

TencentDB for PostgreSQL

Purchase Guide

Product Documentation



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Billing Overview

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Billing Mode

TencentDB for PostgreSQL is a pay-as-you-go service.

Billing Mode	Billing Plan	Use Case
Pay-as-you-go	Postpaid . You can request for resources on-demand and will be charged based on the actual usage upon settlement.	Suitable for businesses with fluctuating demands. Instances can be released immediately after use to reduce costs.

Billing Formula

Total fees = Memory and CPU fees + Storage space fees + Backup space fees (billed for space exceeding the free quota) + Log space fees (currently free of charge) + Traffic fees (currently free of charge)

Billable Items

Billable Item	Description
Memory and CPU fees	The fees of the instance specifications selected on the purchase page, which support tiered pay-as-you-go pricing. For prices, see Product Pricing . The pay-as-you-go mode implements 3-tiered pricing. The longer the usage duration, the greater the discount. For the first tier T1, 0 hour < usage duration ≤ 96 hours; for the second tier T2, 96 hours < usage duration ≤ 360 hours; for the third tier T3, usage duration > 360 hours.
Storage space fees	The fees of the disk size selected on the purchase page, which support pay-as-you-go pricing. For prices, see Product Pricing .
Backup space fees	Provides 100% of the purchased instance capacity for free, and charges the usage exceeding the free capacity. For prices, see Backup Space Billing .
Log space fees	Provides 50% of the purchased instance capacity for free. The usage exceeding the

	free capacity is currently free of charge.
Traffic fees	The public network traffic, which is currently free of charge.

You can directly use the [Price Calculator](#) to check the combined price of the products you need and estimate resource costs. To ensure the accuracy of the obtained prices, log in to Tencent Cloud for checking.

Pay-As-You-Go Tier Range Table

Tier	Time Range
T1	≤ 4 days
T2	> 4 days and ≤ 15 days
T3	>15 days

Example : A user purchased a pay-as-you-go instance and used it for 30 days. The instance was charged at the T1 price for the first 4 days (96 hours), at the T2 price for the next 11 days (264 hours), and at the T3 price for the remaining 15 days (360 hours).

Billing Example

[Pay-as-you-go billing example]: For example, in the Guangzhou region, you purchase a pay-as-you-go primary instance of TencentDB for PostgreSQL with 32 GB memory and 500 GB disk, and the usage duration was 400 hours.

The fees are calculated as follows:

T1 fees: $(32 \text{ GB} \times 0.28 \text{ USD/GB/hour} + 500 \text{ GB} \times 0.0010 \text{ USD/GB/hour}) \times 96 \text{ hours} = 908.16 \text{ USD}$

T2 fees: $(32 \text{ GB} \times 0.21 \text{ USD/GB/hour} + 500 \text{ GB} \times 0.0010 \text{ USD/GB/hour}) \times 264 \text{ hours} = 1,906.08 \text{ USD}$

T3 fees: $(32 \text{ GB} \times 0.14 \text{ USD/GB/hour} + 500 \text{ GB} \times 0.0010 \text{ USD/GB/hour}) \times 40 \text{ hours} = 199.2 \text{ USD}$

Instance fees = T1 fees + T2 fees + T3 fees = 3,013.44 USD

Pricing

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Billing Mode

TencentDB for PostgreSQL offers the following billing mode:

Billing Mode	Payment Method	Use Case
Pay-as-you-go	Postpaid. You can request for resources on-demand and will be charged based on the actual usage upon settlement.	Suitable for businesses with fluctuating demands. Instances can be released immediately after use to reduce costs.

The pay-as-you-go tiered pricing model is based on usage duration.

Usage Duration	Tiered Price
0 hours < duration ≤ 96 hours	Tier 1 rate applies
96 hours < duration ≤ 360 hours	Tier rate applies
Duration > 360 hours	Tier 3 rate applies

Instance Price

Billing formula

Total fee = Specification fee + Disk fee

Pay-as-you-go price

Specification price

Tier	Guangzhou, Shanghai, Beijing, Nanjing, Tianjin, Shenzhen, Chengdu (USD/GB/hr)	Hong Kong (China) (USD/GB/hr)	Silicon Valley, Virginia, Frankfurt (USD/GB/hr)	Seoul, Bangkok, Tokyo, Mumbai, Jakarta (USD/GB/hr)	Singapore (USD/GB/hr)

Tier 1	0.052	0.069	0.055	0.056	0.07
Tier 2	0.039	0.052	0.041	0.042	0.053
Tier 3	0.026	0.034	0.028	0.028	0.035

Note:

If a pay-as-you-go instance configuration is adjusted, it will be start charging from the tier-1 price again.

