Elastic IP

Service Overview

Issue 01

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Contents

1 What Is Elastic IP?

Introduction

The Elastic IP (EIP) service enables your cloud resources to communicate with the Internet using static public IP addresses and scalable bandwidths. A resource with an EIP can access the Internet directly, but a resource with only a private IP address cannot.

EIP

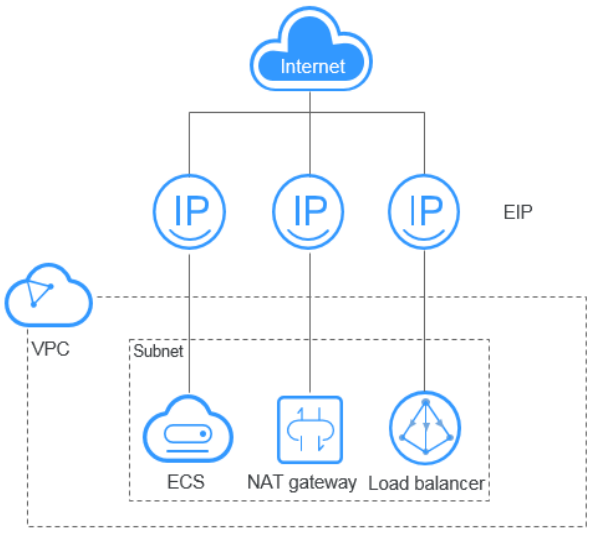
EIPs can be bound to or unbound from ECSs, BMSs, virtual IP addresses, NAT gateways, or load balancers.

Each EIP can be bound to only one cloud resource.

Note the following when binding an EIP to an instance (such as ECS):

- Each EIP can be bound to only one ECS. If an EIP has been bound to an ECS, it cannot be bound to other cloud resources. You need to unbind the EIP from the ECS before binding it to another cloud resource in the same region.
- The EIP and the ECS must be in the same region.

Figure 1-1 Connecting to the Internet using an EIP



EIP Bandwidth

Bandwidth refers to the maximum amount of data that can be transmitted in a given amount of time (generally one second). A larger bandwidth value indicates a stronger transmission capability. Bandwidth is classified into public bandwidth and private bandwidth.

Public bandwidth is the bandwidth consumed when data is transferred between Huawei Cloud and the Internet. Public bandwidth is classified into inbound bandwidth and outbound bandwidth. For details about the outbound bandwidth and inbound bandwidth, see **Figure 1-2**.

- The metrics about outbound bandwidth on the Cloud Eye console are **Outbound Bandwidth** and **Outbound Traffic**.
- The metrics about inbound bandwidth on the Cloud Eye console are **Inbound Bandwidth** and **Inbound Traffic**.

Figure 1-2 Inbound bandwidth and outbound bandwidth

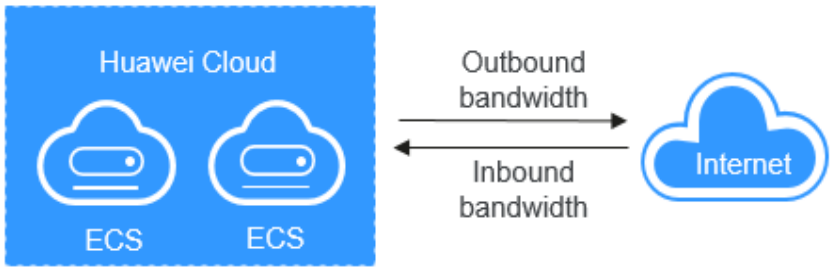


Figure 1-3 Inbound bandwidth and outbound bandwidth

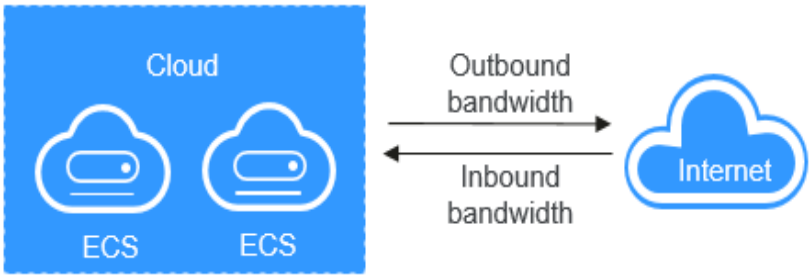


Table 1-1 Inbound bandwidth and outbound bandwidth

Type	Description
Outbound bandwidth	Bandwidth consumed when data is transferred from Huawei Cloudthe cloud platform to the Internet. For example, the outbound bandwidth is consumed when ECSs provide services accessible from the Internet or when FTP clients download resources from the ECSs. The metrics about outbound bandwidth on the Cloud Eye console are **Outbound Bandwidth** and **Outbound Traffic**.

Type	Description
Inbound bandwidth	Bandwidth consumed when data is transferred from the Internet to Huawei Cloudthe cloud platform. For example, the inbound bandwidth is consumed when downloading resources from the Internet to ECSs and when FTP clients upload resources to the ECSs. The metrics about inbound bandwidth on the Cloud Eye console are **Inbound Bandwidth** and **Inbound Traffic**.

