Elastic IP

Best Practices

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1 Public Network Access

Products

Cloud services, such as EIP, NAT Gateway, and ELB can be used to connect to the Internet.

- EIP

  The EIP service provides independent public IP addresses and bandwidth for Internet access. EIPs can be bound to or unbound from ECSs, BMSs, virtual IP addresses, NAT gateways, or load balancers. Various billing modes are provided to meet diverse service requirements.

- ELB

  ELB distributes access traffic among multiple ECSs to balance the application load, improving fault tolerance and expanding service capabilities of applications. You can create a load balancer, configure a listening protocol and port, and add backend servers to a load balancer. You can also check the running state of backend servers to ensure that requests are sent only to healthy servers.

- NAT Gateway

  NAT Gateway provides both SNAT and DNAT for your servers in a VPC and allows servers in your VPC to access or provide services accessible from the Internet.

Providing Services Accessible from the Internet

- Single ECS provides services accessible from the Internet.

  If you have only one application and the service traffic is small, you can assign an EIP and bind it to the ECS so that the ECS can provide services accessible from the Internet.

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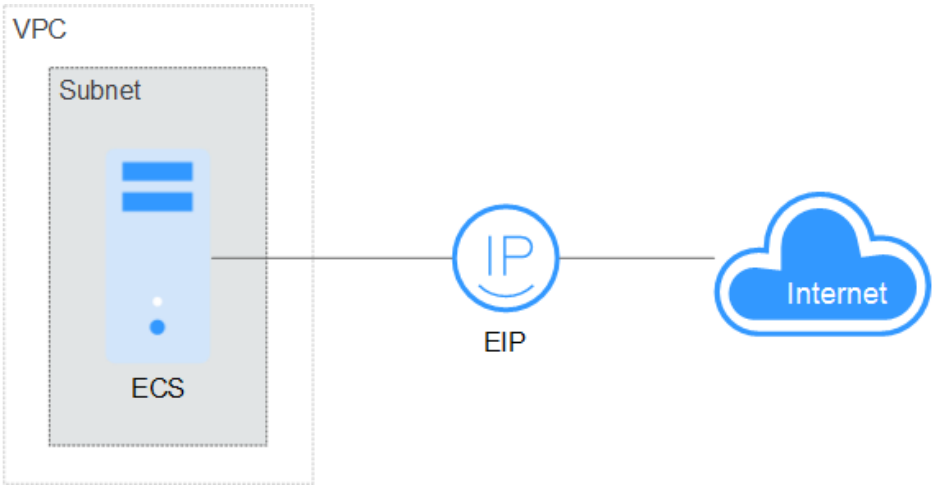
Figure 1-1 EIP



- Multiple ECSs balance workloads.

  In high-concurrency scenarios, such as e-commerce, you can use load balancers provided by the ELB service to evenly distribute incoming traffic across multiple ECSs, allowing a large number of users to concurrently access your business system or application. ELB deeply integrates with the Auto Scaling (AS) service, which enables automatic scaling based on service traffic and ensures service stability and reliability.

