

# Table Store

## Pricing

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## Billing items and pricing

### Billing items

| Billing item                                                                                                                                                                             | Billing standard                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>- Data storage</li><li>- Reserved read/write throughput</li><li>- Additional read/write throughput</li><li>- Downstream Internet traffic</li></ul> | For more information about the billing standard, see Table Store pricing details. |

### Billing

| Method        | Description                                                                                                                         | Expiration/Overdue payment description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Renewal description                                                                             |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Pay-As-You-Go | <ul style="list-style-type: none"><li>- Billing per hour.</li><li>- The system generates a bill after a table is created.</li></ul> | <p>Fees are calculated on an hourly basis. If funds are unavailable to rectify your calculated bill, you are notified through your preferred contact method (SMS or email). The severity of the effect to your account of overdue account payments increases as follows:</p> <ul style="list-style-type: none"><li>- Within 15 days of your payment being overdue, and after a notification has been sent, your services remain unaffected.</li><li>- If your payment</li></ul> | A Pay-As-You-Go instance is billed according to the actual usage time. Renewal is not required. |

|            |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |
|------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|            |                                                                                          | <p>has been overdue for more than 15 days and the account has not been rectified, Alibaba Cloud suspends your service and freezes your Table Store. You will receive a notification. Your data remains stored in the system, and remains billable.</p> <p>- If your payment has been overdue for more than 30 days and your account has not been rectified, Alibaba Cloud stops providing any additional services. Any data stored in your Table Store is deleted and unrecoverable. You are notified through your preferred contact method (SMS or email) one day before the data is deleted.</p> |   |
| Free quota | Until December 31, 2019, every registered user receives 25 GB of free storage per month. | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | - |

## Data storage

### Fees

Data storage fees are based on the total volume of instance data. Fees are calculated on a per hour basis. Due to fluctuations in the total data volume utilized, Table Store collects the total data volume

of all table partitions at regular intervals and calculates the average hourly total data volume. This average volume value is then multiplied by the unit price to account for the actual storage fee.

The total data volume of an instance is the sum of data from all tables in that instance. The total data volume of a table is the sum of data in all rows of that table. The following examples illustrate how to calculate a row and table's data volume.

## Calculation of a row's data volume

The data in each row of a table consumes space in Table Store. When the Max Versions or TTL feature is enabled, the data of each version includes the version number (eight bits), column name, and data value.

**Storage space is calculated as follows:**

Data size of a single row = size of the primary keys' data + size of all attribute columns' data

Data size of a primary key = name length of the primary key column + size of the value of the primary key column

When the Max Versions and TTL features are disabled (Max Versions = 1 and TTL = -1):

Data size of a single attribute column = Name length of the attribute column + Size of the value of the attribute column

When the Max Versions or TTL feature is enabled (Max Versions > 1 or TTL != -1), each version number consumes 8 Bytes of the storage space:

Data size of a single attribute column = (Name length of the attribute column + 8) \* Number of the valid versions + Total size of the values of all the valid versions in the attribute column

**Data size of the column values is calculated as follows:**

| Value type | Data size                                                                                                                        |
|------------|----------------------------------------------------------------------------------------------------------------------------------|
| String     | Bytes of the string in UTF-8 encoding.<br>If the string is null (Table Store supports the null string type), the data size is 0. |
| Integer    | 8 Bytes.                                                                                                                         |
| Double     | 8 Bytes.                                                                                                                         |
| Boolean    | 1 Byte.                                                                                                                          |
| Binary     | Bytes of the Binary data.                                                                                                        |

## An example of how to calculate a row' s data size is as follows:

ID (Integer) is the primary key column of the table.

| ID | Name                                                   | Length                                      | Comments                                                                                                                       |
|----|--------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1  | timestamp =<br>1466676354000,<br>value =<br>'jonathon' | timestamp =<br>1466676354000,<br>value = 20 | timestamp =<br>1466676354000,<br>value = String (100<br>Bytes); timestamp =<br>1466679954000,<br>value = String (150<br>Bytes) |

The preceding table has two valid versions for attribute column Comments.

If Max Versions = 2 and TTL = 2592000, the row' s data size calculation is as follows:

Data size of the primary key =  $\text{len} ( 'ID' ) + \text{len} (1) = 10$  Bytes

Data size of the attribute column Name =  $[\text{len} ( 'Name' ) + 8]*1 + \text{len} ( 'jonathon' ) = 20$  Bytes

Data size of the attribute column Length =  $[\text{len} ( 'Length' ) + 8]*1 + \text{len} (20) = 22$  Bytes

Data size of the attribute column Comments =  $[\text{len} ( 'Comments' ) + 8]*2 + 100 + 150 = 282$  Bytes

If Max Versions = 1 and TTL = -1, the row' s data size calculation is as follows:

**Note:** Although the column Comments has two versions, as a result of Max Versions = 1, only the latest version is valid.

