

Table Store

Purchase Guide

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Billing

Billing items

Billing item	Billing standard
- Data storage - The reserved read/write throughput - The additional read/write throughput - The Internet downstream traffic	For details about the billing standard, refer to Table Store pricing details.

Billing

Billing method	Billing description	Expiration/Overdue payment description	Renewal description
Pay-As-You-Go	- Billing by hour. - In post payment mode, the system generates a billing order after creating a table.	- The fee is settled by hour. When the account balance is less than the current bill amount, you will be notified via SMS or email. - In case of inadequate credits, within next 24 hours, you will be notified via SMS or email to recharge your account and all services are not affected. - If you still do not successfully credit your account and clear off the overdue payables after 24 hours, Alibaba Cloud	A Pay-As-You-Go instance is billed according to the actual usage time, so no renewal is required. You can recharge your account on the Alibaba Cloud Console.

		will suspend the service and freeze your Table Store, but still store your data and continue billing. You will be notified via SMS or email. - If your account is delinquent for over 15 days, and you still do not successfully credit your account and clear off the overdue payables, Alibaba Cloud will terminate these service terms and conditions and stop providing services for you. Meanwhile, all your data stored on Table Store will be deleted and emptied and be unrecoverable forever. You will be notified via SMS or email one day before the data are emptied.	
Free quota	A total of 25 GB of free storage per month for each user before December 31, 2017.	-	-

Data storage

Data storage hourly fees are based on the total volume of instance data. Due to constant changes in the total data volume, Table Store collects the total data volume of all table partitions at regular intervals to calculate the average total data volume per hour. This average value is then multiplied by the unit price to become the fee.

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

Calculation of a row's data volume

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

The storage space is calculated as follows:

Data size of a single row = Size of the Primary Key's data + Size of all Attribute columns' data

Data size of a Primary Key = Total name length of the Primary Key columns + Total size of the values of the Primary Key columns

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

Data size of a single Attribute column = Total name length of the Attribute column + Total size of the values of the Attribute column

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

Data size of a single Attribute column = (Total 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

The data size of the column values is calculated as follows:

Value type	Data size
String	Bytes of the string in UTF-8 encoding. If the string is null (Table Store supports the null string type), the data size is 0.
Integer	8 Bytes as reserved.
Double	8 Bytes as reserved.
Boolean	1 Byte as reserved.
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
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1	timestamp = 1466676354000, value = 'zhangsan'	timestamp = 1466676354000, value = 20	timestamp = 1466676354000, value = String (100 Bytes); timestamp = 1466679954000, value = String (150 Bytes)
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In the preceding table, there are two valid versions for Attribute column Comments.

When Max Version = 2 and TTL = 2592000, the row's data size = 10 + 20 + 22 + 282 = 334 Bytes. The detailed 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 = $(\text{len} ('Name') + 8)*1 + \text{len} ('zhangsan') = 20$ 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

When Max Versions = 1 and TTL = -1, the row's data size = 10 + 12 + 14 + 158 = 194 Bytes. The detailed calculation is as follows :

Note: Although there are two versions for the column Comments, 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

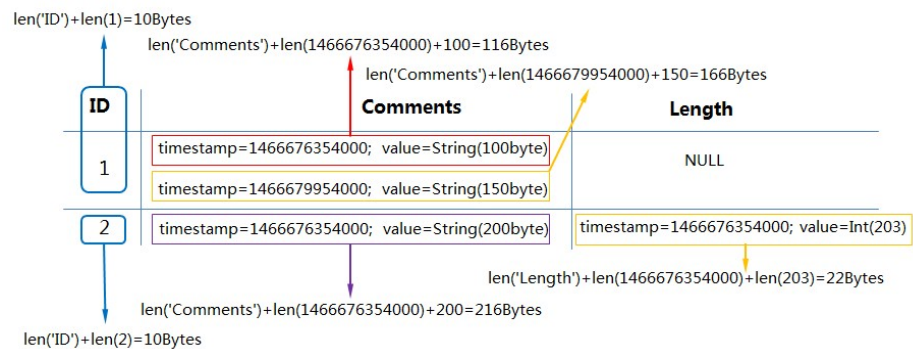
Data size of the Attribute column Name = $\text{len} ('Name') + \text{len} ('zhangsan') = 12$ Bytes

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 ID 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 (the 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 (the 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 table' s data volume = 292 + 248 = 540 Bytes.

If the table' s data volume does not change within an hour, the table is billed for 540 Bytes. Table Store does not limit the data volume for an individual table. You only need to pay for what you use.

Notice:

- Table Store asynchronously clears the expired data and the version data exceeding the value of Max Versions from each partition. Then Table Store calculates the data size of the partition. The clearance duration is related to the total data volume, but is typically finished within 24 hours. The data that is written to a partition after a clearance operation is added to the partition' s data volume upon completion of the next clearance operation.
- Table Store only provides final precise measurement of the stored data volume instead of real-time precise measurement. That is, Table Store measures the data volume after a time if no data is written or the data expires.

Reserved read/write throughput

The reserved read/write throughput is a table' s attribute. You can set a proper reserved read/write

throughput for your data tables to reduce the costs of resource usage.

Table Store charges an hourly fee for the total reserved read/write throughput of all tables in a high-performance instance. The configured reserved read/write throughput may change constantly. Table Store collects the tables' reserved read/write throughput at regular intervals to calculate the hourly average throughput. The average value is then multiplied by the unit price to become the hourly fee.

Notice: The capacity instances do not support reserved read/write throughput.

Additional throughput

The additional throughput is the portion of the actual consumed read/write throughput that exceeds the reserved read/write throughput per second. The additional read/write throughput is measured every second.

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

Internet downstream traffic

Table Store charges fees when applications access the Internet downstream traffic of Table Store. Applications' use of the HTTP method to access the responses returned by Table Store is the main component of the downstream traffic. Even if the operation fails, the operation failure information returned by Table Store still produces downstream traffic.

Table Store only charges for the Internet downstream traffic, not for the intranet downstream traffic or the Internet upstream traffic. The access among different regions also belongs to the Internet access.

Table Store provides a total of 25 GB of free storage per month for each user before December 31, 2017. This amount does not roll over between months.

For example,

If you used a total of 20 GB of storage space in January 2017. The storage space for the month is free of charge, but the remaining amount (5 GB) will not be added to February 2017.

If you used a total of 30 GB of storage space in February 2017, the first 25 GB of space is free of charge and you have to pay for the remaining 5 GB of space.

Notice:

- The free storage only applies to data storage. The read/write throughputs and downstream traffic on the extranet are still charged based on the unit price on the official website.
- If a cloud account has multiple high-performance instances and capacity-type instances at the same time, the order of free storage deductions should follow the order of actual fee deduction.

Background

Assume that a user in Japan activated Table Store and created a capacity instance. The table data under the instance has 10,000 read QPS consistently every day and the data accessed every time is smaller than 4 KB (equal to 1 CU). The user wants to know how the table is billed on a daily basis.

Analysis

Note: The following unit prices come from Table Store pricing details published on the Alibaba Cloud website on April 1, 2017. For the most current unit prices, visit the Alibaba Cloud website.

Billing item	Capacity instance
Additional read throughput	\$0.0006 USD /10000 CU

The daily fee is calculated as follows :

$$10000 * 86400 / 10000 * 0.0006 = \$51.84 \text{ USD}$$

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