Serverless Cloud Function

Purchase Guide

Product Documentation

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Purchase Guide
Billing Overview

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Free Tier

The free tier and billing mode of SCF will be adjusted as from 0:00, June 1, 2022 (Beijing time). By then, new users will get free tiers of more usage within three months of activation. As from the fourth month, users will no longer be entitled to free tiers, and the system will automatically grant a basic package tier (500,000 invocations, resource usage of 100,000 GBs, and public network outbound traffic of 2 GB) and deduct the basic package fees of 1.86 USD every month. For more information, see Free Tier.

> Note：
>
> - The function invocations in a calendar month is counted on the first day of the next month. If there is no any function-related usage incurred, including the function resource usage, function invocations, and public network outbound traffic, the **basic package fees** will not be charged in the current month. If any function usage is generated in the current month, the basic package fees will be charged next month.
> - HTTP-triggered function response traffic is not included in the free tier. For more information, see HTTP-Triggered Function Billing.

Billable Items and Billing Modes

Billing Mode

SCF can be **postpaid (pay-as-you-go)** or **prepaid (subscription package)**.

Billable items

SCF has prepaid and postpaid (pay-as-you-go) billable items. Each part is billed according to its statistics and calculation method, and the fees are accurate to two decimal places in **USD**:

- Postpaid billable items include resource usage, invocation, public network outbound traffic, idle provisioned concurrency, basic package, and HTTP-triggered function response traffic.
- Prepaid billable items include subscription package (the deduction sequence is **free tier > namespace subscription package > region subscription package > pay-as-you-go (postpaid)**).

For more information, see **Billable Items**.

Billing of Other Products Used by SCF

> Note：
>
> SCF execution logs are supported by and delivered to CLS by default. For more information on log delivery, see Log Delivery Configuration. Starting from Sept 5, 2022, CLS provides a free tier for new CLS users, and any excess will be billed according to its pricing.

Other products used by SCF, such as CFS, COS, and CLS, will be billed according to their respective billing rules.

Pricing

The five billable items of SCF are priced as follows:

- Resource usage: 0.0000167 USD/GBs (0.167 USD/10000 GBs)
- Invocation: 0.002 USD/10,000 invocations
- Public network outbound traffic**: 0.12 USD/GB for the Chinese mainland; variable by region
- Idle provisioned concurrency: 0.00000847 USD/GBs (0.0847 USD/10000 GBs). For more information, see Billing Details and Billing Example.
- Basic package fee: 0.06 USD/day. For example, the fee for May is 0.06 x 31 = 1.86 USD. For more information, see Billing Example.

  HTTP-triggered functions and event-triggered functions have the same prices. For HTTP-triggered functions using the default trigger, HTTP-triggered function response traffic will be additionally generated. For more information, see HTTP-Triggered Function Billing.

Supported Regions

SCF is currently supported in the following regions:

Region	Value
Southeast Asia (Bangkok)	ap-bangkok
North China (Beijing)	ap-beijing
Southwest China (Chengdu)	ap-chengdu

South China (Guangzhou)	ap-guangzhou
Hong Kong/Macao/Taiwan (China) (Hong Kong)	ap-hongkong
South Asia (Mumbai)	ap-mumbai
Northeast Asia (Seoul)	ap-seoul
East China (Shanghai)	ap-shanghai
Southeast Asia (Singapore)	ap-singapore
Northeast Asia (Tokyo)	ap-tokyo
Europe (Frankfurt)	eu-frankfurt
Europe (Moscow)	eu-moscow
US East (Virginia)	na-ashburn
US West (Silicon Valley)	na-siliconvalley
North America (Toronto)	na-toronto

Billing Details

For billing details, see the following documents:

Document Name	Link
Free Tier	View document
Pricing	View document
Overdue Payment	View document
Billing Example	View document

Billing Mode

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Billing Mode

You can estimate your SCF usage and calculate the corresponding fees by using the SCF Price Calculator. For more information on SCF billing, please see Billing Mode, Pricing, and Notes on Overdue Payment.

SCF is pay-as-you-go hourly in **USD** based on your actual usage. An event or web function bill consists of the following parts (each part is billed according to its statistics and calculation method, and the fees are accurate to two decimal places in **USD**).

Event Function	Web Function
• Resource usage fees • Invocation fees • Public network outbound traffic fees • Idle provisioned concurrency fees	• Resource usage fees • Web function invocation fees • Public network outbound traffic fees • Idle provisioned concurrency fees

For the unit prices of resource usage, invocations, public network outbound traffic, and idle provisioned concurrency, please see Pricing.

Billing Principles

SCF fees will be incurred by the actual loading and execution of the function code. If the function code is not actually executed, no fees will be incurred unless provisioned concurrency is configured. Below is an example:

Scenario	Function Execution Status	Calculated	Billed
A request error occurs due to an incorrect parameter, incorrect function name, or non-existent function.	Not executed	No	No
An error occurs due to function execution timeout or function execution memory overrun.	Executed	Yes	Yes
An error occurs due to a function code problem.	Executed	Yes	Yes
A request error occurs due to concurrency overrun.	Not executed	No	No

Resource Usage Fees

*Resource usage fees = (resource usage - free tier) * resource usage unit price*

Resource usage in GBs

*Resource usage = configured function memory size * execution duration*

Resource usage is calculated by multiplying the configured function memory size by the billable function execution duration. Here, the configured memory size is in GB, and the billable duration is converted from milliseconds to seconds. Therefore, the resource usage is in **GBs** (GB-second).

For example, if a function with 256 MB memory configured is executed for 1,760 ms, then the billable duration is 1,760 ms, and the resource usage of this function execution will be (256 / 1024) * (1760 / 1000) = 0.44 GBs.

Resource usage will be calculated for each function execution and aggregated in each hour as the hourly resource usage.

> Note：
>
> - Currently, SCF resource usage is calculated by multiplying the configured function memory size by the actually triggered execution duration of the function. Compared with the billing method of 100-ms upward aggregation, this billing method calculates lower overall resource usage and incurs fewer fees. For more information, please see Billing Example.
> - Due to issues such as the uncertainty of computing resources where SCF runs, specific actions in the code, and relevant network communications, the execution duration of the same function code may vary slightly when the code is triggered at different times.

