

Tencent Cloud Mesh

Purchase Guide

Product Documentation



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Contents

Purchase Guide

Billing Overview

Mesh Types and Quotas

Version Support Policies

Purchase Guide

Billing Overview

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The billing mode of Tencent Cloud Mesh is pay-as-you-go (postpaid). Tencent Cloud Mesh is billed at a service fee based on two dimensions, that is, the number of clusters and the number of sidecars in a mesh.

Note:

Tencent Cloud Mesh is officially billed from 10:00 on April 20, 2022. For details, see [Tencent Cloud Mesh Billing Notifications](#).

Billable Items

Billable Item	Billing Mode	Payment Mode	Billing Unit
Number of clusters	Pay-as-you-go	Freeze the fees at the time of purchase, and the clusters are billed at an hourly basis	USD/hour
Number of sidecars	Pay-as-you-go	Freeze the fees at the time of purchase, and the sidecars are billed at an hourly basis	USD/hour

Number of Clusters

Each cluster in the mesh is billed at a management fee of \$0.2474 USD/hour. The number of clusters is based on the number of valid clusters every hour on the hour. Clusters that have been deleted but not disassociated are invalid and will not be counted as valid clusters.

Number of Sidecars

Each mesh provides 100 free sidecars. After 100 sidecars are exceeded, each sidecar is billed at a service fee of \$0.0008 USD/hour.

The number of sidecars used for billing is the total online hours of all sidecars. Therefore, the number of billed sidecars is less than or equal to the actual number of online sidecars. The online duration of the sidecars is calculated based on the pod life cycle duration. For example, in the current hour, there are 204 sidecars running in the mesh, among which 200 sidecars run for 30 minutes, and the other four sidecars each run for 20 minutes, and therefore the actual use duration is: $(200 \times 30 + 4 \times 20)/60 = 101.33$ hours. In this case, the number of sidecars used for billing is 101.33. As a user has 100 free quotas, 1.33 sidecars will actually incur fees.

Billing Example

Note:

To simplify the calculation, it is assumed that the sidecars in the following cases have been used for a full month.

Case 1:

Scenario: A user creates a Tencent Cloud Mesh instance and adds a TKE cluster to the mesh. The cluster contains 500 service pods, only a specific namespace foo has enabled automatic sidecar injection, and 90 pods have been injected with sidecars.

Fee: Calculation is made based on that the mesh runs for one month (estimated based on 30 days). The mesh contains one cluster, and the cluster fee is: $0.2474 \times 24 \times 30 = \178.128 . As the total number of sidecars in the mesh does not exceed 100, there is no additional fee for the sidecars. The total monthly fee of the mesh is \$178.128.

Case 2:

Scenario: A user creates a Tencent Cloud Mesh instance and adds two TKE clusters to the mesh. Cluster 1 contains 1,000 service pods, only a specific namespace foo has enabled automatic sidecar injection, and 100 pods have been injected with sidecars. Cluster 2 contains 2,000 service pods, only a specific namespace foo has enabled automatic sidecar injection, and 100 pods have been injected with sidecars.

Fee: Calculation is made based on that the mesh runs for one month (estimated based on 30 days). The mesh contains two clusters, and the cluster fee is: $0.2474 \times 24 \times 30 \times 2 = \356.256 . As the total number of sidecars in the mesh is 200 and exceeds a free quota 100, the sidecar fee is: $100 \times 0.0008 \times 24 \times 30 = \57.6 . The total monthly fee of the mesh is: $356.256 + 57.6 = \$413.856$.

Other Fees

The fees billed for Tencent Cloud Mesh include only the management and service fees of Tencent Cloud Mesh. If you use other cloud resources and services in the business process, such as Cloud Load Balancer (CLB), Cloud Log Service (CLS), Application Performance Management (APM), you also need to pay fees according to the billing rules of the corresponding products. For specific billing details, see the billing overview of each product.

Cloud Product	Billing Description
TKE/EKS	TKE Billing Overview
CLB	CLB Billing Overview
CLS	CLS Billing Overview

Mesh Types and Quotas

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Mesh Mode

Managed mode

Managed mode means that the control plane components of a mesh are managed by Tencent Cloud Mesh, and the Tencent Cloud Mesh team is responsible for ensuring the availability of the control plane of the mesh, eliminating deployment and operations costs of control plane resources for a user. The user only needs to focus on the use of the mesh. Currently, managed meshes are not separately billed, and therefore it is recommended that you choose the managed mode preferentially.

Feature differences between a managed mesh and a stand-alone mesh

Capability	Managed Mesh	Stand-alone Mesh
Operations-free control plane	Support	Not support
Login to a control plane host	Not support	Support
Mesh management through Istioctl	Not support	Support

Stand-alone mode

Stand-alone mode means that the control plane components of a mesh are deployed in a cluster specified by a user and are maintained by the user. In this mode, the user has greater autonomy, but also needs to assume a greater availability risk. Currently, a stand-alone mesh can be used after being added to an allowlist. If you need to use a stand-alone mesh, contact after-sales personnel or [submit a ticket](#).

Quota Limits

Maximum number of meshes by default: 20

Maximum number of clusters in a single mesh: 10

Maximum number of regions in a single mesh: 3

To use more resources, [submit a ticket](#) to apply for them.

Version Support Policies

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Version Strategy

Tencent Cloud Mesh currently provides commercialization of only Istio even-numbered versions. It provides two mainstream Istio minor versions on the console for you to choose, for example, 1.8 and 1.10, and launches a new version within half a year after a latest Istio even-numbered minor version is released. You can upgrade your meshes to the latest version by using the mesh canary upgrade feature of Tencent Cloud Mesh. Based on the current iteration frequency of Istio versions, each even-numbered minor version is expected to provide services online for about 12 months. When a new version is launched, the second latest version originally provided by Tencent Cloud Mesh will enter a 3-month maintenance window period. For example, after version 1.12 is launched, version 1.8 will enter the maintenance window period.

For the same Istio minor version, Tencent Cloud Mesh provides only one patch version by default, for example, 1.10.3. In a case of major updates and bug fixes, Tencent Cloud Mesh will irregularly provide updates and prompt you to perform an upgrade.

Constraints Upon Exceeded Maintenance Window Period

For a mesh within the maintenance window period, you can use all features normally; however, you need to complete the upgrade as soon as possible. Otherwise, after the maintenance window period is exceeded, the timeliness and effectiveness of services cannot be guaranteed, and the console features will also be restricted, including:

1. Mesh configurations can no longer be modified on the console.
2. The console will no longer provide display of observability-related features such as topology invoking and monitoring metrics.
3. A mesh version cannot be upgraded by using the canary upgrade feature on the console.