

CLOUD, SPECIALIST (JNCIS-CLOUD)

Earn a specialist-level certification that demonstrates your competence with cloud networking architectures.

One of four certifications in the Cloud track, the JNCIS-Cloud, Specialist, is designed for networking professionals with intermediate knowledge of software-defined networking, theory, and best practices. This exam verifies your understanding of software-defined networking principles and technologies.

Exam Preparation

We recommend the following resources to help you prepare for your exam. However, these resources aren't required, and using them doesn't guarantee you'll pass the exam.

Recommended Training

- [Implementing Cloud-Native Contrail Networking](#)

Exam Resources

- Industry/product knowledge
- [Juniper TechLibrary](#)

Additional Preparation

- [Juniper Learning Portal](#)

Exam Objectives

Here's a high-level view of the skillset required to successfully complete the JNCIS-Cloud certification exam.

Cloud-Native Contrail Networking Fundamentals

Identify the concepts of Juniper® Cloud-Native Contrail Networking (CN2):

- Roles and functions of a Container Network Interface (CNI)
- Integration of CN2 with Kubernetes
- Supported orchestrators

Identify the operations or functionalities of the CN2 architecture:

- Core components
- Component communication
- UI components, access, and so on
- Deployment models
- Configuration resources

CN2 Namespaces

Identify the concepts, operations, or functionalities of CN2 namespaces:

- Isolated and non-isolated namespaces
- Pod-network communication rules

Demonstrate knowledge of how to configure, monitor, or troubleshoot CN2 namespaces:

- Isolated and non-isolated namespaces
- Pod-network communication rules
- Implementing namespaces

Services

Describe the concepts, operations, or functionalities of CN2 services:

- Cluster IP
- NodePort
- LoadBalance
- Ingress access

Demonstrate knowledge of how to configure, monitor, or troubleshoot CN2 services.

Virtual Networks

Describe the concepts, operations, or functionalities of virtual networks:

- User-defined virtual networks
- User-defined pod networks
- System-defined pod networks
- Service networks

Demonstrate knowledge of how to configure, monitor, or troubleshoot CN2 virtual networks.

Virtual Network Routing

Describe the concepts, operations, or functionalities of routing of virtual networks:

- Route targets
- vRouters
- Virtual network routers
- Various virtual network routing implementations (mesh, hub-and-spoke, and multi-namespace)
- External device routing (IP fabric and source NAT)

Demonstrate knowledge of how to configure, monitor, or troubleshoot virtual network routing.

Network Policies

Describe the concepts, operations, and functionalities of CN2 network policies:

- Namespace-based policies
- IP-based policies
- Policy rules and behavior
- Ingress versus egress policies

Demonstrate knowledge of how to configure, monitor, or troubleshoot CN2 network policies.

Analytics

Identify the concepts, operations, or functionalities of CN2 analytics:

- User interfaces (dashboard and monitor)
- Architecture (Prometheus and Grafana)
- Introspect (control and vRouter)

Exam Details

Exam questions are derived from the recommended training and the exam resources listed above. Pass/fail status is available immediately after taking the exam. The exam is only provided in English.

Exam Code

JNO-413

Prerequisite Certification

JNCIA-Cloud

Delivered by

Pearson VUE

Exam Length

90 minutes

Exam Type

65 multiple-choice questions

Software Versions

- Contrail 23.1

Recertification

Juniper certifications are valid for three years. For more information, please see [Recertification](#).

About Juniper Networks

At Juniper Networks, we are dedicated to dramatically simplifying network operations and driving superior experiences for end users. Our solutions deliver industry-leading insight, automation, security and AI to drive real business results. We believe that powering connections will bring us closer together while empowering us all to solve the world's greatest challenges of well-being, sustainability and equality.

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