EIP Types

EIPs can use dynamic BGP

- Dynamic BGP provides automatic failover and chooses the best path based on the real-time network conditions and preset policies.
- When a fault occurs on a carrier's link, dynamic BGP will quickly select another path to take over services, ensuring service availability.

NOTE

- For more information about service availability, see **Huawei Cloud Service Level Agreement**.

Accessing EIP

You can access EIPs through the management console or using HTTPS-based APIs.

- Management console

  Log in to the management console, select **Elastic IP** from the console homepage, and then perform operations on EIP resources.

- APIs

  If you need to integrate the EIP service provided by the cloud system into a third-party system for secondary development, you can use an API to access the EIP service. For details, see the **Elastic IP API Reference**.

2 Advantages

- Flexibility

  EIPs can be flexibly bound to or unbound from ECSs, BMSs, NAT gateways, load balancers, or virtual IP addresses. EIP bandwidths can be scaled according to service changes.

- Cost-effective

  EIPs are available on a pay-per-use (billed by bandwidth or traffic) or yearly/monthly (billed by bandwidth) basis. You can use shared bandwidths to enjoy lower bandwidth costs. Generally, if you have frequent data transfer needs, a yearly/monthly subscription is more cost-effective.

- Ease of use

  EIP binding, unbinding, and bandwidth adjustments take effect immediately.

3 Application Scenarios

EIP Application Scenarios

EIPs can be bound to or unbound from ECSs, BMSs, virtual IP addresses, NAT gateways, or load balancers.

Binding an EIP to an ECS

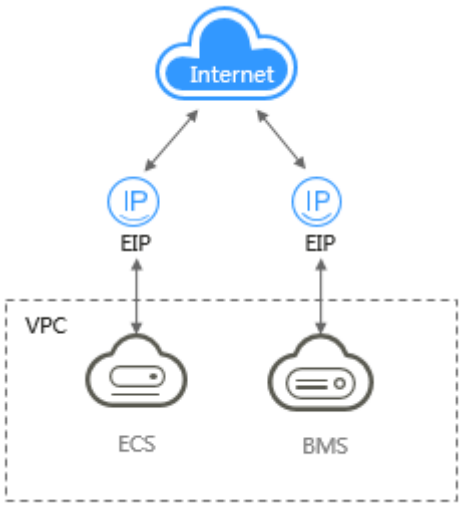
Scenario

You can bind an EIP to an ECS to enable the ECS to access the Internet.

Related Services

ECS, BMS, and VPC

Figure 3-1 EIP used by an ECS



Binding an EIP to a NAT Gateway

Scenario

After an EIP is bound to a NAT gateway and SNAT and DNAT rules are added, multiple cloud servers (such as ECSs and BMSs) can use the same EIP to access the Internet and provide services accessible from the Internet.

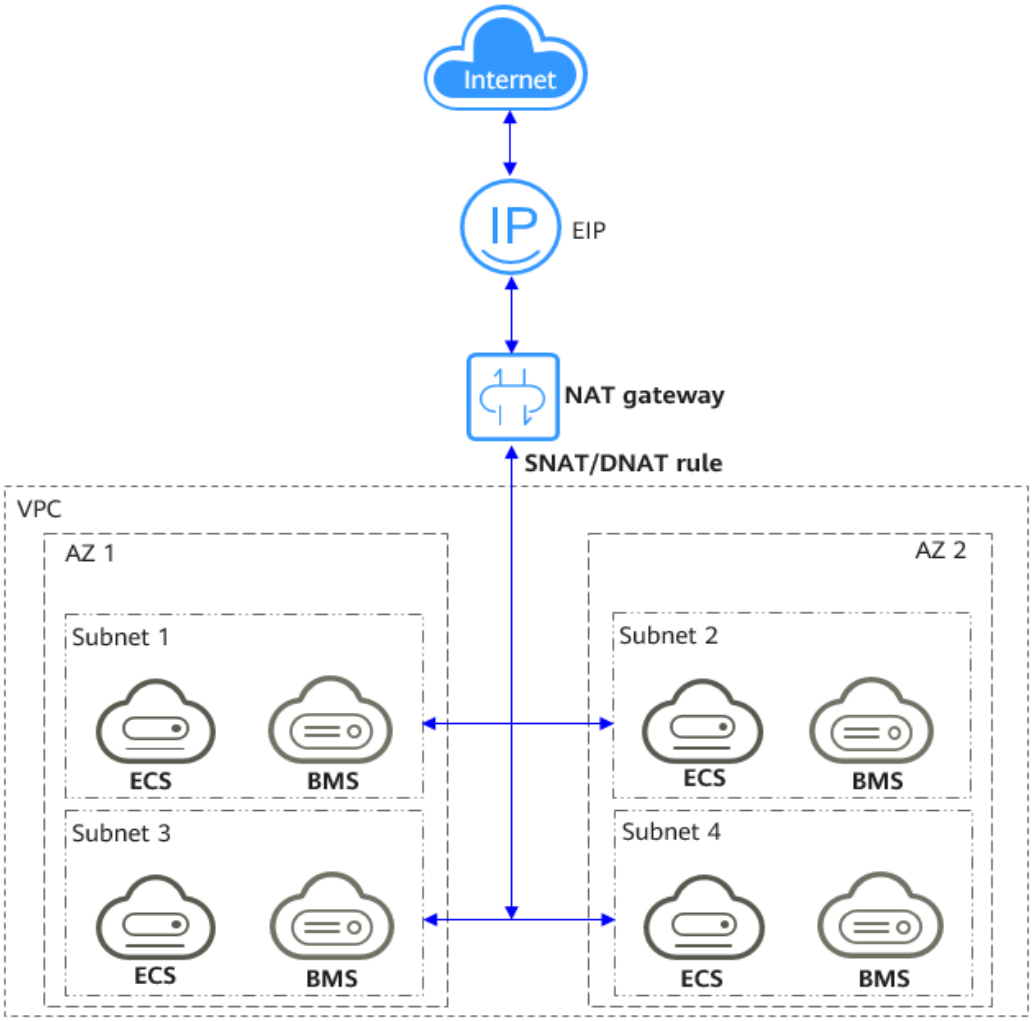
An SNAT rule allows servers in a specific VPC subnet to use the same EIP to access the Internet.

