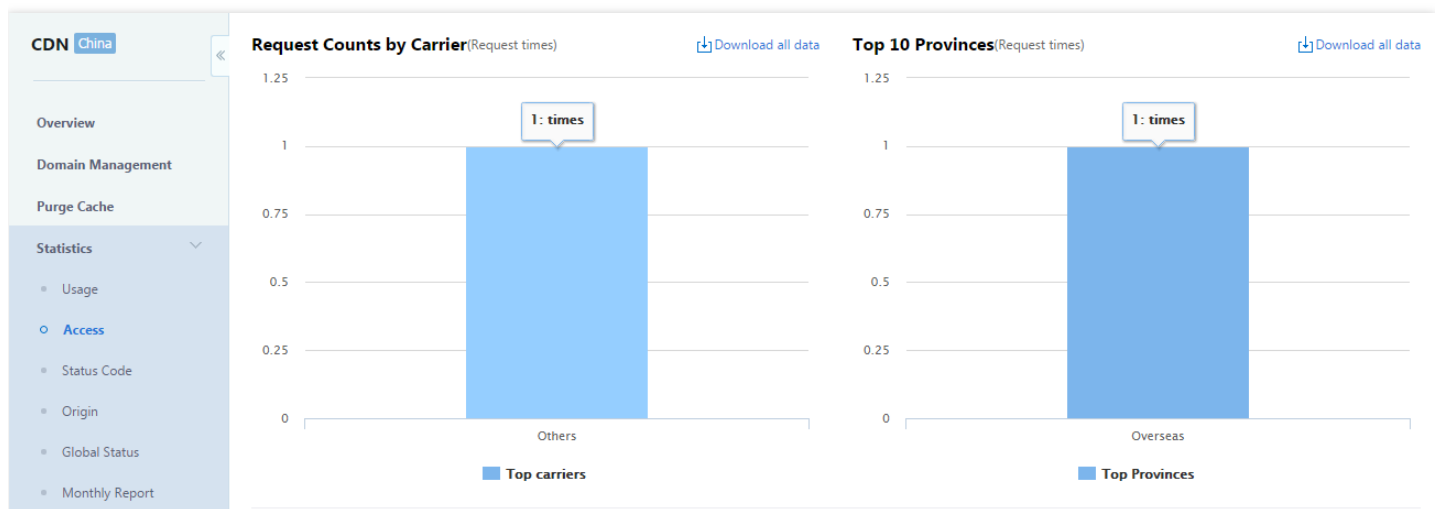
If the domain has not been connected to CDN for the specified time range, it will not be covered in statistics even if it is checked;

If the domain has been deleted for the specified time range, it will not be covered in statistics even if it is checked;

If the domain experienced three stages (not connected, connected and deleted) for the specified time range, the statistical data for unconnected and deleted time period will be filled by 0.

## Carrier and Province Analysis

The number of requests are ranked and analyzed based on provinces and carriers:



### Note:

- Carrier and province data is analyzed through logs, thus the data belongs to application layer. There will be deviations between this data and the statistics of traffic and bandwidth NIC data in the previous figure;
- Latency of data statistics during peak hours is less than 30 minutes;
- The record of carrier and province data will only be kept for 90 days, if the query time range exceeds the limit of 90 days, the data will not be displayed.

## Domain Access Status Statistics

You can click "Download all data" to download detailed data about the domain, number of requests, number of IP visits, hit rate according to the selected query criteria:

CDN China

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Overview

Domain Management

Purge Cache

Statistics ▼

- Usage
- Access
- Status Code
- Origin
- Global Status
- Monthly Report

### Domain access status statistics [Download all data](#)

Domain	Category	Requests	IP access count	Hit rate
	Own origin	1 times	1 times	0

## TOP100 URL

TOP100 analysis for requests towards individual URL resources is carried out according to the selected query criteria to help you locate popular resources:

- Status Code
- Origin
- Global Status
- Monthly Report

### Top 100 Most-accessed Domains [Download all data](#)

URL	Requests
Sorry, no relevant data found	

### Note:

- TOP100 URL analysis is done through logs, there will be a latency of 1-2 hours;
- The record of TOP100 data will only be kept for 90 days, if the query time range exceeds the limit of 90 days, the data will not be displayed.

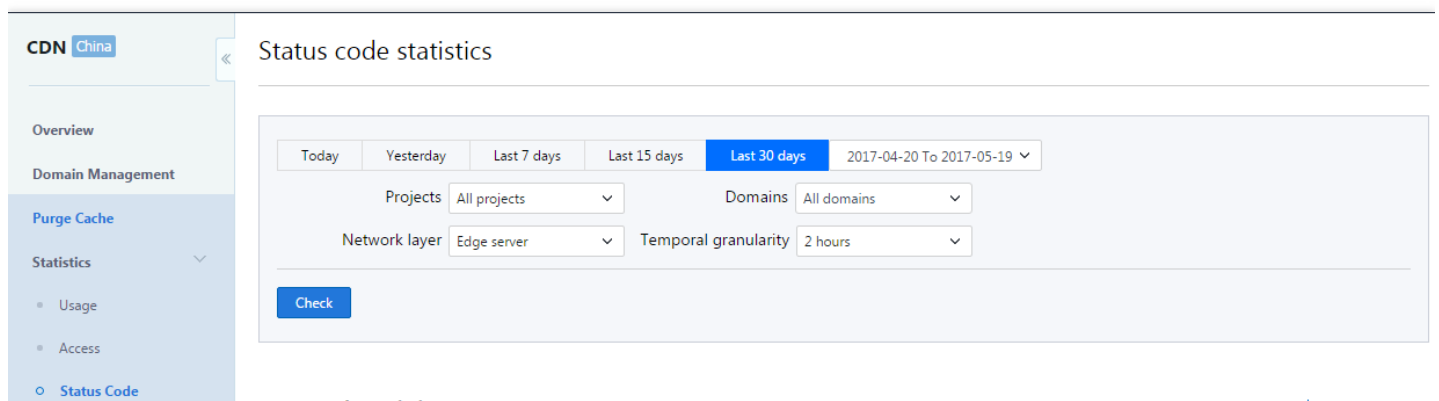
# Statistics of Status Codes

Last updated : 2018-03-19 19:25:12

Log in to [CDN Console](#), and click "Status Code" under "Statistics" to review statistics of 2XX, 3XX, 4XX, 5XX status codes.

