Cloud Application Engine

Billing

Issue   01
Date   2024-05-25

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Contents

1 Overview

This document describes the billing modes, billing items, and renewal and arrears policies of Cloud Application Engine (CAE).

- **Billing Mode**

  CAE offers a pay-per-use billing mode.

  - Pay-per-use is a postpaid mode. You use the service first, and will be billed afterwards for your usage duration.

- **Billing Items**

  CAE is billed on your instance specifications, including vCPUs, memory, and traffic. For details, see **Billing Items**.

  For billing examples and information on how each item is billed, see **Billing Examples**.

- **Bills**

  You can go to **Billing Center** > **Billing** to check your CAE transactions and bills. For details, see **Bills**.

- **Arrears**

  If you have a past due balance on your account, your account falls into arrears. As a result, CAE resources may not run properly, so make sure that your account balance is sufficient. For details, see **Arrears**.

- **Stopping Billing**

  CAE is billed on a pay-per-use basis. If you do not use the service, no expenditures are generated. For details, see **Stopping Billing**.

2 Billing Mode

2.1 Overview

- Pay-per-use is a postpaid mode. You use the service first, and will be billed afterwards for your usage duration. Fees are calculated in minutes and billed by the hour. This billing mode allows you to flexibly adjust your resource usage. You do not need to provision resources in advance, or have excessive or insufficient resources preset.

Table 2-1 Billing mode

Billing Mode	Pay-per-Use
Payment mode	Postpaid. Billed on your usage duration.
Billing cycle	Calculated in minutes and billed by the hour. There are no minimum fees.
Billing item	vCPUs, memory, and traffic.
Application scenario	Useful for fluctuating demands. This mode is enabled by default and billing starts when you begin to use the service.

2.2 Pay-per-Use

Application Scenario

Pay-per-use is a postpaid mode and is useful when application instances do not need to run 24/7, or only for a short period of time.

Billing Items

You are billed for the following items on a pay-per-use basis.

Table 2-2 Billing items

Billing Item	Description
Compute resources	vCPUs and memory are billed on your usage duration. Fees are calculated in minutes and billed by the hour.
Traffic	Billed on the amount of public network traffic you use, in GB.

The price includes:

- vCPU: calculated by your vCPU configuration.
- Memory: calculated by your memory configuration.
- Traffic: calculated by your traffic volume.

Pricing Details

📖 **NOTE**

The following pricing details are applicable in Singapore.

Table 2-3 Pricing details of pay-per-use billing

Billing Item	Billing Cycle	Unit	Price (USD)
vCPU	Hour	core-minute	0.0013483
Memory	Hour	GiB-minute	0.0001475
Traffic	Hour	GB	0.114

Billing Cycle

In pay-per-use mode, fees are calculated in minutes and billed by the hour (GMT +08:00:00). Once settlement is complete, a new billing cycle starts. Billing starts when a CAE instance is created and ends when it is deleted.

For example, if you deployed an application at 08:45:30 to provide services using compute resources (vCPUs and memory) and traffic, and then deleted it at 08:55:00, the billing cycle was from 08:00:00 to 09:00:00 with fees generated from 08:45:30 to 08:55:00. You were billed for 10 minutes.

Billing Example

You created an application and configured a 2 vCPU | 4 GiB component at 09:59:30 on Apr 18, 2023, and then deleted the application at 10:45:46 on Apr 18, 2023, using 0.8 GB of traffic data during application running. You were billed for:

- Usage of 1 minute from 09:59:30 to 10:00:00
- Usage of 46 minutes from 10:00:00 to 10:45:46

You were billed for each usage duration. CAE resources are billed individually as described in **Table 2-4**. You can choose to display either per-minute or per-hour prices in the pricing details.

Table 2-4 Billing formulas

Item	Billing Formula
vCPU	Instance specification unit price x Instance specifications x Usage duration
Memory	Instance specification unit price x Instance specifications x Usage duration
Traffic	Actual traffic usage

Figure 2-1 shows how the total price is calculated.

