Deploying and Managing Juniper Mist Access Assurance





COURSE OVERVIEW

This two-day, intermediate-level course provides students with the knowledge to configure and monitor Juniper Mist™ Access Assurance. Key topics include the purpose of network access control (NAC); the Juniper Mist Access Assurance cloud architecture; Juniper Mist™ Edge authentication proxy; authentication, authorization, and accounting (AAA) components; 802.1X and Extensible Authentication Protocol (EAP) operations; RADIUS concepts; RADIUS over TLS (RadSec); authorization of 802.1X and non-802.1X devices; identity provider (IdP) integration; Juniper Mist Access Assurance authentication policies and methods; and integration with mobile device management (MDM).

The lab includes Juniper Mist Access Assurance, the Juniper Networks® EX4400 Switch, and the Juniper® AP45 High-Performance Access Point.

COURSE LEVEL

Deploying and Managing Juniper Mist Access Assurance is an intermediate-level course.

This course benefits individuals responsible for implementing and monitoring Juniper Mist Access Assurance.

PREREQUISITES

The prerequisites for this course include:

- General understanding of TCP/IP.
- General understanding of security concepts.
- Completion of the <u>Introduction to Juniper Mist AI</u> course is recommended but not required.

RELATED JUNIPER PRODUCTS

Juniper Mist Edge, Juniper Mist Access Assurance, Mist Al

RECOMMENDED NEXT COURSE

Deploying and Managing Juniper Wireless Networks with Mist Al

OBJECTIVES

- Describe the purpose of and the need for NAC.
- Explain the Juniper Mist Access Assurance cloud architecture.
- Discuss third-party device support with Juniper Mist Edge authentication proxy.
- Describe common use cases with Juniper Mist Access Assurance.
- Discuss Juniper Mist Access Assurance best practices.
- List AAA components.
- Discuss how the RADIUS protocol works.
- Describe RADIUS server attributes.
- Explain the functionality of RadSec.
- Explain 802.1X operations.
- Discuss the Juniper Mist Access Assurance 802.1X certificate and password authentication methods.
- Describe IdP integration with Juniper Mist Access Assurance.
- Explain how to configure Juniper Mist Access Assurance authentication policies with match labels and action labels.
- Discuss how to configure Juniper Mist Access Assurance authentication methods.
- Explain how to configure Juniper Mist Edge for the Juniper Mist authentication proxy function.
- Describe how to validate Juniper Mist Access Assurance access and authentication.
- Implement Juniper Mist Access Assurance with wired and wireless devices.
- Discuss Juniper Mist Access Assurance integration with MDM providers.

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COURSE CONTENTS

DAY 1

Module 01: Understanding Network Access Control

- Describe the components of network access control
- Explain the history of network access control
- Explain Juniper Mist Access Assurance

Module 02: Juniper Mist Access Assurance-Overview

- Explain the cloud architecture
- Explain Juniper Mist-managed devices and requirements
- Describe third-party device support
- Describe the client use cases of Juniper Mist Access Assurance
- Describe the best practices of Juniper Mist Access Assurance

Module 03: RADIUS

- Explain the components of AAA
- Describe how RADIUS works
- Describe RADIUS Change of Authorization

Module 04: 802.1X Authentication

- Explain 802.1X operations
- Describe EAP operations
- Explain the different EAP types

Module 05: Certificates

- Explain components and functionality of PKI
- Describe structure and purpose of X.509 certificates
- Explain security considerations and lifecycle management

Module 06: Configuring Juniper Mist Access Assurance

- Configure authentication policies
- Configure authentication methods
- Validate access and authentication

Lab 01: Implementing Juniper Mist Access Assurance with 802.1X

DAY 2

Module 07: Non-802.1X Authentication

- Explain non-802.1X clients
- Describe MAB configuration
- Describe IoT assurance
- Describe MPSK
- Describe client onboarding using BYOD PSK Portal

Lab 02: Implementing Juniper Mist Access Assurance with Non-802.1X

Module 08: Posture Compliance

- Explain posture compliance
- Describe Microsoft Intune integration
- Describe Jamf Pro integration
- Describe how to verify compliance

Lab 03: Implementing Juniper Mist Access Assurance

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Module 09: Monitoring and Troubleshooting Juniper Mist Access Assurance

- Describe monitoring and troubleshooting with Juniper Mist Access Assurance
- Explain monitoring with Juniper Mist Access Assurance
- Explain troubleshooting with Juniper Mist Access Assurance

Lab 04: Monitoring and Troubleshooting Juniper Mist Access Assurance

Module 10: Explain Juniper Mist Edge Integration

- Define the features and benefits of Juniper Mist Edge
- Describe the installation of Juniper Mist Edge
- Explain Juniper Mist Edge as a RADIUS server proxy
- Explain Juniper Mist authentication proxy
- Summarize the DHCP relay service
- Review the Juniper Mist Edge management functions

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