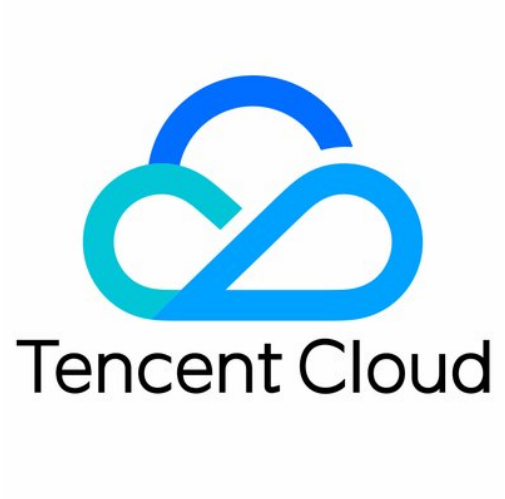
TDMQ for Pulsar

Purchase Guide

Product Documentation



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Billing Overview

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This document describes TDMQ for Pulsar's billing mode and billable items.

Billing Modes

TDMQ for Pulsar offers two billing modes: monthly subscription (prepaid) and pay-as-you-go (postpaid).

Pay-as-you-go

Pay-as-you-go is a flexible billing mode of TDMQ for Pulsar virtual cluster. You can start and terminate instances at any time and only pay for what you use. The billable usage is accurate down to the hour with fees settled daily, and you don't need to make upfront payments. This billing mode is suitable for application scenarios where the number of messages is low or fluctuates greatly and can effectively avoid the waste of resources.
For the specific pay-as-you-go prices of TDMQ for Pulsar, see Virtual Cluster Billing.

Billable items

Billable Item	Description
API call	The number of API calls refers to the total number of API calls made by you to send and receive messages with TDMQ for Pulsar. It equals to the number of API calls for sending messages plus the number of API calls for subscribing to messages. The API call price varies by region.
Message storage	This billable item linearly charges you for the total size in GB of all your messages, and the price varies by region.
Partition topic resource usage	This billable item linearly charges you for the number of partition topics you create, and the price varies by region.

Monthly subscription

Monthly subscription is the billing mode of TDMQ for Pulsar pro cluster. You can purchase a cluster of the desired specification, and the final fees are cluster specification fees plus storage specification fees. This billing mode is suitable for scenarios where the business is stable, requires a strong SLA guarantee, and uses the service for a long term. For more information, see Pro Cluster Billing.

Billable items

Billable Item	Description
Cluster specification	TDMQ for Pulsar pro cluster provides different computing specifications determined by the messaging TPS and peak bandwidth.
Storage specification	TDMQ for Pulsar pro cluster provides SSD cloud disks to store cluster data with three copies by default.

Purchase Methods

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This document describes how to purchase TDMQ for Pulsar.

You can purchase TDMQ for Pulsar in the console. Currently, it is pay-as-you-go. For more information, see Billing Mode.

Prerequisites

You have signed up for a Tencent Cloud account.

Directions

1. Log in to the TDMQ for Pulsar console.
2. On the **Cluster Management** page, create a pay-as-you-go cluster in the target region as needed and prompted.
3. Create a topic and partition in the cluster, and then pay-as-you-go billing will start automatically.

Pricing Overview
Virtual Cluster Billing

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This document describes the pricing details and free tiers of each billable item of TDMQ for Pulsar virtual cluster.

Pay-as-You-Go

API call price

TDMQ for Pulsar virtual cluster adopts tiered pricing for API calls. **API call fees = (number of API calls for message sending + number of API calls for message consumption) * API call unit price**.

The unit price of API call (USD/million calls) is as shown below:

Billing Tier	API Calls (Million/Month)	Call Unit Price (USD/Million Calls)		
		Guangzhou, Shanghai, Nanjing, Beijing, Chengdu	Hong Kong (China), Singapore, Seoul, Silicon Valley, Toronto, Frankfurt	Shenzhen Finance, Beijing Finance
Tier 1	N ≤ 1,000	0.3265	0.2512	0.4019
Tier 2	1,000 < N ≤ 5,000	0.2939	0.226	0.3617
Tier 3	5,000 < N ≤ 10,000	0.2449	0.1884	0.3014
Tier 4	10,000 < N ≤ 50,000	0.2122	0.1633	0.2612
Tier 5	N > 50,000	0.1959	0.1507	0.2411

The maximum message body size is 5 MB, and the number of API calls is calculated at different rates according to the message size:

Message Size	Rate
N ≤ 2 KB	1
2 KB < N ≤ 4 KB	2

4 KB < N ≤ 16 KB	4
16 KB < N ≤ 100 KB	16
100 KB < N ≤ 1 MB	64
1 MB < N ≤ 5 MB	256

For example, one 10 KB message (publishing or subscribing) request will be charged as **4** API calls.

