

# Introduction to Juniper Mist Al

#### **COURSE OVERVIEW**

This three-day, introductory-level course serves as the springboard to understanding the Mist AI™ Full Stack offerings. This course provides students with a comprehensive understanding of a fully deployed, driven by Mist AI wired, wireless, and software-defined WAN (SD-WAN) network. In their lab environments, students will explore each Mist AI offering at a high level, focusing on wireless and Edge products, switching and campus design, SD-WAN connectivity, enterprise routing capabilities, deploying Juniper Mist™ Access Assurance, and Juniper® Location Service, driven by Mist AI™.

This course outlines Mist AI and how the full stack combines for complete AI-native networking. After completing this course, students can articulate the benefits and essential functions of the flexible, scalable, and distributed Mist AI architecture across their wired, wireless, and SD-WAN networks.

#### **COURSE LEVEL**

Introduction to Juniper Mist AI is an introductory course.

#### **AUDIENCE**

Individuals with a high-level understanding of the Mist AI Full Stack and Mist AI-Native Networking solutions. This course serves as the first step in the education track in the Juniper Mist $^{\text{TM}}$  curriculum.

#### **PREREQUISITES**

- Basic Junos OS knowledge
- Basic networking knowledge and an understanding of the Open Systems Interconnection (OSI) reference model and the TCP/IP protocol suite
- Basic understanding of wireless technology
- Completion of the self-study Networking Technology Foundations e-learning course

#### **RELATED CERTIFICATION**

#### JNCIA-Mist Al

#### **RELATED JUNIPER PRODUCTS**

EX Series, Junos OS, MX Series, SRX Series, Network Design, Juniper Apstra, Mist Al, Session Smart Routers

#### RECOMMENDED NEXT COURSE

<u>Deploying and Managing Juniper Wireless Networks with Mist AI, Deploying and Managing Juniper Wired Networks for Campus and Branch with Mist AI, or explore the Mist AI Learning Path</u>

#### **OBJECTIVES**

- Describe the Juniper Mist<sup>™</sup> cloud.
- Explain the key concepts, terminology, and configuration for the Juniper Mist Full Stack, including:
  - Juniper Mist Wireless Assurance.
  - Juniper Mist Wired Assurance.
  - o Juniper Mist WAN Assurance.
- Articulate key features in the Juniper Mist solutions, including:
  - o Marvis® Virtual Network Assistant, Marvis Actions, Marvis Minis
  - Juniper Mist Network Analytics.
  - Juniper Mist Premium Analytics.
  - o Juniper Mist Access Assurance (NAC).
  - Juniper Mist Routing Assurance.
  - Location Service, driven by Mist Al.

Contact Juniper Education Services: Americas: <a href="mailto:training-amer@juniper.net">training-amer@juniper.net</a> | EMEA: <a href="mailto:training-emea@juniper.net">training-emea@juniper.net</a> | APAC: <a href="mailto:training-apac@juniper.net">training-apac@juniper.net</a> | APAC: <a href="mailto:training-apac@juniper.net">training-apac



- o Juniper Mist Edge.
- o Juniper Secure Services Edge integrations.
- o Juniper Apstra™ Cloud Services integration with Mist Al.

#### **COURSE CONTENTS**

#### DAY 1

#### Module 1: Introduction to Juniper Mist

- Outline Juniper Mist
- Describe Marvis and Marvis Minis
- Define Juniper Mist full stack
- Outline Juniper Mist services and solutions

#### Module 2: Introduction to Artificial Intelligence and the Juniper Mist Al-Native Network

- Describe the evolution of artificial intelligence
- Describe machine learning
- Describe Mist Al
- Describe the Juniper Mist cloud

#### Module 3: Introduction to Marvis VNA

- Describe Marvis VNA
- Describe Marvis Actions
- Provide an overview of the Marvis Conversational Assistant and the Marvis Query Language
- Describe Marvis Minis

#### Module 4: Juniper Mist-Accounts and Management

- Describe how to create and manage a Juniper Mist account
- Outline Juniper Mist management and administration
- Describe Juniper Mist e-mail alerts and notifications
- Outline Juniper Mist subscription options

