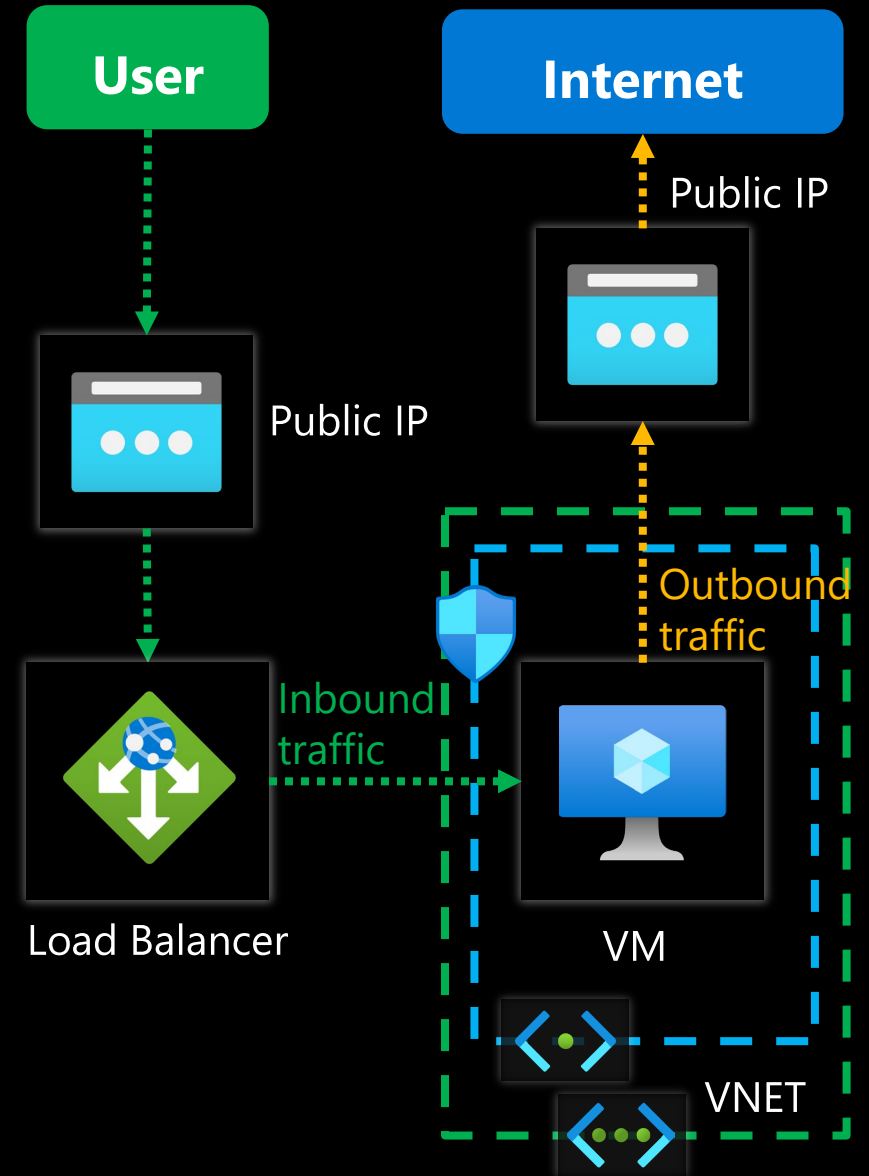
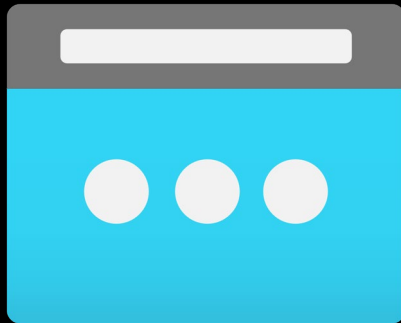