## Query Criteria Instruction

The following query criteria are supported when querying status code statistics:



### Note:

- Time selection: The query for statistical data for the last 90 days is supported with a query span of up to 90 days.
- Project: Query for usage data based on project is supported;
- Domain: Query for usage data based on specified domain is supported;
- Network layer: Query for status code statistics of edge nodes or intermediate nodes is supported;
- Temporal granularity: This refers to the temporal granularity with which bandwidth and traffic data will be presented. This is related to the selected time span:

If the selected time span is 1 day, you can query data with a temporal granularity of 5 minutes, 15 minutes, 30 minutes, 2 hours or 4 hours;

If the selected time span is 2-3 days, you can query data with a temporal granularity of 15 minutes, 30 minutes, 2 hours or 4 hours;

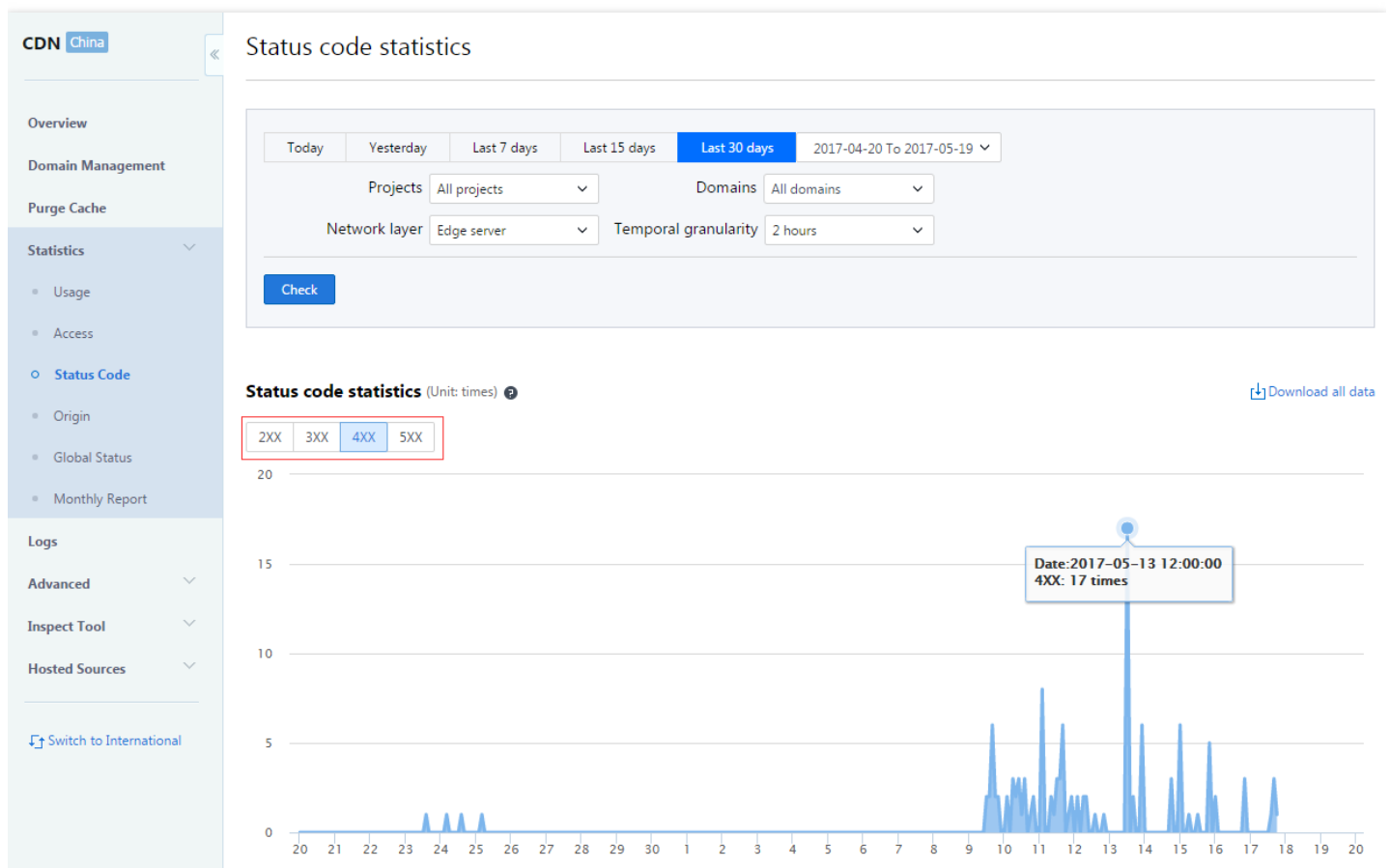
If the selected time span is 4-7 days, you can query data with a temporal granularity of 2 hours, 4 hours or 1 day;

If the selected time span is more than 30 days, you can only query data with a temporal granularity of 4 hours or 1 day;

## Data Result Description

### Status Code Statistics

Displays the statistical data curve graph of 2XX, 3XX, 4XX, 5XX status codes:



### Statistics Instruction:

- 2XX: Statistics of status code 200 and 206;

- 3XX: Statistics of status code 304;
- 4XX: Statistics of status code 404 and 416;
- 5XX: Statistics of status code 500.