Invocation Fees

*Invocation fees = (number of function invocations - free tier) * invocation unit price*

Each function triggering and execution will be calculated as an invocation and aggregated in each hour as the hourly invocation volume. Fees will be charged **per 10,000 invocations**.

Public Network Outbound Traffic Fees

*Public network outbound traffic fees = public outbound traffic * traffic unit price*

Outbound traffic will be generated when resources are accessed over the public network in a function, such as uploading a file to an external storage space:

- When the code writes files to the storage space provided on the public network, outbound traffic will be generated by sending files. When the code reads data or files from the storage space provided on the public network, outbound traffic will be generated only by sending requests but not by reading or downloading files.
- If a function is configured with a VPC and writes data to a database in the VPC in its code, no outbound traffic will be generated by data writes.
- For a function that uses an API Gateway trigger, **no function outbound traffic will be generated** by the data returned after the function is executed. The traffic generated by the data returned by API Gateway to the client will be calculated as the outbound traffic of and billed by API Gateway. For the billing rules of API Gateway traffic, please see Pay-As-You-Go.

Idle Provisioned Concurrency Fees

*Idle provisioned concurrency fees = number of idle instances * configured memory size * idle duration * idle provisioned concurrency unit price*

- **Number of idle instances**: SCF counts the maximum concurrency of a version at a 10-second granularity. The number of idle instances is calculated by subtracting the maximum concurrency from the number of currently started provisioned instances. The calculation formula is as follows: number of idle instances = max(number of started provisioned instances - number of concurrent instances, 0).
- **Configured memory size**: the memory size configured for the provisioned concurrency of the function.
- **Idle duration**: the idle duration of the provisioned concurrency.
- **Idle provisioned concurrency price**: please see Pricing.

> Note：
>
> Idle provisioned concurrency is calculated in GBs (GB-second).

The provisioned concurrency feature only charges small idle fees for the instances that have been configured and started but are not in use, **while no additional fees are charged for the instances that have been configured and are in use**. In other words, only when the number of provisioned instances is greater than the number of concurrent instances for the current version will idle fees be incurred.

The idle provisioned concurrency fees are calculated by multiplying the number of idle instances by the configured memory size. The shaded part in the figure below indicates the idle provisioned concurrency.
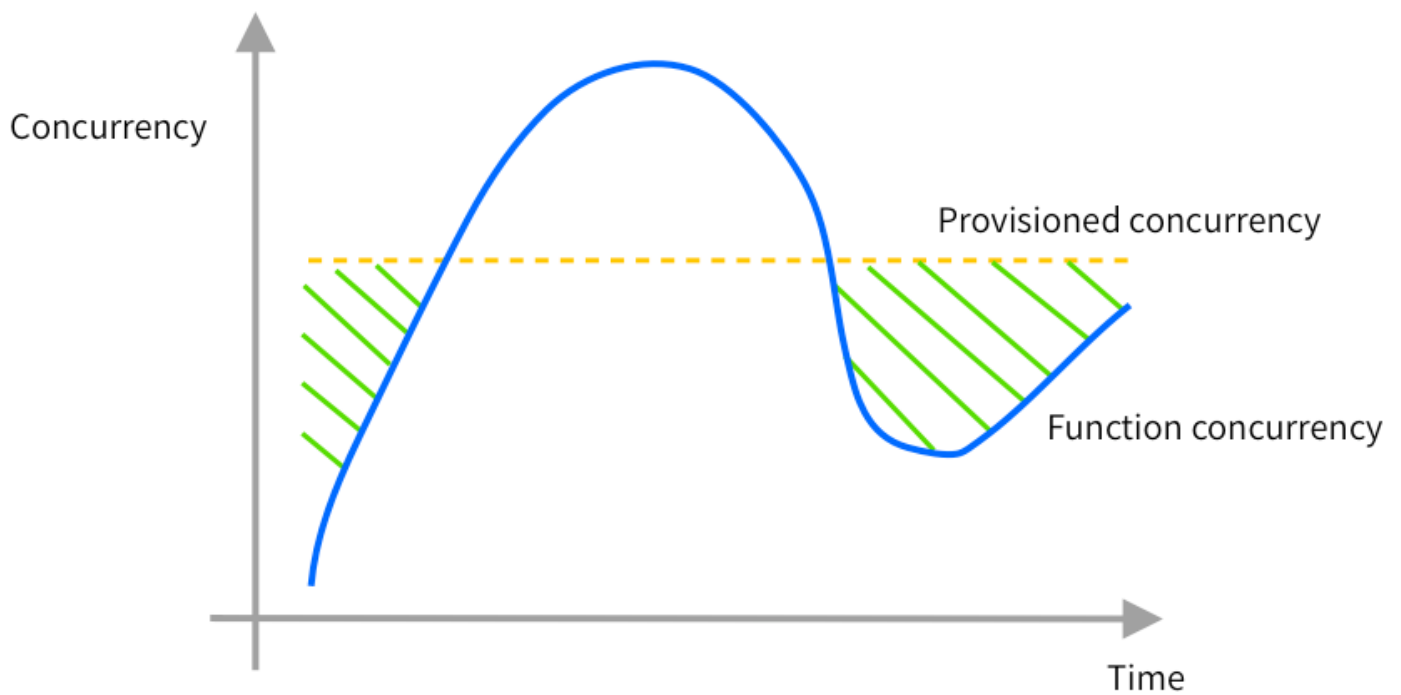
For example, if a function version with 128 MB memory has a provisioned concurrency quota of 12,800 MB (10 instances), and it has 8 concurrent instances in 10 seconds, then:

- Number of idle instances = max(10 - 8, 0) = 2
- Configured memory size = 128MB
- Idle duration = 10s
- Idle provisioned concurrency price = 0.00000847 USD/GBs

Idle provisioned concurrency fees = 2 * 128 / 1024 GB * 10s * 0.00000847 USD/GBs = 0.00002118 USD

Fees of Other Services

If you use other services such as CMQ, CKafka, API Gateway, and COS when using SCF, fees will be calculated according to the billing rules of the actually used services.

Billable Items and Billing Modes
Billable Items

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Billable Items

The billing of SCF contains the following four parts. The fees are accurate to two decimal places in USD for Tencent Cloud International.