Azure Public IP address



Azure Public IP

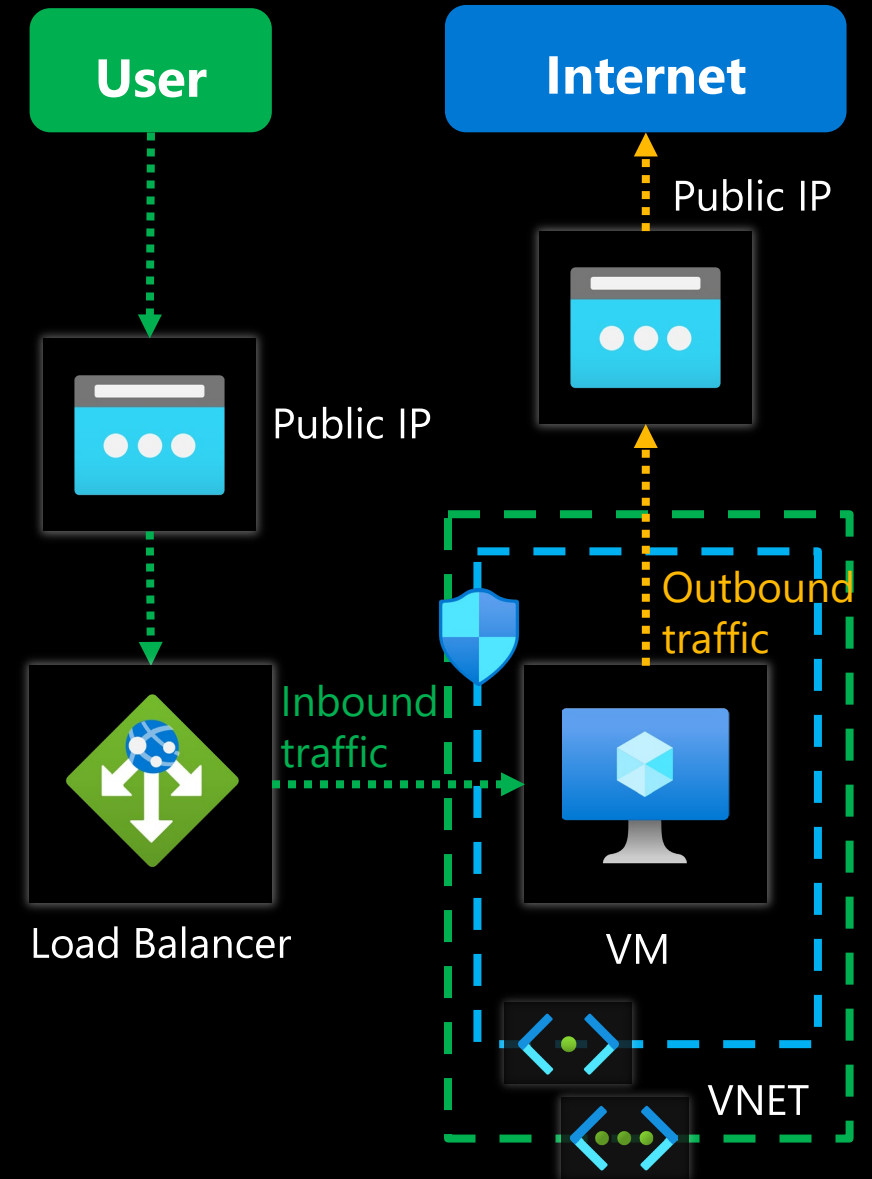
Allow Internet resources to communicate **inbound** to Azure resources.

Enable Azure resources to **communicate to Internet** and public-facing Azure services.

A resource without a public IP assigned can communicate outbound.

Azure **dynamically assigns an available IP** address that isn't dedicated to the resource.

For some services, you can specify a dedicated Public IP.

