



Sharing Networks Across Projects

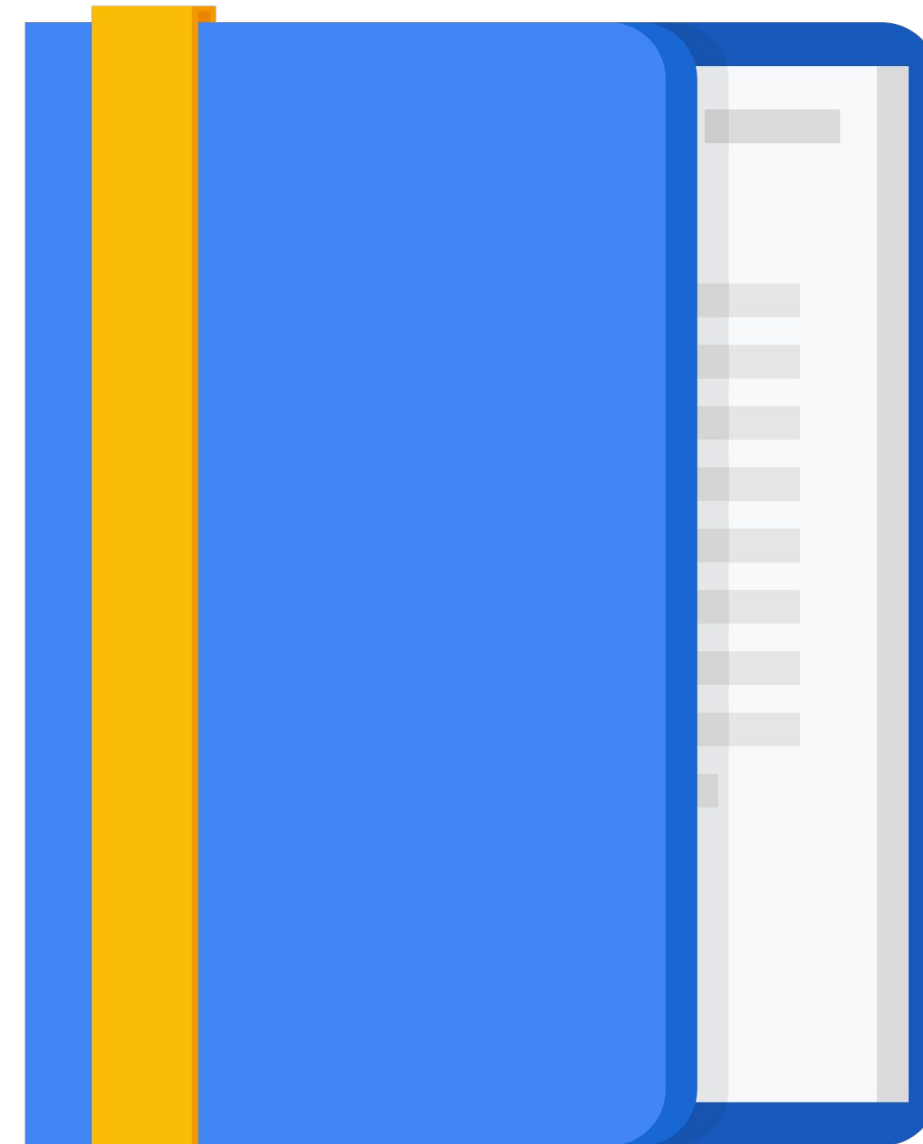
Agenda

Shared VPC

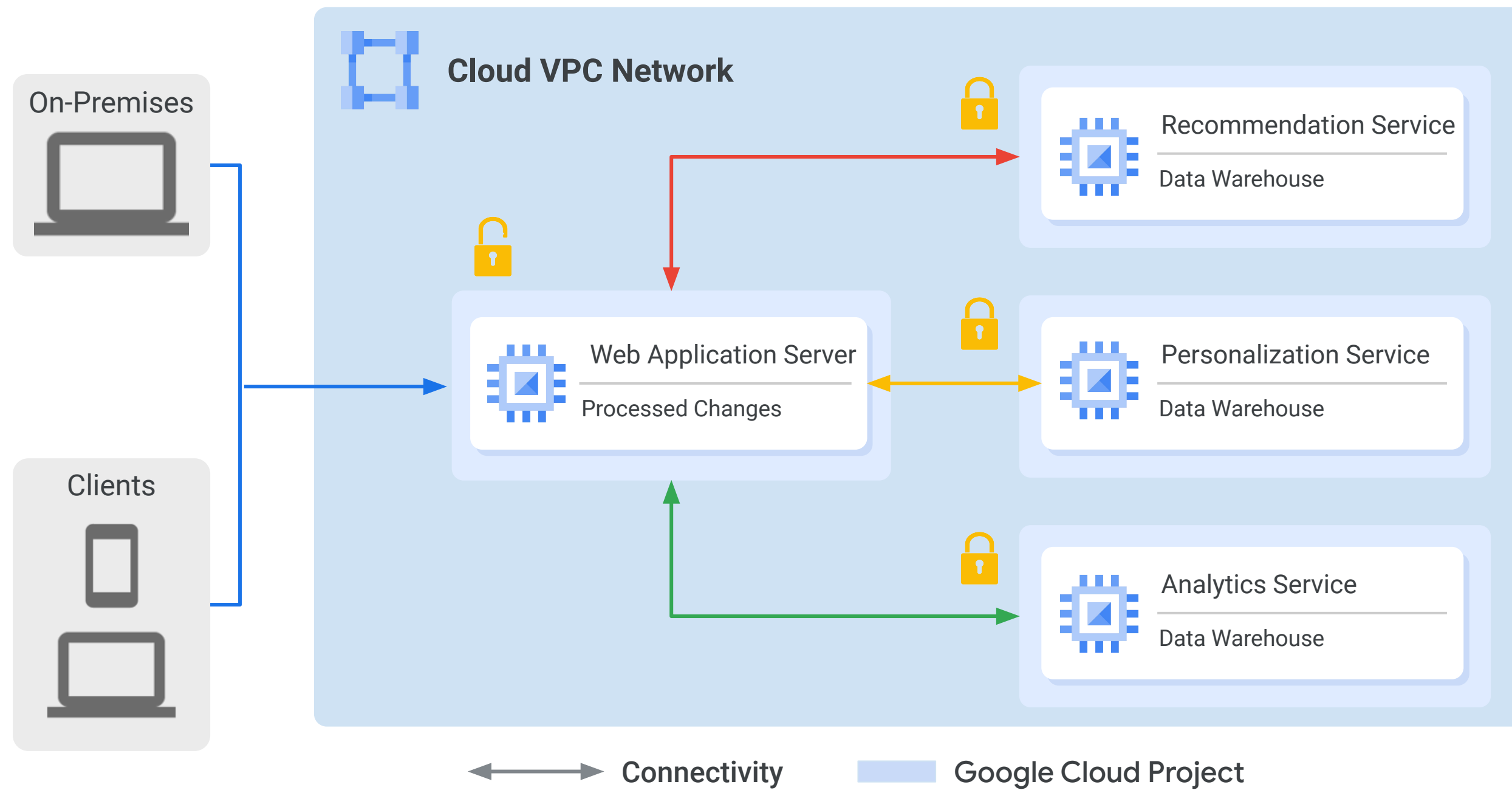
VPC Peering

Lab: Configuring VPC
Network Peering

Quiz



Shared VPC



Provisioning shared VPC

Organization Admin

- Organization is the root node.