> **NOTICE**
>
> The prices in the figure are for reference only. The actual calculation is subject to the prices in *CAE Pricing Details*.

Figure 2-1 Total price for a pay-per-use CAE instance
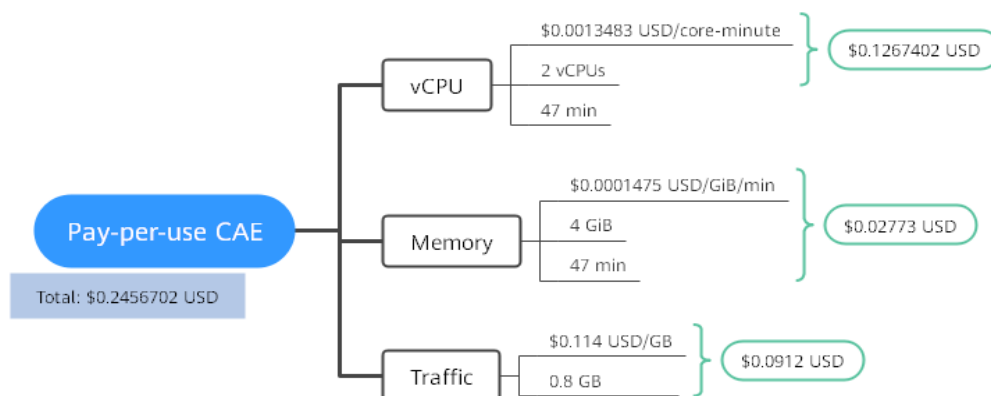
Price Change After Specification Change

If you change the specifications of a pay-per-use CAE instance, the original order will become invalid and a new order will be placed. You will be billed based on the new specifications.

If you change instance specifications within a given hour, multiple billing records will be generated. The start time and end time of each record correspond to when different specifications took effect within the hour.

For example, if you created an application and configured a 1 vCPU | 2 GiB component at 09:00:00 and upgraded to 2 vCPU | 4 GiB at 09:30:00, two billing records were generated from 09:00:00 and 10:00:00.

- 1 vCPU | 2 GiB instance usage from 09:00:00 to 09:29:59
- 2 vCPU | 4 GiB instance usage from 09:30:00 to 10:00:00

Impact of Arrears

Figure 2-2 shows the statuses a pay-per-use CAE resource can go through throughout its lifecycle. After an instance is created, it enters a valid period and runs normally during this period. If your account falls into arrears, the resource enters a grace period and then a retention period.

Figure 2-2 Lifecycle of a pay-per-use CAE resource
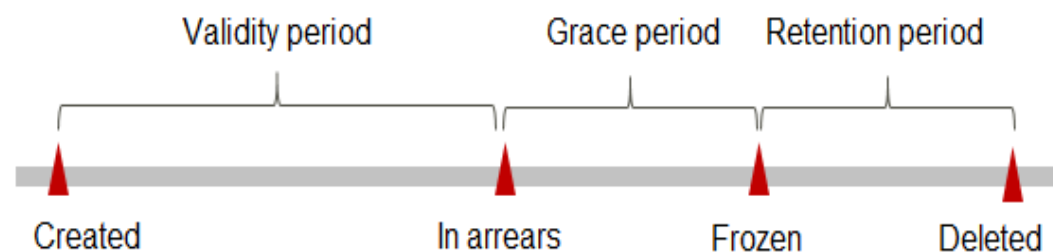
Arrears Alert

The system will deduct fees for pay-per-use resources at the end of each billing cycle. When your account is in arrears, we will notify the Huawei Cloud account creator by email, SMS, and internal message.

Impact of Arrears

If your account balance is insufficient, your account falls into arrears. However, your pay-per-use resources will not be stopped immediately. There will be a grace period before they are stopped. You are still responsible for expenditures generated during the grace period. You can view the charges on the **Billing Center** > **Overview** page and pay any past due balances as needed.

