Automating Visibility with Gigamon Fabric Manager API

Category: Networking & Security | **Vendor:** Various

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This course provides a comprehensive overview of the Gigamon Visibility Fabric and how to leverage the Gigamon Fabric Manager API for automation and integration. It covers fundamental concepts, API architecture, authentication, and practical use cases, with a strong emphasis on configuring GigaSMART applications. Hands-on labs and real-world examples enable students to gain practical experience in automating network visibility workflows.

Materials:

- Course slides
- Lab guides
- API documentation
- Sample scripts
- Virtual lab environment

Assessment:

- Lab exercises
- Quizzes
- Final project (optional)

About This Course

This course provides a comprehensive overview of the Gigamon Visibility Fabric and how to leverage the Gigamon Fabric Manager API for automation and integration. It covers fundamental concepts, API architecture, authentication, and practical use cases, with a strong emphasis on configuring GigaSMART applications. Hands-on labs and real-world examples enable students to gain practical experience in automating network visibility workflows.

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Assessment:

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Who Should Attend

- Network Engineers
- Security Engineers
- Automation Engineers
- DevOps Engineers
- System Administrators
- Anyone responsible for managing and automating network visibility solutions

Prerequisites & Entry Requirements

General Prerequisites:

Skills you should have before taking this course are;

- Familiarity with TCP/IP networking concepts
- Basic understanding of network monitoring and security principles
- Working knowledge of RESTful APIs
- Basic scripting skills (e.g., Python, Bash)

These skills can be found in the following courses;

- Gigamon Foundations I: Insight into Network Data Across Your Network (GFD1)
- Gigamon Foundations II: GigaSMART Traffic Intelligence Services (GFD2)
- Gigamon Programmability and Automation for Network Visibility Engineers (GPNE)

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Upon completion of this course, students will be able to:

- Describe the Gigamon Visibility Fabric architecture and its components.
- Understand the principles of network visibility and its importance.
- Explain the architecture and capabilities of the Gigamon Fabric Manager API.
- Authenticate and authorize API requests.
- Use the Gigamon Fabric Manager API to configure Gigamon devices and GigaSMART applications.
- Automate the deployment and management of visibility solutions.
- Monitor network traffic and performance using the API.
- Troubleshoot network issues using API-driven diagnostics.
- Integrate the Gigamon Fabric Manager API with other network management and security tools.
- Develop custom scripts and applications to interact with the Gigamon API.

Detailed Course Outline

Day 1: Introduction to Gigamon Visibility Fabric and Fabric Manager API

Module 1: Introduction to Gigamon Visibility Fabric

- Overview of Network Visibility
- Gigamon Visibility Fabric Architecture
- Nodes, Fabric, and GigaSMART
- Key Concepts
- Traffic Acquisition, Filtering, and Forwarding

- GigaSMART Applications

- Use Cases

- Network Monitoring

- Security

- Performance Management

Module 2: Introduction to Gigamon Fabric Manager API

- API Fundamentals

- RESTful API Principles

- HTTP Methods (GET, POST, PUT, DELETE)

- Status Codes

- Gigamon Fabric Manager API Architecture

- API Endpoints and Resources

- Data Formats (JSON)

- API Capabilities

- Configuration Management (including GigaSMART)

- Monitoring and Analytics

- Troubleshooting and Diagnostics

Day 2: Configuring Gigamon Devices and GigaSMART with the API

Module 3: API Authentication and Authorization

- Authentication Methods

- Authorization and Access Control

- User Roles and Permissions

- API Security Best Practices

Module 4: Configuring Gigamon Devices and GigaSMART with the API

- Device Discovery and Inventory
- Retrieving Device Information
- Managing Device Connections
- Port and Interface Configuration
- Configuring Port Properties
- Creating and Managing flow MAPS
- Traffic Policies and Filtering
- Defining Filtering Rules
- Configuring Traffic Forwarding
- GigaSMART Configuration via API
- Understanding GigaSMART Applications and their parameters
- Deploying and configuring GigaSMART applications using the API
- Packet Slicing
- Header Stripping
- Masking
- Deduplication
- SSL Decryption
- NetFlow/IPFIX generation
- Chaining GigaSMART applications for advanced traffic processing