Data size of the primary key =  $\text{len} ( 'ID' ) + \text{len} (1) = 10$  Bytes

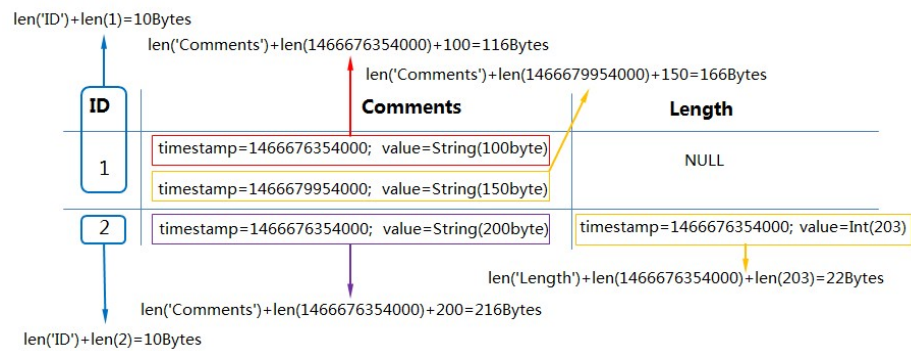
Data size of the attribute column Name =  $\text{len} ( 'Name' ) + \text{len} ( 'jonathon' ) = 12$  Bytes

Data size of the attribute column Length =  $\text{len} ( 'Length' ) + \text{len} (20) = 14$  Bytes

Data size of the attribute column Comments =  $\text{len} ( 'Comments' ) + 150$  (Bytes) = 158 Bytes

# Calculation of the table' s data size

Assume that there is a table whose primary key is the ID column, and other columns are attribute columns. If its Max Versions = 2 and TTL = -1, the table' s data size is calculated as follows:



The data size of the row whose ID is 1 = 10 (primary key size) + (116 + 166) (total data size of the two versions in the attribute column Comments) = 292 Bytes

The data size of the row whose ID is 2 = 10 (primary key size) + 216 (data size of a version in the attribute column Comments) + 22 (data size of a version in the attribute column Length) = 248 Bytes

The total data volume of the table = 292 + 248 = 540 Bytes.

If the data volume of the table does not change within the measured hour, the table is billed for 540 Bytes. Table Store does not limit the data volume for an individual table and does not charge for unused resources.

### Note:

- Before calculating the data size of the partition, Table Store asynchronously clears expired data from each partition and version data that exceeds the value of Max Versions. The time it takes to clear the data depends on the total data volume being cleared. This process is typically finished within 24 hours. The data written to a partition after a clear data operation is added to the partition' s data volume. This data is added upon completion of the next clearance operation.
- Table Store measures stored data volume and calculates fees at the end of each clock hour and not in real time.

# Reserved read/write throughput

The reserved read/write throughput is an attribute of a table. Setting an accurate reserved read/write throughput for your data tables helps you manage the costs of resource usage.

Table Store charges for the total reserved read/write throughput of all tables in a high-performance instance. Fees are calculated per hour. Because the configured reserved read/write throughput may fluctuate, Table Store collects the reserved read/write throughput of the tables at regular intervals to calculate the hourly average throughput. The average value is then multiplied by the unit price to reflect the actual hourly fee.

**Note:** Capacity instances do not support reserved read/write throughput.

## Additional read/write throughput

The additional read/write throughput is the portion of read/write throughput actually consumed that exceeds the reserved read/write throughput, and is measured per second.

Table Store accumulates the additional read throughput and write throughput of all tables in an instance during every billing cycle. The actual consumed additional throughput is multiplied by the corresponding unit price to determine the actual charge amount.

## Downstream Internet traffic

Table Store charges fees when applications access Table Store and generate downstream Internet traffic. Typically, an application's use of HTTP to access responses returned by Table Store is what generates the majority of downstream Internet traffic charges. Even if the operation fails, the error information returned by Table Store still produces downstream traffic, which is billable. Table Store does not charge for intranet downstream traffic, or Internet upstream traffic.

**Note:** Access across different regions also counts as Internet access.

## Free quota

Table Store offers a 25 GB free storage quota per month for each registered user account until December 31, 2019. This free storage quota does not carry over to succeeding months and therefore will not accumulate. Any additional storage used over the 25 GB free quota is charged at prevailing rates.

For example:

If you used a total of 20 GB of storage space in January 2017, the storage space for that month is free of charge (less than 25 GB). The unused free storage amount (5 GB) is not added to your February 2017 free storage quota.

If you used a total of 30 GB of storage space in February 2017, the first 25 GB of space is free of charge. You would be required to pay for the additional 5 GB of storage space.

**Note:**

- The 25 GB free storage quota only applies to data storage. All read/write throughput and downstream Internet traffic are still charged based on the prevailing unit price on the official website.
- If a cloud account utilizes multiple high-performance instances and capacity-type instances at the same time, the free storage quota will be used up first and then fees would apply.

## Billing example

A user in California activates Table Store and creates a high-performance instance. The table data on the instance has a consistent read volume of around 10,000 read queries per second (QPS) per day, and the accessed data does not exceed 4 KB (equivalent to 1 CU). The user wants to know how the table is calculated on a daily basis. The calculated daily billing amount of the table is detailed in the following example.

**Note:** In the following example, the unit prices were the actual prices on April 1, 2017. For the latest Table Store unit prices, see [Pricing](#).

| Billing item               | Unit price           |
|----------------------------|----------------------|
| Additional read throughput | USD 0.0030/10,000 CU |



The calculated daily bill:

$$10000 * 86400 / 10000 * 0.0030 = \text{USD } 259.20$$

**Note:** Additional read/write throughput is billed based on the sum of additional CUs consumed.  
The number of CUs consumed per day is  $10000 \times 86400 = 864$  million CUs.