If you do not settle your account balance before the grace period ends, the resource enters a retention period and its status becomes **Frozen**. You cannot perform any operations while it is in the retention period.

If you do not settle your account balance before the retention period ends, the resource will be released and data cannot be restored.

☐ NOTE

- For details about how to top up your account, see **Topping Up an Account**.

3 Billing Items

Billing Description

CAE is billed on the vCPUs, memory, and traffic. **Table 3-1** describes the details.

📖 **NOTE**

Billing items marked with an asterisk (*) are mandatory.

Table 3-1 CAE billing items

Billing Item	Description	Billing Formula
*vCPU	Computing capability varies based on the number of vCPUs.	**Instance specification unit price x Instance specifications x Usage duration** For details about the unit prices of instance specifications, see vCPU prices in *CAE Pricing Details*.
*Memory	Storage capability varies based on memory size.	**Instance specification unit price x Instance specifications x Usage duration** For details about the unit prices of instance specifications, see memory prices in *CAE Pricing Details*.
Traffic	Billed on the amount of outbound traffic you use.	**Actual traffic usage** For details about the unit prices of public network traffic, see traffic prices in *CAE Pricing Details*.

Pricing Details

Table 3-2 Pricing details of pay-per-use billing

Billing Item	Billing Cycle	Unit	Price (USD)
vCPU	Hour	core-minute	0.0013483
Memory	Hour	GiB-minute	0.0001475
Traffic	Hour	GB	0.114

Other Billing Items

The following table lists the cloud service resources that may be used when you use CAE. These resources are billed separately.

Table 3-3 Billed items of other cloud service resources

Billing Item	Description	Billing Mode	Billing Formula
Cloud Service Engine (CSE)	Bind a microservice engine in **Component Configurations**. Microservice engines cannot be automatically created on the CAE console. Manually create them on the CSE console. Billing factors: ● Exclusive ServiceComb engine: ServiceComb engine instance. For details, see **CSE Billing Items**.	Yearly/Monthly and pay-per-use	● Exclusive ServiceComb engine: Instance specification unit price x Required duration For details, see **CSE Price Calculator**.

Billing Item	Description	Billing Mode	Billing Formula
Relational Database Service (RDS)	Bind a cloud database in **Component Configurations**. Cloud databases cannot be automatically created on the CAE console. Manually create them on the RDS console. Billing factors: instance specifications, storage space, and backup space. For details, see **RDS Billing Items**.	Yearly/ Monthly and pay-per-use	Instance specification unit price x Required duration + Storage space unit price x Storage capacity x Required duration + Backup space unit price x Billed backup capacity x Billed duration For details, see **RDS Price Calculator**.
Elastic Load Balance (ELB)	When configuring the access mode for a component, select **Dedicated** for **Load Balancer**. Load balancers cannot be automatically created on the CAE console. Manually create and bind them on the ELB console. Billing factors: Dedicated load balancer: AZs, instance specifications, and EIPs (bandwidth and traffic). For details, see **ELB Billing Items**.	Yearly/ Monthly and pay-per-use	Dedicated load balancer: Number of AZs x Instance specification unit price x Duration + EIP fees For details, see **ELB Price Calculator**.

Billing Item	Description	Billing Mode	Billing Formula
Application Operations Management (AOM)	When **Custom Metric** is enabled in **Component Configurations**, the component is automatically connected to AOM. Only pay-per-use billing is supported when AOM is automatically connected on the CAE console. Billing factors: reported custom metrics, metric storage duration, and data dump volume. For details, see **AOM Billing Items**.	Pay-per-use	Gradient metric unit price x Number of reported custom metrics + Metric storage duration unit price x Duration + Data dump unit price x Data storage volume For details, see **AOM Price Calculator**.
Object Storage Service (OBS)	• Authorize the parallel file system or bucket in **System Settings**. Object storage of the parallel file system type is recommended. OBS storage automatically created on the CAE console is billed on a pay-per-use basis. • If you upload a software package to the OBS bucket to deploy a component during component creation, OBS storage is billed on a pay-per-use basis. Billing factors: storage space, requests, traffic (free for intranet traffic), and data retrievals (only for Archive storage). For details, see **OBS Billing Items**.	Yearly/ Monthly (resource packages) and pay-per-use	Storage unit price x Storage space x Duration + Traffic request unit price x Number of requests + Unit price of outbound Internet traffic (by time segment) x Outbound Internet traffic volume+ Data retrieval unit price (by retrieval speed) x Retrieved data volume For details, see **OBS Price Calculator**.

