Preparing for Your Professional Cloud Network Engineer Journey

Cursusduur: 1 Dag **Cursuscode: GO9088**

Beschrijving:

This course helps learners create a study plan for the PCNE (Professional Cloud Network Engineer) certification exam.

Learners explore the breadth and scope of the domains covered in the exam. Learners assess their exam readiness and create their individual study plan.

Updated Sept. 2026

Doelgroep:

- Customers, Partners, Googlers

Doelstelling:

- **After this course participants should be able to:**
- Describe the purpose and benefits of the PCNE certification.
- Explain the certification process.
- Create a study plan for designing, planning, and prototyping a Google Cloud network.
- Explain the considerations involved in designing an overall network architecture.
- Identify considerations for designing a VPC, a hybrid or multi-cloud network, or an IP addressing plan for GKE.
- Determine the skills you need to develop to effectively design, plan, and prototype a Google Cloud network.
- Identify the tasks involved in configuring VPCs, configuring routing, and configuring and maintaining GKE clusters.
- Describe considerations for configuring firewalls and implementing VPC Service Controls.
- Determine the skills you need to develop related to implementing a VPC.
- Identify considerations involved in configuring load balancing
- Describe the scope of tasks to configure Cloud Armor policies, Cloud CDN, Cloud DNS, Cloud NAT, and network packet inspection.
- Describe how to configure Google Cloud Interconnect, a site-to-site IPsec VPN, and Cloud Router.
- Determine the skills you need to develop to ensure successful implementation of hybrid interconnectivity.
- Describe options for logging and monitoring with Google Cloud's operations suite.
- Explain tasks involved in managing and maintaining security.
- Identify considerations for maintaining and troubleshooting connectivity issues, latency, and traffic flow.
- Create a weekly study plan.
- Set weekly study goals.
- Register for the Professional Cloud Network Engineer exam.
- Determine the skills you need to develop to manage and optimize network operations with Google Cloud.

Vereiste kennis en vaardigheden:

3+ years industry experience, including 1+ years designing and managing solutions using Google Cloud

Examens en certificering

None

Vervolgcursussen:

None

Cursusinhoud:

Module 00 : PCNE certification

- Role of a Professional Cloud Network Engineer
- Introduction to a sample infrastructure scenario that is used throughout the course
- Certification process
- Lecture

Module 01 Designing, planning, and prototyping a Google Cloud Network

- Describe how Load Balancing will be used for general users accessing resources from the internet as well as internal users accessing from private connected networks.
- Describe how Cloud CDN, Armor and NAT will be configured and the benefits they will provide, and used and how Cloud DNS will be integrated with an on-premise DNS system.
- Describe how packet mirroring will be used for periodic network forensic audit
- Lecture
- Diagnostic quiz (ungraded)
- Review diagnostic questions
- Knowledge check quiz (graded)
- Workbook exercise - creating your study plan

Module 02 Implementing a VPC

- Assuming Kubernetes clusters will be used in all the networks, describe how IP addresses will be distributed among them.
- Describe the sort of interconnections will be added between Google Cloud and external environments and how the routing will be configured for them.
- Describe how the network will be secured with firewall rules and VPC Service Controls
- Lecture
- Diagnostic quiz (ungraded)
- Review diagnostic questions
- Knowledge check quiz (graded)
- Workbook exercise - creating your study plan

Module 03 Configuring network services

- Describe how Load Balancing will be used for general users accessing resources from the internet as well as internal users accessing from private connected networks.
- Describe how Cloud CDN, Armor and NAT will be configured and the benefits they will provide, and used and how Cloud DNS will be integrated with an on-premise DNS system.
- Describe how packet mirroring will be used for periodic network forensic audit
- Lecture
- Diagnostic quiz (ungraded)
- Review diagnostic questions
- Knowledge check quiz (graded)
- Workbook exercise - creating your study plan

Module 04 Implementing hybrid connectivity

- Within the context of the sample scenario: describe the details of the VPN and Interconnect links between Google Cloud VPCs and on-premise or other cloud networks.
- Lecture
- Diagnostic quiz (ungraded)
- Review diagnostic questions
- Knowledge check quiz (graded)
- Workbook exercise - creating your study plan

Module 05 Managing, monitoring, and optimizing network operations

- Describe the network troubleshooting and debugging process.
- Describe the troubleshooting process using Cloud Logging and Monitoring and Network Intelligence Center.
- Lecture
- Diagnostic quiz (ungraded)
- Review diagnostic questions
- Knowledge check quiz (graded)
- Workbook exercise - creating your study plan

Module 06 Your next steps

- Based on domain knowledge deficiencies noted after answering the diagnostic questions, construct a weekly study plan.
- Lecture

Extra informatie:

Official course book provided to participants.

Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

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