**Note:**

- The minimum granularity of status code statistics is five minutes, that is, the statistical data from 2016-10-25 15:00:00 to 15:04:59 will be shown at the statistical point of 2016-10-25 15:05:00;
- The latency of real-time data is about five minutes, that is, the statistical point of 2016-10-25 15:05:00 will appear around 2016-10-25 15:10:00;
- Domains added within 90 days by the user, including deleted domains, will be displayed in the "All domains" drop-down box;
- Note about statistics:

If the domain has not been connected to CDN for the specified time range, it will not be covered in statistics even if it is checked;

If the domain has been deleted for the specified time range, it will not be covered in statistics even if it is checked;

If the domain experienced three stages (not connected, connected and deleted) for the specified time range, the statistical data for unconnected and deleted time period will be filled by 0.

**Status Code Distribution**

Detailed statistics regarding the number and proportion of status codes:



CDN China

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Overview

Domain Management

Purge Cache

Statistics ▼

- Usage
- Access
- **Status Code**
- Origin
- Global Status
- Monthly Report

Logs

Advanced ▼

Inspect Tool ▼

Hosted Sources ▼

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[Switch to International](#)

**Return code distribution** [Download all data](#)

Return code types	Amount <span style="font-size: small;">↕</span>	Proportion <span style="font-size: small;">↕</span>
200	0	0%
206	0	0%
302	0	0%
304	0	0%
401	0	0%
403	0	0%
404	10	8.33%
405	110	91.67%
416	0	0%
500	0	0%
502	0	0%

Total 11 items Lines per page: 20 ▼ K < 1/1 > >

# Origin Server Statistics

Last updated : 2018-05-09 17:44:02

Log in to [CDN Console](#), and click "Origin" page under "Statistics" to review statistical data such as back-to-origin bandwidth, back-to-origin traffic and back-to-origin speed.

## Query Criteria Instruction

The following query criteria are supported when querying back-to-origin statistic data:

The screenshot displays the 'Origin Server' statistics page. The left sidebar includes a 'Statistics' menu with sub-items: Usage, Access, Status Code, and Origin. The main area features a query configuration section with the following elements:

- Time range tabs: Today (selected), Yesterday, Last 7 days, Last 15 days, Last 30 days, and a date selector (2017-05-19).
- Projects dropdown: All projects.
- Domains dropdown: All domains.
- Temporal granularity dropdown: 5 minutes.
- A 'Check' button.
- Bottom navigation tabs: Origin-Pull Consumption (selected), Origin-Pull Failures, and 404 Status Code.

### Note:

- Project: Query for usage data based on project is supported;
- Domain: Query for usage data based on specified domain is supported;
- Temporal granularity: This refers to the temporal granularity with which bandwidth and traffic data will be presented. This is related to the selected time span:

If the selected time span is 1 day, you can query data with a temporal granularity of 5 minutes, 15 minutes, 30 minutes, 2 hours or 4 hours;

If the selected time span is 2-3 days, you can query data with a temporal granularity of 15 minutes, 30 minutes, 2 hours or 4 hours;

If the selected time span is 4-7 days, you can query data with a temporal granularity of 2 hours, 4 hours or 1 day;

If the selected time span is more than 30 days, you can only query data with a temporal granularity of 4 hours or 1 day;

- The minimum granularity of back-to-origin statistics is five minutes, that is, the statistical data from 2016-10-25 15:00:00 to 15:04:59 will be shown at the statistical point of 2016-10-25 15:05:00;
- The latency of real-time data is about five minutes, that is, the statistical point of 2016-10-25 15:05:00 will appear around 2016-10-25 15:10:00;
- All domains that have been connected by the user will be displayed in the "All domains" drop-down box; deleted domains are grayed out:

If the domain has not been connected to CDN for the specified time range, it will not be covered in statistics even if it is checked;

If the domain has been deleted for the specified time range, it will not be covered in statistics even if it is checked;

If the domain experienced three stages (not connected, connected and deleted) for the specified time range, the statistical data for unconnected and deleted time period will be filled by 0.

## Data Result Description

### Note about statistics:

Back-to-origin failure rate statistics, back-to-origin failure analysis, and 404 status code are obtained from the statistical analysis of logs, thus such data are collected from the hosting source dimension:

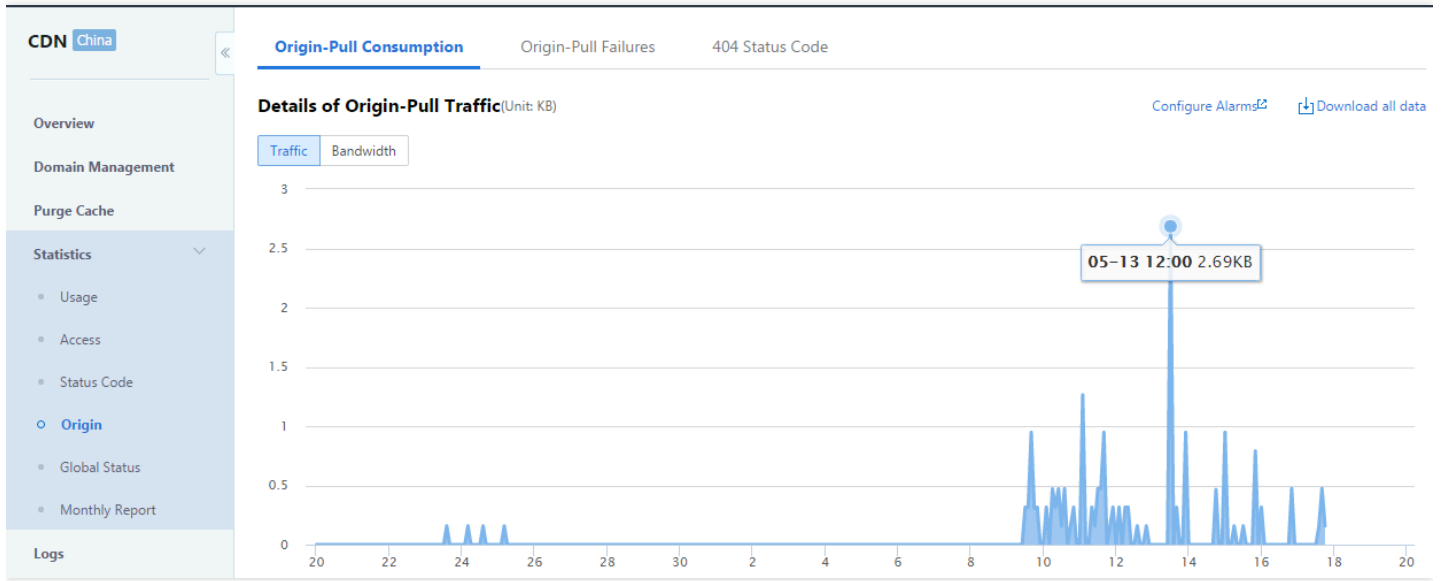
Connect the accelerated domain "www.a.com" and set its hosting source to "www.c.com";  
Connect the accelerated domain "www.b.com", and set its hosting source to "www.c.com";

