# Elastic IP Addresses

An Elastic IP address is a static IPv4 address designed for dynamic cloud computing. An Elastic IP address is associated with your AWS account. With an Elastic IP address, you can mask the failure of an instance or software by rapidly remapping the address to another instance in your account.

An Elastic IP address is a public IPv4 address, which is reachable from the Internet. If your instance does not have a public IPv4 address, you can associate an Elastic IP address with your instance to enable communication with the Internet; for example, to connect to your instance from your local computer.

We currently do not support Elastic IP addresses for IPv6.

## Elastic IP Address Basics

The following are the basic characteristics of an Elastic IP address:

* To use an Elastic IP address, you first allocate one to your account, and then associate it with your instance or a network interface.
* When you associate an Elastic IP address with an instance or its primary network interface, the instance's public IPv4 address (if it had one) is released back into Amazon's pool of public IPv4 addresses.
* You can disassociate an Elastic IP address from a resource, and reassociate it with a different resource.
* A disassociated Elastic IP address remains allocated to your account until you explicitly release it.
* To ensure efficient use of Elastic IP addresses, we impose a small hourly charge if an Elastic IP address is not associated with a running instance, or if it is associated with a stopped instance or an unattached network interface. While your instance is running, you are not charged for one Elastic IP address associated with the instance, but you are charged for any additional Elastic IP addresses associated with the instance.
* An Elastic IP address is for use in a specific region only.
* When you associate an Elastic IP address with an instance that previously had a public IPv4 address, the public DNS hostname of the instance changes to match the Elastic IP address.
* We resolve a public DNS hostname to the public IPv4 address or the Elastic IP address of the instance outside the network of the instance, and to the private IPv4 address of the instance from within the network of the instance.

### Allocating an Elastic IP Address

You can allocate an Elastic IP address using the Amazon EC2 console or the command line. If your account supports EC2-Classic, you can allocate an address for use in EC2-VPC.

**To allocate an Elastic IP address for use in EC2-VPC using the console**

1. Open the Amazon EC2 console at <https://console.aws.amazon.com/ec2/>.
2. In the navigation pane, choose **Elastic IPs**.
3. Choose **Allocate new address**.
4. (VPC-only accounts) Choose **Allocate**, and close the confirmation screen.

**To associate an Elastic IP address with an instance using the console**

1. Open the Amazon EC2 console at <https://console.aws.amazon.com/ec2/>.
2. In the navigation pane, choose **Elastic IPs**.
3. Select an Elastic IP address, choose **Actions**, and then select **Associate address**.
4. Select the instance from **Instance** and then choose **Associate**.

**To disassociate and reassociate an Elastic IP address using the console**

1. Open the Amazon EC2 console at <https://console.aws.amazon.com/ec2/>.
2. In the navigation pane, choose **Elastic IPs**.
3. Select the Elastic IP address, choose **Actions**, and then select **Disassociate address**.
4. Choose **Disassociate address**.
5. Select the address that you disassociated in the previous step. For **Actions**, choose **Associate address**.
6. Select the new instance from **Instance**, and then choose **Associate**.

**To move an Elastic IP address to EC2-VPC using the Amazon EC2 console**

1. Open the Amazon EC2 console at <https://console.aws.amazon.com/ec2/>.
2. In the navigation pane, choose **Elastic IPs**.
3. Select the Elastic IP address, and choose **Actions**, **Move to VPC scope**.
4. In the confirmation dialog box, choose **Move Elastic IP**.

**To release an Elastic IP address using the console**

1. Open the Amazon EC2 console at <https://console.aws.amazon.com/ec2/>.
2. In the navigation pane, choose **Elastic IPs**.
3. Select the Elastic IP address, choose **Actions**, and then select **Release addresses**. Choose **Release** when prompted.