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Exam Associate Cloud Engineer All Questions

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EXAM ASSOCIATE CLOUD ENGINEER TOPIC 1 QUESTION 214 DISCUSSION

Actual exam question from Google's Associate Cloud Engineer
Question #: 214
Topic #: 1
[All Associate Cloud Engineer Questions]

You are running out of primary internal IP addresses in a subnet for a custom mode VPC. The subnet has the IP range 10.0.0.0/20, and the IP addresses are primarily used by virtual machines in the project. You need to provide more IP addresses for the virtual machines. What should you do?

A. Add a secondary IP range 10.1.0.0/20 to the subnet.

B. Change the subnet IP range from 10.0.0.0/20 to 10.0.0.0/18.

C. Change the subnet IP range from 10.0.0.0/20 to 10.0.0.0/22.

D. Convert the subnet IP range from IPv4 to IPv6.

Show Suggested Answer

by gw2100 at *July 16, 2023, 2:52 a.m.*

Comments

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joao_01 **Highly Voted** 1 year, 1 month ago

Selected Answer: A

This one is tricky. First i was going with B, then i did some search. Option A and B can indeed add more IPs. However, i think the option is A because between those 2 options the option A we will add IPs without changing the any ours VMs configurations that we currently have. If we choose B might need to change our current VMs configuration in order to reflect the new IP range expanded. You guys understand what i mean?

Link: https://cloud.google.com/vpc/docs/create-modify-vpc-networks#expand-subnet

"If you expand the primary IPv4 range of a subnet, you might need to modify other configurations that are assuming this IP address range"

upvoted 5 times

ccpmad 5 months ago

You are wrong, with new subnet range, we dont have to reflect anything to existing vms.

upvoted 1 times

AdelElagawany 11 months, 3 weeks ago

What are the configurations needed?
First of all the CIDR Range 10.0.0.0/18 Include the CIDR range 10.0.0.0/20 and this is a mandatory step for adjusting the Primary IP CIDR Range so No change needed on the machine level.

upvoted 7 times

sj209 11 months, 3 weeks ago

you will need to update the gateway IP of all the servers in 10.0.0.0/20, while changing to 10.0.0.0/18. So adding a new subnet makes sense.

upvoted 1 times

sj209 11 months, 3 weeks ago

i was wrong, GW does not change. B seems correct

upvoted 3 times

tlopsm 10 months, 2 weeks ago

But the subnet mask will change

upvoted 1 times

IshwarChandra **Most Recent** 6 months, 2 weeks ago

Selected Answer: B

Purpose of Secondary IP Range: "Adding a secondary IP range allows you to assign additional IP addresses to instances in a subnet without changing the subnet's primary IP range. This can be useful when you want to segregate traffic or allocate specific IP addresses to certain types of instances or workloads within the same subnet."
In the question, no where the logical separation of vm or traffic segregation is mentioned so by expanding th eprimary ip range will increase the available ips so Option B is correct.

upvoted 2 times

PiperMe 7 months, 3 weeks ago

Selected Answer: B

Option B offers a practical and scalable solution to address the shortage of IP addresses by enlarging the subnet's range in the most efficient way.

Option A, while technically feasible, managing multiple IP ranges within a subnet adds complexity and can potentially lead to routing issues. Even with a secondary IP range, you'll likely need to either:
1. Configure VMs with multiple network interfaces, each assigned an IP from a different range. This adds management overhead.
2. Re-configure existing VMs with IPs from the new secondary range, potentially causing downtime or requiring complex IP address changes.