Billing Item	Description	Billing Mode	Billing Formula
Scalable File Service (SFS)	Authorize the general purpose file system in **System Settings**. General purpose file systems cannot be automatically created on the CAE console. Manually create them on the SFS console. Billing factor: storage space. For details, see **SFS Billing Items**.	Yearly/ Monthly and pay-per-use	Storage unit price x Storage space x Duration For details, see **SFS Price Calculator**.
Data Encryptio n Workshop (DEW)	Add secret configurations in **System Settings** to automatically interconnect with DEW. Secrets cannot be automatically created on the CAE console. Manually create them on the DEW console. Billing factor: storage space. For details, see **DEW Billing Items**.	Pay-per-use	Secret instance fee x Duration + Key instance fee x Duration + Number of key API requests x API request fee For details, see **DEW Price Calculator**.
Simple Message Notificati on (SMN)	Create an event notification rule in **System Settings**. SMN automatically sends notifications when the rule is met. Billing factors: SMSs, emails, and downstream Internet traffic. For details, see **SMN Billing Items**.	Pay-per-use	SMS unit price x Number of SMSs sent + Email unit price x Number of emails sent + Downstream Internet traffic unit price x Traffic volume For details, see **SMN Price Calculator**.

| Billing Item	Description	Billing Mode	Billing Formula
Application Performance Management (APM)	When **Monitoring System Configuration** is enabled in **System Settings**, APM 2.0 probes are automatically connected. Billing factor: probes. For details, see **APM Billing Items**.	Pay-per-use	Number of Agents x Pay-per-use unit price x Duration For details, see **APM Price Calculator**.
Log Tank Service (LTS)	CAE can interconnect with LTS to view LTS logs. The system continues to collect logs beyond the free quota (500 MB). You will be billed for extra logs on a pay-per-use basis. Billing factors: log read/write traffic, log index traffic, and log volume. For details, see **LTS Billing Items**.	Pay-per-use	Log read/write traffic unit price x Write traffic (GB, 20% compression rate) + Log index traffic unit price x Index traffic (GB) + Per-GB unit price x Log volume (GB) For details, see **LTS Price Calculator**.

4 Billing Examples

Scenario 1

On Mar 15, 2023, CAE hosted a microservice application and provided services for users.

- Specifications: one 2 vCPU | 4 GiB component and two 1 vCPU | 2 GiB components.
- Running: The application started at 10:00:00 and stopped at 15:00:00 every day. During peak hours (11:00:00-12:30:00), the 2 vCPU | 4 GiB component expanded to five instances, and the 1 vCPU | 2 GiB components expanded to three instances. During off-peak hours, each component required two instances to process services. 2.56 GB of traffic data was used in total.

Billing Duration

- Off-peak hours: 210 min/day x 15 days = 3,150 min
- Peak hours: 90 min/day x 15 days = 1,350 min
- Traffic: 2.56 GB/day x 15 days = 38.4 GB