- Workplace or Cloud Identity super administrators assign Organization Admins.
- Nominates Shared VPC Admin (compute.xpnAdmin).

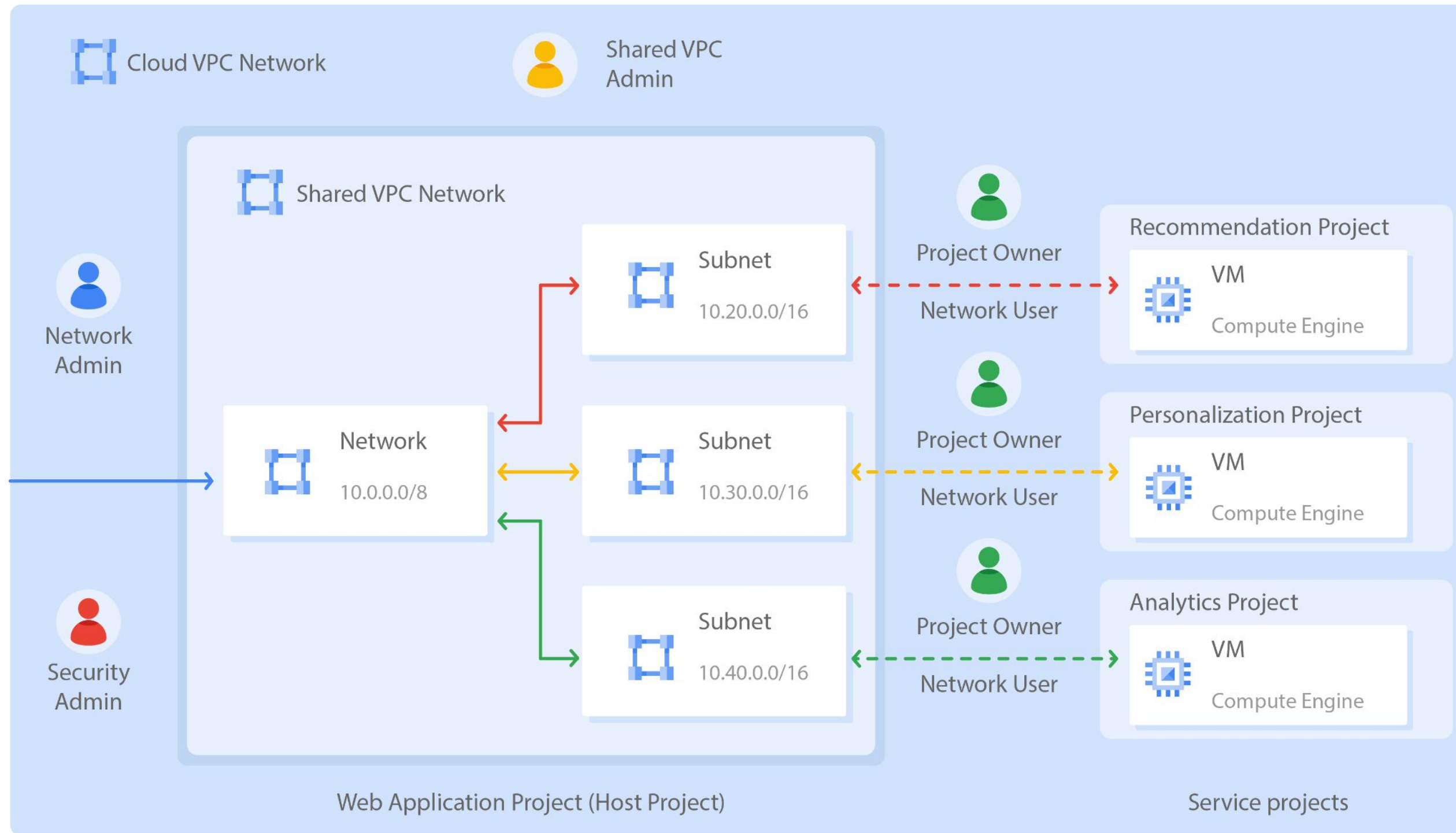
Shared VPC Admin

- Enables shared VPC for host project.
- Attaches service projects.
- Delegates access to some or all subnets in shared VPC network (compute.networkUser).