Note:

The number of API calls for consuming messages refers to the number of messages pushed by the broker to consumers, which may be numerically greater than the number of messages actually acknowledged by consumers. Scenarios where this happens include:

1. When a large number of messages are retained, consumers will prefetch a certain number of messages during connection, and multiple unacknowledged messages will be recorded as multiple API calls for consuming messages. In this case, the number of API calls for consuming messages will be greater than the number of messages actually acknowledged by consumers.
2. When tag messages are consumed, multiple consumers are usually started. In this case, the number of API calls for consuming messages will be greater than the number of messages actually acknowledged by consumers.

Message storage price

TDMQ for Pulsar virtual cluster adopts linear billing for message storage. **Message storage fees = message storage size * message storage unit price**.

Note:

TDMQ for Pulsar stores a message in three copies by default. Therefore, the billable storage capacity is three times of the total message size.

The unit price of message storage (USD/GB/hour) is as shown below:

Region	Guangzhou, Shanghai, Nanjing, Beijing, Chengdu	Hong Kong (China), Singapore, Seoul, Silicon Valley, Toronto, Frankfurt	Shenzhen Finance, Beijing Finance
Unit price (USD/GB/hour)	0.0003	0.0003	0.0006

Note:

1. When the message retention policy is set to persistent retention, even if a message is consumed, it will still be persistently stored according to the maximum retention time, resulting in additional message storage fees.
2. In TDMQ for Pulsar, message data is stored on the Bookie storage node of the BookKeeper cluster in the form of ledger. Even if deletion after consumption is configured, when the ledger is turned on, the async cleaner will not clear

the message data. If some messages are not consumed for a long time, other messages in the same ledger may keep consuming the storage space, resulting in additional message storage fees.

Partition topic resource usage price

TDMQ for Pulsar virtual cluster adopts linear billing for partition topic resource usage. **Partition topic resource usage fees = number of partition topics * partition topic resource usage unit price**.
The number of partition topics in TDMQ for Pulsar refers to the sum of all partitions of all topics; that is, if there are two three-partition topics, the number of partition topics is 2 * 3 = 6.
The unit price of partition topic resource usage (USD/piece/day) is as shown below:

Region	Guangzhou, Shanghai, Nanjing, Beijing, Chengdu	Hong Kong (China), Singapore, Seoul, Silicon Valley, Toronto, and Frankfurt	Shenzhen Finance, Beijing Finance
Unit price (USD/piece/day)	0.025	0.032	0.040

Note:
The partition topic resource usage fees in TDMQ for Pulsar virtual cluster are charged by day; that is, a partition topic resource created at any time on a natural day will incur a full day's fees on the next natural day even if its actual usage time is less than 24 hours.

Free Tiers

TDMQ for Pulsar offers certain free tiers to each root account for pay-as-you-go billable items in each region:

Billable Item	Free Tier	Accumulation Method
API call	10 million	Accumulated monthly by region
Message storage	1 GB	Accumulated monthly by region
Partition topic	2000	Accumulated monthly by region

The free tiers will be used first to deduct the cumulative usage of all clusters in each region under each root account, and they are shared between different clusters in the same region.

Pro Cluster Billing

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This document describes the billing mode of TDMQ for Pulsar pro cluster.

Billable Items

TDMQ for Pulsar pro cluster is monthly subscribed (prepaid) with the following billable items:
Cluster specifications
Storage specifications

Billable Specification

Cluster specification limits

Max Messaging TPS: Indicates the upper limit on the messaging (production and consumption) TPS of a TDMQ for Pulsar pro cluster.
Note:
The max messaging TPS varies by cluster specification. For more information, see Pro Cluster Specification.
Peak Bandwidth: If it is set to 45 MB/s, both the outbound and inbound bandwidth of the TDMQ for Pulsar pro cluster can reach up to 45 MB/s, including the traffic of three replicas.
Other resource limits: Besides TPS and bandwidth, cluster specifications also vary in terms of certain controlled resources and configuration limits. For details, see Pro Cluster Specification.

Exceeded specification limits

Currently, no throttling measures are taken by the system if your actual usage exceeds the upper limit of the purchased cluster specification. However, we recommend that you subscribe to the alarms for core cluster metrics, keep an eye on the processing performance in case of metric changes, and upgrade the cluster specification promptly to guarantee stable business operations. We may provide elasticity in this regard in the future to ease your worries.

Cluster TPS specification

1. Messaging TPS refers to the maximum sum of messages sent and subscribed per second.
2. The message size is measured in 4 KB. For example, if the numbers of messages sent and received per second are both 5,000, and the average message body size is 8 KB, then the messaging TPS is (8 / 4) * (5,000 + 5,000) = 20,000 messages/sec.

3. For advanced messages, that is, sequential, scheduled/delayed, and transactional messages, the number of calls for message sending needs to be five times that of general messages. For example, if 1,000 delayed messages are sent per second, the TPS for message sending is 1,000 * 5 = 5,000 messages/sec.

Billing Description

Cluster specification billing

TDMQ for Pulsar pro cluster provides different computing specifications determined by the messaging TPS and peak bandwidth.

Item	Description
Billable item	Fees are charged based on the purchased cluster specification.
Billing method	Billing cycle: It is subject to the actual validity period of the cluster.
Billing formula	Monthly subscription: Cluster specification fees = validity period (month) * unit price (USD/month).
Unit price	It is subject to the price on the purchase page.

