

Juniper Mist AIOps

COURSE OVERVIEW

This three-day course explores both the available resource-based Juniper Driven by Mist AI™ data and real-time event-based Mist AI™ data. The class examines how the data can be accessed and searched through the Mist UI through Marvis® Virtual Network Assistant. The class also explores automation and integration using the Juniper Mist™ APIs. Through demonstrations and hands-on labs, students will gain experience with features of Juniper Mist AI.

COURSE LEVEL

Intermediate

INTENDED AUDIENCE

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

PREREQUISITES

- Basic networking (wired and wireless) knowledge
- Understanding of the Open Systems Interconnection (OSI) reference model and the TCP/IP protocol suite
- Basic scripting knowledge; Python knowledge recommended
- Completion of the [Deploying and Managing Juniper Wireless Networks with Mist AI](#) course or equivalent knowledge

RELATED JUNIPER PRODUCT

- Mist AI

CONTACT EDUCATION SERVICES

- Americas: training-apac@juniper.net
- EMEA: training-emea@juniper.net
- APAC: training-amer@juniper.net

OBJECTIVES

After successfully completing this course, you should be able to:

- Describe the data available in the Juniper Mist™ cloud.
- Describe the components and operations of Marvis.
- Use Marvis to access Juniper Mist AI data.
- Explain the built-in integration options.
- Describe the features and limitations of Juniper Mist RESTful API.
- Describe the features and limitations of Juniper Mist WebSocket API.
- Describe the features and limitations of Juniper Mist Webhook API.
- Perform Juniper Mist AI operations using Postman.
- Perform Juniper Mist AI operations using Node-RED.
- Describe Juniper Mist API using Python.
- Perform advanced Juniper Mist AI automation using Python.
- Describe 802.1X authentication and operations.
- Perform RADIUS server integration and role-based policy configuration.

COURSE CONTENTS

DAY 1

1	Course Introduction
2	What Is AIOps? <ul style="list-style-type: none"> Define AI and ML terminology Define AIOps Explain the goals of AIOps Discuss the importance of data Explain Juniper Mist cloud components
3	Mist AI Data <ul style="list-style-type: none"> Describe Access Point (AP) Data Describe LLDP Data Describe Switch Data Describe Config Data—JSON Describe Event Data Describe Insight Data Describe Client Stats Describe AP Stats
4	RESTful API <ul style="list-style-type: none"> Define RESTful API Describe how to build RESTful API requests Describe features available using the RESTful API Describe the limitations of the Mist RESTful API

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COURSE CONTENTS

DAY 1 (continued)

5	Postman <ul style="list-style-type: none"> Define Postman Explain how Postman interacts with the Mist API Lab 1: Automating Juniper Mist AI Operations using Postman <ul style="list-style-type: none"> Describe how to use Postman to automate tasks Set up your own Postman environment Use the Juniper Mist Collection within your own Postman environment Lab 2: Juniper Mist Runner Collection
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DAY 2

6	Marvis <ul style="list-style-type: none"> Describe Marvis natural language queries Describe Marvis query language queries Describe the Marvis conversational interface Explain Marvis Actions
7	Marvis Data <ul style="list-style-type: none"> Describe Marvis Client and roaming data Describe how to access and query Mist data Explain how Marvis uses Juniper Mist data
8	Mist WebSocket API <ul style="list-style-type: none"> Define WebSocket API Describe how to use the Mist WebSocket API Describe the set of features available via the WebSocket API used by Juniper Mist Describe the limitations of the Mist WebSocket API
9	Webhook API <ul style="list-style-type: none"> Define Webhook API Describe how to use the Mist Webhook API Describe the set of features available via the Webhook API used by Mist Describe the limitations of the Mist Webhook API
10	Node-RED <ul style="list-style-type: none"> Define Node-RED Describe how to use Node-RED to interact with the Juniper Mist API Describe how to use Node-RED and the Juniper Mist API to solve use cases Use Node-RED in the lab to interact with the Juniper Mist API

DAY 2 (continued)

11	Python and Mist API <ul style="list-style-type: none"> Define Python Explain why we use Python to perform network automation Describe how to interact with the Juniper Mist API using Python Build Python scripts to interact with the Mist APIs Lab 3: Python and Juniper Mist API
12	Built-In Integration <ul style="list-style-type: none"> Explain Ekahau and iBwave Import Explain CloudShark integration Describe how to integrate external captive portals
13	Python Automation <ul style="list-style-type: none"> Explain how to leverage Python to perform automation Describe what type of automation is possible with Python Review automation use cases and examples Build Python scripts to interact with the Mist APIs Lab 4: Python Automation
14	802.1X Authentication <ul style="list-style-type: none"> List the components of AAA Explain 802.1X operations Describe EAP operations Explain the different EAP types and how they differ Describe the RADIUS protocol and server Describe RADIUS attributes and how they are used
15	RADIUS Integration <ul style="list-style-type: none"> Explain how to integrate a third-party RADIUS server into Mist Explore the steps required to integrate ClearPass with Mist Describe how to map RADIUS attributes to Mist labels Explain how to use RADIUS attribute labels in WxLAN policies Explain how SMAL can be used to integrate third-party identity providers for administrator logins

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