Service Project Admin

- Network User
- Control over service project resources:
 - Compute Instance Admin
 - Project Owner
- Create resources in shared VPC:
 - VM instances
 - Instance templates and groups
 - Static internal IP
 - Load balancers

Shared VPC



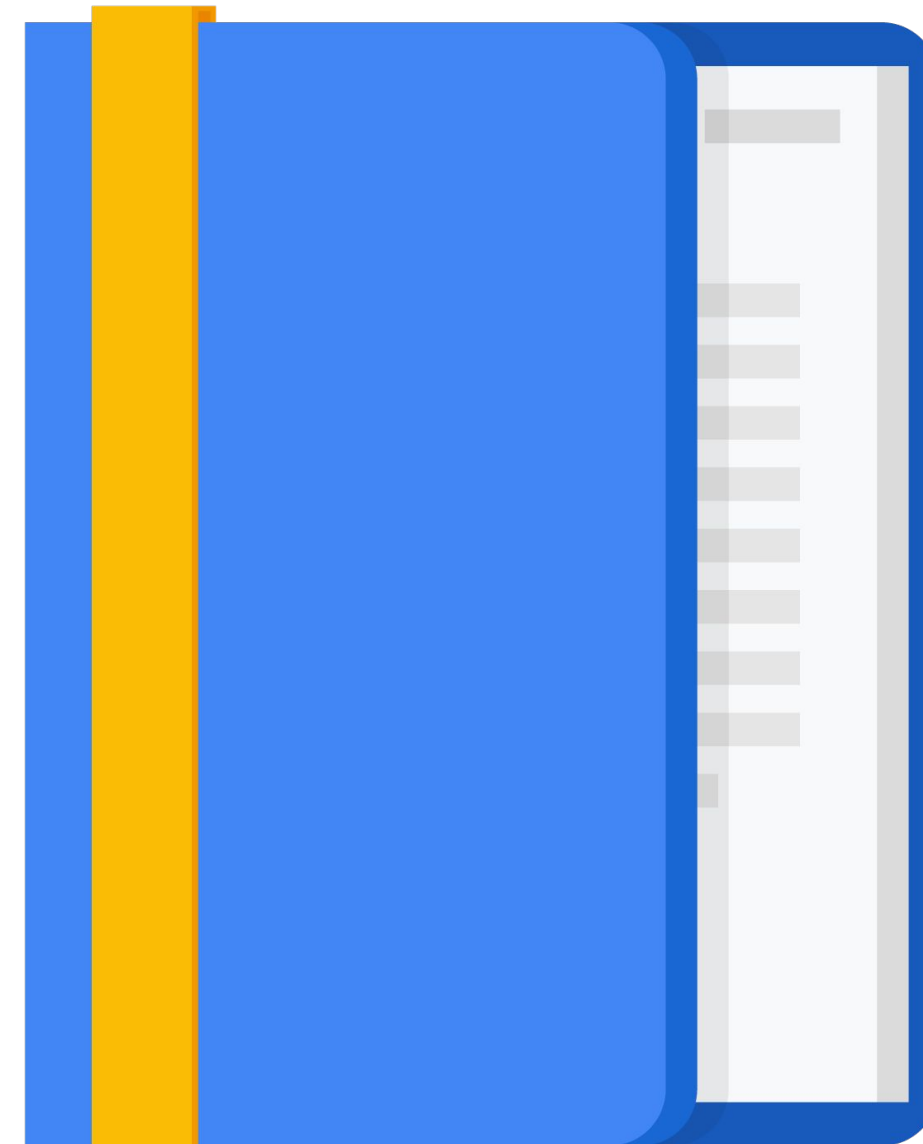
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Shared VPC