Storage specification billing

TDMQ for Pulsar pro cluster provides SSD to store cluster data with **three replicas** by default. You can purchase the storage space as needed.

Item	Description
Billable item	Fees are charged based on the storage specification configured during cluster purchase.
Billing method	Billing cycle: It is subject to the actual validity period of the cluster.
Billing formula	Monthly subscription: Storage specification fees = selected specification (GB) *3* validity period (month) * unit price (USD/GB/month).
Unit price	See the table below.

Storage unit price

Unit: USD/GB/month

Region	Cloud Disk Type
	SSD

South China (Guangzhou)	0.1397
East China (Shanghai)	0.1397
East China (Nanjing)	0.1397
North China (Beijing)	0.1397
Southwest China (Chengdu)	0.1397
Southwest China (Chongqing)	0.1397
East China (Shanghai Finance Zone)	0.2458
South China (Shenzhen Finance Zone)	0.2458
North China (Beijing Finance Zone)	0.2458
Hong Kong, Macao and Taiwan, China (Hong Kong)	0.1536
North America (Toronto)	0.1536
Southeast Asia (Singapore)	0.1746
Southeast Asia (Jakarta)	0.1746
West US (Silicon Valley)	0.1606
Europe (Frankfurt)	0.1746
Northeast Asia (Seoul)	0.1816
Asia Pacific (Mumbai)	0.1676
East US (Virginia)	0.1746
Southeast Asia Pacific (Bangkok)	0.1746
Northeast Asia (Tokyo)	0.2095
South America (São Paulo)	0.1746

Payment Overdue

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Note:
If you are a customer of a Tencent Cloud partner, the rules regarding resources when there are overdue payments are subject to the agreement between you and the partner.

Notes

When you no longer use pay-as-you-go TDMQ for Pulsar resources, terminate them as soon as possible to avoid further fee deductions.
After TDMQ for Pulsar is terminated/repossessed, the data in it will be cleared and cannot be recovered.
As your actual resource consumption may change over time, there may be some deviation in the balance alert.

Overdue Payment Reminder

Pay-as-You-Go resources are billed on the hour. When your account balance becomes negative, your Tencent Cloud account creator, global resource collaborators, and financial collaborators will be notified by email and SMS.

Overdue Payment Policy

You can continue to use TDMQ for Pulsar for 2 hours after your account balance becomes negative. We will also continue to bill you for this period. After 2 hours, the TDMQ for Pulsar service will be stopped, and billing will also stop. After the service is stopped, the system will process TDMQ for Pulsar as follows:

Time after service suspension	Description
≤ 15 days	If your account is topped up to a positive balance, the billing will continue, and you can restart TDMQ for Pulsar.
	If your account balance remains negative, TDMQ for Pulsar cannot be restarted.
>15 days	If your account is not topped up to a positive balance, your pay-as-you-go TDMQ for Pulsar resources will be repossessed and released. All data will be deleted and cannot be recovered. When your resources are repossessed, your Tencent Cloud account creator and all collaborators will be notified by email and SMS.

Pro Cluster Specification

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This document describes the specification of TDMQ for Pulsar pro cluster, including TPS, bandwidth, and topic quantity.

Pro cluster specification

No.	Cluster Specification Code	Max Messaging TPS	Peak Bandwidth (MB/s)	Max Topics per Cluster	Min Storage (GB)
1	PULSAR.P1.MINI2	2000	45	1000	200
2	PULSAR.P1.SMALL4	4000	90	1000	200
3	PULSAR.P1.SMALL6	6000	120	1000	300
4	PULSAR.P1.SMALL10	10000	180	2000	400
5	PULSAR.P1.MEDIUM15	15000	300	2000	500
6	PULSAR.P1.MEDIUM20	20000	480	2000	600
7	PULSAR.P1.MEDIUM40	40000	720	2000	800
8	PULSAR.P1.MEDIUM60	60000	1080	2000	800
9	PULSAR.P1.MEDIUM100	100000	1920	3000	2666
10	PULSAR.P1.LARGE150	150000	2400	3000	3333
11	PULSAR.P1.LARGE200	200000	3600	3000	4000
12	PULSAR.P1.LARGE400	400000	4200	3000	5000
13	PULSAR.P1.LARGE600	600000	4800	3000	6000
14	PULSAR.P1.LARGE1000	1000000	6000	3000	8834

Notes

The max messaging TPS is calculated based on the general message type and message size of 4 KB. The values for advanced messages and large messages need to be multiplied accordingly. The peak bandwidth indicates the

maximum inbound and outbound bandwidth. For specific calculation methods, see Pro Cluster Billing.

Refund Policy

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TDMQ for Pulsar virtual clusters are billed on a pay-as-you-go (postpaid) basis, and no refunds are involved.
TDMQ for Pulsar pro clusters are billed on a monthly subscription (prepaid) basis, and refunds can be requested. When you delete such cluster instances, the refund amount will be calculated based on the actual usage time of the cluster.