A DNAT rule enables servers in a VPC to provide services accessible from the Internet.

Related Services

NAT Gateway, ECS, BMS and VPC

Figure 3-2 EIP used by a NAT gateway



Binding an EIP to a Load Balancer

A high-availability load balancing network can be built with the help of EIP.

To handle a large number of concurrent requests from the Internet, you can deploy multiple ECSs in a VPC and use ELB to distribute requests across these servers to improve service stability and availability.

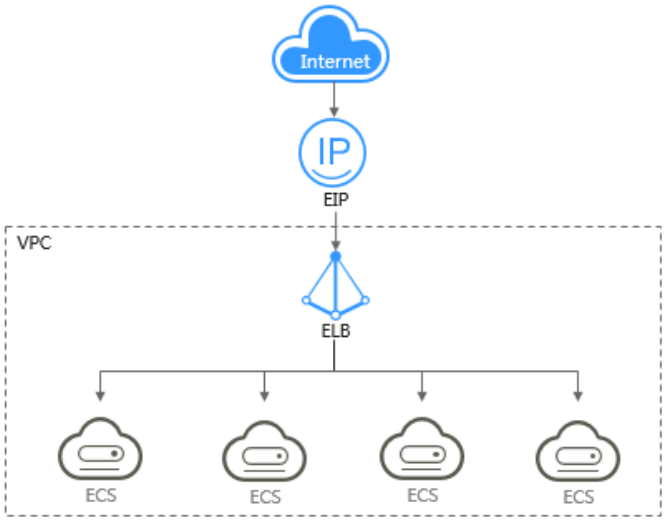
Scenario

After you bind an EIP to a load balancer, the load balancer can distribute requests from the Internet to backend servers.

Related Services

ELB, ECS, and VPC

Figure 3-3 EIP used by a load balancer



4 Functions

EIP provides various functions for you to flexibly configure services and build diversified networks.

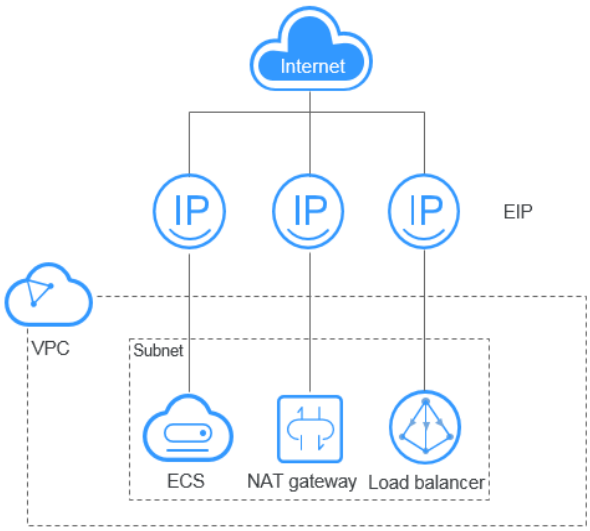
This section describes main functions of EIP. You can check if a certain function is available in a region on the management console.

EIP

The EIP service enables your cloud resources to communicate with the Internet using static public IP addresses and scalable bandwidths.

You can assign EIPs, bind them to or unbind them from cloud resources, release EIPs, modify EIP bandwidth, and upgrade static BGP EIPs to dynamic BGP EIPs.

Figure 4-1 Connecting to the Internet using an EIP



For details, see **Assigning an EIP**.

IPv6 EIP

Both IPv4 and IPv6 EIPs are available. You can assign an IPv6 EIP or map an existing IPv4 EIP to an IPv6 EIP.

After the IPv6 EIP function is enabled, you will obtain both an IPv4 EIP and its corresponding IPv6 EIP. External IPv6 addresses can access cloud resources through this IPv6 EIP.

For details, see **IPv6 EIP Overview**.

Shared Bandwidth

A shared bandwidth allows multiple EIPs to share the same bandwidth. The EIPs of all ECSs, BMSs, and load balancers can share the same bandwidth if they are in the same region.

You can assign, modify, delete a shared bandwidth, add EIPs to a shared bandwidth, and remove EIPs from a shared bandwidth.

For details, see **Shared Bandwidth Overview**.

5 Notes and Constraints

Constraints on EIP Resources

Note the constraints on the following EIP resources before using them.

- **EIP and bandwidths**
- **Shared bandwidths**

EIP Quotas

A quota defines the maximum number of resources of a certain type that can be created in a region or by an account.