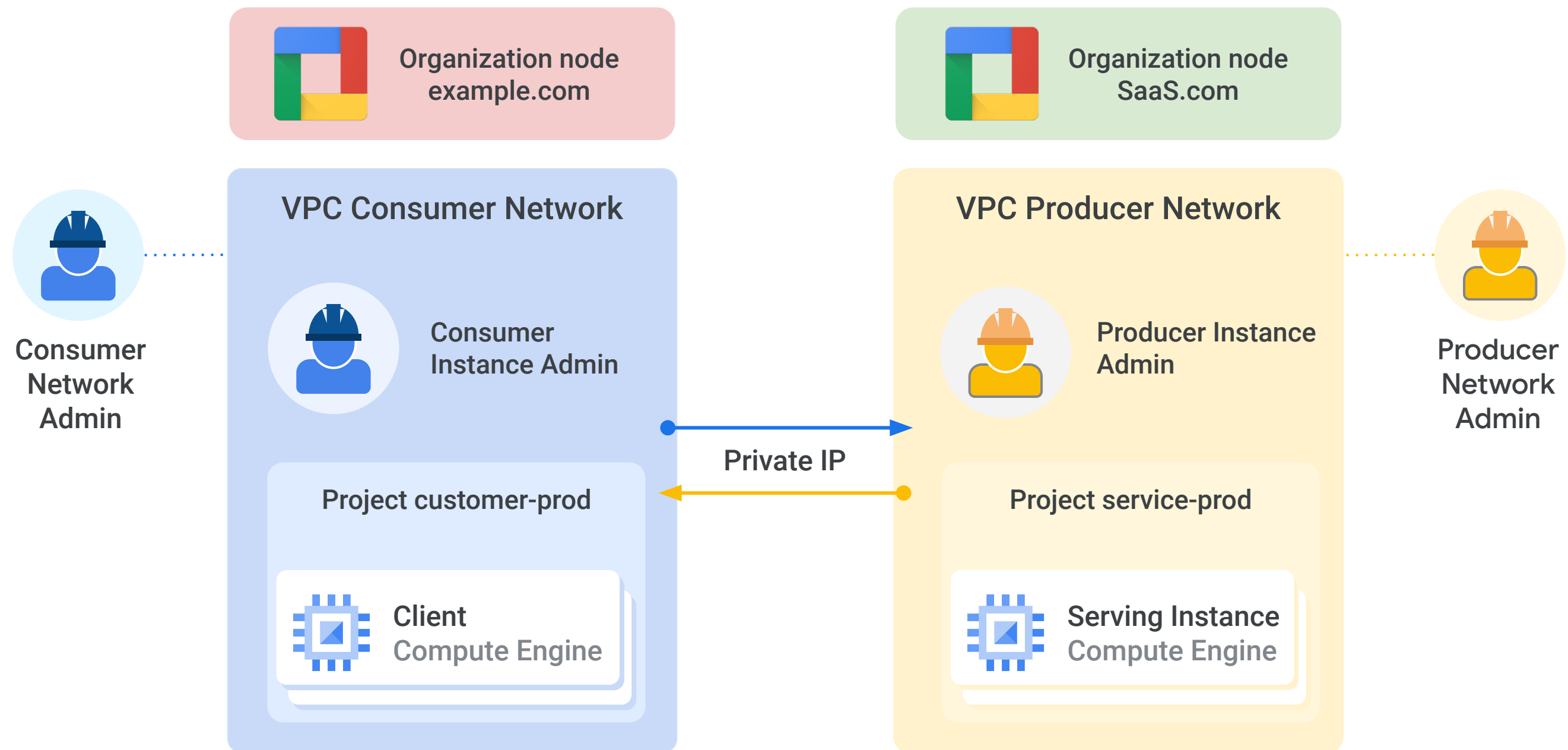
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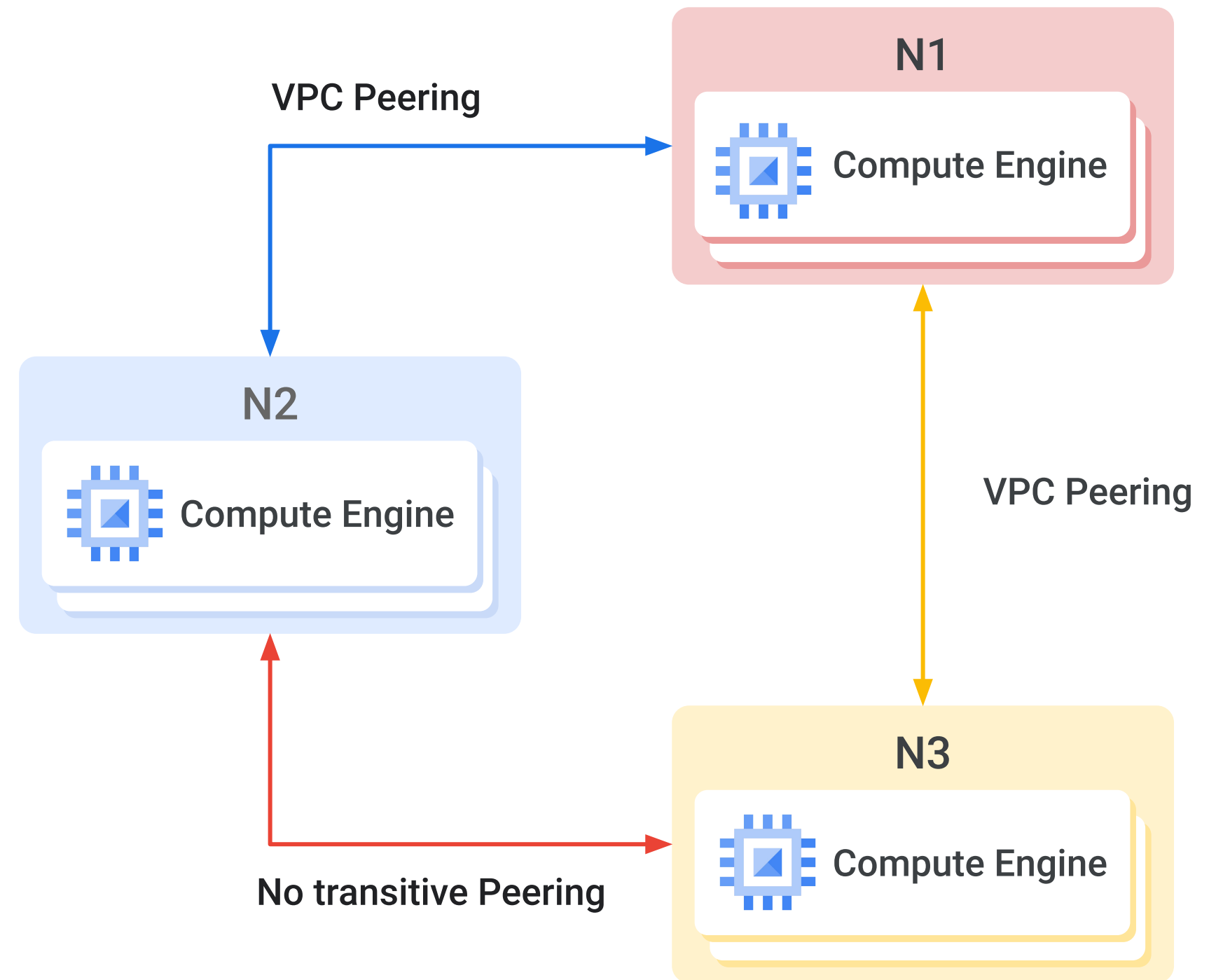


