Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Deploying and Managing Juniper Wireless Networks with Mist AI (JWMA)

CODE:	LENGTH:	PRICE:
JUN_JWMA	32 Hours (4 days)	£3,195.00

Description

This intermediate four-day course provides students with the knowledge required to work with enterprise wireless technologies and Juniper Driven
by Mist AI™ wireless networks. Students will gain in-depth knowledge of wireless technologies and Juniper Mist™ technologies and learn how to
configure and use them. Through demonstrations and hands-on labs, students will gain experience with the features and functionalities of Mist AI-driven wireless.

Objectives

• Describe the IEEE 802.11 standard and amendments.
• Define Wi-Fi frequency bands.
• Apply radio frequency (RF) basics in Wi-Fi networks.
• Identify how modulation and coding make up wireless networks
• Describe the interworkings of association and roaming.
• Describe network contention factors.
• Define WLANs.
• Describe Juniper Mist.
• Describe Juniper Mist configuration objects for wireless networks.
• Describe Juniper Access Points and their configuration options.
• Describe Juniper Mist's WLAN configuration objects.
• Describe Juniper Mist™ Edge.
• Describe the Juniper Mist guest options.
• Describe wireless extensible LAN (WxLAN) policies and how to apply them.
• Examine wireless intrusion detection and prevention from Juniper Mist.
• Interpret wireless service-level expectations (SLEs) in relation to users.
• Define events and insights from the Juniper Mist cloud.
• Summarize Mist AI's radio resource management.
• Review additional data to create dashboards and reports.
• Evaluate machine learning and artificial intelligence.
• Summarize Marvis® Virtual Network Assistant queries.
• Describe the functions of Marvis Actions and Marvis Minis®.
• Describe the concepts and methods of location services.
• Examine the Juniper Mist™ User Engagement and Juniper Mist™ Asset Visibility cloud services.

Audience

This course benefits individuals working with enterprise wireless networks and applying artificial intelligence to their activities.

Prerequisites

• Basic TCP/IP skills.
• General networking.
• Completion of the Introduction to Juniper Mist AI course.

Programme

Module 1: Wi-Fi Standards
• Describe the purpose of the 802.11 standard and its physical layer amendments
Module 2: Wi-Fi Radio Frequency Bands
• Describe the 2.4-GHz frequency band used for WLANs and their channels
• Describe the 5-GHz frequency band used for WLANs and their channels
• Describe the 6-GHz frequency band used for WLANs and their channels
Module 3: Applying Radio Frequency Basics to Wireless Networks
• Describe the properties of an RF wave
• Convert dBm to Milliwatts using RF math
• Explain factors that contribute to RF signals and how they relate to WLANs
Module 4: Modulation and Coding for Wireless Networks
• Explain RF modulation and how it relates to WLAN data rates
• Describe the relationship between SNR and MCS
Module 5: Understanding Client Association and Roaming
• Describe the 802.11 state machine and the steps required for an 802.11 station to connect to an access point
• Explain the protocols used in a client's connection to the network
Module 6: Network Contention Factors
• Describe 802.11 contention
Module 7: Wireless Architectures and Life Cycle
• Differentiate WLAN architectures
• Describe the stages of the WLAN life cycle
Module 8: Getting Started with Juniper Mist
• Examine the Juniper Mist architecture
• Create a Juniper Mist account
• Summarize Juniper Mist subscriptions
• Summarize the MSP dashboard

DAY 1 Lab 1: Initial Setup **DAY 2**

Module 9: Juniper Mist Configuration Objects
• Explain the difference between organization-level and site-level configuration objects
• Define Juniper Mist configuration objects and their uses
Lab 2: Remote Site and Site Groups and Variables
Module 10: Juniper Access Points
• Summarize access points and their connectivity
• Describe the boot procedure for a Juniper Access Point, its requirements, and the process of adding a Juniper Access Point to the Juniper
Mist cloud
• Describe the common AP configuration settings
• Use the Juniper Access Points dashboard to get information about an AP
Module 11: WLANs
• Define SSIDs, BSSIDs, and their functions
• Review additional WLAN configuration options
• Explain WLAN security options and how they are configured in a Juniper Mist WLAN configuration object
• Describe data rates and how they are configured in Juniper Mist
• Explain SSID strategies for multiband deployments
Module 12: Juniper Mist Edge
• Define the features and benefits
• Identify popular use cases
• Categorize the product options
• Describe the installation
• Review the management of Juniper Mist Edge
• Troubleshoot the device and connectivity
Module 13: Guest Portals
• Describe the Juniper Mist guest options
Module 14: Juniper Mist WxLAN Policies
• Explain WxLAN policies and how they are configured
Lab 3: WLANs and WxLAN Policy
Module 15: Juniper Mist Wireless Security
• Describe WLAN security threats detected by the Juniper Mist WLAN system
Module 16: Juniper Mist Service-Level Expectations
• List Wireless Assurance SLEs and their classifiers
Module 17: Juniper Mist Events and Insights
• Describe site, AP, and client events
• Explain the packet capture functionality of the Juniper Mist system
• Describe the 802.11 MAC header and list the 802.11 MAC frame types
Lab 4: Troubleshooting Using SLEs
Module 18: Juniper Mist Radio Resource Management

DAY 3 • Describe Mist AI's radio resource management operations and their purposes **DAY 4**

Module 19: Juniper Mist Dashboard and Reports
• Evaluate custom dashboard and reports options
Module 20: Juniper Mist Artificial Intelligence and Troubleshooting Options
• Assess Juniper Mist's application of artificial intelligence
• Review the reactive and proactive troubleshooting methodologies
Module 21: Marvis Queries
• Explain the difference between Marvis natural language and Marvis query language
Module 22: Marvis Actions
• Explain the features of Marvis Actions
• Explain the functions of Marvis Minis
Lab 5: Marvis
Module 23: Location-Based Services
• Describe real-time location system
• Review Wi-Fi components for location services
Module 24: User Engagement and Asset Visibility
• Explain Juniper Mist's approach to user engagement
• Examine Juniper Mist's asset visibility capabilities

Follow on courses

RECOMMENDED NEXT COURSE
Automating Juniper Mist AI Enterprise, Deploying and Managing Juniper Wired Networks for Campus and Branch with Mist AI

Test and Certification

RELATED CERTIFICATION
JNCIS-MistAI-Wireless

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
10 Nov 2025	Virtual Training Class - TP	GMT	English	Instructor Led Online		£3,195.00

Additional Information

This training is also available as onsite training. Please contact us to find out more.