Suppose the EIP quota in a region is 5. If two EIPs have been assigned in this region, the remaining quota is 3.

To help you save quotas, Huawei Cloud sets limit on the maximum number of cloud resources that you can create in each region.

You can **log in to the console** to view the default quotas for each resource. To increase the resource quota, you can refer to **Applying for a Higher Quota**.

Table 5-1 lists the quotas about EIP resources. Resource quotas are displayed by region. By default, the quotas are the same across regions.

Table 5-1 EIP resource quotas

Item	Default Quota	Adjustable
Maximum number of EIPs per region	Quotas vary by your account type and service level. You can go to the **console** to check your quotas.	Yes **Submit a service ticket**
Maximum number of shared bandwidths per region	Quotas vary by your account type and service level. You can go to the **console** to check your quotas.	Yes **Submit a service ticket**

Item	Default Quota	Adjustable
Maximum number of EIPs that can be added to a shared bandwidth per region	Quotas vary by your account type and service level. You can go to the **console** to check your quotas.	Yes **Submit a service ticket**

6 Related Services

EIP and Other Services

Figure 6-1 shows the relationship between EIP and other services.

Figure 6-1 EIP and other services

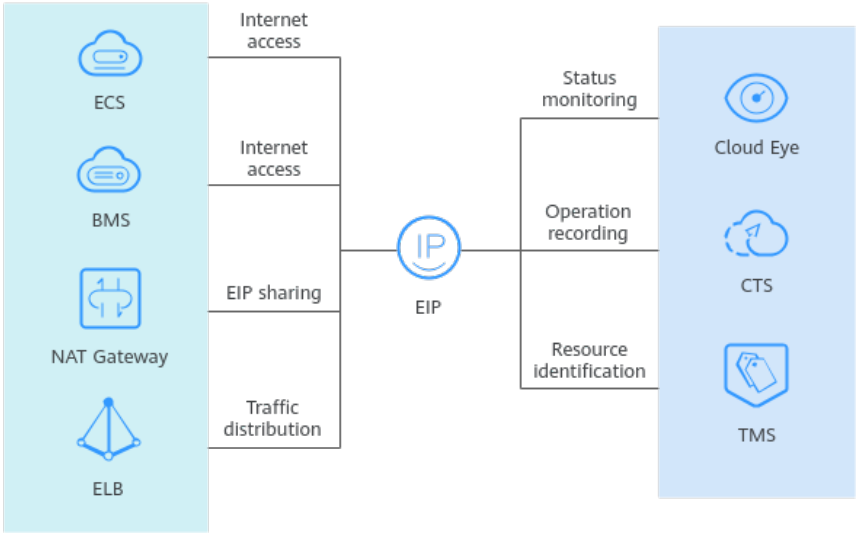


Table 6-1 EIP and other services

EIP and Other Services	Reference
Bind an EIP to a cloud resource to allow the resource to access the Internet.	Binding an EIP to an ECS Binding an EIP to a BMS
Use a public NAT gateway to enable servers to share one or more EIPs to access the Internet.	Using a Public NAT Gateway to Enable Servers to Share One or More EIPs to Access the Internet

EIP and Other Services	Reference
Use load balancers to distribute public traffic to multiple ECSs in a VPC based on domain names and paths.	**Using Load Balancers (Entry Level)**
Check metrics of EIPs on Cloud Eye, such as bandwidth and traffic usage.	**Cloud Eye Monitoring**
CTS records EIP operations for query, auditing, or backtracking.	**CTS Auditing**
Add tags to EIPs for convenient classification and search.	**Using TMS to Identify EIP Resources**

7 Billing

The EIP service provides multiple billing modes.

- **EIP Billing Modes**
- **Which Billing Option Is Right for Me?**
- **How Will I Be Billed If I Change My Bandwidth Size?**
- **How Do I Change the EIP Billing Mode?**

EIP Billing Modes

EIPs can be billed on a yearly/monthly or pay-per-use basis. The billing options and billing items depend on the billing mode.