Disk price

Region	Price (USD/GB/hr)
Guangzhou, Shanghai, Beijing, Nanjing, Tianjin, Shenzhen, Chengdu	0.0005
Silicon Valley, Virginia	0.00019
Frankfurt	0.00028
Tokyo	0.00031
Bangkok	0.00024
Seoul, Singapore, Hong Kong (China), Mumbai, Jakarta	0.00024

Value-Added Services

Backup and log capacity: You will receive 100% of capacity purchased by the instance for free to use as backup and log capacity. Any usage exceeding this complimentary capacity is currently free as well. For pricing details, see [Backup Space Billing](#).

Public network traffic: this is the traffic sent from the TencentDB instance to the client over a public network, which is currently free.

Billing Example

Pay-as-you-go billing example: suppose you purchase a pay-as-you-go TencentDB for PostgreSQL instance with 32 GB memory and 500 GB disk capacity in the Singapore region and you use this instance for 400 hours.

The fees are calculated as follows:

Tier 1 fee: $(32 \text{ GB} \times 0.07 \text{ USD/GB/hr} + 500 \text{ GB} \times 0.00024 \text{ USD/GB/hr}) \times 96 \text{ hours} = 226.56 \text{ USD}$

Tier 2 fee: $(32 \text{ GB} \times 0.053 \text{ USD/GB/hr} + 500 \text{ GB} \times 0.00024 \text{ USD/GB/hr}) \times 264 \text{ hours} = 479.556 \text{ USD}$

Tier 3 fee: $(32 \text{ GB} \times 0.035 \text{ USD/GB/hr} + 500 \text{ GB} \times 0.00024 \text{ USD/GB/hr}) \times 40 \text{ hours} = 49.6 \text{ USD}$

Your instance fees = Tier 1 fee + Tier 2 fee + Tier 3 fee = 755.716 USD

Instance Type and Specification

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A database instance is a standalone database environment that runs in the Tencent Cloud. It can contain multiple databases created by users and can be accessed by using the same tools and applications as those for a standalone database instance.

Instance Types

TencentDB for PostgreSQL supports the following types of instances:

Instance Type	Description	Architecture	Visible in the Instance List	Capability
Primary instance	An instance that can be read from and written to	High-availability edition	Yes	The primary instance can associate with read-only instances to realize read/write separation.
Read-only instance	An instance that can only be read from	Single-node read-only	Yes	A read-only instance cannot exist on its own. It must instead be associated with a source instance, with its data only being synced from the source instance. It must also reside in the same region as the source instance. By default, up to six read-only instances can be created for a primary instance.

Reference documents

For more information on the creation of the read-only instance and relevant notes, see [Read-Only Instance Overview](#).

For more information on how to create and configure an RO group, see [Managing RO Groups](#).

Note:

When the used capacity of the instance exceeds the purchased capacity, the database instance will be locked and become read-only. You can set alarms for capacity usage.

Supported Instance Specifications

Edition	Version	Specification Type	CPU and Memory	Disk Capacity	Maximum Number of Connections
Dual-machine high availability (one primary and one secondary), read-only instance	10,11,12,13,14,15,16	General - local high-performance SSD	1core 2GiB	10GB - 3000GB	2048
			2core 4GiB	10GB - 3000GB	2048
			2core 6GiB	10GB - 3000GB	2048
			4core 8GiB	10GB - 3000GB	2048
			4core 16GiB	10GB - 4000GB	2048
			6core 24GiB	10GB - 4000GB	2048
			8core 16GiB	10GB - 4000GB	2048
			8core 32GiB	10GB - 4000GB	4000
			8core 48GiB	10GB - 4000GB	4500
			12core 24GiB	10GB - 8000GB	2048
			12core 64GiB	10GB - 8000GB	5500
			16core 32GiB	10GB - 8000GB	4000
			16core 96GiB	10GB - 8000GB	8000
			20core 128GiB	10GB - 8000GB	10000
			24core 48GiB	10GB - 8000GB	4500

			24core 192GiB	10GB - 8000GB	12000
			28core 240GiB	10GB - 8000GB	13000
			32core 64GiB	10GB - 8000GB	5500
			48core 480GiB	10GB - 8000GB	22000

Note:

The Shanghai Zone 5, Guangzhou Zone 4, and Guangzhou Zone 6 support larger storage specifications:

20-core 128 GiB, with disk capacity up to 7000 GB.