In this situation, the query results regarding relevant information of "www.a.com" or "www.b.com" are the same, which will be the statistics of the origin server "www.c.com".

The statistics of back-to-origin bandwidth and back-to-origin speed are collected independently without following the above logic.

## Back-to-origin Traffic and Bandwidth

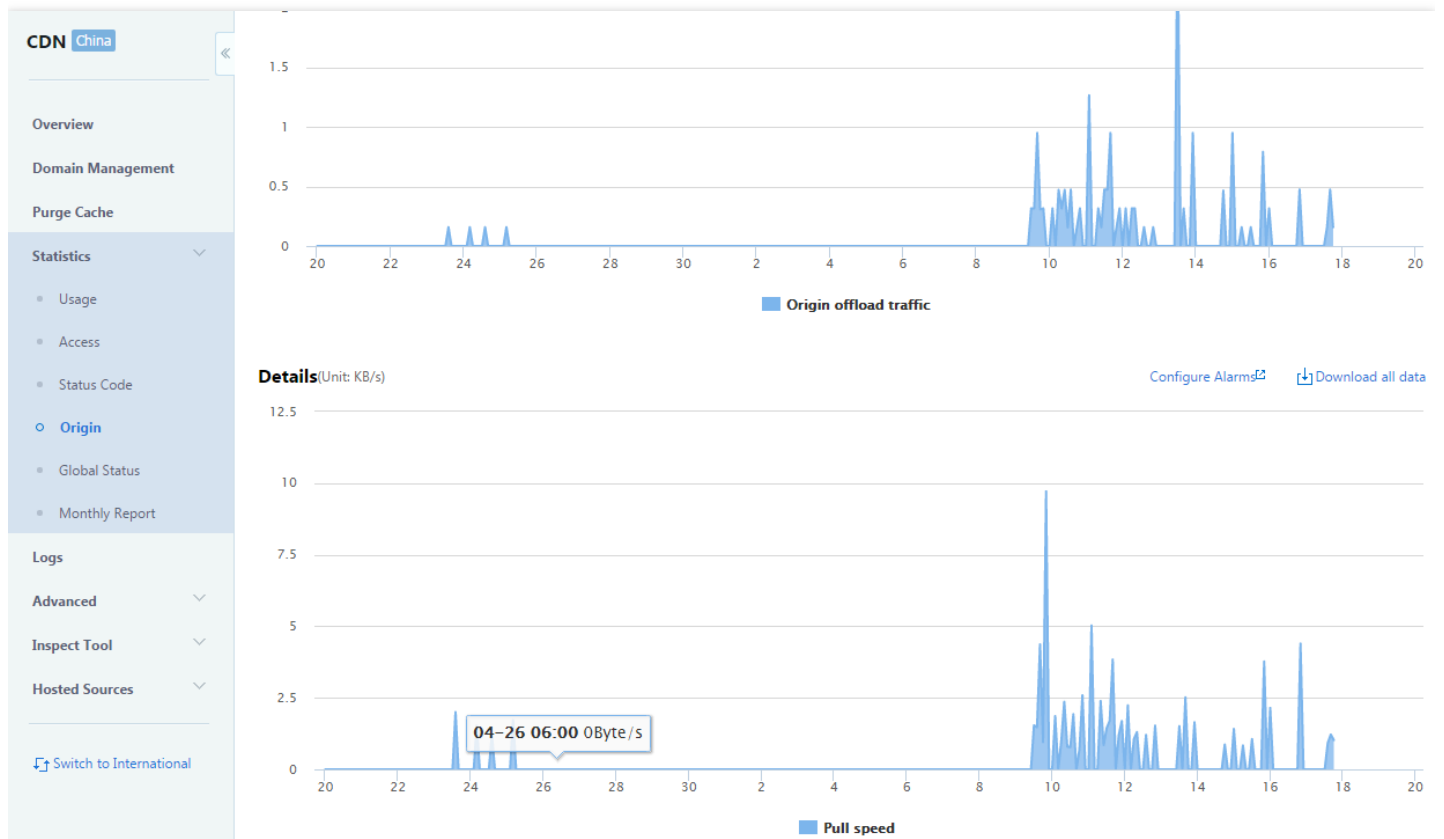
Displays statistical curve graph of back-to-origin traffic and back-to-origin bandwidth:



