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AdityaGupta Highly Voted 1 year, 7 months ago

Correct Answer: - YNN

1) NAT gateway can provide outbound connectivity for virtual machines from other availability zones different from itself. The virtual machine's subnet needs to be configured to the NAT gateway resource to provide outbound connectivity. Additionally, multiple subnets can be configured to the same NAT gateway resource.

While virtual machines in subnets from different availability zones can all be configured to a single zonal NAT gateway resource, this configuration doesn't provide the most effective method for ensuring zone-resiliency against zonal outages.

2) Subnet2 is not configured with NatGateway, refer exhibit 1, Nat Gateway is associated with only 1 subnet. In exhibit 2 it shows that Subnet 1 is associated with that Nat Gateway.

3) In exhibit 1 it shows that NAT Gateway is configured with Public IP Prefix, and outbound connection can use any Public from that prefix. It is NOT necessary to use same (one) Public IP.

upvoted 78 times

rac_sp 1 year, 2 months ago

your answers are top !

upvoted 1 times

cloudio 7 months, 2 weeks ago

Can VM1 in Subnet1 communicate outbound when no Route Table is configured?

upvoted 1 times

jellybiscuit Highly Voted 1 year, 7 months ago

NNN

N - The nat gateway **could have been** created to support multiple zones, but it was not. A

gateway supporting all zones does not show the zone in the location field.
VM1 is located in a different zone and as a result, cannot use Natgateway1.

N - Subnet2 is not configured to use Natgateway1.

--- The screenshot of vnet1 shows that it is using Natgateway1.

--- The screenshot of NATgateway1 shows a Subnet count of 1.

--- If Subnet2 was configured to use the gateway, the Subnet count would be at least two.

N - The gateway is using a public IP prefix (instead of a single public ip address) so communication will happen over various outbound addresses.

I know we hear "tested in the lab" all the time. I actually did. I built two gateways... one in a zone, one without. I built a vnet and two subnets, one configured with the natgateway and one without.

upvoted 8 times

jellybiscuit 1 year, 7 months ago

Changing my answer to YNN - sorry

<https://learn.microsoft.com/en-us/azure/virtual-network/nat-gateway/nat-availability-zones#zonal>

I was misreading this documentation - or rather, not reading far enough down.

While it says this: "When NAT gateway is deployed to a specific zone, it will provide outbound connectivity to the internet explicitly from that zone. "

It also says this:

"NAT gateway can provide outbound connectivity for virtual machines from other availability zones different from itself. "

Seems to contradict itself.

upvoted 16 times

Bill831231 1 year, 6 months ago

seems there are two types of NAT GW deployment, zonal or regional

upvoted 1 times

Goofer 1 year, 3 months ago

<https://learn.microsoft.com/en-us/azure/virtual-network/nat-gateway/nat-availability-zones#single-zonal-nat-gateway-resource-for-zone-spanning-resources>

upvoted 2 times

sapien45 1 year, 7 months ago

No contradiction here. YNN

It says that a ZONAL NAT gateway provides internet connectivity FROM a single zone.

It does not say TO a single zone. VMs in others zones can use that ZONAL nat gateway.

<https://azurecomcdn.azureedge.net/mediahandler/acomblog/media/Default/blog/809936d8-a658-465b-9085-f4bbae9b7e33.png>

YNN

upvoted 5 times

Murad01 Most Recent 5 months, 1 week ago

Appeared on Exam November - 2023

upvoted 1 times

Lazylinux 9 months, 2 weeks ago

YNN

1- Y - Based on this From MS

Zonal: You can place your NAT gateway resource in a specific zone for a region. When NAT gateway is deployed to a specific zone, it will provide outbound connectivity to the internet explicitly from that zone. The public IP address or prefix configured to NAT gateway must match the same zone. NAT gateway resources with public IP addresses from a different zone, zone-redundancy or with no zone aren't allowed.

NAT gateway can provide outbound connectivity for virtual machines from other availability zones different from itself. The virtual machine's subnet needs to be configured to the NAT gateway resource to provide outbound connectivity. Additionally, multiple subnets can be configured to the same NAT gateway resource.

see next post run out of buffer!!

upvoted 1 times

Lazylinux 9 months, 2 weeks ago

continued

2- N - Subnet 2 is not associated with NATgateway1

3- N - Considering that Public IP prefixes are of CIDR /28-31 and from the question Prefix 1 /28 = 16 IPs /29 = 8 IPs /30 = 4 IPs and smallest /31 = 2 IPs

Implies CIDR /31 has 2 IP addresses available and hence outbound connection can be from any of them

upvoted 1 times

MightyMonarch74 1 year, 1 month ago

YNN - Confirmed via lab

upvoted 2 times

sapien45 1 year, 7 months ago

YNN

If not Zonal NAT would have been deployed, multiple subnets can be configured to the same NAT gateway resource.

<https://learn.microsoft.com/en-us/azure/virtual-network/nat-gateway/nat-gateway-resource>

upvoted 3 times

sapien45 1 year, 7 months ago

NNN then as VM1 is not in the same zone as the zonal NATGTWAY

upvoted 1 times

BlackZeros 1 year, 7 months ago

Answer should be YNN.

Minimum number of PIP you need for Nat Gateway is 1 and maximum is 16.

It will work just like your home router where multiple devices are using same IP to go out. it is not one to one ratio. If Subnet1 has 50 VMs and you can only have 16 IP addresses in Nat gateway then there will be a problem (ip exhaustion) which is not the case here.

Nat Gateways can be assigned to multiple Subnets

<https://learn.microsoft.com/en-us/azure/virtual-network/nat-gateway/faq#can-virtual-network-nat-gateway-be-attached-to-multiple-subnets>

upvoted 3 times

MrHabanero 1 year, 7 months ago

YNN

NAT GW is attached only to subnet1

upvoted 3 times

charlesr1700 1 year, 7 months ago

YNN

Agree with Tonys link, under the Zonal header it clearly states

'NAT gateway can provide outbound connectivity for virtual machines from other availability zones different from itself'

upvoted 1 times

TonyOmar 1 year, 7 months ago

YNN

for part 1 you can use NATgateway1 while your VM in different zone

check: <https://learn.microsoft.com/en-us/azure/virtual-network/nat-gateway/nat-availability-zones>

upvoted 2 times

zenithcsa1 1 year, 8 months ago

NNN

Only Subnet1 is connected to NATgateway1.

upvoted 2 times

zenithcsa1 1 year, 8 months ago

YNN

tested) VM in zone3 can use a NATGW in zone2. It does support outbound connectivity, while it does not guarantee availability from zone-failure.

upvoted 6 times

Cristoicach91 1 year, 8 months ago

NNN. VM and NAT gate are in different zones. Subnet 2 is not using NAT gateway. NAT gateway uses a public prefix.

upvoted 3 times