upvoted 2 times

leoalvarezh 8 months, 1 week ago

Selected Answer: A

I think that if we go with option B is OK but we need to configure the new mask on VMs
If we go with option A, for me is OK but VMs are not in the same LAN, we need to configure connectivity but nothing related with that requirement in the question...so maybe A is more accurate

upvoted 1 times

Raghav2001 8 months, 1 week ago

B can not be the answer we can use B if the IP address are primarily used by Interfaces or services with in VM

upvoted 1 times

Cynthia2023 9 months, 3 weeks ago

Selected Answer: A

A. Add a secondary IP range 10.1.0.0/20 to the subnet:
• This option involves adding a secondary IP range to the existing subnet. This can provide additional IP addresses without changing the existing primary IP range.
B. Change the subnet IP range from 10.0.0.0/20 to 10.0.0.0/18:
• This involves expanding the current subnet's CIDR range to a larger block (from /20 to /18). This expansion will significantly increase the number of available IP addresses.
• However, changing the CIDR block of an existing subnet is not straightforward in GCP. It typically requires creating a new subnet with the desired range and migrating resources, which can be complex and disruptive.

upvoted 1 times

tesix79748 10 months, 4 weeks ago

Selected Answer: B

All subnets have a primary CIDR range, which is the range of internal IP addresses that define the subnet. Each VM instance gets its primary internal IP address from this range. You can also allocate alias IP ranges from that primary range, or you can add a secondary range to the subnet and allocate alias IP ranges from the secondary range. Use of alias IP ranges does not require secondary subnet ranges. These secondary subnet ranges merely provide an organizational tool.

https://cloud.google.com/vpc/docs/alias-ip

upvoted 4 times

Tony_Almaeda 11 months, 1 week ago

A is the Answer
(1st) we can use secondary IP range, since we are talking about VMs.
You can optionally add secondary IP address ranges to a subnet, which are only used by alias IP ranges. However, you can configure alias IP ranges for instances from the primary or secondary range of a subnet.

Each primary or secondary IPv4 range for all subnets in a VPC network must be a unique valid CIDR block.
(2nd) 10.1.0.0/20 is a valid block and it will not overlap with 10.0.0.0/20 (The range is 10.0.0-15.0-255).

Remember the keywords from the question "primary" and "ip add for the VM)

upvoted 3 times

Captain1212 1 year, 1 month ago

B is the correct answer

upvoted 2 times

scanner2 1 year, 1 month ago

Selected Answer: B

https://cloud.google.com/vpc/docs/create-modify-vpc-networks#expand-subnet
https://cloud.google.com/sdk/gcloud/reference/compute/networks/subnets/expand-ip-range

upvoted 2 times

vinodthakur49 1 year, 2 months ago

Selected Answer: A

The ask is to add more IPs, it's not about to keep the VM ins same subnet or to keep communication open between existing and new VMs, so the answer should be A...

upvoted 1 times

joao_01 1 year, 1 month ago

By changing the IP range to ..18 it will add more IPs to the subnet. So the answer B is correct.

upvoted 3 times

3arle 1 year, 2 months ago

Selected Answer: B

https://cloud.google.com/vpc/docs/create-modify-vpc-networks#expand-subnet

upvoted 2 times

shreykul 1 year, 3 months ago

Selected Answer: B

Clearly B

upvoted 1 times

shreykul 1 year, 3 months ago

Selected Answer: B

Should be B for subnet expansion

upvoted 3 times

geeroylenkins 1 year, 3 months ago

Selected Answer: B

https://cloud.google.com/sdk/gcloud/reference/compute/networks/subnets/expand-ip-range
https://cloud.google.com/vpc/docs/create-modify-vpc-networks#expand-subnet
https://techlibrary.hpe.com/docs/otlink-wo/CIDR-Conversion-Table.html

Expanding the subnet to a smaller prefix will allow more primary internal IP addresses. I don't know why gw2100 "withdraws" his vote for B and changes it to A - it's possible to add a secondary IP range as in answer A, but expanding the initial range as in B would work just fine.

C is shrinking the range - cannot work.

Not sure about D

upvoted 2 times

gw2100 1 year, 3 months ago

should be B. you expand the ip with a bigger network

upvoted 1 times

gw2100 1 year, 3 months ago

I withdraw my vote. It should be A.

upvoted 3 times