Azure Private DNS:-

It’s a azure dns service which works at vnet level, this dns works internally, we can create our custom domain and that will only be accessible over the internal network.

We can link multiple vnet to that dns server. But those site will not be available over the internet.

This service allows you to create and manage DNS zones that are only accessible from within your Azure virtual networks. These private zones resolve domain names to private IP addresses (internal resources), meaning only resources in your private network or connected networks can resolve them.

When you create a Private DNS zone, Azure automatically integrates it with the virtual networks (VNets) that are linked to that zone. This enables the resources in the VNets to resolve domain names to private IP addresses.

Priority – if we are browsinf for a site from any of the server from that vnet where private dns configured. The search goes first to private dns.

Then if not found it goes for public dns server by dns name.

Step 1.

Creating a linux server, hosting a nginx site to it, and trying to get the site by other server in same vnet, by nginx server’s private IP.

1. Host the site on server. In this the nginx server is running on vm1 which is locally accessible.

NOTE- on this nginx server only private ip is there and ssh 22 rule is enabled.

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1. Browse the site from vm 2 by nginx server private ip (VM1)

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Step 2.

Create a windows server on different subnet under same vnet and try to browse the nginx site hosted on vm 1.

* Site is accessible

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Step 3.

Create a private DNS zone, Go to the Azure portal and create a **Private DNS zone** with the domain name

* Go to portal and search for private DNS zone, and click on create option.

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* Fill the basic information

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* Can keep rest default.

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Step 4.

Create A records or CNAME records in the private zone for your resources. For example:

* webserver.internal.contoso.com → Private IP 10.0.0.4
* Go the created DNS zone. Go to recordsets and add record.

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* Provide the site name, choose the record type, I am choosing “A” record as I want to provide for my server ip. (provide nginx server private ip, on which nginx site is running.

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Step 5.

Link VNet to DNS zone

Link your VNets (e.g., VNet1, VNet2) to the internal.contoso.com private DNS zone. This allows resources in both VNets to resolve Food.panda.com

* Go to DNS zone and navigate to virtual network links and add link

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* Provide a name for network link, this name is user define. Choose subscription and choose VNET.

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* Vnet will be associated.

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Step 6.

Browse the site on other servers.

Our DNS name is Panda.com  
and site name is Food

So, full name will be “Food.Panda.com”

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Step 7.

Note- during vnet association I had chosen, “auto resistration enabled”. So, how many server in that VNet will automatically register to DNS.

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Now all the server registerd with vm name as default dns record. We can modify it. Or if we host any site on any on the server. By default name also we can access.

For example- vm2-clienthost.Panda.com, if the site is hosted on vm2.

Note- as the auto registration is enabled late vm1 also got register which is our actual nginx host, let’s see if we can browse the site by this name as well.

Vm1-webhost.panda.com

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Private DNS Diagram

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Public DNS diagram

A diagram of a computer server

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