- **Figure 7-1**
- **Table 7-1**

Figure 7-1 EIP billing

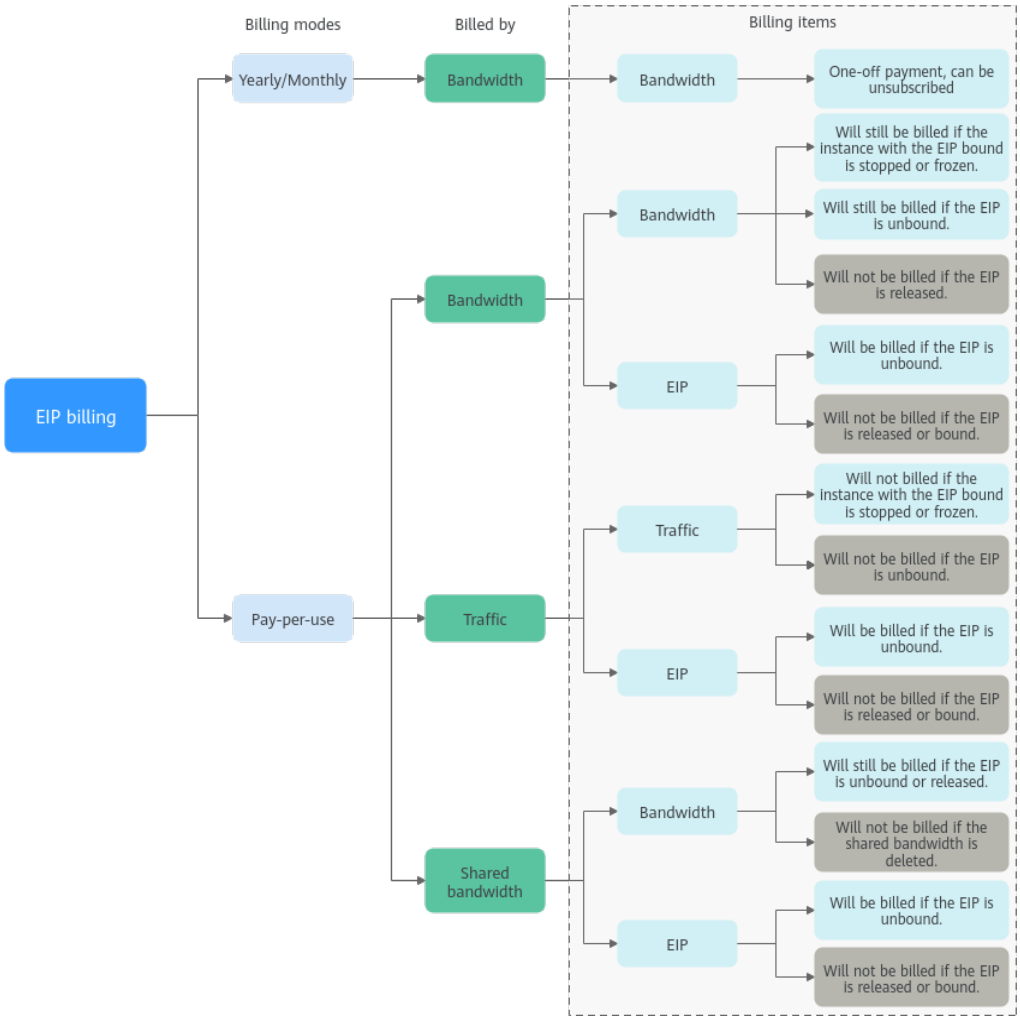


Table 7-1 EIP billing description

Billing Mode	Billed By	Billing Item	Billing Item Description	Impact of EIP Operations on Billing Items
Yearly/Monthly	Bandwidth	Bandwidth	If you buy a yearly/monthly EIP, you only need to pay for the bandwidth included in the subscription. You are billed based on your specified bandwidth size and usage duration. There is no limit on how much traffic you can use.	You can unsubscribe from a yearly/monthly subscription. Your actual usage fee and some preferential fees will be deducted from the refund amount.

Billing Mode	Billed By	Billing Item	Billing Item Description	Impact of EIP Operations on Billing Items
Pay-per-use	Bandwidth	• Bandwidth price • EIP reservation price	If a pay-per-use EIP is billed by bandwidth: • Bandwidth price: You are billed based on your specified bandwidth size and usage duration. There is no limit on how much traffic you can use. After the EIP is purchased, you can change your specified bandwidth size. The bandwidth you use will not exceed the bandwidth you specified. • EIP reservation price: If an EIP is not released, it will continue to be billed even if it is not bound to an instance.	After an EIP is purchased: • If the EIP is not bound to any instance, both the EIP and its bandwidth will be billed. • If the EIP is bound to an instance, only the bandwidth will be billed and the EIP will not be billed. **The bandwidth will be billed regardless of whether the instance bound to the EIP is running or not. The EIP will not be billed.** • **After the EIP is unbound from an instance, the bandwidth will continue to be billed. Unless it is released, the EIP will still be billed.** • If the EIP is released, both the EIP and its bandwidth will not be billed.

Billing Mode	Billed By	Billing Item	Billing Item Description	Impact of EIP Operations on Billing Items
	Traffic	• Traffic price • EIP reservation price	If a pay-per-use EIP is billed by traffic: • Traffic price: You are billed based on your EIP type and the amount of outbound traffic used. **NOTE** The accumulated **outbound traffic** (generated when data is transmitted from Huawei Cloud data centers to the Internet) of the EIP is billed. **Inbound traffic is not billed**. ◦ Outbound traffic: The traffic generated when data is transmitted from **Huawei Cloud** to the **Internet** using an EIP. ◦ Inbound traffic: The traffic generated when data is transmitted from the **Internet** to **Huawei Cloud** using an EIP. The bandwidth size you set is only used to limit the maximum data transfer rate. To prevent high fees caused by burst traffic, specify a proper bandwidth size when you buy an EIP. • EIP reservation price: If an EIP is not released, it will continue to be billed even if it is	After an EIP is purchased: • If the EIP is not bound to an instance, you will be billed for the EIP itself, but not for traffic. • If the EIP is bound to an instance, only the used traffic will be billed and the EIP will not be billed. **If the instance bound to the EIP stops running and there is no traffic generated, there will be no traffic price. Also, the EIP will not be billed.** • **After the EIP is unbound from an instance, the traffic will not be billed but the EIP will still be billed.** • If the EIP is released, the EIP will not be billed.