28-core 240 GiB, with disk capacity up to 8000 GB.

48-core 480 GiB, with disk capacity up to 16000 GB.

Purchase Methods

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Prerequisites

You have [registered a Tencent Cloud account](#) and [completed identity verification](#).

Purchasing in Console

1. Log in to the [TencentDB for PostgreSQL purchase page](#), specify the database instance information as needed, confirm that everything is correct, and click **Buy Now**.

Billing Mode: Pay-as-you-go.

Region: The region where the instance is actually deployed. To minimize delay, we recommend the same region as the CVM instance to be connected to.

AZ: Physical IDCs where electric power facilities and networks are independent from each other within the same region. To minimize delay, we recommend the same AZ as the CVM instance to be connected to.

Network: The network where the instance is deployed. To minimize delay, we recommend the same network as the CVM instance to be connected to. Both multi-AZ deployment (the primary and standby nodes are in different AZs) and single-AZ deployment (the primary and standby nodes are in the same AZ) are supported. Specific primary and standby AZs are as displayed on the actual purchase page.

Note:

VPC: It is a logically isolated network space in Tencent Cloud. In a VPC, you can customize IP ranges, IP addresses, and routing policies.

Architecture: TencentDB for PostgreSQL supports the dual-server high-availability (one-primary-one-standby) architecture by default.

Database Version: The features available vary by PostgreSQL kernel version. For more information, see the official descriptions of PostgreSQL [10](#), [11](#), [12](#), and [13](#).

Instance Specification: Instance performance and base prices depend on its specification.

Disk: An SSD disk (local disk) is used by default.

Backup Space: You will receive 50% of the instance capacity for free to use as backup and log capacity. Any usage exceeding this complimentary capacity is currently free as well.

Instance Name: Name the instance now or later with up to 60 letters, digits, underscores, and hyphens.

Character Set: TencentDB for PostgreSQL supports UTF8 and LATIN1 character sets.

Username: An account name must be composed of letters (a-z, A-Z), digits (0-9), and underscores (_), begin with either a letter or an underscore, and contain up to 63 characters. It cannot contain any system-reserved keyword, be

postgres, or begin with pg_ or tencentdb_.

Password: The password can contain 8–32 characters. We recommend you use a password of at least 12 characters. It cannot start with a slash (/) and must contain all the following types of characters:

Lowercase letters (a–z)

Uppercase letters (A–Z)

Digits (0–9)

Special characters `()~!@#$%^&*~+=_ | { } [] : < > , . ? /`

Project: If instances need to be managed by different teams, assign the instances to the projects of different teams accordingly.

Security Group: It serves as a stateful virtual firewall with filtering feature for configuring network access control for one or more TencentDB instances. It is an important network security isolation tool provided by Tencent Cloud.

Tag: It facilitates resource categorization and management.

Quantity: The number of instances that can be purchased at a time. To avoid faulty operations, an upper limit of 10 has been set for this parameter. If you want to purchase more instances, make multiple purchases.

Terms of Service: Read and click it. For more information, see [Terms of Service](#).

2. After the purchase is completed, you will be redirected to the [instance list](#). After the status of the instance changes to **Running**, the instance can be connected to.

Purchasing via API

For more information on how to purchase a TencentDB instance via an API, see [CreateInstances](#). After the instance is created, it can be connected to.

Note:

If you use the [CreateDBInstances](#) API to create an instance, you need to [initialize the instance](#) first before connecting to it.

Subsequent Operations

You can use a standard SQL client to connect to the TencentDB for PostgreSQL instance at its private or public network address. For more information, see [Connecting to TencentDB for PostgreSQL Instance](#).