VPC peering



Remember when using VPC peering

- Works with Compute Engine, Kubernetes Engine, and App Engine flexible environments
- Peered VPC networks remain administratively separate
- Each side of a peering association is set up independently
- No subnet IP range overlap across peered VPC networks
- Transitive peering is not supported



Shared VPC vs. VPC peering

Consideration	Shared VPC	VPC Network Peering
Across Organizations	No	Yes
Within Project	No	Yes
Network Administration	Centralized	Decentralized

Shared VPC vs. VPC peering

Consideration	Shared VPC	VPC Network Peering
Across Organizations	No	Yes
Within Project	No	Yes
Network Administration	Centralized	Decentralized

Organization Admin

Shared VPC Admin

Security and Network Admins

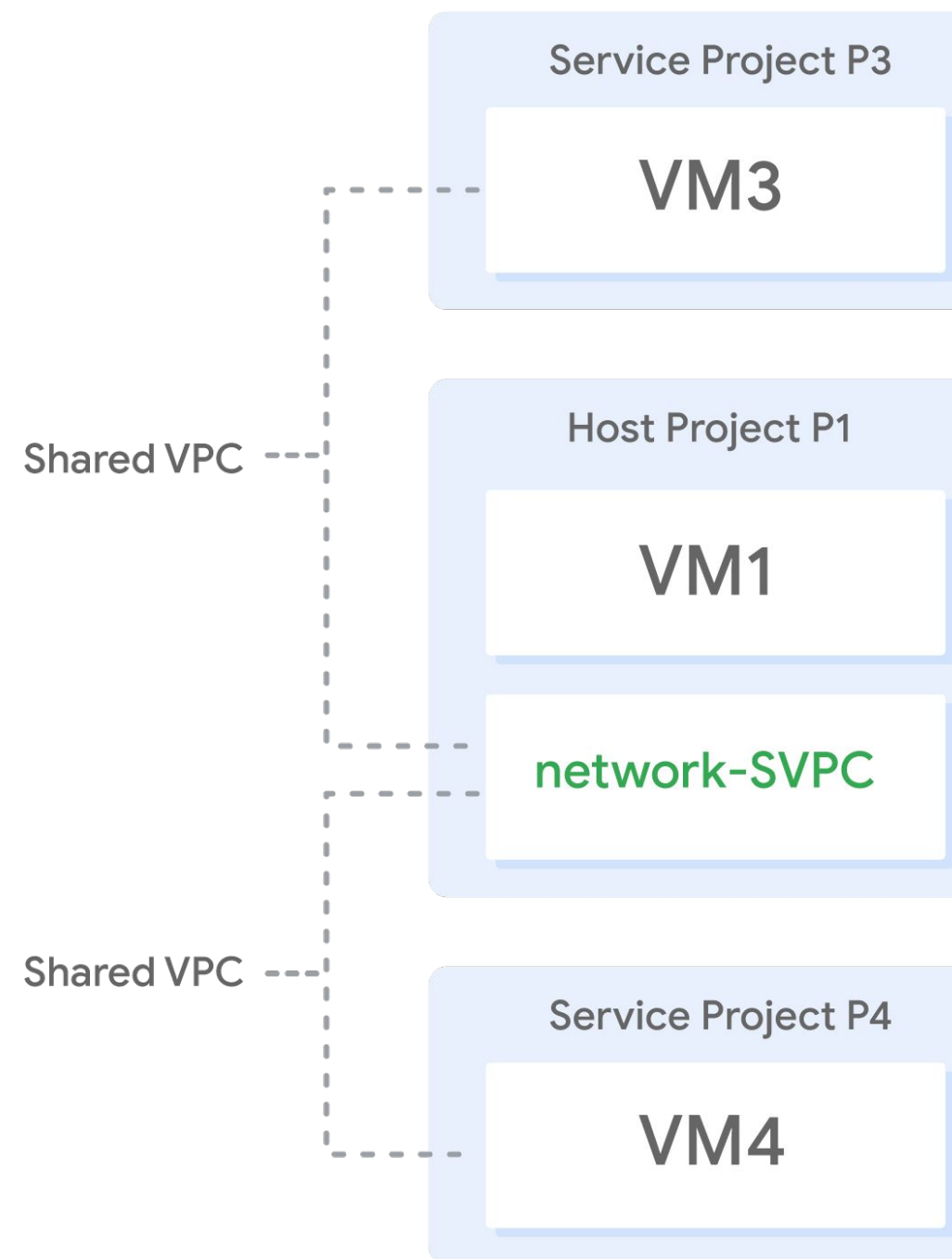
Project OwnerProject OwnerProject Owner

Organization Admin (if same org)