Pay-as-you-go billable items

The basic fees of SCF are billed based on the actual usage.

Billable Item	Description
Resource usage fee	Resource usage is calculated in GBs by multiplying the configured function memory size by the function execution duration.
Invocation fee	Each function triggering and execution is calculated as an invocation. HTTP-triggered functions are billed by the **number of invocations** in the same way.
Public network outbound traffic fee	The outbound traffic consumed when the function code accesses the public network is counted as the public network outbound traffic in GB.
Idle provisioned concurrency fee	The number of idle instances is calculated by subtracting the number of actually running concurrent instances from the number of launched provisioned instances, and the idle resource usage is calculated in GBs by multiplying the number of idle instances by the configured memory size.
Basic package fee	A basic package tier is automatically granted, and the fee is automatically deducted on a monthly basis (0.06 USD/day). This fee will be charged in the following cases: 1) You are a three-month new user. 2) You have valid subscription packages. 3) No resource usage, function invocation, and outbound traffic were incurred in the last month.
HTTP-triggered function response traffic fee	It is counted only for HTTP-triggered functions configured with default triggers. For more information, see HTTP-Triggered Function Billing.

For the unit price of each billable item, see Product Pricing.

> Note：
>
> For HTTP-triggered functions using the default trigger, HTTP-triggered function response traffic will be additionally generated, which is not included in the free tier. For more information, see HTTP-Triggered Function Billing.

Prepaid billable items

After a subscription package is purchased, it can be used to deduct the above **pay-as-you-go billable items**.

Billable Item	Description
Subscription package	It is purchased in the form of monthly subscription and can be used to deduct the fees of **function resource usage**, **function invocation**, **public network outbound traffic**, **function concurrency quota**, and **function burst** in the **specified region**/**namespace**. The resources in the subscription package will be deducted based on the expiration time. If the actual usage is less than or equal to the package quota, no additional function execution fees will be incurred. Excessive usage will be automatically billed in a pay-as-you-go manner.

Fees of other products

Other paid products may be used when you use the SCF service as listed below:

Billable Item of Associated Service	Description
CLS fee	The log query function of SCF is provided by CLS. Operation logs are shipped to CLS by default. For more details, see Log Shipping Configuration. Starting September 5, 2022, CLS offers a limited free tier to new users within three months of activation, after which they will be charged a volume-based log service fee. See Log Service Pricing.
API Gateway, COS, CKafka, and other fees	If you use other products such as CMQ, CKafka, API Gateway, and COS when using SCF, fees will be calculated according to the billing rules of the actually used products.

Resource Usage Fee

Resource usage fees = **(resource usage - free tier)** * **resource usage unit price**

Resource Usage (GBs)

Resource usage = **memory configured for function** * **execution duration**

Memory configured for the function is calculated in GB, and charged duration is calculated in seconds (converted from milliseconds). So resource usage is calculated in **GBs** (GB-second).

For example, if a function with 256 MB memory configured is executed for 1760 ms, then the billable duration is 1760 ms, and the resource usage of this function execution will be (256/1024) * (1760/1000) = 0.44 GBs.

Resources used in each run are calculated on an hourly basis.

> Note：
>
> - SCF resource usage is calculated by multiplying the configured function memory size by the actually triggered execution duration of the function. Compared with the billing method of 100-ms upward aggregation, this billing method calculates lower overall resource usage and incurs fewer fees. For more information, see Billing Example.
> - Due to issues such as the uncertainty of computing resources where SCF runs, specific actions in the code, and relevant network communications, the execution duration of the same function code may vary slightly when the code is triggered at different times.

Fee for Number of Calls

Invocation volume fees = (number of function invocations - free tier) * **invocation unit price**

Each function triggering and execution will be calculated as an invocation and aggregated in each hour as the hourly invocation volume. Fees will be charged per invocation.

Fee for Public Network Outbound Traffic

Public network outbound traffic fees = public outbound traffic * **traffic unit price**

Outbound traffic will be generated when resources are accessed over the public network in a function, such as uploading a file to an external storage space:

- When the code writes files to the storage space provided on the public network, outbound traffic will be generated by sending files. When the code reads data or files from the storage space provided on the public network, outbound traffic will be generated only by sending requests but not by reading or downloading files.
- If a function is configured with a VPC and writes data to a database in the VPC in its code, no outbound traffic will be generated by data writes.
- For a function that uses an API Gateway trigger, **no function outbound traffic will be generated** by the data returned after the function is executed. The traffic generated by the data returned by API Gateway to the client will be calculated as the outbound traffic of and billed by API Gateway. For the billing rules of API Gateway traffic, see Pay-As-You-Go.

Idle Provisioned Concurrency Fees

Idle provisioned concurrency fees = number of idle instances * configured memory size * idle duration * idle provisioned concurrency unit price

- **Number of idle instances**: SCF counts the maximum concurrency of a version at a 10-second granularity. The number of idle instances is calculated by subtracting the maximum concurrency from the number of currently started provisioned instances. The calculation formula is as follows: number of idle instances = max(number of started provisioned instances - number of concurrent instances, 0).
- **Configured memory size**: The memory size configured for the provisioned concurrency of the function.
- **Idle duration**: The idle duration of the provisioned concurrency.
- **Idle provisioned concurrency price**: See Pricing.

> Note：
>
> Idle provisioned concurrency is calculated in GBs (GB-second).

The provisioned concurrency feature only charges small idle fees for the instances that have been configured and started but are not in use, **while no additional fees are charged for the instances that have been configured and are in use**. In other words, only when the number of provisioned instances is greater than the number of concurrent instances for the current version will idle fees be incurred. For examples, see Billing Example.

Basic Package Fees

- **Monthly basic package fees = number of days in the month (for example, 31 days in May or 30 days in April) * basic package price**

- **Daily basic package fees = 1 (day) * basic package price**
- **Days**: **1 day** by default.
- **Basic package fee**: See Pricing.

> Note：
>
> - If you have used SCF for three months or shorter after the activation, the platform will grant a free tier by default without deducting the basic package fees.
> - If you have used SCF for more than three months after the activation, and you have valid subscription packages, the basic package fees will not be charged.
> - The function invocations in a calendar month is counted on the first day of the next month. If there is no any function-related usage incurred, including the function resource usage, function invocations, and public network outbound traffic, the basic package fees will not be charged in the current month. If any function usage is generated in the current month, the basic package fees will be charged next month.