Instance Upgrade

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Upgrading Instances

Instance upgrade refers to upgrade the specification of an existing TencentDB instance. During upgrade, the database service will be interrupted for just a few seconds, so we recommend you upgrade your instance during off-peak hours. Once the upgrade process begins, it cannot be stopped. Instance downgrade is not supported on the console.

1. Log in to the [TencentDB for PostgreSQL console](#), locate the desired instance in the instance list, and click **Adjust Configurations** in the **Operation** column.
2. In the pop-up dialog box, select the desired specification and make the payment. Once the payment is completed, the instance is automatically upgraded to the target specification.

Upgrade fees = (price of target specification - price of original specification) x remaining validity period

Refund

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Pay-as-you-go instances can be returned, but there will be no refunds.

Self-Service Return Instructions

In cases of suspected anomalies or malicious returns, Tencent Cloud reserves the right to reject your return request. Certain promotion resources are not eligible for self-service returns. Please visit the official website for details.

Downgrading Refunds

The process of resource downgrading adheres to the principle of refund before repurchase. That is, the refund for downgrading equals the resource withdrawal refund minus the fees of the new resource purchase. Any coupons used at the time of purchase are non-refundable, whereas fees paid via non-coupon methods will be refunded to the Tencent Cloud account of the payer based on the original payment method (cash or gift credits) and the corresponding payment ratio.

Refund amount for resource withdrawal: Calculated based on the non-full refund policy. Fees of purchasing the new resource: Calculated based on the price and corresponding discounts for the new purchase.

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.

Balance Reminder

We will estimate the number of days it takes your account balance to become negative based on the usage in the past 24 hours and current balance. If it is less than five days, we will send a reminder to your Tencent Cloud account creator and all the collaborators via email and SMS.

Overdue Payment Reminder

For pay-as-you-go resources, fees are deducted on the hour. When your account balance is in negative, we will notify the Tencent Cloud account creator and all the collaborators via email and SMS.

Overdue Payment Processing

Starting from the moment your account becomes negative:

You can continue to use your database for 2 hours from the moment your account becomes negative. We will also continue to bill you for this period.

After your account has been overdue for 2 hours, **your database instance will automatically shut down. We will also stop billing you for service.**

After automatic shutdown:

Within 24 hours after automatic shutdown, if your account is not topped up to a positive balance, you will not be able to start your database; If your balance is positive, the billing continues, and you can start your database.

If your account remains negative for 24 hours after shutdown, the database will be repossessed, and **all data will be deleted and cannot be recovered.**

We will notify the Tencent Cloud account creator and all the collaborators via email and SMS when the database is repossessed.

When you do not use pay-as-you-go resources any longer, **terminate them as soon as possible** to avoid further fee deduction.

After the database is terminated or repossessed, the data will be deleted and cannot be recovered.

Since your actual resource consumption changes from time to time, some deviation may exist for the stated balance.

Backup Space Billing

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Overview

The backup space is used to store the backup files (automatic data backups, manual data backups, and log backups) of all TencentDB for PostgreSQL instances in a region. TencentDB for PostgreSQL offers a free tier of backup capacity based on the region. During the beta test of the backup billing, the free tier is equivalent to 700% of the total storage capacity of all the primary instances in your region, but the multiple will change to 100% after the backup billing official starts. For calculation examples, see [Calculation Formula](#).

Note:

Free backup space is only available when you purchase a primary instance.

The backup space can be viewed on the database backup page in the [TencentDB for MySQL console].

Comparison of the free tier between during beta test and official start of the backup billing

Billed Period	Free Tier
During the beta test of backup billing	700% of storage space
After the backup billing officially starts	100% of storage space

Backup pricing

Backup space in excess of the free tier is priced at 0.000118 USD/GB/hour in the Chinese mainland and 0.000133 USD/GB/hour outside the Chinese mainland.

If the excessive backup space is less than 1 GB, no fees will be charged. If the time period is less than one hour, it will be calculated as one hour. TencentDB for PostgreSQL adopts a flexible giveaway policy, so you generally don't need to pay for the backup space for most instances.

Billing schedule for backup space

From 00:00 on July 1, 2023, the beta test of backup billing will officially carried out in all regions.

From 0:00 on August 1, 2023, the backup billing will be officially carried out in all regions.