Billing Mode	Billed By	Billing Item	Billing Item Description	Impact of EIP Operations on Billing Items
			not bound to an instance.	

Billing Mode	Billed By	Billing Item	Billing Item Description	Impact of EIP Operations on Billing Items
	Shared bandwidth	• Shared bandwidth price • EIP reservation price	If a pay-per-use EIP is added to a shared bandwidth: • Shared bandwidth price: Only the shared bandwidth will be billed. There will be no additional bandwidth or traffic costs for EIPs added to the shared bandwidth. • EIP reservation price: If an EIP is not released, it will continue to be billed even if it is not bound to an instance.	After an EIP is purchased: • Shared bandwidth price – **No operations on the EIP will affect the billing of a shared bandwidth. For example, if you have released the EIP but have not deleted the shared bandwidth, the shared bandwidth will still be billed.** – After a shared bandwidth is deleted, it will no longer be billed. • EIP reservation price – If the EIP is not bound to an instance, the EIP will still be billed. – **If the EIP is unbound from an instance, the EIP will be billed to keep it allocated to your account unless it is released.** – If the EIP is released or bound to an instance, the EIP

Billing Mode	Billed By	Billing Item	Billing Item Description	Impact of EIP Operations on Billing Items
				will not be billed.

NOTE

The price of a pay-per-use EIP includes the reservation price and the bandwidth price. If you unbind an EIP but do not release it, you will continue to be billed and the price includes the reservation price and the bandwidth price. However, once you bind an EIP to an instance, the reservation price will not be billed.

To save money, you can add multiple EIPs in the same region to a shared bandwidth. A shared bandwidth can be billed on a yearly/monthly or pay-per-use basis. For details, see **Table 7-2**. Currently, only pay-per-use EIPs can be added to a shared bandwidth.

- You can add an EIP to a shared bandwidth when buying the EIP.
- You can also add an existing EIP to a shared bandwidth. After the EIP is added to a shared bandwidth, there will be no additional bandwidth or traffic cost. You will only be billed for the shared bandwidth.

Table 7-2 Shared bandwidth billing details

Billing Mode	Billed By	Billing Item	Billing Item Description
Yearly/ Monthly	Bandwidth	Bandwidth	If you buy a yearly/monthly shared bandwidth, you are billed based on your specified bandwidth size and usage duration. There is no limit on how much traffic you can use.
Pay-per-use	Bandwidth	Bandwidth	You are billed based on your specified bandwidth size and usage duration. There is no limit on how much traffic you can use. After a shared bandwidth is purchased, you can change your specified bandwidth size. The bandwidth you use will not exceed the bandwidth you specified.

NOTE

- The price of bandwidth, traffic, and EIP varies by region. The price displayed on the console is used.
- The EIP bandwidth is the outbound bandwidth consumed when data is transferred from Huawei Cloud to the Internet. For example, when ECSs provide services accessible from the Internet and external users download resources from the ECSs, that consumes outbound bandwidth. Only the outbound bandwidth will be billed.
  - If your purchased or modified bandwidth is no more than 10 Mbit/s, the inbound bandwidth will be 10 Mbit/s, and the outbound bandwidth will be the same as the purchased or modified bandwidth.
  - If your purchased or modified bandwidth is more than 10 Mbit/s, both the inbound and outbound bandwidth will be the same as the purchased or modified bandwidth.

Which Billing Option Is Right for Me?

EIPs can be billed by bandwidth or traffic. **Table 7-3** shows the application scenarios of different billing options.

Cloud Eye monitors your network metrics, such as bandwidth and traffic. Based on the bandwidth usage, you can determine which billing option (by bandwidth or by traffic) is more cost-effective. Here are some suggestions for your reference:

- If you need less than 5 Mbit/s of bandwidth for a short time and the traffic is light, set your EIP to be billed by traffic.
- If you need less than 5 Mbit/s of bandwidth but the traffic is heavy set your EIP to be billed by bandwidth, and choose yearly/monthly or pay-per-use billing, depending on how long you will need the bandwidth for.
- If you need more than 5 Mbit/s of bandwidth and the bandwidth usage is greater than 20%, set your EIP to be billed by bandwidth.

For details, see **Viewing Metrics**.

Table 7-3 Application scenarios of EIP billing options

Billing Mode	Billed By	Scenario
Yearly/ Monthly	Bandwidth	Heavy or stable traffic
Pay-per-use	Bandwidth	Heavy or stable traffic
	Traffic	Light or sharply fluctuating traffic
	Shared bandwidth	Staggered traffic

How Will I Be Billed If I Change My Bandwidth Size?

If an EIP is not added to a shared bandwidth, the EIP uses the dedicated bandwidth regardless of it is billed by bandwidth or traffic. After an EIP is added to a shared bandwidth, only the shared bandwidth is billed.

- **Modifying Dedicated Bandwidth Size**
- **Modifying Shared Bandwidth Size**

When you change the bandwidth size, the bandwidth price and effective time depend on the billing mode, which applies to both dedicated and shared bandwidths. For details, see **Table 7-4**.

NOTE

Decreasing bandwidths may cause packet loss.