#### Lab 1: Juniper Mist Portal and Initial Configuration

#### Module 5: Juniper Mist Wireless Assurance—Day 0 Expectations

- Define Day 0 expectations
- Outline the configuration of sites, WLAN templates, WLANs, and VLANs
- Describe RF templates and device profiles
- Explain SSID strategies for 802.1X, portals, and BYOD

#### Module 6: Juniper Mist Wireless Assurance—Deployment and Workflow

- Describe Day 1 expectations
- Define Juniper Access Points
- Describe how to onboard access points
- Outline Juniper Mist Wireless Assurance use cases

#### Module 7: Juniper Mist Wireless Assurance—Management and Monitoring

- Define Day 2+ expectations
- Define Juniper Mist Wireless Assurance
- Describe wireless insights, SLEs, and monitoring
- Describe how to view clients
- Describe Marvis Actions for Juniper APs

#### Lab 2: Wireless Assurance



#### DAY 2

#### Module 8: Juniper Mist Location Services—Capabilities and Use Cases

- Describe the use cases for Location Services
- Outline the Juniper Mist Location Service Devices
- Explain BLE
- Describe vBLE Engagement and virtual beacons
- Outline the features of Asset Visibility
- Explain Juniper Mist User Engagement

#### Module 9: Juniper Mist Wired Assurance—Day 0 Expectations

- Define Day 0 expectations
- Describe the Wired Assurance configuration hierarchy
- Outline wired configuration elements
- Describe how to configure VLANs and port profiles, and how to assign them
- Describe dynamic port profiles

#### Module 10: Juniper Mist Wired Assurance-Deployment and Workflow

- Define Day 1 expectations
- Explain Juniper Mist Wired Assurance and Wired Visibility
- Describe Juniper Mist Wired devices and Virtual Chassis
- Outline how to onboard switches
- Describe distributed enterprise deployments
- Compare traditional campus networks to EVPN-VXLAN campus fabrics
- Explain microsegmentation
- Outline the Juniper Mist EVPN Campus Fabric Wizard

#### Module 11: Juniper Mist Wired Assurance—Management and Monitoring

- Define Day 2+ expectations
- Describe wired insights, SLEs, and monitoring
- Describe Marvis Actions for Juniper switches

#### Lab 3: Wired Assurance

#### Module 12: Juniper Mist Access Assurance—Capabilities and Use Cases

- Describe the components of network access control
- Explain the features of Juniper Mist Access Assurance
- Describe the Juniper Mist Access Assurance use cases
- Describe authentication policies
- Describe posture compliance

#### Module 13: Juniper Mist Routing Assurance—Capabilities and Use Cases

- Outline Juniper Mist Routing Assurance features
- Describe Juniper Mist Routing Assurance use cases
- Describe the onboarding and configuration workflows for Day 0 and Day 1
- Explain WAN Monitoring SLEs and Day 2 Experiences



#### DAY 3

#### Module 14: Juniper Mist SD-WAN Capabilities and Use Cases

- Define SD-WAN
- Describe WAN Edge and Overlay
- Explain tunnel-free routing
- Outline platform considerations and deployment patterns

#### Module 15: Juniper Mist WAN Assurance-Deployment Workflow

- Outline the Juniper SD-WAN Intent Model
- Outline WAN Edge templates and hub profiles
- Describe Application Steering and SD-WAN policies
- Outline secure services edge integrations

#### Module 16: Juniper Mist WAN Assurance—Management and Monitoring

- Explain Session Smart SD-WAN SLEs
- Describe Marvis Actions and WAN Edge Insights for SD-WAN
- Outline WAN user experiences and application-based context
- Outline Customer Deployment Journey

#### Lab 4: WAN Assurance

#### Module 17: Juniper Mist Templatization, Variables, and Automation

- Define Juniper Mist templates
- Outline Wireless, Wired, and SD-WAN templating
- Describe Juniper Mist template deployment
- Describe Juniper Mist variables

#### Module 18: Juniper Mist API

- Explain API concepts
- Describe the Juniper Mist RESTful API
- Describe the Juniper Mist WebSocket API
- Describe the Juniper Mist Webhooks API

#### Module 19: Juniper Mist Documentation and Support

- Explain Juniper Mist documentation
- Outline how to create support tickets
- Explain feature requests

Lab 5: Troubleshooting and Juniper Mist Help

IIMA20250429