Figure 4-1 Total price for a pay-per-use CAE instance
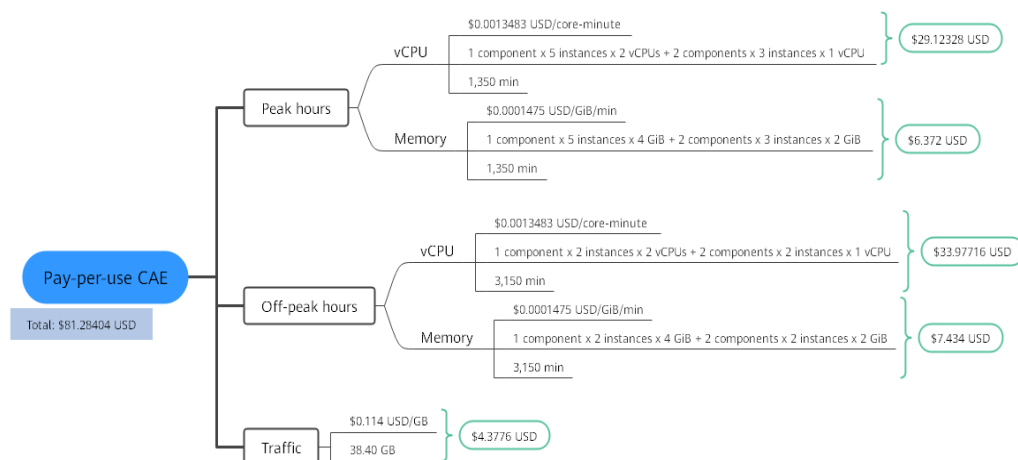
Scenario 2

CAE hosted many applications, and used 15,000 core-hours of vCPUs, 30,000 GiB-hours of memory, and 1 TB of traffic data in a month.

Billing Analysis

> **NOTICE**
>
> Unit prices in this example are used for reference only, and the calculated prices are estimated fees. As unit prices may change from time to time, the calculated prices may differ from actual prices. For details, see the data released on the Huawei Cloud official website.

Billing Mode	Formula	Billing Cycle	Price
Pay-per-use	vCPU: Instance specification unit price x Instance specifications x Usage duration	Monthly	vCPU: $0.0809 USD/core-hour x 15,000 core-hours = $1,213.5 USD/month
	Memory: Instance specification unit price x Instance specifications x Usage duration		Memory: $0.00885 USD/GiB-hour x 30,000 GiB-hours = $265.5 USD/month
	Traffic: Traffic unit price x Traffic volume		Traffic: $116.736 USD/TB x 1 TB = $116.736 USD/month
	Total		**$1,595.736 USD/month**

5 Bills

You can view your resource usage and bills for different billing cycles on the **Billing** page in the Billing Center.

Bill Reporting Period

- The usage of pay-per-use resources is reported to the billing system at fixed intervals. Pay-per-use resources can be billed by the hour, day, or month based on usage type. For details, see **Bill Run for Pay-per-Use Resources**. Pay-per-use CAE instances are billed by the hour.

  For example, if you delete an instance at 08:30:00, fees generated from 08:00:00 to 09:00:00 are deducted at around 10:00:00. On the **Billing** > **Expenditure Items** page of the Billing Center, **Expenditure Time** lists the usage duration of your pay-per-use resources.

Viewing Bills of a Specific Resource

Step 1 Log in to **Billing Center**.

Step 2 Choose **Orders** > **My Orders**. The **My Order** page is displayed.

Step 3 Click ⧉ on the right to copy the order number.

Step 4 Choose **Billing > Expenditure Items**.

Step 5 Select **Details** for **Data Period**, select **Order No./Transaction No.** as the filter condition, enter the copied order number, and click 🔍 to search for the bill of the resource.

----End

6 Arrears

If you have a past due balance on your account, your account falls into arrears. As a result, CAE resources may not run properly, so make sure that your account balance is sufficient.

If your account is in arrears, top up your account before the deadline. For details, see **Making Repayments**.

Impact of Arrears

- Pay-per-use

  If your account balance is insufficient, your account falls into arrears. However, your pay-per-use resources will not be stopped immediately. There will be a grace period before they are stopped. You are still responsible for expenditures generated during the grace period. You can view the charges on the **Billing Center** > **Overview** page and pay any past due balances as needed.

  If you do not settle your account balance before the grace period ends, the resource enters a retention period and its status becomes **Frozen**. You cannot perform any operations while it is in the retention period.

  If you do not settle your account balance before the retention period ends, the resource will be released and data cannot be restored.