Calculation formula

During the beta test of backup billing:

Free backup capacity in one region = Sum of storage capacity of all TencentDB for PostgreSQL primary instances in that region * 700%

Paid backup capacity in one region = Data backup volume + log backup volume - free backup capacity (all values are for that region)

After the backup billing officially starts:

Free backup capacity in one region = Sum of storage capacity of all TencentDB for PostgreSQL primary instances in that region * 100%

Paid backup capacity in one region = Data backup volume + log backup volume - free backup capacity (all values are for that region)

Billing examples

After the backup billing officially starts, the calculation method is as follows:

You have purchased three instances in Guangzhou region, named A, B, and C, and their configurations are as follows:

A (Running):

1-Primary-1-standby, 4-core 8 GB memory per node, 200 GB storage

Backup space occupied: 5000 GB

B (Running):

1-Primary-1-standby, 4-core 8 GB memory per node, 300GB storage

Backup space occupied: 200GB

C (Isolated):

1-Primary-1-standby, 4-core 8 GB memory per node, 200GB storage

Backup space occupied: 100GB

The calculation formulas for free backup space, occupied paid space, and occupied free space are as follows:

Free backup space = (backup space purchased by A + backup space purchased by B + backup space purchased by C) $100\% = (200+300+200) \times 100\% = 700$ GB.

Occupied paid space = paid space occupied by A + paid space occupied by B + paid space occupied by C = (5000-200) + 0 + 0 = 4800 GB.

Occupied free space = free space occupied by A + free space occupied by B + free space occupied by C = 200 + 200 + 100 = 500 GB.

Note

The free space occupied by an instance is the minimum value of purchased and occupied storage for the instance. The paid space occupied by an instance is the excess beyond the purchased storage space. If the occupied space does not exceed the purchased space, the paid space of the instance is 0.

During the beta test of the backup billing, the calculation method is as follows:

You have purchased three instances in Guangzhou region, named A, B, and C, and their configurations are as follows:

A (Running):

1-Primary-1-standby, 4-core 8 GB memory per node, 200 GB storage

Backup space occupied: 5000GB

B (Running):

1-Primary-1-standby, 4-core 8 GB memory per node, 300GB storage

Backup space occupied: 200GB

C (Isolated):

1-Primary-1-standby, 4-core 8 GB memory per node, 200 GB storage

Backup space occupied: 100GB

The calculation formulas for free backup space, occupied paid space, and occupied free space are as follows:

Free backup space = (backup space purchased by A + backup space purchased by B + backup space purchased by C) $100\% = (200+300+200)$ $700\% = 4900$ GB.

Occupied paid space = paid space occupied by A + paid space occupied by B + paid space occupied by C = $(5000 - 200 * 7) + 0 + 0 = 3600$ GB.

Occupied free space = free space occupied by A + free space occupied by B + free space occupied by C = $(200 * 7) + 200 + 100 = 500$ GB.

Backup lifecycle

Backups are not subject to change over the instance lifecycle.

After an instance is moved into the recycle bin, the automatic backup continues. Rollback and manual backup are not allowed, but backups can be downloaded. The excess beyond the free tier is still billed.

After the instance is terminated, the backup data will not be deleted, and the system will continue to provide you with 7-day free quota. If you no longer need the backup data of this instance, you can delete it by yourself, and the data cannot be recovered after deletion.

Note

When a monthly subscribed instance or a pay-as-you-go instance is terminated, the system will **provide** you with an additional "final" full physical backup to avoid nonrecovery events due to misoperation. The "final" backup capacity is not included in the backup space statistics, hence no fees are charged. You can download it in the data backup list.

The "final" physical backups are automatically deleted seven days after the instance is terminated.

Overdue payments

Monthly subscribed instance

If the instance has not expired but your account has overdue payments, the backup service is downgraded, manual backup and backup download are not allowed, but automatic backup continues, where excessive backup space is still billed. If you need to perform manual backup, top up your account to a positive balance.

Pay-as-you-go instance

If your account has overdue payments, the backup service is downgraded, manual backup and backup download are not allowed, but automatic backup continues, where excessive backup space is still billed. Backups are not subject to change over the instance lifecycle. For more information, see [Backup Lifecycle](#).

Suggestions for reducing backup costs

Delete unnecessary manual backup

Reduce the backup frequency for non-core businesses. You can adjust the backup cycle in the console, and the frequency should be at least twice a week.