## Back-to-origin Speed

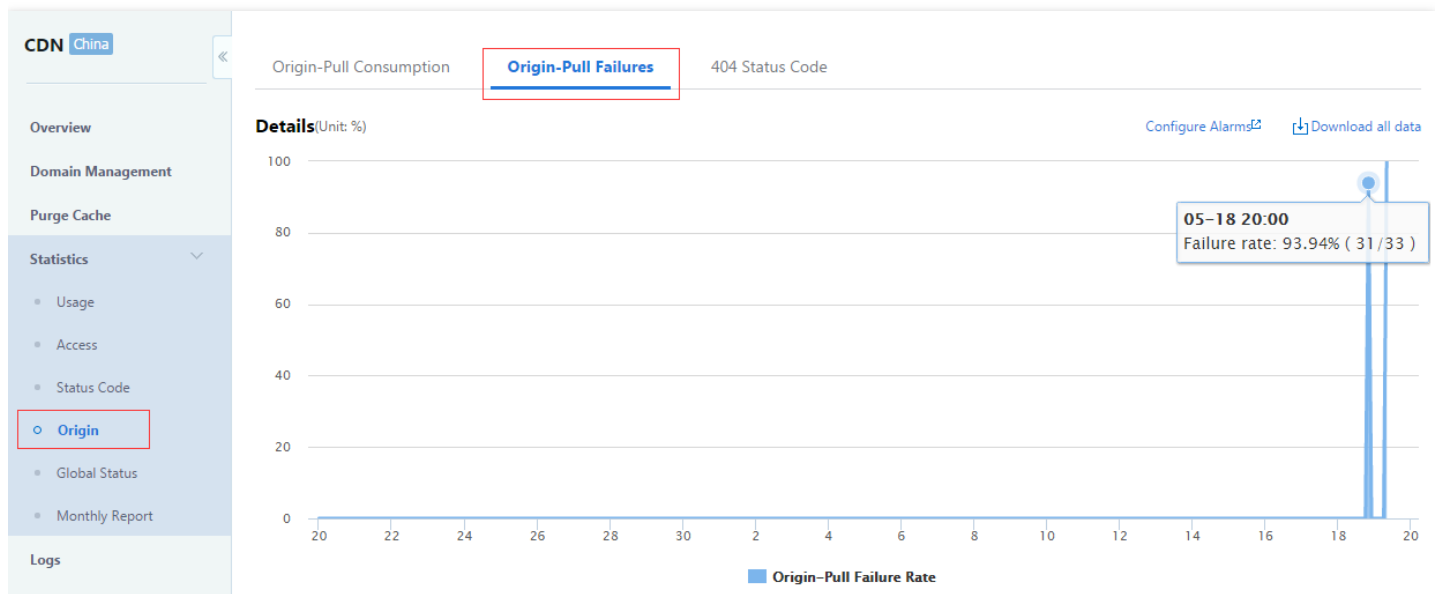
CDN provides back-to-origin speed monitoring to give you a better understanding of the quality of back-to-origin links. Back-to-origin speed is calculated by dividing the total traffic of all back-to-origin

requests with the time spent by all back-to-origin requests, during the statistical cycle.



### Back-to-origin Failure Rate

Displays the statistical curve graph of real-time back-to-origin failure rate:

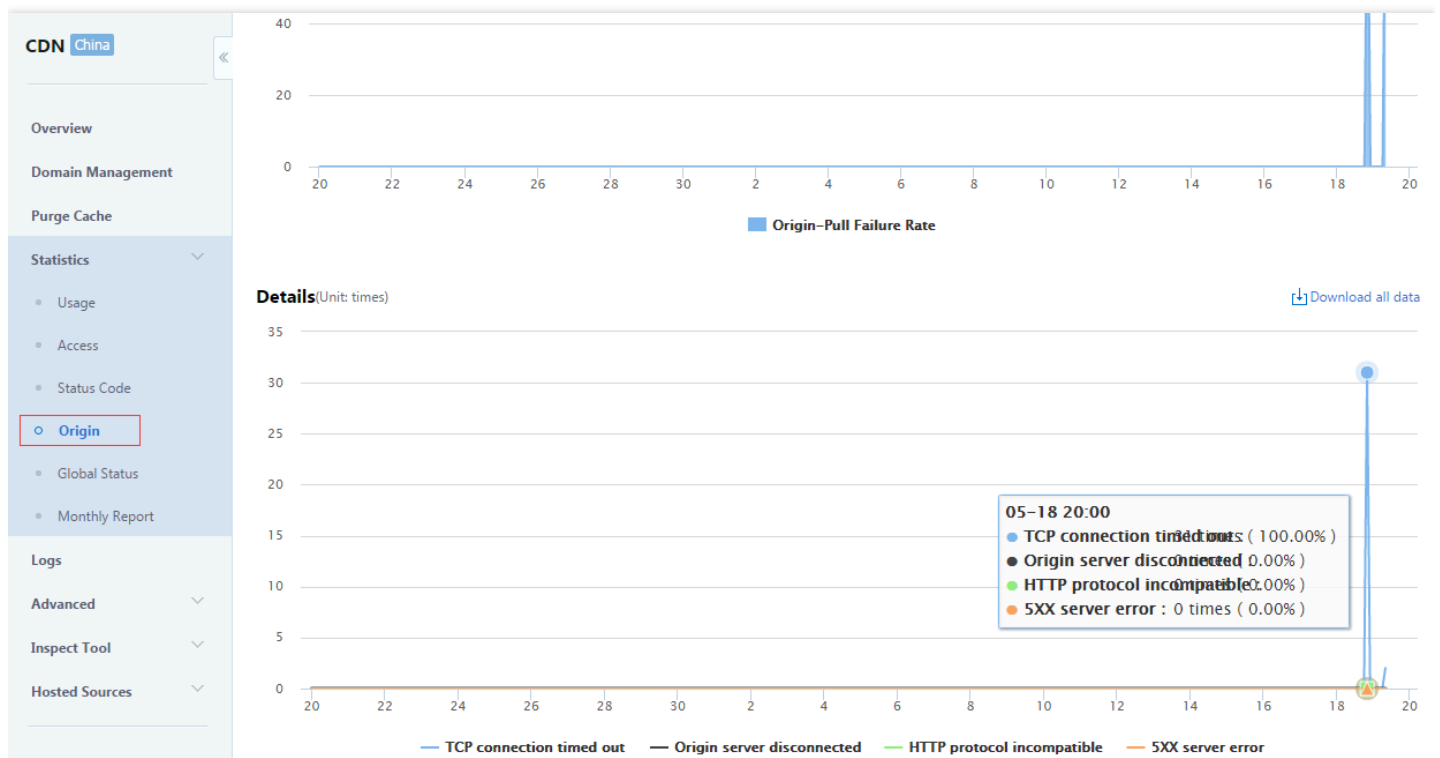


**Note:**

- Back-to-origin failure rate = number of failed back-to-origin requests / total number of back-to-origin requests. Situations when a request is considered failed include TCP connection timeout, origin server disconnection, incompatible HTTP protocols and 5XX server error. For more details, please refer to the following "Details of Back-to-origin Failure";
- Statistical data regarding back-to-origin failure rate is provided starting from 2016-10-15. Currently you cannot query for data before this date;
- You can configure real-time alarms against back-to-origin failure rate for CDN domains and projects in [Cloud Monitoring](#).