Table 7-4 Impact on billing after bandwidth size change

Billing Mode	Billed By	Change	Impact
Yearly/ Monthly	Bandwidth	Increase bandwidth	The change will take effect immediately. The increased bandwidth will be billed accordingly.
	Bandwidth	Decrease bandwidth upon renewal	The change will not take effect immediately. You need to select a new bandwidth size and a renewal duration. The change will take effect in the first billing cycle after a successful renewal. • The order can be unsubscribed before the bandwidth takes effect. • The bandwidth cannot be modified in the current billing cycle.
Pay-per-use	Bandwidth	Increase or decrease the bandwidth	The change will take effect immediately.
	Traffic	Increase or decrease the bandwidth	The change will take effect immediately. The bandwidth size you set is only used to limit the maximum data transfer rate.

How Do I Change the EIP Billing Mode?

The EIP service has multiple billing modes you can choose from. You can change your EIP billing mode during the EIP usage period if necessary.

- **Table 7-5**
- **Changing Bandwidth Billing**

NOTE

Changing the billing mode does not change EIPs or interrupt their use.

Figure 7-2 EIP billing mode change

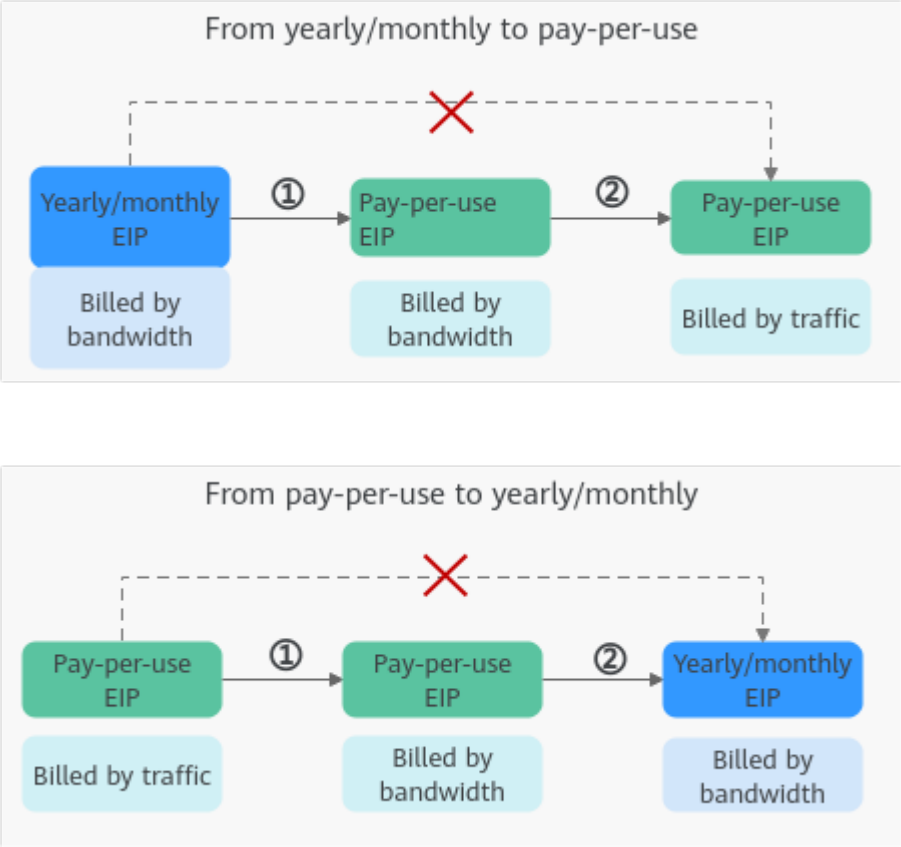


Table 7-5 EIP billing mode change description

Change	Description
From yearly/monthly to pay-per-use	• An EIP billed on a yearly/monthly basis can be directly changed to be billed by bandwidth on a pay-per-use basis immediately or upon expiration. • An EIP billed on a yearly/monthly basis cannot be directly changed to be billed by traffic on a pay-per-use basis. To change this: 1. Change the EIP to be billed by bandwidth on a pay-per-use basis. 2. Change the EIP to be billed by traffic on a pay-per-use basis. The new billing mode takes effect only after the yearly/monthly subscription expires, if you want to change the EIP to be billed by bandwidth on a pay-per-use basis upon expiration. The new billing mode takes effect immediately, if you want to change the EIP to be billed by bandwidth on a pay-per-use basis immediately.

Change	Description
From pay-per-use to yearly/monthly	• An EIP that is billed by bandwidth on a pay-per-use basis can be directly changed to be billed on a yearly/monthly basis. • An EIP that is billed by traffic on a pay-per-use basis cannot be directly changed to be billed on a yearly/monthly basis. To change this: 1. Change the EIP to be billed by bandwidth on a pay-per-use basis. 2. Change the EIP to be billed on a yearly/monthly basis. The new billing mode takes effect immediately.
• From billing by traffic (pay-per-use) to billing by bandwidth (pay-per-use) • From billing by bandwidth (pay-per-use) to billing by traffic (pay-per-use)	• An EIP billed by traffic on a pay-per-use basis can be directly changed to be billed by bandwidth on a pay-per-use basis. • An EIP billed by bandwidth on a pay-per-use basis can be directly changed to be billed by traffic on a pay-per-use basis. The new billing mode takes effect immediately.

