Article

Virtual Network And Its Components

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Hi all.

Here, in this article, we will be discussing about Virtual Networks and their components.

About Virtual Network

Networking is a very powerful element which we should discuss! A few important concepts that we should concentrate on are Hybrid Cloud where we merge the On-Premise network with the Cloud one. Azure networking allows public connections to the internet and V-Net along with scalable external and internal Load Balancer. We can also secure the network using NSG (Network Security Group).

Why do we need Virtual Network?

Note - Virtual Network is also called V-Net in short.

Virtual Networks provide the ability to specify our own DNS Servers, if we do not want to use the Azure-provided ones. These could point to IP addresses of on-premises servers, such as an Active Directory Domain Controller or network appliance, a DNS service running in an Azure Virtual Machine, or anywhere else on the Internet.

If we make changes to the DNS pointers in a virtual network, after Virtual Machines have already been deployed into it, then the Virtual Machines must reboot before the change will be detected.

V-Net is a logical isolation with control over the network which we have created. We can create subnets and isolate traffic using network security group, V-Net also supports us for Static IP addresses, it can also support for Load Balancing, DNS and Site-to-Site, Point-to-Site, Express Route which are the support for Hybrid Connectivity.

Components of V-Net

- Address Spaces
- Subnets
- DNS Servers
- Virtual Network Gateway
- Gateway Public IP's
- Virtual Network Connection

Address Spaces

This specifies the range of IP addresses available within the network, this shouldn't overlap with on-premise network spaces. It can be public or private IP address range but the public one must be verified.

Subnets

Subnets are the named ranges of address assignable to Virtual Machines created by using Classless Internet Domain Routing (CIDR) Notation.

Virtual Network Gateways

It's a Software VPN devices that supports connectivity between virtual networks or on-premises networks. Its used in Site-to-Site VPN's and in Express Route.

Gateway Public IP's

It's public IP addresses assigned to VPN gateways.

Virtual Network Connection

Connections are used by Azure configure and maintain the connection between the on-premise device and the virtual network gateway.

DNS on Azure

No configuration is required in order to use Azure-provided name resolution, the azure provided name resolution service is available by which it saves the need to create and manage clusters of your own DNS servers.

Note

Follow me for my next article about working with creating a Virtual Network – adding server machines on it and working with load balancer.

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