Subscription Packages

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SCF supports pay-as-you-go billing, and offers prepaid subscription packages.

Subscription packages offer a relatively lower unit price than pay-as-you-go. Furthermore, they provide free tiers of concurrent function quota and function burst.

Pricing of Subscription Packages

SCF offers seven types of packages, including Personal General, Personal Premium, Team, Enterprise Basic, Enterprise General, Enterprise Premium and Enterprise Ultimate. Each type contains different quota of function resource usage, invocations, outbound traffic, concurrent functions and function burst.

Detailed specs of different package types

Type	Specification	Special offer	List price
Personal General	Resource usage: 100K GBs Function invocations: 500K for event-triggered functions and 500K for HTTP-triggered functions Outbound traffic: 2 GB Concurrent function: 128 GB Function burst: 500 functions/minute	**1.48 USD/month**	1.9 USD/month
Personal Premium	Resource usage: 1M GBs Function invocations: 1M for event-triggered functions and 1M for HTTP-triggered functions Outbound traffic: 2 GB Concurrent function: 256 GB Function burst: 500 functions/minute	**13.58 USD/month**	17 USD/month
Team	Resource usage: 10M GBs Function invocations: 10M for event-triggered functions and 10M for HTTP-triggered functions Outbound traffic: 20 GB Concurrent function: 512 GB Function burst: 1000 functions/minute	**139.56 USD/month**	172 USD/month

Type	Specification	Special offer	List price
Enterprise Basic	Resource usage: 100M GBs Function invocations: 100M for event-triggered functions and 100M for HTTP-triggered functions Outbound traffic: 200 GB Concurrent function: 1280 GB Function burst: 2000 functions/minute	**1362.60 USD/month**	1721.5 USD/month
Enterprise General	Resource usage: 300M GBs Function invocations: 300M for event-triggered functions and 300M for HTTP-triggered functions Outbound traffic: 600 GB Concurrent function: 2560 GB Function burst: 2500 functions/minute	**5165 USD/month**	5165 USD/month
Enterprise Premium	Resource usage: 1 billion GBs Function invocations: 1 billion for event-triggered functions and 1 billion for HTTP-triggered functions Outbound traffic: 2000 GB Concurrent function: 12,800 GB Function burst: 5000 functions/minute	**13,330.38 USD/month**	17,215 USD/month
Enterprise Ultimate	Resource usage: 10 billion GBs Function invocations: 10 billion for event-triggered functions and 10 billion for HTTP-triggered functions Outbound traffic: 20K GB Concurrent function: 25,600 GB Function burst: 10K functions/minute	**130,156.76 USD/month**	172,150 USD/month

Deduction of Subscription Quota

- Sequence: Free quota (if any) > Namespace-specific package > Region-specific package > Pay-as-you-go. SCF offers a free tier for new SCF users for the first three months. Resource usage exceeding the free quota is first deducted from the package. If there is not available package quota, pay-as-you-go is adopted.
- For each region and namespace, you can only subscribe to one package type for once.

> Note：
> The function MEM size is not counted into consideration for package deduction.

Purchasing Subscriptions

You can purchase a subscription package for a specific region or namespace. This attribute cannot be changed after purchase.

- Purchase only a region-specific package: The package quota is taken as the upper limit of the region, and it can be shared by all functions in this region.
- Purchase only a namespace-specific package: The package quota is taken as the upper limit of the namespace, and it's shared by all functions in this namespace.
- Purchase both packages for a region and a namespace in this region: The regional quota is taken as the upper limit of the region. The quota of the namespace-specific package is the upper limit for the namespace, which means that when the quota of the namespace is used up, functions in this namespace DO NOT share the quota of the region. The regional quota is shared by functions in other namespaces without specific subscription packages.
- The function reserved quota set for the current region/namespace cannot exceed the function concurrency quota of the package. You can upgrade the package or lower the reserved quota.

Upgrading/Degrading Packages

You can upgrade or degrade a package within its validity period. The adjustment does not affect the expiration time of the package.

Paying for the upgrade

- You need to pay for the price difference brought by the upgrade. The amount is calculated by days.
  - Upgrade fee = Monthly price of the new spec X Remaining subscription period (in months) X Eligible discount for the new spec - Monthly price of the original spec X Remaining subscription period (in months) X Eligible discount for the original spec

    Remaining subscription period = (Subscription expiration date - Current date)/(365/12)
- All the eligible discounts mentioned above refer to the discount stated in the SCF purchase page.
- Check the latest price and eligible discount in the subscription purchase page.

Getting refund for degrade

- When you submit a degrading request, the purchased package is returned and place an order for the new package.

  Refund for degrading = Refund of the original package - Price of the new package
- If the price of the new package is higher than the refund amount of the original package, there is no refund.

  Degrading is not supported in the following cases:
- The ratio of used/total quota is larger than the ratio of elapsed validity/total validity.

- The function reserved quota set for the current region/namespace cannot exceed the function concurrency quota of the package. You can upgrade the package or lower the reserved quota.

Renewing Subscription

You can renew the package if necessary. For details, see Renewal Management.

Returning a Package

You can return a package and get the refund automatically.
Note the refunding is not supported in the following cases:

- The ratio of used/total quota is larger than the ratio of elapsed validity/total validity.
- The function reserved quota set for the current region/namespace cannot exceed the function concurrency quota of the package. You can upgrade the package or lower the reserved quota.

Refund amount and method

Refund amount = Paid order amount - Consumed resource amount

The consumed resource amount is calculated based on the usage duration.

Consumed resource amount = (usage duration / total amount) * original order price * current discount

> Note：
> A usage duration less than one day will be rounded up to one day, and the current system discount matching the usage duration applies.

Invalidation of Packages

The quota of a package goes invalid upon its expiration time. After then, pay-as-you-go is automatically adopted for the SCF service under your account.

Policies after subscription expiration

- The quota of resource usage, function invocations and outbound traffic: All are adjusted to the default free quota.
- Function concurrency and function burst: If the reserved concurrency is set and the concurrency quota exceeds the default quota, you need to remove the exceeding part. They will be adjusted to the default concurrency quota and

function burst of the related region.

