

What is a VPC network

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I. General

- Virtual Private Cloud (VPC) is a private and isolated part of your Leap GIO Public. A VPC can have its own virtual network topology that resembles a traditional physical network. You can launch VMs in the virtual network that can have private addresses in the range of your choice.
- You can define network tiers within your VPC network range, which in turn enables you to group similar kinds of instances based on IP address range.

II. VPC Components

A. VPC

- A VPC acts as a container for multiple isolated networks that can communicate with each other via its virtual router. A VPC is made of one or more network tiers which are within the range of the VPC.

B. Network Tiers

- Each tier acts as an isolated network with its own VLANs and CIDR list, where you can place groups of resources, such as VMs. The tiers are segmented by means of VLANs. The NIC of each tier acts as its gateway.

C. Virtual Router

- A virtual router, associated to a public IP address, is automatically created and started when you create a VPC. The virtual router connects the tiers and direct traffic among the public gateway, the VPN gateways, and the NAT instances. For each tier, a corresponding NIC and public IP exist in the virtual router. The virtual router provides DNS and DHCP services through its public IP.

D. Public Gateway

- The traffic to and from the Internet routed to the VPC through the public gateway. In a VPC, the public gateway is not exposed to the end user; therefore, static routes are not supported for the public gateway.

E. Private Gateway

- All the traffic to and from a private network routed to the VPC through the private gateway.

F. VPN Gateway

- The VPC side of a VPN connection.

G. Site-to-Site VPN Connection

- A hardware-based VPN connection between your VPC and your datacenter, home network, or co-location facility.

H. Customer Gateway

- The customer side of a VPN Connection.

I. NAT Instance

- An instance that provides Port Address Translation for instances to access the Internet via the public gateway.

III. Network architecture in a VPC

- In a VPC, the following four basic options of network architectures are present:
 - o VPC with a public gateway only
 - o VPC with public and private gateways
 - o VPC with public and private gateways and site-to-site VPN access
 - o VPC with a private gateway only and site-to-site VPN access

IV. Connectivity options for a VPC

- You can connect your VPC to:
 - o The Internet through the public gateway
 - o The corporate datacenter by using a site-to-site VPN connection through the VPN gateway
 - o Both the Internet and your corporate datacenter by using both the public gateway and a VPN gateway.

If you have any questions please check our FAQ section. If you still cannot find what you are looking for or believe that there is a careless mistake in this document, please contact our support at support@leapsolutions.co.th or send us your inquiry through our [Inquiry Form](#) located on your Web Portal.