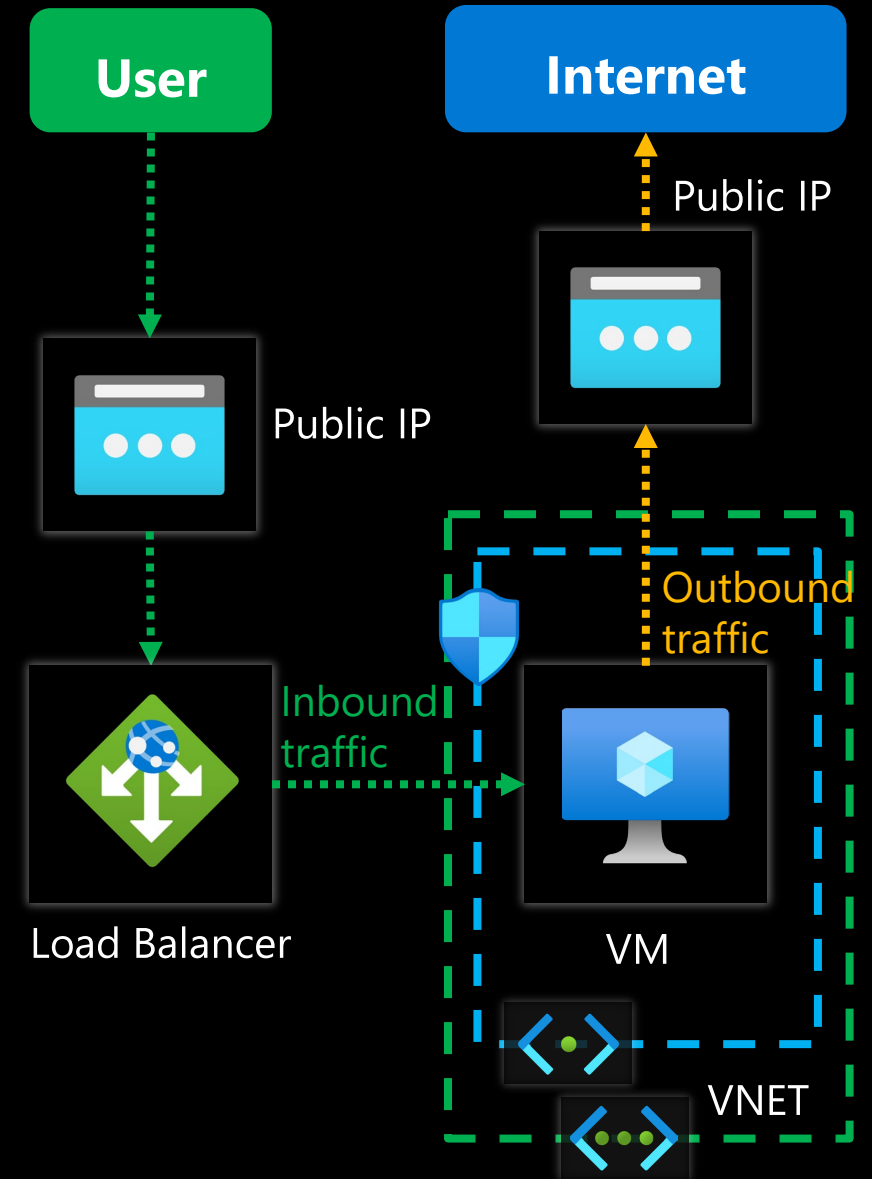


Azure Public IP

You **cannot specify the actual IP address** assigned to the public IP address resource.

Azure assigns the IP address from a pool of available IP addresses in the Azure location the resource is created in.

IP address supports both **IPv4 or IPv6**.



Azure Public IP ranges

This file contains the IP address ranges for Azure.

Each region and each service have their own IP addresses.

This file gets weekly updates.

microsoft.com/en-us/download/details.aspx?id=56519

```
"name": "AppService.WestEurope",
"id": "AppService.WestEurope",
"properties": {
  "changeNumber": 6,
  "region": "westeurope",
  "regionId": 18,
  "platform": "Azure",
  "systemService": "AzureAppService",
  "addressPrefixes": [
    "13.95.238.192/32",
    "20.50.2.0/23",
    "23.101.67.245/32",
    "40.68.40.55/32",
    "51.105.172.25/32",
    "65.52.130.1/32",
    "104.40.129.89/32",
    "191.233.87.194/32",
    "2603:1020:206:5::/117",
    "2603:1020:206:6::/117",
    "2603:1020:206:7::/117",
    "2603:1020:206:8::/117",
```

Public IP Static vs Dynamic

Have two types of assignments: **Static & Dynamic**.

