Automating Juniper Mist AI Enterprise

Category: Networking & Security | **Vendor:** Juniper

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This advanced five-day course explores how to configure and manage a distributed enterprise. The distributed enterprise includes Juniper Mist AI solutions for Juniper Mist™ WAN Assurance, Juniper Mist™ Wired Assurance, Juniper Mist™ Wi-Fi Assurance, and Juniper Mist Access Assurance. Users can deploy and manage distributed enterprises from the Juniper Mist™ GUI, automation methods, or a combination of both. Key topics include automation tools and methodologies as applied to Juniper Mist AI solutions.

Through demonstrations and hands-on labs, students will gain experience with the features of Juniper Networks® EX Series Switches, Juniper Networks® SSR Series Routers, wireless access points, and the Juniper Mist GUI and APIs. Students will also acquire experience with Juniper Mist features in a programmatic way.

About This Course

- Associating AIOps to the Distributed Enterprise Network
- Summarizing the Distributed Enterprise Network with Juniper Mist AI
- Automation Options for Juniper Mist
- Python Automation Toolkit, Part 1
- Python Automation Toolkit, Part 2
- Python Automation Toolkit, Part 3
- Evaluating REST API Tools and Their Uses
- Using the Juniper Mist REST API with Python
- Automating Juniper Mist Day 1 Operations with Python
- Executing Juniper Mist Configuration with Webhooks
- Summarizing 802.1x and EAP Authentication
- Examining RADIUS Configuration and Integration with Juniper Mist
- Reviewing Juniper Mist Access Assurance
- Integrating Juniper Mist Edge with Juniper Mist Access Assurance
- Implementing Security to a Distributed Enterprise Network with Juniper Mist
- Deploying a Distributed Enterprise Architecture
- Managing Day 2+ Operations with Juniper Mist

Who Should Attend

Individuals responsible for accessing and using Mist AI data for business intelligence and operations

Prerequisites & Entry Requirements

General Prerequisites:

- Basic networking (wired and wireless) knowledge
- Understanding of OSI reference model and the TCP/IP protocol suite
- Experience with Juniper Mist products and solutions
- Basic automation and scripting knowledge, Python knowledge recommended
- Completion of the following courses:

- Introduction to Juniper Platform Automation and NetDevOps (IJAUT)
- Deploying and Managing Juniper Wireless Networks with Mist AI (DMJWN)
- (!)
- Deploying and Managing SD-WAN with Juniper Mist AI

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- Associate AIOps to the distributed enterprise network.
- Summarize the distributed enterprise network with Juniper Mist AI.
- Explain the automation options for Juniper Mist.
- Refresh your Python basics.
- Explain how JSON and YAML are used for automation.
- Describe data templating with Jinja2.
- Describe how JupyterLab is used.
- Evaluate REST API tools and their uses.
- Use the Juniper Mist REST API with Python.
- Automate Juniper Mist Day 1 operations with Python.
- Execute Juniper Mist configuration with webhooks.
- Summarize 802.1x and EAP authentication.
- Examine RADIUS configuration and integration with Juniper Mist.
- Review Juniper Mist Access Assurance.
- Integrate Juniper Mist Edge with Juniper Mist Access Assurance.
- Implement security to a distributed enterprise network with Juniper Mist.
- Deploy a distributed enterprise architecture.
- Manage Day 2+ operations with the Mist API.

Detailed Course Outline

Associating AIOps to the Distributed Enterprise Network

- Define the requirements of a distributed enterprise network
- Compare AI and ML terminology
- Explain the basics of machine learning
- Define AIOps and its goals

Summarizing the Distributed Enterprise Network with Juniper Mist AI

- Explain the key concepts and terminology used in distributed networks

- Describe the components, portfolio, use cases, and architectures of Juniper Mist enterprise distributed networks