Day 3: Monitoring, Troubleshooting, and Advanced API Usage

Module 5: Monitoring and Analytics with the API

- Retrieving Statistics and Metrics
- Port Statistics
- System and GigaSMART Performance Data
- Event and Alert Management
- Managing Events
- Handling Alerts related to GigaSMART operations

- Flow Data Export

- Configuring NetFlow/IPFIX Export from GigaSMART via API

Module 6: Troubleshooting and Diagnostics with the API

- Retrieving System Logs

- Accessing and Filtering Logs, including GigaSMART logs

- Performing Diagnostic Tests

- Verifying GigaSMART configuration and status through the API

- Troubleshooting Common Issues

- API Error Handling

- Connectivity Troubleshooting

- Troubleshooting GigaSMART processing issues

Module 7: Advanced API Usage and Integration

- Scripting with the Gigamon API

- Using Python and other languages to automate GigaSMART configuration

- Automating repetitive tasks related to GigaSMART

- Integrating with Network Management Systems

- Example: Integrating with Splunk/ServiceNow to monitor GigaSMART health

- Integrating with Security Information and Event Management (SIEM) Systems

- Sending GigaSMART generated metadata to SIEM

- Workflow Automation

- Creating automated workflows for network changes, including GigaSMART updates

Day 4: Deep Dive into GigaSMART API - Part 1

Module 8: GigaSMART API - Deduplication

- Understanding deduplication concepts and benefits.
- Configuring deduplication using the Gigamon Fabric Manager API.
- Retrieving deduplication statistics via the API.
- Use cases and best practices for deduplication.

Module 9: GigaSMART API - Header Stripping

- Exploring header stripping techniques and use cases.
- Utilizing the API to configure header stripping profiles.
- Specifying headers to remove (e.g., Ethernet, TCP, UDP).
- Practical examples and API interactions for header stripping.

Module 10: GigaSMART API - Masking

- Understanding data masking and its importance for privacy.
- Applying masking to specific packet fields using the API.
- Configuration options and examples for masking sensitive data.

Day 5: Deep Dive into GigaSMART API - Part 2

Module 11: GigaSMART API - Slicing

- Packet slicing concepts and its applications.
- Configuring packet slicing using the Gigamon Fabric Manager API.
- Setting slice lengths and offsets through the API.
- Use cases and API examples for packet slicing.

Module 12: GigaSMART API - Advanced Packet Filtering

- Exploring advanced filtering techniques beyond basic filtering.

- Implementing complex filtering rules using the API.

- Combining multiple filter criteria for granular traffic selection.

- Examples of advanced filtering scenarios and API configurations.

Module 13: GigaSMART API - GMIP Tunneling

- Understanding GMIP.

- Configuring GMIP tunneling using the API.

- Encapsulating and transporting metadata with GMIP.

- Use cases and API interactions for GMIP tunneling.

Skills You Will Learn:

Upon completion of this course, students will be able to:

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- Understand the principles of network visibility and its importance.
- Explain the architecture and capabilities of the Gigamon Fabric Manager API.
- Authenticate and authorize API requests.
- Use the Gigamon Fabric Manager API to configure Gigamon devices and GigaSMART applications.
- Automate the deployment and management of visibility solutions.
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Frequently Asked Questions

Q: What delivery options are available for Automating Visibility with Gigamon Fabric Manager API?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 5-day Automating Visibility with Gigamon Fabric Manager API course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Automating Visibility with Gigamon Fabric Manager API training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Automating Visibility with Gigamon Fabric Manager API?

Yes, we provide corporate training, dedicated training, and closed classes for Automating Visibility with Gigamon Fabric Manager API. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Automating Visibility with Gigamon Fabric Manager API, Gigamon Essentials, GAVFM

Q: Why choose Nexus Human for Automating Visibility with Gigamon Fabric Manager API?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Automating Visibility with Gigamon Fabric Manager API training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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