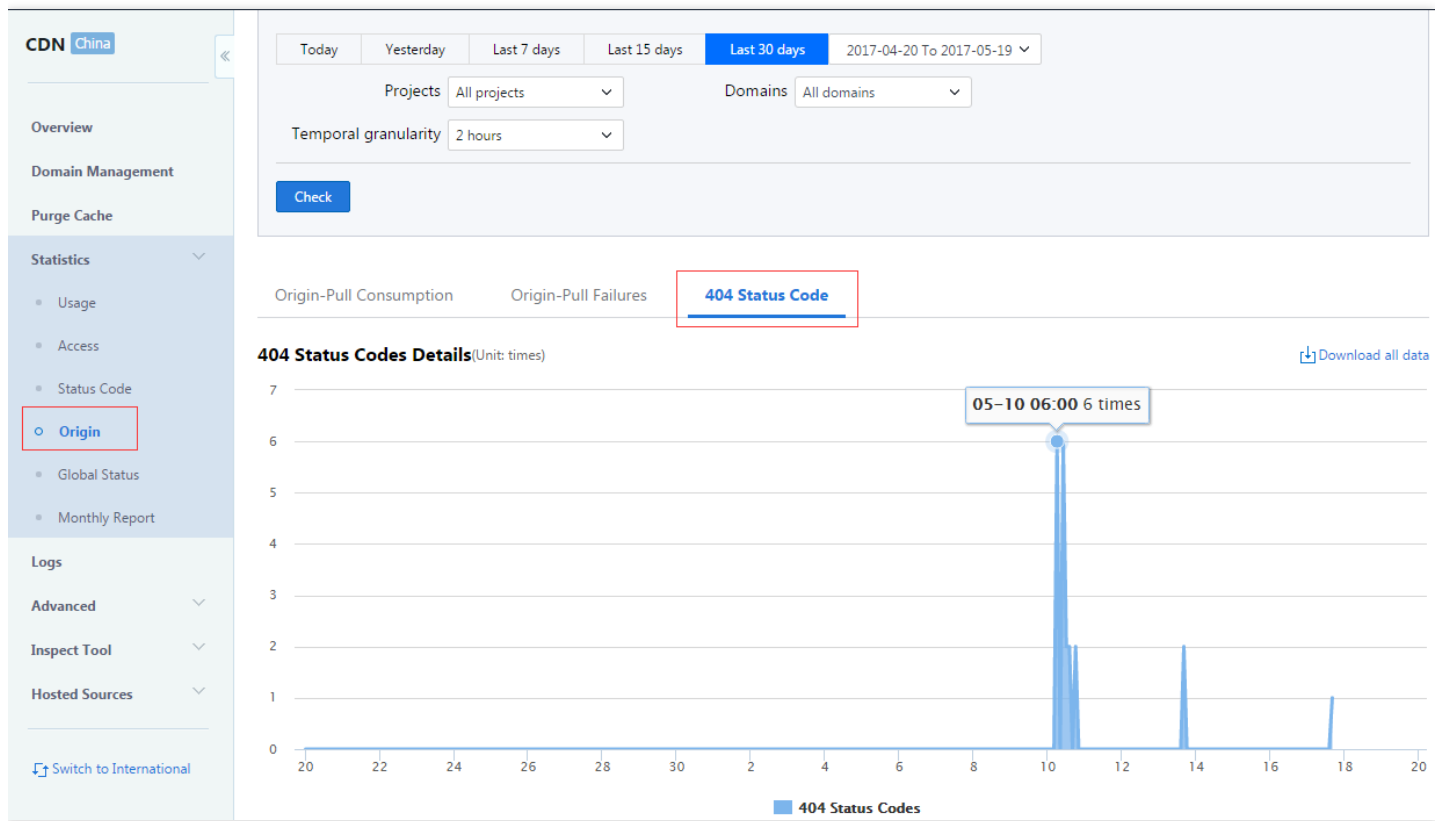
### Details of Back-to-origin Failure Types

In correspondence with back-to-origin failure rate, real-time statistics and proportions of various types of back-to-origin failures are displayed:



### 404 Status Code Statistics

Provides statistics of 404 status codes that are generated for back-to-origin requests:



**Note:**

- Statistical data regarding 404 status codes is provided starting from 2016-10-15. Currently you cannot query for data before this date;