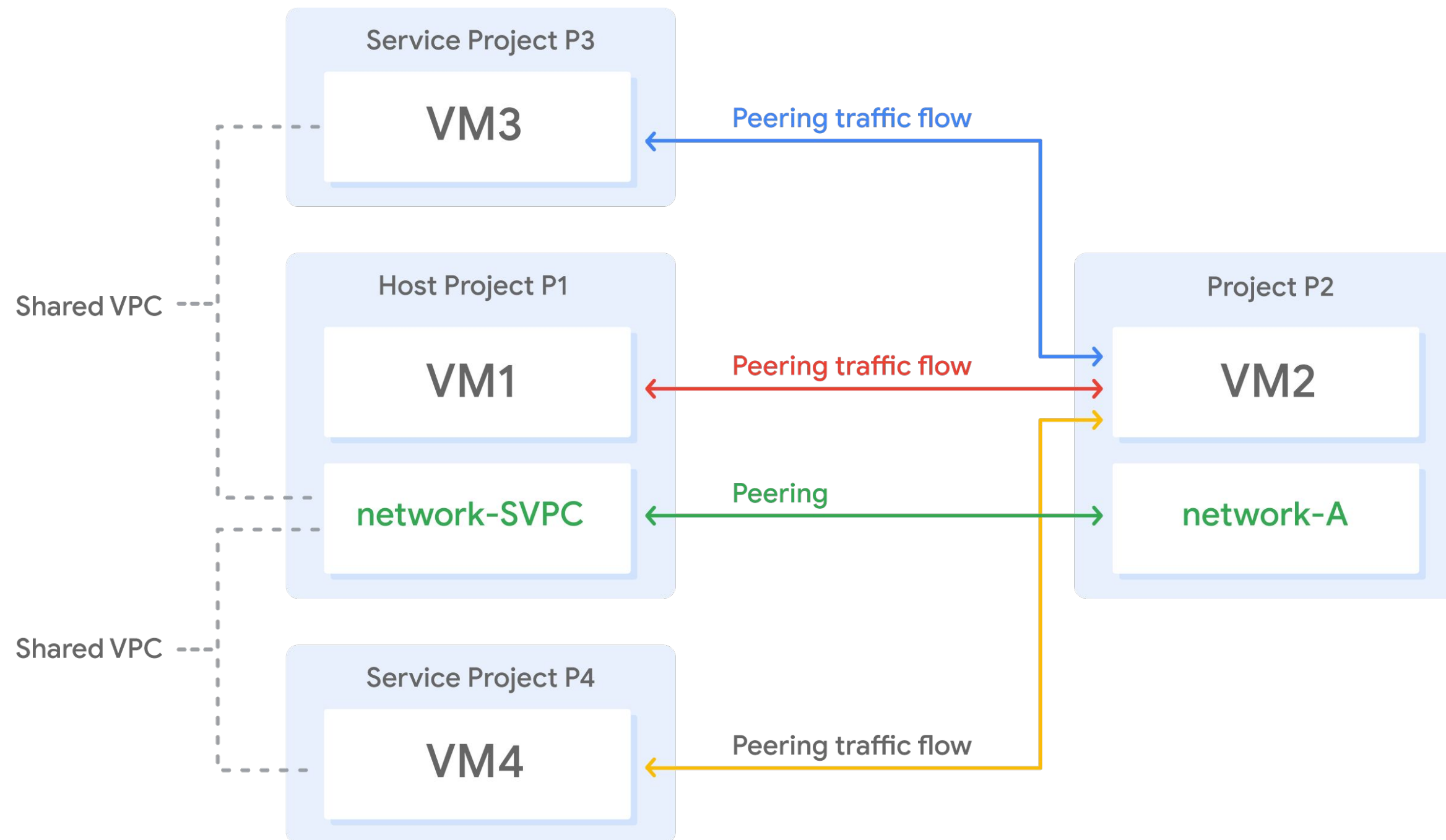
Security and Network AdminsSecurity and Network AdminsSecurity and Network Admins

