

Juniper's Mist AI Networks (MIST)

COURSE OVERVIEW

This four-day course is designed to provide students with the knowledge required to work with enterprise wireless technologies and Mist AI-driven Wi-Fi networks. Students will gain in-depth knowledge of Wi-Fi technologies, Mist technologies, and how to use and configure them. Through demonstrations and hands-on labs, students will gain experience with the features and functionality of Mist AI-driven Wi-Fi.

COURSE LEVEL

Intermediate

AUDIENCE

Individuals working with enterprise wireless networks and applying artificial intelligence to their activities

PREREQUISITES

- Basic TCP/IP skills
- Basic knowledge of wireless technologies (Wi-Fi) is recommended

ASSOCIATED CERTIFICATION

JNCIS-MIST

RELEVANT JUNIPER PRODUCT

- CSO
- EX Series
- SRX Series
- Mist

CONTACT INFORMATION

Americas region: training-AMER@juniper.net

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OBJECTIVES

- Explain the various Wi-Fi
 - Physical (PHY) layers
 - Frequency bands
 - Modulation and coding
 - Arbitration and contention methods
 - WLAN architectures and concepts
- Describe WLAN association and roaming
- Explain the wireless LAN life cycle
 - Business factors
 - Technical considerations
 - Design and modeling
 - Deployment
 - Validation and optimization
- Explain and configure Mist architecture
 - Cloud architecture
 - AP states
 - Boot options
 - Cloud adoption
 - Mist Edge
 - Control, data, and management planes
 - Component communication
 - AP registration and release
- Construct and define Mist WLAN configurations
 - WLAN concepts
 - Beacons
 - Basic and required data rates
 - Configuration options
 - Radio settings
 - Security concepts
- Explain network operations using Mist
 - Wireless Assurance
 - Event and Insights
 - Radio Resource Management
 - Wired Assurance
- Use Mist intelligent analytics and Marvis
 - AI and machine learning
 - Troubleshooting
- Describe Real Time Location Sensor (RTLS) concepts and method
 - Wi-Fi location
 - Virtual BLE
 - RTLS applications
- Describe Mist automation and scripting
 - API overview
 - Data driven
 - Event driven

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COURSE CONTENT

DAY 1

1	Course Introduction
2	Wi-Fi Basics <ul style="list-style-type: none"> • What Is Wi-Fi? • 802.11 PHYs • Frequency Bands • RF Basics • Modulation and Coding • Network Arbitration and Contention • WLAN Architectures • WLAN Association and Roaming • Network Contention • Wireless LAN Life Cycle LAB 1: WLAN Testing

DAY 2

3	Mist Architecture and Initial Setup <ul style="list-style-type: none"> • Mist Architecture • Mist Account Organizations and Subscriptions • Configuration Objects • Organization Objects Versus Site Objects • Access Points Overview, Configuration, and Troubleshooting LAB 2: Initial Setup LAB 3: Remote Site
4	WLANs <ul style="list-style-type: none"> • WLAN Concepts • Security Concepts • Mist WLANs • Policy (WxLAN) • Wireless Intrusion Detection and Prevention LAB 4: WLANs

DAY 3

5	Network Operations <ul style="list-style-type: none"> • Wireless Assurance • Events and Insights • Radio Resources Management (RRM) • Wired Assurance LAB 5: SLE Troubleshooting
6	Wired Assurance <ul style="list-style-type: none"> • Solution and Supported Devices • Provisioning and Deployment • Operation • Design and Architecture LAB 6: Wired Assurance
7	AI and Marvis <ul style="list-style-type: none"> • Artificial Intelligence (AI) Reactive and Proactive Troubleshooting • Reactive and Proactive Troubleshooting • Marvis Language and Actions LAB 7: Marvis

DAY 4

8	Location-Based Services <ul style="list-style-type: none"> • Concepts and Methods • Wi-Fi Location • Virtual BLE • User Engagement • Asset Visibility
9	Automation and Scripting <ul style="list-style-type: none"> • Mist API Overview • Automation and Scripting Overview LAB 8: RESTful API LAB 9: WebSocket API

Continued on the next column.

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