



What is the difference between a public and private IP in EC2? Why do you need private IP?

User (internet) ==> Front end (public ip, private IP) <==> Database (private IP)

- **Public IP:** Routable over the internet; assigned automatically or manually .
- **Private IP:** Used within a VPC; not routable over the internet.

Instances use **private IPs to communicate internally**, and **public IPs for internet access**.

Difference Between Public and Private IP in EC2:

Feature	Public IP	Private IP
Scope	Accessible over the internet	Only within the VPC or internal network
Assignment	Assigned automatically or manually	Assigned when instance is launched
Access	Enables internet access (if routed)	Used for internal communication
Cost	Public IPs may incur cost (Elastic IPs)	No additional cost
Change on stop/start	Dynamic public IP changes (unless Elastic)	Private IP usually remains the same

✓ Where Will You Use Private IP and Why?

You will use **private IPs for internal communication** between EC2 instances **within a VPC**, such as:

- App server communicating with a DB server
- Load balancer talking to backend servers
- Microservices inside the same network

Why?

Because private IPs are **secure**, **faster**, and **don't expose** internal systems to the public internet.

What happens to a public IP when a non-Elastic EC2 instance is stopped and restarted?

- A. It stays the same
- B. It is permanently deleted
- C. It is reassigned automatically, may change
- D. It becomes a private IP

✅ **Answer:** C. It is reassigned automatically, may change

In which scenario would you typically use a private IP?

- A. To access EC2 from a home laptop
- B. For internal communication between app and DB servers
- C. For connecting EC2 to the internet
- D. For hosting a public website

✅ **Answer:** B. For internal communication between app and DB servers