Designing and Implementing Cloud Connectivity (ENCC)

Description

Why Choose the Designing and Implementing Cloud Connectivity (ENCC) Course?

The Designing and Implementing Cloud Connectivity (ENCC) course is designed to equip you with essential skills for implementing enterprise cloud connectivity solutions. This training allows you to master private and public connectivity technologies, such as VPN IPsec and Cisco SD-WAN, to expand and optimize your enterprise networks. You will learn how to integrate cloud services like AWS, Azure, and GCP while ensuring optimal performance and security.

By participating in this course, you will develop recognized expertise in cloud connectivity, preparing you for the ENCC certification exam. This certification will enable you to access key technical roles in cloud connectivity and security, enhancing your company's network solutions.

Optimize Your Cloud Connectivity Skills

Whether you're a network engineer or a cloud architect, this course provides practical tools and techniques for solving complex cloud connectivity challenges. From configuring BGP routing to optimizing security policies through Cisco SD-WAN, you'll have everything you need to ensure the resilience and performance of your cloud infrastructures.

Course Content
Module 1: Public Cloud Fundamentals

- Cloud Computing
- Cloud Deployment Models
- Public Cloud Service Models
- Public Cloud Providers

Module 2: Internet-Based Connectivity to Public Cloud

- Public Internet
- VPN
- Cisco SD-WAN
- Cisco SD-WAN Cloud Connectivity

Module 3: Private Connectivity to Public Cloud

- Private Connectivity Overview
- Direct Connect and Private Peering
- Colocations, Cloud Exchange, and Software-Defined Cloud Interconnect

Module 4: SaaS Connectivity

- Centralized Internet Gateway
- Direct Internet Access
- Cloud Security Providers (Umbrella)
- Dedicated Connectivity (Webex)

Module 5: Resilient and Scalable Public Cloud Connectivity

- Business and Technical Requirements
- High Availability and Resiliency
- Performance and Scalability
- Bandwidth (Dedicated and Shared)
- SLA and QoS

Module 6: Cloud-Native Security Policies

- Public Cloud Security Overview
- East-West Traffic Control
- North-South Traffic Control
- Inter-Region Connectivity

Module 7: Regulatory Compliance

- PCI DSS, FedRAMP, and HIPAA Compliance Requirements

Module 8: Internet-Based Public Cloud Connectivity

- Underlay Transport Network
- Overlay VPN Tunnels to a Cloud Gateway in AWS
- Overlay VPN Tunnels to a Cloud Gateway in Azure
- Overlay VPN Tunnels to a Cloud Gateway in GCP
- Overlay VPN Tunnels to a Cloud-Hosted Cisco IOS XE Router

Module 9: Overlay Routing Deployment

- Overlay Routing
- Configure OSPF
- Configure BGP
- Configure BGP in AWS
- Configure BGP in Azure Cloud
- Configure BGP in GCP

Module 10: Cisco SD-WAN Internet-Based Cloud Connectivity

- Cloud OnRamp Functionality
- Cloud OnRamp for Multicloud
- Cisco SD-WAN Cloud Security

Module 11: Cisco SD-WAN Cloud Security

- Cisco vManage Security Policies
- Cisco Umbrella Cloud Security

Module 12: Cloud OnRamp for SaaS

- SaaS Applications Challenges
- Client-Side SaaS Path Performance Statistics
- Cloud OnRamp for SaaS over SIG Tunnels
- Cloud OnRamp for SaaS and Microsoft 365

Module 13: Cisco SD-WAN Policies

- Policy Configuration Overview
- Data Policy Overview
- Centralized Data Policy
- Use Case – Implementing Traffic Engineering
- AAR Overview
- AAR Components
- Implement AAR Policy for Cloud OnRamp for SaaS

Module 14: Internet-Based Public Cloud Connectivity Diagnostics

- Diagnose Underlay Transport Network
- Diagnose Overlay VPN Tunnel Connectivity to a Cloud Gateway

Module 15: Overlay Routing Diagnostics

- Overlay Network Basics
- Open Shortest Path First (OSPF)
- Border Gateway Protocol (BGP)
- Overlay Routing in Cloud Environments

Module 16: Cisco SD-WAN Public Cloud Connectivity Diagnostics

- Troubleshoot Underlay Connectivity
- Troubleshoot Overlay Routing
- Troubleshoot Cisco SD-WAN Cloud OnRamp

Lab / Exercises

- Initial Lab Network Exploration
- Implement IPsec Connectivity to Public Cloud Gateways
- Implement IPsec Connectivity to Cloud-Hosted Cisco IOS-XE Routers
- Implement Overlay Routing
- Deploy Cloud OnRamp for Multicloud
- Deploy Umbrella Cloud Security
- Implement Cloud OnRamp for SaaS
- Troubleshoot Underlay Connectivity
- Troubleshoot Overlay Routing
- Diagnose Cloud OnRamp for Multicloud

Documentation

- Digital course materials included

Exam

- This course prepares you for the Cisco Certified Specialist-Enterprise Cloud Connectivity certification with exam 300-440 ENCC: Designing and Implementing Cloud Connectivity. If you would like to take this exam, please contact our secretariat, who will give you the price and take care of all the administrative formalities for you.

Participant profiles

- Cloud architects
- Network engineers
- Cloud engineers
- System administrators
- Security consultants
- Cloud application developers

Prerequisites

- Good understanding of enterprise routing
- Good understanding of WAN networking
- Knowledge of VPN technologies
- Knowledge of Cisco Catalyst SD-WAN
- Knowledge of public cloud services (AWS, Azure, GCP)

Objectives

- Master the fundamentals of cloud connectivity
- Configure VPN IPsec and Cisco SD-WAN
- Integrate AWS, Azure, and GCP into a network infrastructure
- Deploy OSPF and BGP routing solutions
- Diagnose and resolve cloud connectivity issues
- Ensure cloud connection security with Cisco Umbrella

Description
Designing and Implementing Cloud Connectivity (ENCC) training
Niveau
Intermédiaire
Classroom Registration Price (CHF)
3560
Virtual Classroom Registration Price (CHF)

3560

Duration (in Days)

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Reference

ENCC