# Network Status Monitoring

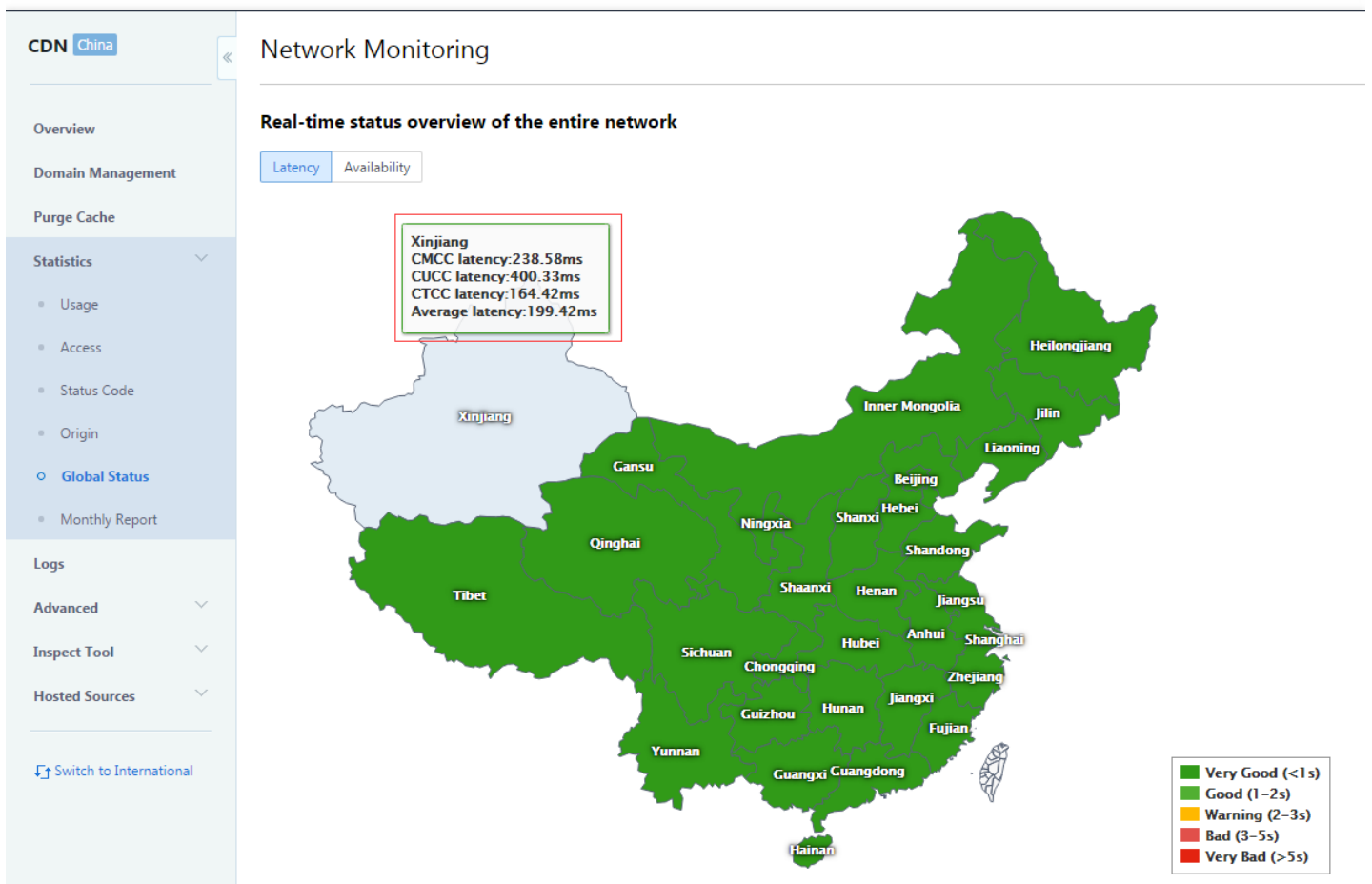
Last updated : 2017-08-08 10:49:04

Log in to [CDN Console](#), and click "Global Status" page under "Statistics" to review the real-time status of carriers of the entire CDN network.

CDN keeps sending requests to monitor files according to monitor points from provinces and carriers across the country, to collect the response data of these requests and obtains latency and availability information of carriers in various provinces across the entire network.

## Query of Real-time Network Status

The real-time status of the entire network is shown below:



### Note:

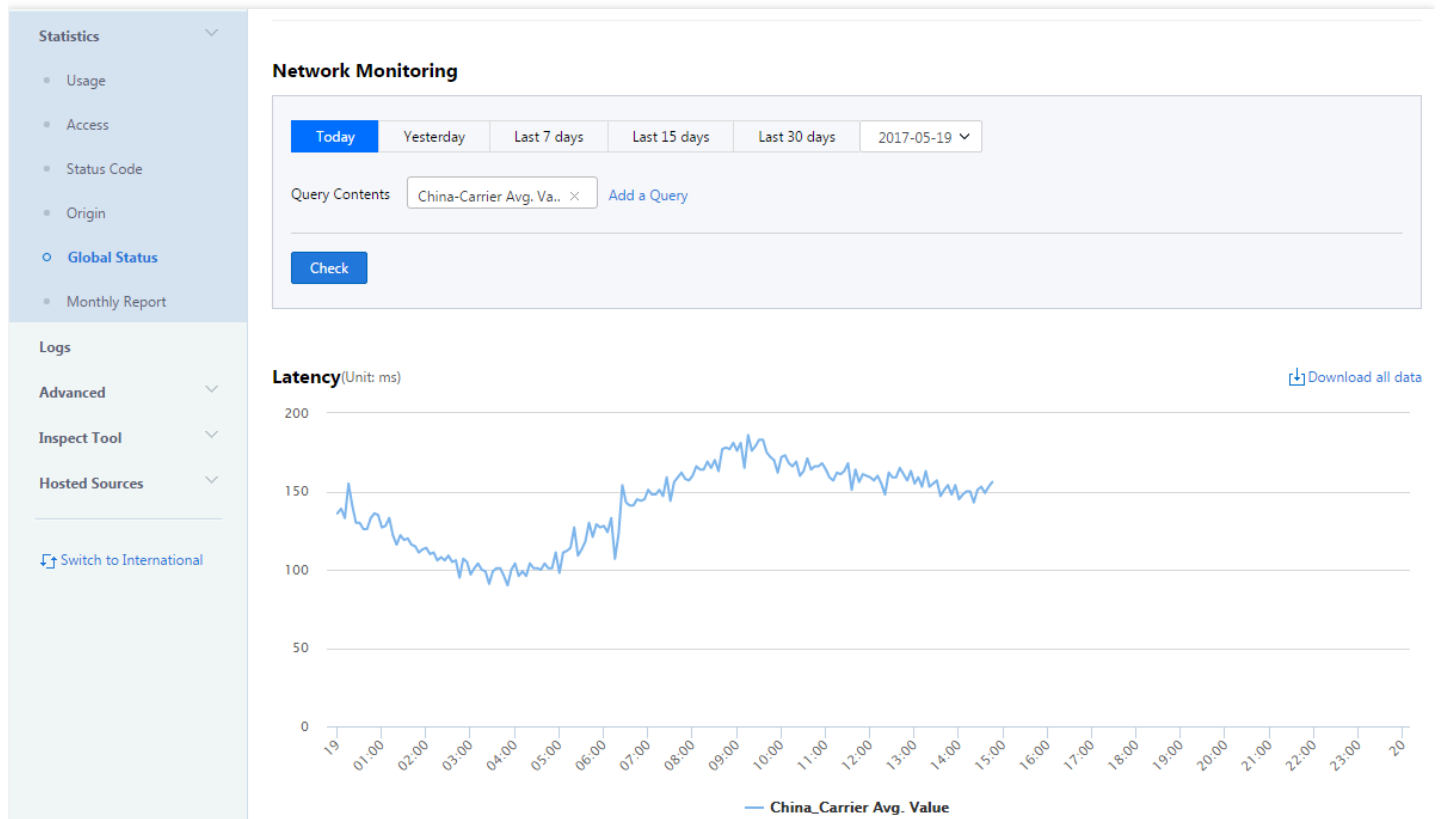
- Data of three major ISPs (China Mobile, China Unicom and China Telecom) is shown in the figure; small and medium sized ISPs are included when calculating the average latency or availability;



