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Register

JNCIS-Cloud Certification Training
3 days (21 hours)

Overview

JNCIS-Cloud is Juniper's intermediate certification dedicated to cloud networking environments. It validates proficiency in virtual networks, cloud overlay, distributed security, and automation via Contrail/CN2.

Our JNCIS-Cloud training will give you an in-depth understanding of Juniper's cloud architecture, enable you to deploy advanced network services, automate your infrastructure using APIs and IaC tools, and reliably monitor your environments.

You will learn how to secure your flows using Zero Trust strategies, administer Kubernetes workloads via the CNI layer, and manage multi-cloud interconnections. The training also includes advanced troubleshooting, SRE best practices, and a comprehensive exam preparation module.

Upon completion of this training, you will be able to design and operate a robust, high-performance, and secure Juniper cloud architecture, while being fully prepared to pass the JNCIS-Cloud certification exam.

Like all our training courses, it is based on the latest stable version of the Juniper ecosystem.

Note: Ambient IT does not own the JNCIS-Cloud certification; it belongs to Juniper Networks Inc.

Objectives

- Understand Juniper Cloud architecture.
- Master VNs, policies, and network services.
- Automate via API and IaC.
- Administer multicloud environments.

- Implement zero-trust security.
- Pass the JNCIS-Cloud certification.

Target audience

- Network administrators
- Cloud engineers/SREs
- Network architects
- Systems technicians

Prerequisites

- Network knowledge
- Cloud/virtualization concepts
- Linux/CLI basics

JNCIS-Cloud training program

[Day 1 - Morning]

Understanding Juniper Cloud Architecture

- Introduction to Juniper Cloud Networking
- Contrail/CN2 Fundamental Concepts
- Overlay/underlay model
- Roles of vRouters, controllers, and APIs
- Hybrid use cases
- Hands-on workshop: Discovering a CN2 environment.

[Day 1 - Afternoon]

Mastering network topology and services

- IP Fabric and routing concepts
- Isolation via Virtual Networks
- Security policies
- Service chaining and analytics
- Route management
- Hands-on workshop: Creating VNs and security rules.

Automation and observability

- REST API and declarative model
- Automation via Ansible and Terraform
- Monitoring with Contrail Insights
- Log and metric analysis
- Anomaly detection and tracking
- Hands-on workshop: Automating a deployment.

[Day 2 - Morning]

Advanced services and load balancing

- Load balancing and balancing strategy
- NAT, gateways, and access point management
- Traffic flow between virtual networks
- High availability and resilience mechanisms
- Best practices for operational deployment
- Hands-on workshop: Setting up an LBaaS service.

[Day 2 - Afternoon] Kubernetes

and CN2 networking

- CNI principles and Kubernetes network operation
- CN2 applied to microservices
- Kubernetes policy management
- Traffic isolation and segmentation
- Integration with Kubernetes clusters
- Hands-on workshop: Deploying a K8s app using CN2.

Advanced security and Zero Trust

- Zero Trust applied to cloud networking
- Micro-segmentation of environments
- Distributed firewall and traffic control
- Identity and role management (RBAC)
- Common threats and prevention measures
- Hands-on workshop: Segmenting an existing environment.

[Day 3 - Morning]

Multicloud and interconnection

- AWS/Azure/GCP interconnection
- Setting up VPNs and secure tunnels
- Managing multi-site architectures

- Hybrid migration strategy
- Multicloud governance and best practices
- Hands-on workshop: Creating an inter-environment tunnel.

[Day 3 - Afternoon] Optimization

and troubleshooting

- Structured diagnostic methodology
- Network flow analysis
- Resolving incidents related to BGP/Policies
- Network performance optimization
- SRE best practices
- Hands-on workshop: Incident scenarios and resolution.

Preparation for JNCIS-Cloud certification

- Exam structure
- Areas evaluated
- Key commands and concepts
- Strategies and pitfalls
- Revision tips
- Practical workshop: Mock exam + correction.

Companies concerned

This training is aimed at both individuals and companies, large or small, wishing to train their teams in new advanced IT technology or to acquire specific professional knowledge or modern methods.

Placement at the start of training

The placement test at the start of the training course complies with Qualiopi quality criteria. Once they have finalized their registration, learners receive a self-assessment questionnaire that allows us to assess their estimated level of proficiency in different types of technologies, as well as their expectations and personal objectives for the upcoming training course, within the limits imposed by the selected format. This questionnaire also allows us to anticipate certain connection or internal security issues within the company (intra-company or virtual classroom) that could be problematic for the monitoring and smooth running of the training session.

Teaching methods

Practical training: 60% practical, 40% theory. Training materials distributed in digital format to all participants.

Organization

The course alternates between theoretical input from the trainer, supported by examples and

reflection sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire is used to verify that the skills have been correctly acquired.

Certification

A certificate will be issued to each trainee who has completed the entire training course.