- If the exceeding function concurrency quota and function burst are not removed in time, they will be removed by the system automatically.

How to Purchase

The following describes how to purchase subscriptions.

1. Log in to the SCF Console and click **Subscriptions** on the left sidebar.
2. Click **Monthly subscriptions** to enter the purchase page.

   If you have not subscribed to any packages, the pay-as-you-go free tier is displayed in **Basic configurations**.

   After purchasing of a subscription package, the package quota is displayed.

Purchase Subscriptions

1. In the subscription purchase page, select the region or namespace.

2. Select the package you want, such as "Personal General", and click "Purchase".

3. In the "Purchase package" pop-up, specify the duration, read and agree to the reminders and click **Purchase**.

Purchase new package   ✕

Region	Namespace	Current package	Target package	Expiration time
Chongqing	/	/	SCF Personal Premium	2023-01-16 15:19:57

⚠ **Notes**

- After changing the payment method from WeChat Pay to Tencent Cloud payment, you cannot switch back to WeChat Pay again.
- Note that after the change of payment method, the new billing cycle starts from the day of change.

Validity [1 month(s)] [2] [3] [6] [1Year] [2Year] [3Year]

Fees **13.584666USD**~~17USD~~

Purchase instructions ☑ I have read and agree to Notes ↗

Auto-renewal ☑ When the account balance is sufficient, the package is be renewed automatically when it expires.Click here to view ↗

[Purchase] [Cancel]

4. Confirm the information and click **Submit order**.

Please confirm the following product information | Go Back to Modify Configuration

❙ Product List

sp_scf_pkg_year_month   **1.4754374** USD
                                                                     ~~1.90~~ USD

Resource package type: SCF Personal General	Unit Price: 1.90USD/month
Invocation package: 500k	Quantity: 1
Resource package: 10KGBs	Payment Mode: Prepaid
Outbound traffic package: 2GB	Term: 1month
Function concurrency quota: 128GB	
Functionburst: 500Concurrency/min	

❙ Discounts and Vouchers

☐ Use promo voucher

No available promo vouchers

❙ Check the Fees

sp_scf_pkg_year_month
x1   1.4754374USD

Upfront Payme 0.4245626 USD saved   1.4754374USD

Tax: +0.00 USD ⓘ

Total   **1.4754374**
                                      USD

[Submit Order]

5. Complete the payment. You can then check details of the package in **Subscriptions** page.

Changing Specification

1. In the subscription purchase page, select the region or namespace.

2. Select the target package, such as **Personal Premium**, and click **Purchase**.

> Note：
>
> Note that the region/namespace and expiration time cannot be changed.

3. In the **Adjust configuration** pop-up, confirm the information, read and agree to the reminder, and click "**Adjust now**.

4. Confirm the information and click **Submit order**.

5. Complete the payment. You can then check details of the package in **Subscriptions** page.

Renewing Packages

Manual Renewal

1. In **Basic configurations**, select **Operations - Renew**.

2. In the **Renew** page, confirm the information and click **OK**.

3. Check the order information, and click *Submit order*. You can then check it in the **Monthly subscriptions** page.

Auto-Renewal

- Method 1: Select **Auto-renewal** in the purchase page.
- Method 2:

    i. In **Basic configurations**, select **Operations > Enable auto-renewal**.

    ii. You will be redirected to **Renewal management**. For details, see Managing Auto-Renewal.

Managing Renewal

1. Click **Fess** in the top right corner and click **My Orders** to enter **Order Management**.
2. You will be redirected to **Renewal management**. For details, see Managing Auto-Renewal.

Refund

1. In **Basic configurations**, select **Operations - Get a refund**.

2. In the pop-up, check the information, read and agree to the reminder, and click **OK**.

Managing Orders

You can manage purchased subscription packages in Order Management.

Pay-As-You-Go (Postpaid)

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Billing Mode

You can estimate your SCF usage and calculate the corresponding fees by using the SCF Price Calculator. For more information on SCF billing, see Pricing and Notes on Overdue Payment.

SCF is pay-as-you-go hourly in **USD** based on your actual usage in excess of the free tier and basic package. An event-triggered or HTTP-triggered function bill consists of the following parts (each part is billed according to its statistics and calculation method, and the fees are accurate to two decimal places in **USD**).

> Note：
> After three months of activation of SCF, you will no longer be entitled to a free tier, and the system will grant a basic package tier and automatically deduct 1.8 USD (by deducting 0.06 USD per day) every month. If you have activated SCF for less than three months and are entitled to a free tier or have valid packages or remaining resource packs, or the function resource usage, number of invocations, and public network outbound traffic in the last calendar month are all 0, the system will not deduct the basic package fees.

Event-Triggered Function	HTTP-Triggered Function
• Resource usage fees • Invocation fees • Public network outbound traffic fees • Idle provisioned concurrency fees • Basic package fees	• Resource usage fees • HTTP-triggered function invocation fees • Public network outbound traffic fees • Idle provisioned concurrency fees • Basic package fees • HTTP-triggered function response traffic fees (HTTP-triggered functions with different types of triggers have different billing modes. For more information, see HTTP-Triggered Function Billing.)

For the unit prices of resource usage, invocations, public network outbound traffic, idle provisioned concurrency, and basic package, see Pricing.

Billing Principles

SCF fees will be incurred by the actual loading and execution of the function code. If the function code is not actually executed, no fees will be incurred unless **provisioned concurrency** and **basic package** are configured. Below is an example:

Scenario	Function Execution Status	Billable Usage	Billed
A request error occurs due to an incorrect parameter, incorrect function name, or non-existent function.	Not executed	No	No
An error occurs due to function execution timeout or function execution memory overrun.	Executed	Yes	Yes
An error occurs due to a function code problem.	Executed	Yes	Yes
A request error occurs due to concurrency overrun.	Not executed	No	No

Free Tier

Last updated：2023-05-04 18:09:35

Free tier granting

Every month in the first three months (including the month of activation)

Every month in the first three months after the activation of Serverless Cloud Function (SCF) (including the month of activation), you are entitled to a free tier, which will be reset in the next calendar month. The free tier will be granted when you purchase a package through free trial or will be granted automatically by the system by default. A free tier includes one million event-triggered function invocations and one million HTTP-triggered function invocations, resource usage of 1,000,000 GB, and public network outbound traffic of 2 GB. You can also get a free tier by purchasing a Personal Advanced package through free trial, and the function concurrency quota will be **doubled**.