Project OwnerProject OwnerProject Owner

Peering with a shared VPC



Peering with a shared VPC



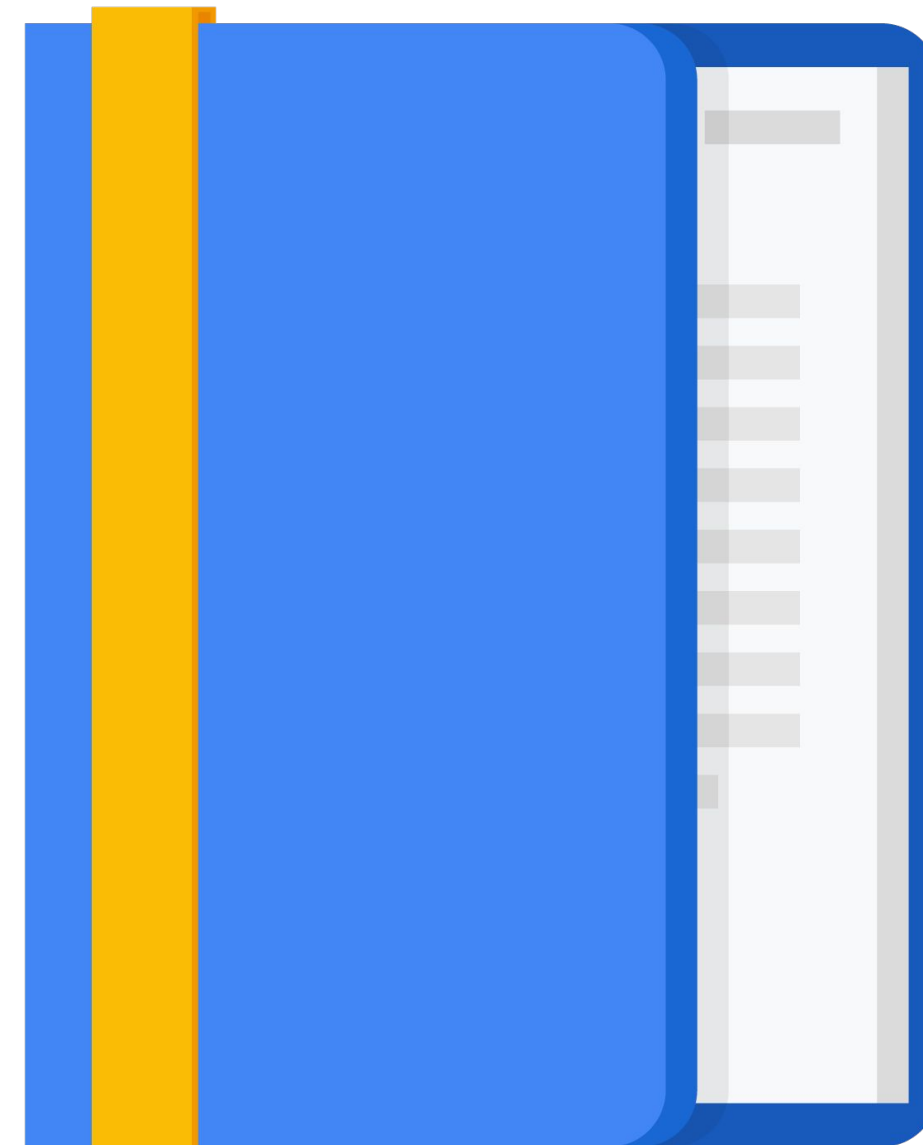
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Shared VPC

