Enterprise Computing Solutions - Education Services

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Automating Juniper Mist AI Enterprise (AJMA)

CODE:	LENGTH:	PRICE:
JUN_AJMA	40 Hours (5 dage)	kr 35,400.00

Description

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.

Objectives

• 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.

Audience

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

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:
o Introduction to Juniper Platform Automation and NetDevOps
o Deploying and Managing Wireless Networks with Juniper Mist AI
o Deploying and Managing Wired Networks for Campus and Branch with Juniper Mist AI

o Deploying and Managing SD-WAN with Juniper Mist AI

Programme

DAY 1

1 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
2 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
3 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
4 Python Automation Toolkit, Part 1
• Refresh your Python Basics
5 Python Automation Toolkit, Part 2
• Explain how JSON and YAML are used for automation
• Describe data templating with Jinja2

DAY 2

6 Python Automation Toolkit, Part 3
• Describe how JupyterLab is used
Lab 1: Creating Jinja2 Templates and Introducing JupyterLab
7 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
8 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
9 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
10 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

DAY 3
11 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
12 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
13 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
DAY 4
14 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
15 Implementing Security to a Distributed Enterprise Network with Juniper Mist
• List the security components in a distributed enterprisenetwork
• 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
16 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

Follow on courses

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• SRX Series
• Network Design
• Mist AI
• Session Smart Routers

Test and Certification

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JNCIP-MistAI

Session Dates

På anmodning. Kontakt os venligst

Yderligere Information

Denne træning er også tilgængelig som træning på stedet. Kontakt os for at finde ud af mere.