Note

Users who have used SCF for less than three months as of June 1, 2022 will still be granted a free tier for one month on June 1.

Users who have used SCF for less than two months as of June 1, 2022 will be granted a free tier on June 1 and July 1 for the respective months.

Users who have used SCF for less than one month as of June 1, 2022 will be granted a free tier on June 1, July 1, and August 1 for the respective months.

Granting Time	Billable Items	Free Tier	Description
Every month in the first three months after the activation (including the month of activation)	Number of calls	One million invocations (one million invocations of event-triggered functions and one million invocations of HTTP-triggered functions)	None.
	Resource Usage	1,000,000 GB	
	Public traffic out	2 GB	

The following table lists the free execution durations per function per month when the function is configured with different memory sizes under the free tier plan for the first three months:

Memory (MB)	Free Duration (Seconds)
64	16,000,000

128	8,000,000
256	4,000,000
512	2,000,000
1024	1,000,000
1536	666,666
3072	333,333

Every month three months later after activation

Three months later after activation of SCF, you will no longer be entitled to a free tier, and the system will grant a basic package tier (including 500,000 invocations of event-triggered functions, 500,000 invocations of HTTP-triggered functions, resource usage of 100,000 GB, and public network outbound traffic of 2 GB) every month and deduct 0.06 USD per day. If you have valid packages, the system will not deduct the **basic package fees**. If the function resource usage, number of invocations, and public network outbound traffic in the last calendar month are all 0, the **basic package fees** will not be charged in the current month.

Granting Time	Billable Items	Free Tier	Basic Package Tier	Description
Every month three months later after activation	Number of calls	0 invocations (0 invocations of event-triggered functions and 0 invocations of HTTP-triggered functions)	500,000 invocations (500,000 invocations of event-triggered functions and 500,000 invocations of HTTP-triggered functions)	The system will grant a basic package tier every month and deduct 0.06 USD per day.
	Resource Usage	0 GB	100,000 GB	
	Public traffic out	0 GB	2 GB	

Reminders

The free tier for every month in the first three months cannot be accumulated and will be reset at the beginning of the next month.
Upon settlement, fees are deducted in the order of free tier/basic package tier > namespace-specific package > region-specific package > pay-as-you-go billing (applying vouchers) > pay-as-you-go billing. In other words, the free

tier/basic package tier is used first, and fees for extra usage are deducted from valid packages. If no valid packages are available or the packages have been used up, fees are charged in the pay-as-you-go mode.

The free tier of resource usage is not applicable to idle provisioned concurrency.

The function invocations in a calendar month are counted on the first day of the next month. If the function resource usage, function invocations, and public network outbound traffic are all 0 in the last month, the **basic package fees** will not be charged in the current month. If any function usage is generated in the current month, basic package fees will be charged next month.

HTTP-triggered function response traffic is not included in the free tier. For more information, see HTTP-Triggered Function Billing.

SCF Pricing
Pricing

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The billable items of SCF are priced as follows. You can estimate the fees by using the SCF price calculator.

Event-triggered function

Billable Item	Unit	Price
Resource usage	GBs	0.0000167 USD/GBs
Invocations	10,000 invocations	0.002 USD/10,000 invocations
Public network outbound traffic	GB	Variable by region as shown below
Idle provisioned concurrency	GBs	0.00000847 USD/GBs

HTTP-triggered function

Billable Item	Unit	Price
Resource usage	GBs	0.0000167 USD/GBs
HTTP-Triggered function invocations	10,000 invocations	0.002 USD/10,000 invocations
Public network outbound traffic	GB	Variable by region as shown below
Response outbound traffic	GB	Variable by region as shown below
Idle provisioned concurrency	GBs	0.00000847 USD/GBs

Public network outbound traffic and response outbound traffic

The prices of public network outbound traffic and response outbound traffic vary by region as shown below:

Region	Price (USD/GB)
Chinese mainland (excluding Hong Kong/Macao/Taiwan (China)), Singapore, Jakarta, Seoul, Tokyo, Frankfurt, and Moscow	0.1203
Hong Kong (China)	0.1504
Bangkok, Silicon Valley, Virginia, and Toronto	0.0752

Region	Price (USD/GB)
Mumbai	0.0872

Provisioned Concurrency Price

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Idle Provisioned Concurrency Fees

*Idle provisioned concurrency fees = number of idle instances * configured memory size * idle duration * idle provisioned concurrency unit price*

- **Number of idle instances**: SCF counts the maximum concurrency of a version at a 10-second granularity. The number of idle instances is calculated by subtracting the maximum concurrency from the number of currently started provisioned instances. The calculation formula is as follows: number of idle instances = max(number of started provisioned instances - number of concurrent instances, 0).
- **Configured memory size**: the memory size configured for the provisioned concurrency of the function.
- **Idle duration**: the idle duration of the provisioned concurrency.
- **Idle provisioned concurrency price**: see Pricing.

> Note：
> Idle provisioned concurrency is calculated in GBs (GB✕second).

The provisioned concurrency feature only charges small idle fees for the instances that have been configured and started but are not in use, **while no additional fees are charged for the instances that have been configured and are in use**. In other words, only when the number of provisioned instances is greater than the number of concurrent instances for the current version will idle fees be incurred.

Billing Example

The idle provisioned concurrency fees are calculated by multiplying the number of idle instances by the configured memory size. The blue shaded part in the figure below indicates the idle provisioned concurrency. For more

information, please see Billing Example.