- Describe the Juniper Mist WAN Edge and AI-driven SD-WAN Assurance solution

- Define Juniper Mist Wired Assurance

- Define Juniper Mist Wireless Assurance

- Explain Juniper Mist Access Assurance

- Examine Marvis VNA for data center

- Define Juniper Mist Routing Assurance

- Explain Juniper Validated Designs

Automation Options for Juniper Mist

- Review Juniper Mist configuration templates

- Describe the available Juniper Mist APIs and their use cases

- Explain the REST API

- Explain the WebSockets API

Python Automation Toolkit, Part 1

- Refresh your Python Basics

Python Automation Toolkit, Part 2

- Explain how JSON and YAML are used for automation

- Describe data templating with Jinja2

Python Automation Toolkit, Part 3

- Describe how JupyterLab is used

Lab 1: Creating Jinja2 Templates and Introducing JupyterLab

Evaluating REST API Tools and Their Uses

- Review API tools and their uses
- Compare API tools and their use cases with Juniper Mist API

Lab 2: Using Basic Development Tools to Interact with the Juniper Mist REST API

Using the Juniper Mist REST API with Python

- Explain how to interact with the Mist API using Python requests
- Explain how to use the Mist API Python package

Lab 3: Performing Juniper Mist Operations with Python and the REST API

Automating Juniper Mist Day 1 Operations with Python

- Review the requirements for the Day 1 deployment
- Review the steps required to automate the deployment

Lab 4: Performing Juniper Mist Day 1 Operations using Python and the Juniper Mist REST API

Executing Juniper Mist Configuration with Webhooks

- Define a webhook API
- Describe how to use the Juniper Mist webhook API
- Describe the set of features available through the webhook API used by Juniper Mist

Lab 5: Executing Juniper Mist Webhooks

Summarizing 802.1x and EAP Authentication

- List the components of AAA
- Explain 802.1X operations
- Describe EAP operations
- Explain the different EAP types
- Describe How RADIUS works
- Describe RADIUS attributes (AVPs) and their uses
- Describe the RADIUS protocol and server

Examining RADIUS Configuration and Integration with Juniper Mist

- Explain how to integrate a third-party RADIUS server into Juniper Mist
- Explore the steps required to integrate ClearPass with Juniper Mist
- Analyze the correlation between RADIUS attribute labels and Juniper Mist and examine the outcomes of access requests
- Describe how SAML can integrate third-party identity providers with Juniper Mist

Reviewing Juniper Mist Access Assurance

- Define the zero-trust model
- Describe the Juniper Mist Access Assurance solution
- Define Juniper Mist Access Assurance and the supporting architecture and components

Integrating Juniper Mist Edge with Juniper Mist Access Assurance

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

Implementing Security to a Distributed Enterprise Network with Juniper Mist

- List the security components in a distributed enterprise network
- Describe Juniper Mist WAN Edge SSR security features
- Describe Juniper Mist wireless security features
- Describe Juniper Mist policy configurations
- Discuss the Juniper Mist alerts options
- Review Juniper Mist’s Premium Analytics security reports

Lab 6: Configuring Application Policy and Traffic Steering with Templates

Deploying a Distributed Enterprise Architecture

- Review the requirements for the Day 1 deployment
- Review the steps required to automate the deployment

Lab 7: Configuring Intersite Connectivity with Templates and Python

Managing Day 2+ Operations with Juniper Mist

- Review the available monitoring and troubleshooting tools
- Explain how to access statistics with the Mist API
- Explain how to access Insights with the Mist API
- Explain how to analyze data from the Mist API

Lab 8: Troubleshooting Day 2+ Operations with Juniper Mist

Skills You Will Learn:

- Associate AIOps to the distributed enterprise network.
- Summarize the distributed enterprise network with Juniper Mist AI.
- Explain the automation options for Juniper Mist.
- Refresh your Python basics.
- Explain how JSON and YAML are used for automation.
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Frequently Asked Questions

Q: What delivery options are available for Automating Juniper Mist AI Enterprise?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 5-day Automating Juniper Mist AI Enterprise course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Automating Juniper Mist AI Enterprise training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Automating Juniper Mist AI Enterprise?

Yes, we provide corporate training, dedicated training, and closed classes for Automating Juniper Mist AI Enterprise. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Automating Juniper Mist AI Enterprise, Enterprise Routing & Switching, AMAIE

Q: Why choose Nexus Human for Automating Juniper Mist AI Enterprise?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Automating Juniper Mist AI Enterprise training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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