Static: IP address is assigned when resource is created.
Released when the resource is deleted.

Dynamic: IP address is assigned when you associate (not creation) a resource.
The IP address is released when you stop or delete the resource.

Dynamic is only available with **Basic** SKU.

IP address assignment
Static

IP address ⓘ
20.4.132.27

IP address assignment
☒ Dynamic ☐ Static

IP address ⓘ
-

Public IP association to Azure resource

Public IP addresses	IP address association	Dynamic	Static
Virtual Machine	NIC	Yes	Yes
Load Balancer	Front-end configuration	Yes	Yes
VPN Gateway	Gateway IP configuration	Yes (non-AZ only)	Yes
Application Gateway	Front-end configuration	Yes (V1 only)	Yes (V2 only)
Azure Firewall	Front-end configuration	No	Yes
NAT gateway	Gateway IP configuration	No	Yes
Bastion Host	Public IP configuration	No	Yes

learn.microsoft.com/en-us/azure/virtual-network/ip-services/public-ip-addresses#at-a-glance

Public IP SKU Basic, Standard & Global

Basic tier will be retired in September 2025. Use or migrate to Standard tier.

Standard tier :

- Supports only Static allocation method.
- Closed to inbound traffic, which should be opened by NSG.
- Supports Availability Zones.

The Global Tier allows a public IP address to be used with cross-region load balancers.

Azure Public IP and DNS name label

Specify a DNS label for a public IP resource.

```
nslookup myfrontendapp.westeurope.cloudapp.azure.com
```

Non-authoritative answer:

Name: myfrontendapp.westeurope.cloudapp.azure.com

Address: 20.4.132.27

If a **custom domain** is desired, you can use **Azure DNS** or an external DNS provider for your DNS Record.

IP address assignment

Static

IP address ⓘ

20.4.132.27

Idle timeout (minutes) ⓘ

4

DNS name label (optional) ⓘ

myfrontendapp ✓

.westeurope.cloudapp.azure.com

Azure Public IP pricing

Type	Basic	Standard	Global
Dynamic IPv4 address	\$0.004 /hour ~\$3 /month	N/A	N/A
Static IPv4 address	\$0.0036 /hour ~\$3 /month	\$0.005 /hour ~\$4 /month	\$0.01 /hour ~\$7 /month
Public IPv4 prefix	N/A	\$0.006 per IP/hour	\$0.012 per IP/hour

azure.microsoft.com/en-us/pricing/details/ip-addresses

Azure Public IP creation

```
resource "azurerm_public_ip" "pip" {  
  name                = "pip-vm"  
  location            = "westeurope"  
  resource_group_name = "rg-app"  
  allocation_method   = "Static"  
  ip_version          = "IPv4" # "IPv6"  
  sku                 = "Standard"  
  zones               = ["1"]  
}
```

Create public IP address ...

Basics Tags Review + create

Subscription ⓘ *

Microsoft-Azure-T

Resource group ⓘ *

test

[Create new](#)

Instance details

Region ⓘ *

(Europe) West Europe

[Deploy to an edge zone](#)

Configuration details

Name *

pip-app-frontend

IP Version * ⓘ

☒ IPv4

☐ IPv6

SKU * ⓘ

☒ Standard

☐ Basic

Availability zone * ⓘ

Zone-redundant

Tier * ⓘ

☒ Regional

☐ Global

IP address assignment * ⓘ

☐ Dynamic

☒ Static

Routing preference * ⓘ

☒ Microsoft network

☐ Internet

Idle timeout (minutes) * ⓘ

4

DNS name label ⓘ

Azure Public IP for VM

Azure provides a **default outbound access IP for VMs** that either aren't assigned a public IP address or are in the back-end pool of an internal basic Azure load balancer.

The default outbound access IP mechanism provides an outbound IP address that **isn't configurable**.

The default outbound access IP is disabled when one of the following events happens:

- **A public IP address** is assigned to the VM.
- The VM is placed in the back-end pool of a **standard load balancer**, with or without outbound rules.
- An Azure Virtual Network **NAT gateway** resource is assigned to the subnet of the VM.