Figure 6-1 Pay-per-use billing lifecycle
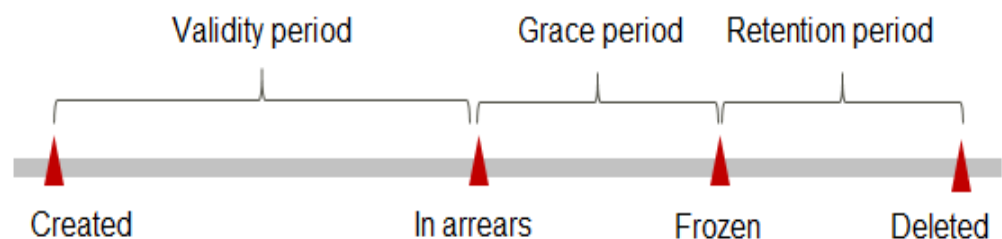
📖 **NOTE**

- For details about the grace period and retention period, see **Resource Suspension and Release**.

Avoiding and Handling Arrears

Top up your account in time. For details, see **Topping Up an Account**.

Delete or stop unnecessary components to avoid unexpected fees.

Configure the **Balance Alert** function on the **Billing Center** > **Overview** page. When the total amount of the available quota, general cash coupons, and cash coupons is lower than the alert threshold, the system automatically notifies you by SMS and email.

To prevent your account from falling into arrears, top up your account in time.

7 Stopping Billing

Pay-per-Use

CAE is billed on a pay-per-use basis. If you do not use the service, no expenditures are generated.
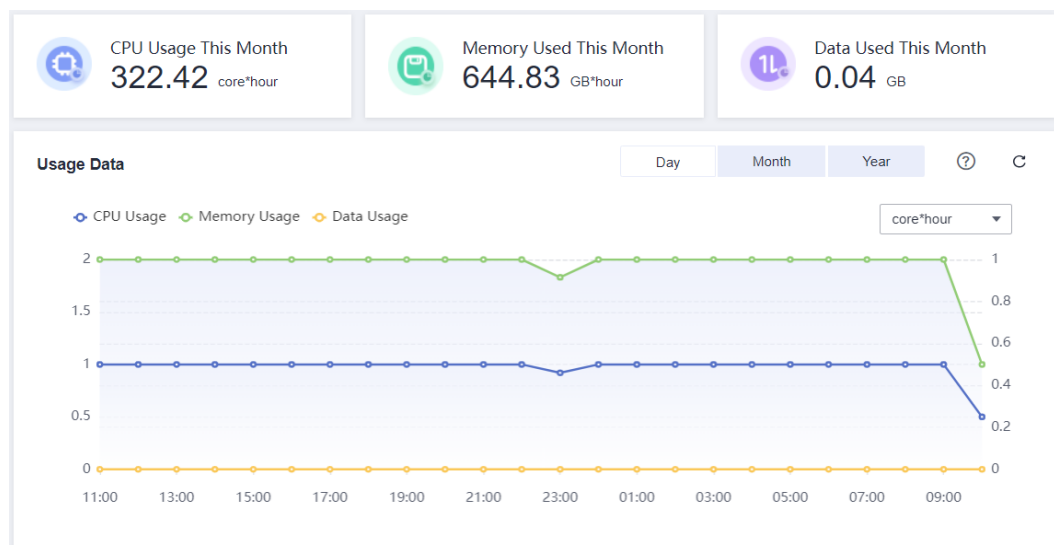
📖 **NOTE**

Deleted or stopped components are no longer billed.

8 Billing FAQ

8.1 How Is CAE Billed?

CAE is billed on a pay-per-use basis. The memory and vCPU usage are displayed on the overview page.

Figure 8-1 Resource usage overview

8.2 Am I Still Billed for a Component That Is Stopped but Not Deleted?

You can stop a component that is no longer needed.

After the component is stopped, the associated application will stop working, and billing stops.

After you restart the component, billing starts based on the startup time.