Traffic

Provisioned concurrency quota

Idle provisioned concurrency fees

Pay-as-You-Go resource usage fees

Time
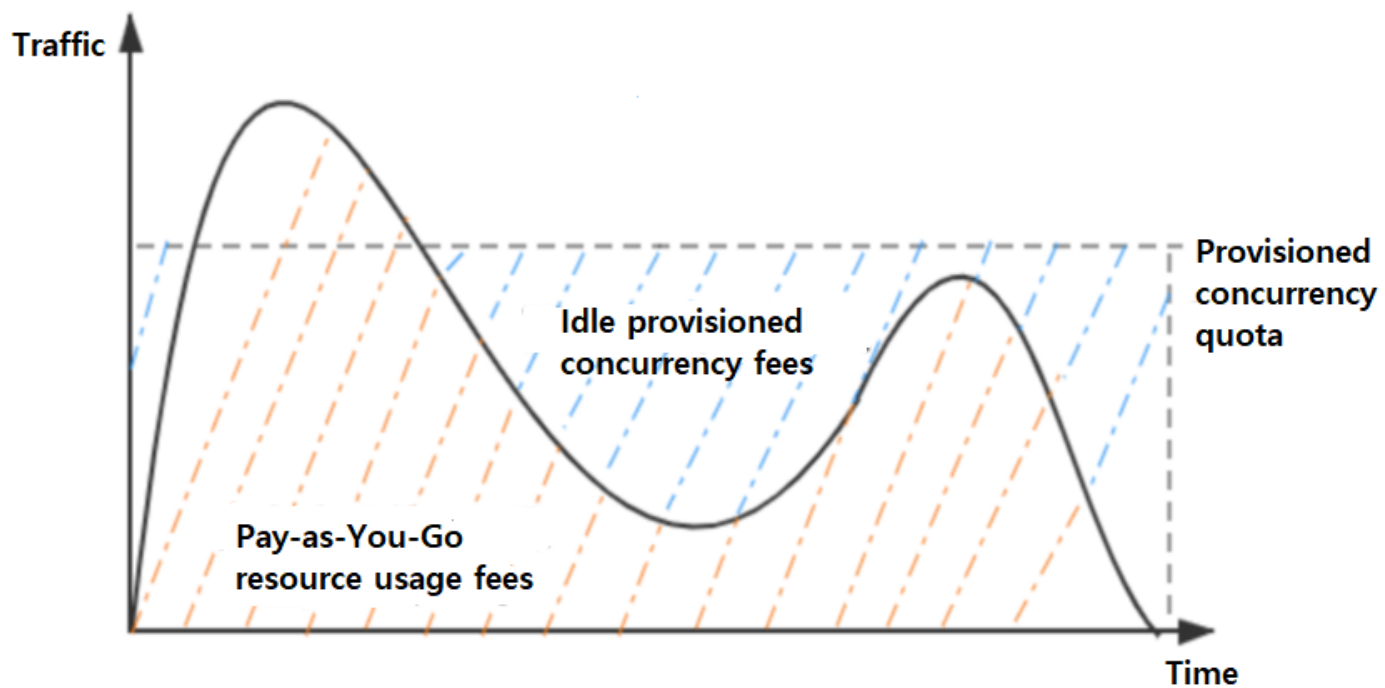
Billing Example

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Calculation Method

Currently, SCF resource usage is calculated by multiplying the memory configured for function by the **actually triggered execution duration** of function. Compared with the original billing mode of rounding up to the nearest 100-ms, this billing mode calculates less overall resource usage and fees, helping save your budget.

Web and API services

For web services or API requests, the actual execution duration of the code is usually only 30–50 ms. Billing by actual execution duration can lower fees by up to 70%.

Example: user A uses an API service composed of SCF and API Gateway by configuring a function with 128 MB memory and an average execution duration of 37 ms. In the original billing mode, the billable duration of the function is 100 ms, and if the function is invoked 1 million times per day, a resource usage of 12,500 GBs would be generated. In contrast, in the billing mode based on the actual execution duration, only 4,625 GBs will be generated, which is a 63% reduction.

Message processing

For message filtering, converting, and forwarding in message queue services, the actual execution duration of the code is usually only 60–80 ms. Billing by actual execution duration can lower fees by up to 40%.

Example: user B uses CKafka to trigger SCF and deliver filtered and converted messages to CKafka by configuring a function with 256 MB memory and an average execution duration of 67 ms. In the original billing mode, if the function is invoked 5 million times per day, a resource usage of 125,000 GBs would be generated. In contrast, in the billing mode based on the actual execution duration, only 83,750 GBs will be generated, which is a 37% reduction.

Event forwarding

For forwarding COS events to downstream systems, the actual execution duration of the code is usually only 50–80 ms. Billing by actual execution duration can lower fees by up to 50%.

Example: user C uses SCF to forward file upload events of COS to their own file processing system by configuring a function with 128 MB memory and an average execution duration of 43 ms. In the original billing mode, if there are 200,000 files uploaded per day, a resource usage of 2,500 GBs would be generated. In contrast, in the billing mode based on the actual execution duration, only 1,075 GBs will be generated, which is a 57% reduction.

Billing Example

Web and API services

Suppose a function with 128 MB memory is configured with an API Gateway trigger. It is triggered by 100,000 URL requests per day, and its average execution duration per request is 70 ms.

Suppose the resource usage and number of invocations per day are as follows:

- Number of invocations per day: 100,000
- Resource usage per day: (128 / 1024) * (70 / 1000) * 100000 = 875 GBs

The monthly fees (for 30 days) are as follows:

- Monthly resource usage fees: 875 * 30 = 26,250 GBs, which is less than 400,000 GBs and does not incur fees
- Monthly invocation fees: (100000 * 30 / 10000 - 100) * 0.002 = 0.4 USD

In this case, the total fees are the invocation fees of 0.4 USD.

Message queue trigger

Suppose a function with 128 MB memory is configured with a CKafka trigger. It is triggered 3 times per second to process messages and then put them in CKafka, and its execution duration per message is 260 ms.

Suppose the resource usage and number of invocations per day are as follows:

- Resource usage per day: (128 / 1024) * (260 / 1000) * 3 * 3600 * 24 = 8,424 GBs
- Number of invocations per day: 3 * 3600 * 24 = 259,200

The monthly fees (for 30 days) are as follows:

- Monthly resource usage fees: 8424 * 30 = 252,720 GBs, which is less than 400,000 GBs and does not incur fees
- Monthly invocation fees: (259200 * 30 / 10000 - 100) * 0.002 = 1.36 USD

In this case, the total fees are the invocation fees of 1.36 USD.