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Lab

Configuring VPC Network Peering

Duration: 30 minutes



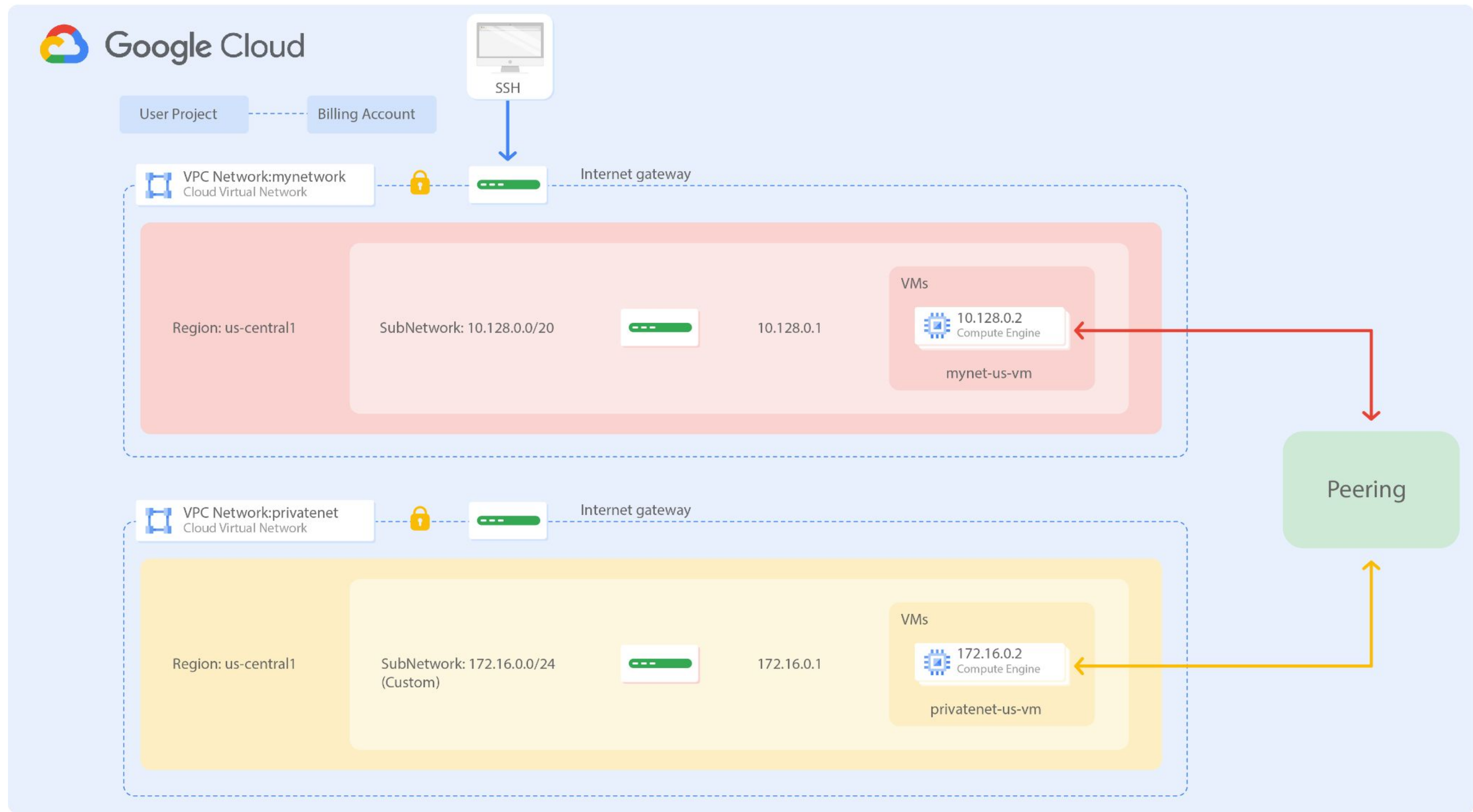
Lab objectives

Explore connectivity between non-peered VPC networks

Configure VPC network peering

Verify private communication between peered VPC networks

Delete VPC network peering



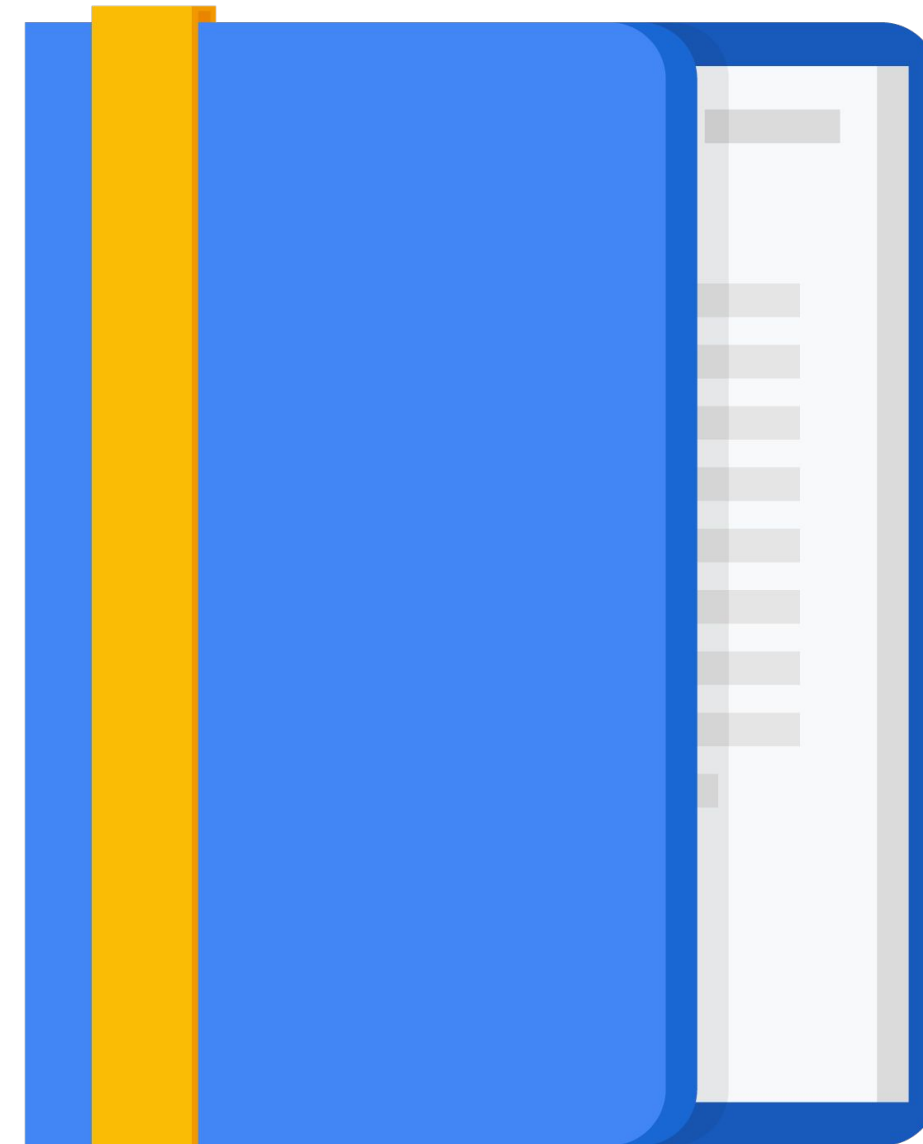
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Shared VPC

VPC Peering

Lab: Configuring VPC
Network Peering

Quiz



Question #1

Question

Sort the following steps for provisioning Shared VPC in Google Cloud:

- A. A Shared VPC Admin enables shared VPC for the host project.
- B. An Organization Admin nominates a Shared VPC Admin.
- C. A Shared VPC Admin delegates access to some or all subnets of a shared VPC network by granting the Network User role.
- D. A Network User creates resources in his/her Service Project.

Question #1

Answer

Sort the following steps for provisioning Shared VPC in Google Cloud:

- B. An Organization Admin nominates a Shared VPC Admin.
- A. A Shared VPC Admin enables shared VPC for the host project.
- C. A Shared VPC Admin delegates access to some or all subnets of a shared VPC network by granting the Network User role.
- D. A Network User creates resources in his/her Service Project.

Question #2

Question

In regards to VPC Network Peering, which of the following statements is correct?

- A. Transitive peering is not supported
- B. Peered VPC networks do not remain administratively separate
- C. Subnet IP ranges can overlap across peered VPC networks
- D. Both sides of a peering association are set up in one single step

Question #2

Answer

In regards to VPC Network Peering, which of the following statements is correct?

- A. Transitive peering is not supported
- B. Peered VPC networks do not remain administratively separate
- C. Subnet IP ranges can overlap across peered VPC networks
- D. Both sides of a peering association are set up in one single step

Question #3

Question

Which of the following approaches to multi-project networking, uses a centralized network administration model?

- A. VPC Network Peering
- B. Shared VPC
- C. Cloud VPN

Question #3

Answer

Which of the following approaches to multi-project networking, uses a centralized network administration model?

A. VPC Network Peering

B. Shared VPC

C. Cloud VPN

