Networking in Google Cloud (NGCP)

ID NGCP **Prix** CHF 1 690,– (Hors Taxe) **Durée** 3 jours

A qui s'adresse cette formation

This course is intended for the following participants:

- Network Engineers and Network Admins who are either using Google Cloud Platform or planning to do so
- Individuals who want to be exposed to software-defined networking solutions in the cloud.

Cette formation prépare à la/aux certifications

Google Cloud Certified Professional Cloud Network Engineer (PCNE)
Google Cloud Certified Professional Cloud Architect (PCA)
Google Cloud Certified Professional Cloud Security Engineer (PCSE)

Pré-requis

To get the most out of this course, participants should have:

- Completed Google Cloud Fundamentals: Core Infrastructure (GCF-CI) or have equivalent experience
- Clear understanding of the 7-layer OSI model
- Clear understanding of IPv4 addressing
- Prior experience with managing IPv4 routes

Objectifs

This course teaches participants the following skills:

- Configure Google VPC networks, subnets, and routers
- Control administrative access to VPC objects
- Control network access to endpoints in VPCs
- Interconnect networks among GCP projects
- Interconnect networks among GCP VPC networks and on-premises or other-cloud networks
- Choose among GCP load balancer and proxy options and configure them
- Use Cloud CDN to reduce latency and save money
- Optimize network spend using Network Tiers
- Deploy networks declaratively using Cloud Deployment Manager
- Design networks to meet common customer requirements
- Configure monitoring and logging to troubleshoot networks problems

Contenu

- Module 1: Google Cloud VPC Networking Fundamentals
- Module 2: Controlling Access to VPC Networks
- Module 3: Sharing Networks across Projects
- Module 4: Load Balancing
- Module 5: Hybrid Connectivity
- Module 6: Networking Pricing and Billing
- Module 7: Network Design and Deployment
- Module 8: Network Monitoring and Troubleshooting

Module 1: Google Cloud VPC Networking Fundamentals

- Recall that networks belong to projects
- Explain the differences among default, auto, and custom networks
- Create networks and subnets
- Explain how IPv4 addresses are assigned to Compute Engine instances
- Publish domain names using Cloud DNS
- Create Compute Engine instances with IP aliases
- Create Compute Engine instances with multiple virtual network interfaces

Module 2: Controlling Access to VPC Networks

- Outline how IAM policies affect VPC networks
- Control access to network resources using service accounts
- Control access to Compute Engine instances with tag-based firewall rules

Module 3: Sharing Networks across Projects

- Outline the overall workflow for configuring shared VPC
- Differentiate between the IAM roles that allow network resources to be managed
- Configure peering between unrelated VPC networks
- Recall when to use shared VPC and when to use VPC peering

Module 4: Load Balancing

- Recall the various load balancing services
- Configure Layer 7 HTTP(S) load balancing
- Whitelist and blacklist IP traffic with Cloud Armor
- Cache content with Cloud CDN
- Configure internal load balancing
- Determine which GCP load balancer to use when

Module 5: Hybrid Connectivity

- Recall the GCP interconnect and peering services available to connect your infrastructure to GCP
- Explain Dedicated Interconnect and Partner Interconnect
- Describe the workflow for configuring a Dedicated Interconnect
- Build a connection over a VPN with Cloud Router
- Determine which GCP interconnect service to use when
- Explain Direct Peering and Partner Peering
- Determine which GCP peering service to use when

Module 6: Networking Pricing and Billing

- Recognize how networking features are charged for
- Use Network Service Tiers to optimize spend
- Determine which Network Service Tier to use when
- Recall that labels can be used to understand networking spend

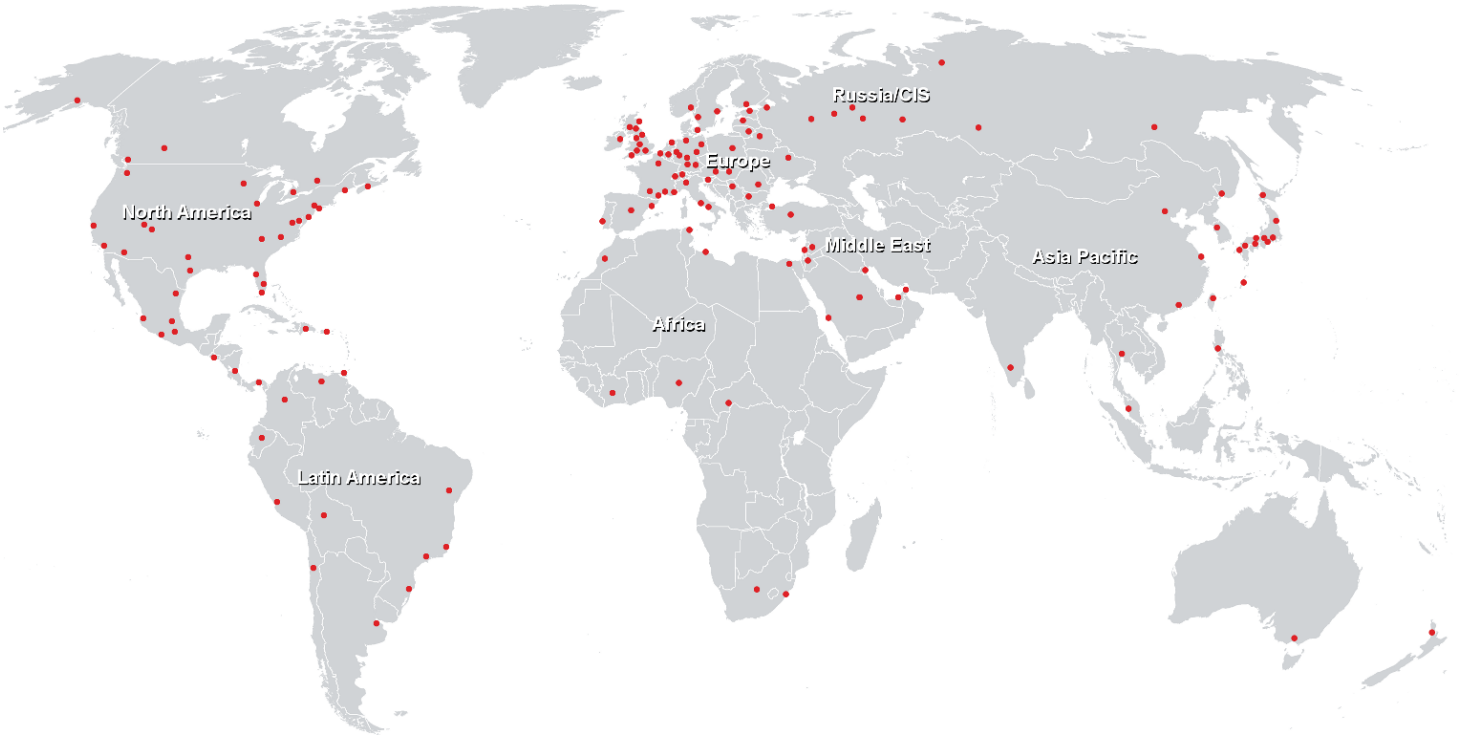
Module 7: Network Design and Deployment

- Explain common network design patterns
- Automate the deployment of networks using Deployment Manager
- Launch networking solutions using Cloud Marketplace

Module 8: Network Monitoring and Troubleshooting

- Configure uptime checks, alerting policies, and charts for your network services
- Use VPC Flow Logs to log and analyze network traffic behavior

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