External file upload

Suppose a function with 256 MB memory is invoked 50 times per minute through the TencentCloud API. It generates a 1 KB file each time and uploads the file to an external site, and its execution duration per generated and uploaded file is 780 ms.

Suppose the resource usage and number of invocations per day are as follows:

- Resource usage per day: (256 / 1024) * (780 / 1000) * 50 * 60 * 24 = 14,040 GBs

- Number of invocations per day: 50 * 60 * 24 = 72,000
- Traffic per day: 1 * 50 * 60 * 24 = 72000 KB = 70.31 MB

The monthly fees (for 30 days) are as follows:

- Monthly resource usage fees: (14040 * 30 - 400000) * 0.0000167 = 0.35 USD
- Monthly invocation fees: (72000 * 30 / 10000 - 100) * 0.002 = 0.23 USD
- Public network outbound traffic fees: (70.31 * 30 / 1024) * 0.12 = 0.25 USD

In this case, the total fees are the resource usage fees of 0.35 USD + invocation fees of 0.23 USD + public network outbound traffic fees of 0.25 USD = 0.83 USD.

Idle provisioned concurrency fees

The idle provisioned concurrency fees are independent of the other three billable items. After provisioned concurrency is configured, small idle fees will be charged only for the instances that have been configured and started but are not in use. This section describes how such fees are calculated with an example where the concurrency fluctuates sharply and the provisioned concurrency quota is adjusted.

Example 1: if a function version with 128 MB memory has a provisioned concurrency quota of 12,800 MB (10 instances), is invoked 50 times per second on average, generates a 1 KB file during each invocation, uploads the file to a self-built external site, and has 8 concurrent instances in 10 seconds, then:

- Number of idle instances = max(10 - 8, 0) = 2
- Configured memory size = 128MB
- Idle duration = 10s
- Idle provisioned concurrency price = 0.00000847 USD/GBs

Idle provisioned concurrency fees = 2 * 128 / 1024 GB * 10s * 0.00000847 USD/GBs = 0.000021175 USD

Prices of resource usage and invocations:

- Resource usage = 0.00011108 USD/GBs
- Invocations = 0.0133 USD/10000 invocations
- Public network outbound traffic = 0.12 USD/GB

Pay-as-You-Go fees:

- Resource usage: (128 * 8 / 1024) * 10 * 50 = 500 GBs, which is less than 20,000 GBs and does not incur fees
- Invocations: 50 * 10 = 500 invocations, which is less than 100,000 invocations (50,000 for event-triggered functions and 50,000 for HTTP-triggered functions) and does not incur fees
- Traffic: 1 * 50 * 10= 500 KB, which is less than 0.5 GB and does not incur fees

In this case, the **pay-as-you-go fees** are 0.

Total fees = pay-as-you-go fees + idle provisioned concurrency fees = 0 + 0.000021175 USD = 0.000021175 USD

Example 2: suppose function A is configured with 256 MB memory, is invoked 50 times per minute on average, generates a 1 KB file during each invocation, uploads the file to a self-built external site, and is configured with 100 provisioned instances at 18:01, and the number of provisioned instances is increased to 120 at 18:07 due to business surge and then is lowered to 80 at 18:10. **Taking the minute of 18:01 as an example**, this minute has 100 provisioned instances, and the number of actually running concurrent instances is 30, then:

- **Number of idle instances** = 100 - 30 = 70
- **Idle resources** = number of idle instances * configured memory size * idle duration = 70 * 256 MB * 60s = 70 * (256 / 1024) GB * 60s = 1,050 GBs
- *Idle provisioned concurrency fees* = idle resources * idle provisioned concurrency price = 11050 GBs * 0.00000847 USD/GBs = 0.009 USD

Pay-as-You-Go fees:

- Resource usage: (256 * 8 / 1024) * 60 * 50 = 3000 GBs, which is less than 20,000 GBs and does not incur fees
- Invocations: 50 * 60 = 3000 invocations, which is less than 100,000 invocations (50,000 for event-triggered functions and 50,000 for HTTP-triggered functions) and does not incur fees
- Traffic: 1 * 50 * 60= 3000 KB, which is less than 0.5 GB and does not incur fees

In this case, the **pay-as-you-go fees** are 0.

Total fees = pay-as-you-go fees + idle provisioned concurrency fees = 0 + 0.009 USD = 0.009 USD

In the same calculation method as shown in the above example, the detailed billing for the 10 minutes of function A can be calculated, the accumulated idle fees for the 10 minutes are 0.009 USD, and the total fees are 0.009 USD as shown below:

Billable Item	18:01	18:02	18:03	18:04	18:05	18:06	18:07	18:08	18:09	18:10
Configured provisioned concurrency	100	100	100	100	100	100	120	120	120	80
Number of concurrent instances for this version	30	66	88	100	120	150	180	160	100	30

Billable Item	18:01	18:02	18:03	18:04	18:05	18:06	18:07	18:08	18:09	18:10
Number of idle instances	70	34	12	0	0	0	0	0	20	50
Idle instance fees	0.009	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.003	0.006
Pay-as-You-Go fees	0	0	0	0	0	0	0	0	0	0

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.

Billing Cycle

SCF is pay-as-you-go by hour based on your actual usage. Fees will be charged at the start of each hour for usage in the previous hour, and the payment amount will be deducted from your voucher or account balance. At the same time, a bill will be generated for your reference.

> Note：
>
> If the fees incurred in a billing cycle are less than 0.01 USD, no bill will be generated and no payment amount will be deducted. Instead, such fees will be included in the monthly bill for precise adjustment.

Service Suspension Mechanism

SCF can be used normally for 24 hours after your account falls into arrears. If your account is in arrears for more than 24 hours, your SCF service will be suspended.

The following restrictions will be imposed on all functions after service suspension:

- Existing functions cannot be triggered.
- Provisioned function instances will be repossessed.
- Scheduled triggers will stop triggering functions.
- Functions will report errors and fail to execute through sync invocations via methods such as TencentCloud API or API Gateway.

Service Resumption

When all the overdue payments under your account are paid, the service will be resumed automatically.

- Scheduled triggers will resume to run.
- Functions can be triggered normally.
- Configured provisioned concurrent instances will be restarted.