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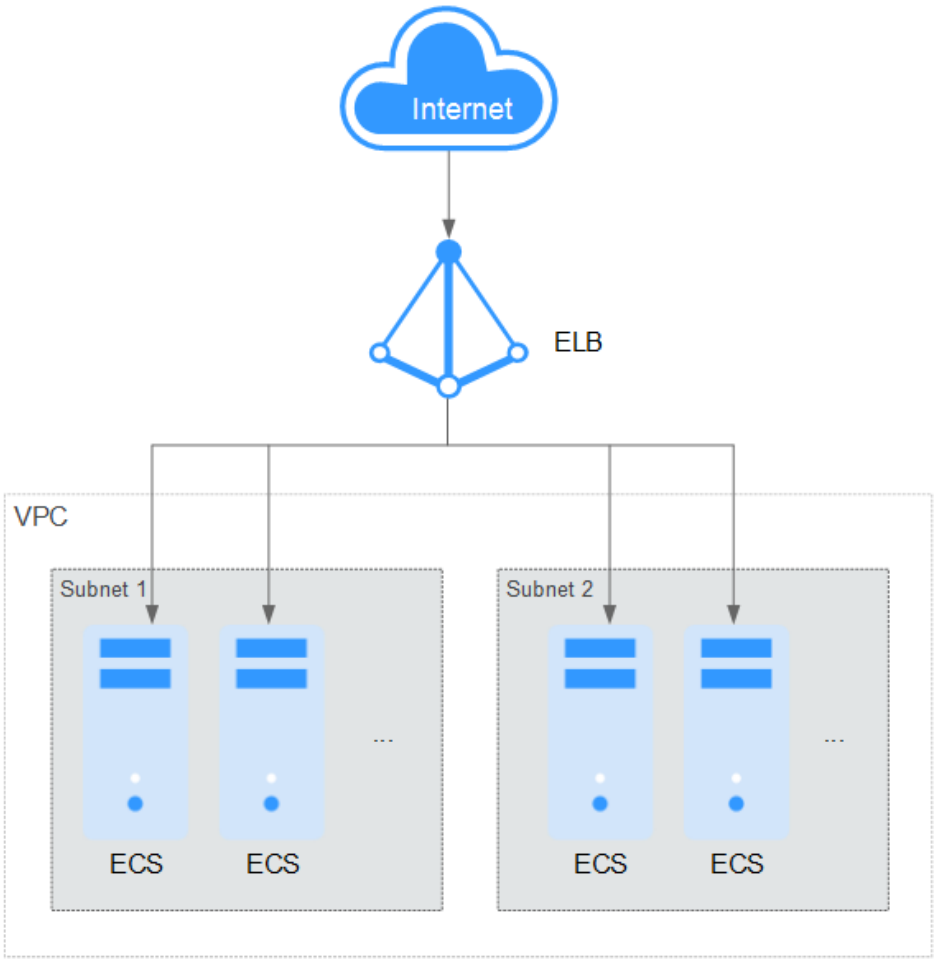
Figure 1-2 ELB



Accessing the Internet

- Single ECS accesses the Internet.

  When an ECS needs to access the Internet, you can bind an EIP to the ECS so that the ECS can access the Internet. HUAWEI CLOUD allows your EIP to be billed based on bandwidth usage or amount of traffic. If you do not need to use the EIP, you can flexibly unbind it.

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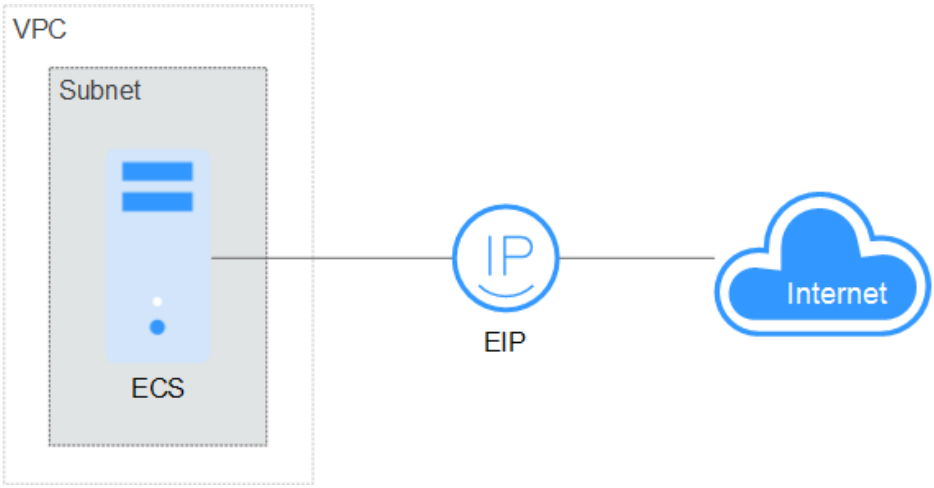
Figure 1-3 EIP



- Multiple ECSs access the Internet.

  If multiple ECSs in your VPC need to access the Internet, you can use a NAT gateway and configure SNAT rules by subnet to allow ECSs in the VPC to access the Internet. If you access to the Internet using an EIP but with no DNAT rules configured, external users cannot directly access the public network address of the NAT gateway through the Internet, ensuring ECS security.