- In the figure, refresh time for real-time data is one minute.

## Network Monitoring

In this page, you can query for historical record of latency and availability curve graph of specified region and carrier in specified time range:

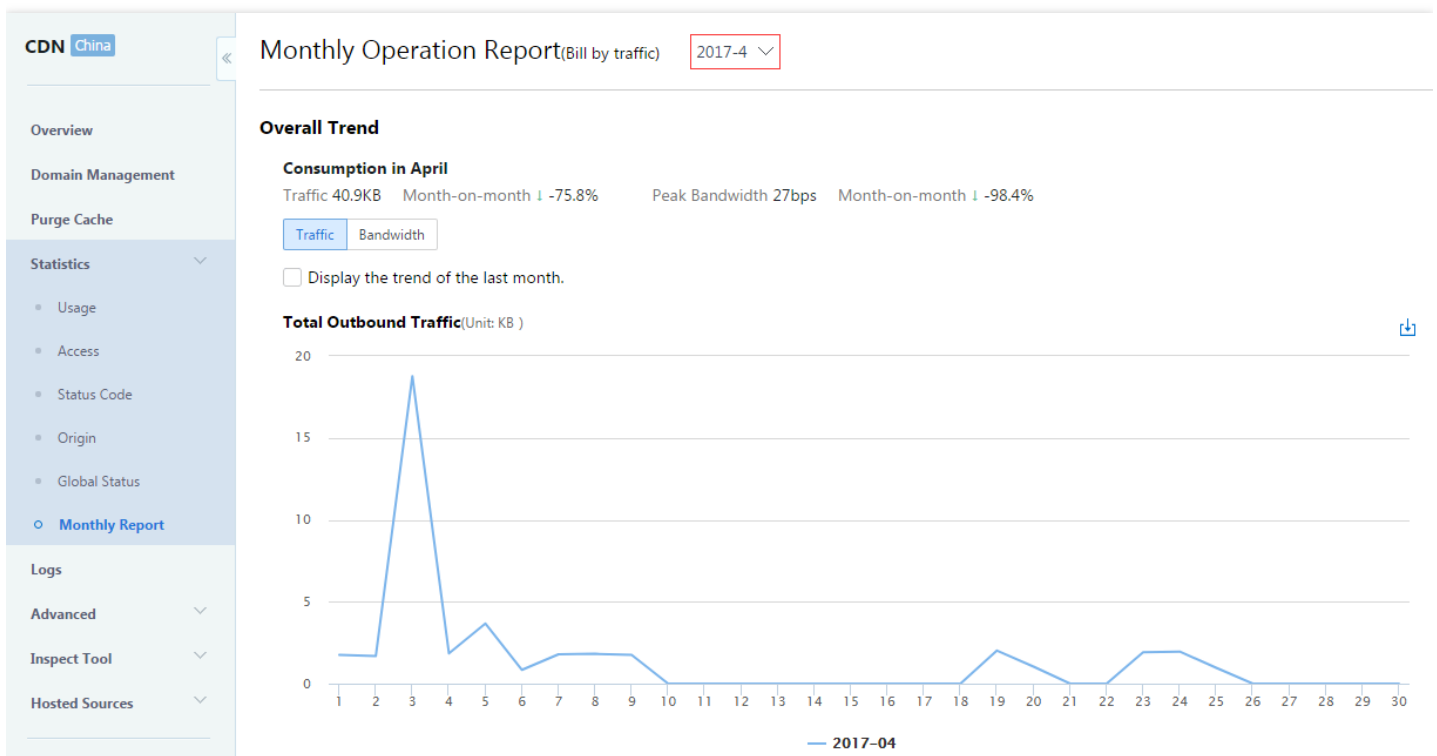


# OPS Monthly Report

Last updated : 2017-08-08 10:49:32

CDN provides monthly report feature which displays your business status in the form of a multi-dimensional report, to help you analyze business status in a month. Log in to [CDN Console](#), and click "Monthly Report" under "Statistics".

You can query the monthly operating report of a specific month (up till 2016-01):



A monthly operating report includes the following information:

- **Overall Trend:** Displays consumption details of specified month. You may switch the display between traffic and bandwidth, as well as make comparisons with the previous month;
- **TOP Bandwidth Consumption Proportion:** Displays consumption and proportion analytical details of TOP5 projects and domains from project dimension/domain dimension, respectively;
- **TOP Bandwidth Consumption Comparison:** Displays the TOP10 projects or domains with the highest consumption from project dimension/domain dimension, respectively, as well as the comparison with the previous month;
- **Hit Rate Analysis:** Displays the analytical result of average hit rate for the month and the comparison with that of the previous month. Displays details of the TOP3 domains with the lowest hit rates.