8 Permissions

If you need to assign different permissions to employees in your enterprise to access your EIP resources, IAM is a good choice for fine-grained permissions management. IAM provides identity authentication, permissions management, and access control, helping you securely manage access to your cloud resources.

With IAM, you can use your HUAWEI ID to create IAM users, and assign permissions to the users to control their access to specific resources. For example, some software developers in your enterprise need to use EIP resources but should not be allowed to delete them or perform any high-risk operations. In this scenario, you can create IAM users for the software developers and grant them only the permissions required for using EIP resources.

If your HUAWEI ID does not need individual IAM users for permissions management, you may skip over this section.

IAM can be used free of charge. You pay only for the resources in your account. For more information, see **IAM Service Overview**.

EIP Permissions

New IAM users do not have any permissions assigned by default. You need to first add them to one or more groups and attach policies or roles to these groups. The users then inherit permissions from the groups and can perform specified operations on cloud services based on the permissions they have been assigned.

Currently, EIP permissions are included in VPC permissions.

VPC is a project-level service deployed for specific regions. When you set **Scope** to **Region-specific projects** and select the specified projects in the specified regions, the users only have permissions for VPCs in the selected projects. If you set **Scope** to **All resources**, users have permissions for VPCs in all region-specific projects. When accessing VPCs, the users need to switch to the authorized region.

You can grant permissions by using roles and policies.

- Roles: A coarse-grained authorization strategy provided by IAM to assign permissions based on users' job responsibilities. Only a limited number of service-level roles are available for authorization. When you grant permissions using roles, you also need to attach dependent roles. Roles are not ideal for fine-grained authorization and least privilege access.

- Policies: A fine-grained authorization strategy that defines permissions required to perform operations on specific cloud resources under certain conditions. This type of authorization is more flexible and is ideal for least privilege access. For example, you can grant VPC users only the permissions for managing a certain type of resources. A majority of fine-grained policies contain permissions for specific APIs, and permissions are defined using API actions. For the API actions supported by VPC, see **Permissions Policies and Supported Actions**.

Table 8-1 lists all the system-defined roles and policies supported by VPC.

Table 8-1 System-defined permissions for VPC

Policy Name	Description	Policy Type	Dependencies
VPC FullAccess	Full permissions for VPC.	System-defined policy	To use the VPC flow log function, users must also have the **LTS ReadOnlyAccess** permission.
VPC ReadOnlyAccess	Read-only permissions on VPC.	System-defined policy	None
VPC Administrator	Most permissions on VPC, excluding creating, modifying, deleting, and viewing security groups and security group rules. To be granted this permission, users must also have the **Tenant Guest** permission.	System-defined role	**Tenant Guest** policy, which must be attached in the same project as **VPC Administrator**.

Table 8-2 lists the common operations supported by each system policy of VPC. Please choose proper system policies according to this table.

Table 8-2 Common operations supported by system-defined permissions

Operation	VPC ReadOnlyAccess	VPC Administrator	VPC FullAccess
Assigning an EIP	x	x	√
Viewing an EIP	√	x	√

Operation	VPC ReadOnlyAccess	VPC Administrator	VPC FullAccess
Releasing an EIP	x	x	√
Binding or unbinding an EIP	x	x	√
Adding an EIP to or removing an EIP from a shared bandwidth	x	x	√
Assigning a bandwidth	x	x	√
Viewing a bandwidth	√	x	√
Modifying a bandwidth	x	x	√
Deleting a bandwidth	x	x	√

Helpful Links

- What Is IAM?
- Creating a User and Granting EIP Permissions
- Permissions Policies and Supported Actions

9 Basic Concepts

9.1 Dedicated Bandwidth

If an EIP is not added to a shared bandwidth, the EIP uses a dedicated bandwidth no matter how it is billed.

You can modify the dedicated bandwidth as required. The modification is applied immediately.

A dedicated bandwidth can control how much data can be transferred using a single EIP. The EIP can be used by only one cloud resource, such as a NAT gateway, an ECS, or a load balancer. Generally, if all EIPs need to access the Internet simultaneously, dedicated bandwidths are recommended preferentially.

How Do I Use Dedicated Bandwidths?

- **Assigning an EIP**
- **Modifying a Dedicated Bandwidth**

9.2 Shared Bandwidth

A shared bandwidth can be shared by multiple EIPs to control the data transfer rate on these EIPs in a centralized manner.

If ECSs and load balancers with EIPs bound in the same region share the same bandwidth, VPCs and the region-level bandwidth can be managed in a unified manner, simplifying O&M statistics and network operations cost settlement.

NOTE

- A shared bandwidth cannot control how much data can be transferred using a single EIP. Data transfer rate on EIPs cannot be customized.

9.3 Region and AZ

Concept

A region and availability zone (AZ) identify the location of a data center. You can create resources in a specific region and AZ.

- Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified into universal regions and dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides specific services for specific tenants.
- An AZ contains one or more physical data centers. Each AZ has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, computing, network, storage, and other resources are logically divided into multiple clusters.

Selecting a Region

If your target users are in Europe, select the **EU-Dublin** region.

Selecting an AZ

When deploying resources, consider your applications' requirements on disaster recovery (DR) and network latency.

- For high DR capability, deploy resources in different AZs within the same region.
- For lower network latency, deploy resources in the same AZ.