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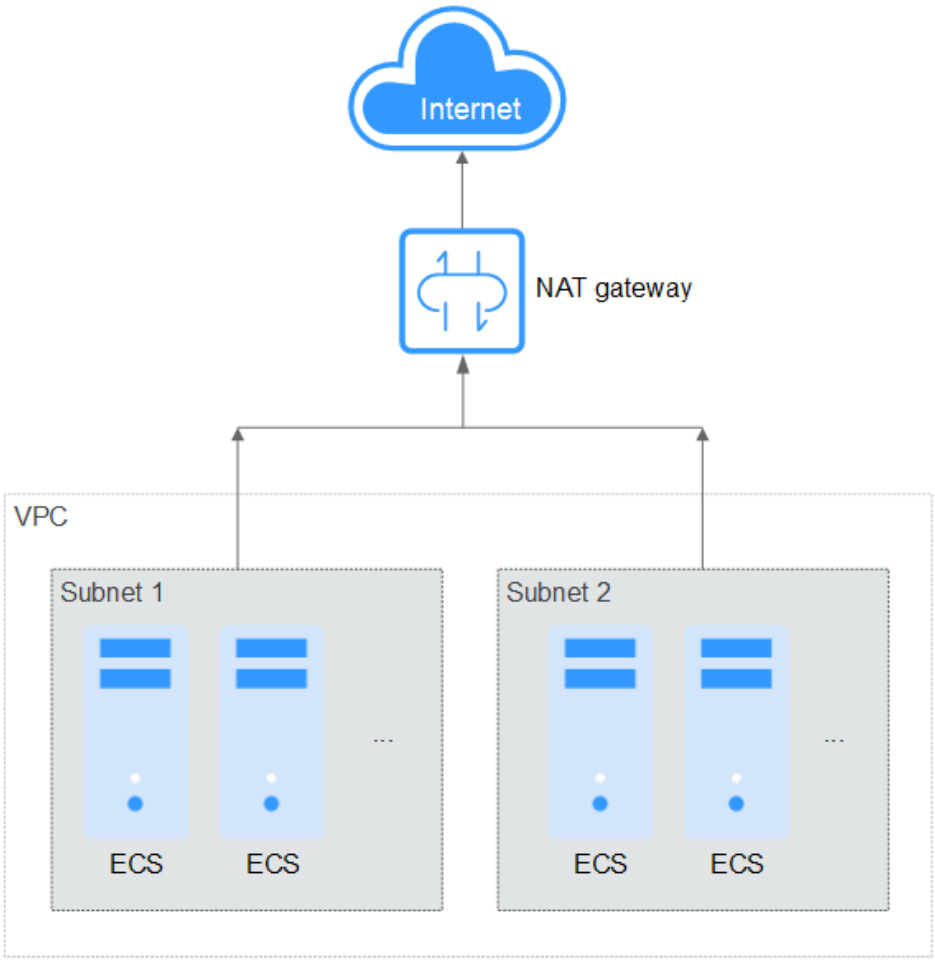
Figure 1-4 NAT gateway



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2 Lower Network Costs

You can select a proper product and billing mode based on your service requirements.

Dedicated Bandwidth

If you want to ensure the bandwidth available for a particular EIP, you are advised to purchase dedicated bandwidth. Dedicated bandwidth can only be used for a single, specific EIP. Dedicated bandwidth is not affected by other services.

An EIP can be billed by bandwidth or by traffic:

- Bandwidth: If your services use a large amount of traffic but are stable, an EIP billed by bandwidth is recommended.
- Traffic: If your services only use a relatively small amount of traffic, an EIP billed by traffic combined with a shared data package is recommended for a more favorable price.

If your traffic is stable, the yearly/monthly billing based on the bandwidth is more cost effective.

Shared Bandwidth

When you host a large number of applications on the cloud, if each EIP uses dedicated bandwidth, a lot of bandwidths are required, which incurs high costs. If all EIPs share the same bandwidth, your network operation costs will be lowered and your system O&M as well as resource statistics will be simplified. Multiple EIPs whose billing mode is pay-per-use can be added to a shared bandwidth. You can bind EIPs to products such as ECSs, NAT gateways, and load balancers so that these products can use the shared bandwidth.

A shared bandwidth can be billed by bandwidth.

If you use a large number of EIPs and their peak hours are different, use shared bandwidth to greatly reduce costs.

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