Course Data Sheet

NNMi120 – Network Node Manager i 2018.x Essentials

Course No.: NNMI120-201805	Category/Sub Category: Operations Management/Network Management
For software version(s):2018.05 Software version used in the labs:2018.05	Course length: 5 days
Delivery formats: Instructor Led (ILT) and Virtual Instructor Led (VILT)	Training is available as a private session onsite.
To order visit: Software Education	

Course Description

This course is designed for those Network and/or System administrators tasked with the installation, configuration, and maintenance of the Network Node Manager i (NNMi) product. This course teaches the skills needed to successfully implement the product to manage small, medium, or large networked enterprises. The course includes training on the NNM i Smart Plug-In (NNM iSPI) Performance for Metrics Software, and NNMi Smart Plug-In Engineering Toolset.

This course is designed for administrators of NNMi 2018.x. The hands-on lab exercises in his course use NNMi version 2018.05.

Audience / Job Roles

This course is intended for network or system administrators and network engineers seeking a more in-depth knowledge of Network Node Manager i 2018.x.

Course Objectives

Upon successful completion of this course, you should be able to:

- Configure network discovery
- Manipulate NNMi tables and device object records
- Design topology maps
- Configure incidents
- Generate performance graphs
- Generate performance reports
- Perform core administration tasks
- Manage an ESXi virtual environment

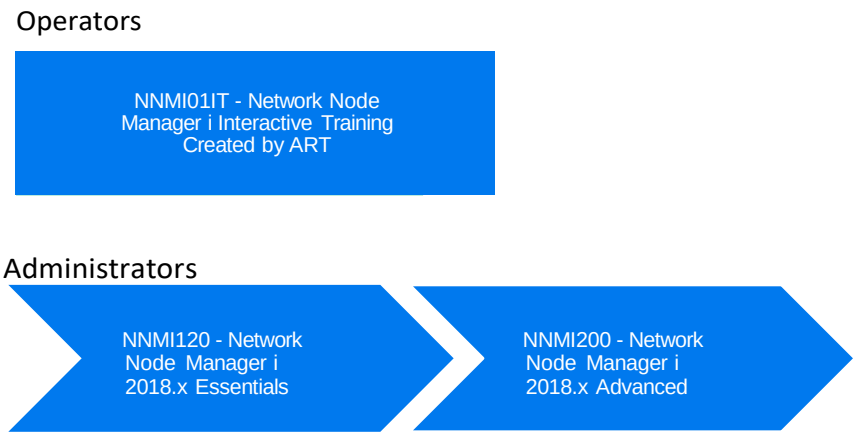
- Describe the features available in the iSPI for Engineering Toolset

Prerequisites / Recommended Skills

To be successful in this course, you should have the following prerequisites or knowledge.

- Windows system administration
- Network protocols
- Network device administration

Learning Path



Certification

N/A

Course Topics

Modules	Objectives
Module 1: Introduction to Network Node Manager i (NNMi) Software	• Describe how NNMi supports best business practices • Describe how NNMi fits in the family of management products • Differentiate NNMi and NNMi Advanced feature sets • List add-on and integrated products available • Describe how NNMi supports efficiency and effectiveness in managing your complex network
Module 2: Managing SNMP and ICMP Communication	• Configure authentication for SNMPv1, SNMPv2, SNMPv3 (individual, region, type, filter, default) • Configure alternative authentication names • Use an alternate SNMP port or timeout • Use an SNMP proxy • Use the SNMP Command Line Interface (CLI)
Module 3: Discovery Architecture and Operation	• Describe what NNMi discovers, how far, which objects • Describe how NNMi groups discovered objects • Describe how NNMi discovers connectivity • Describe limits of duplicate IP address management
Module 4: Configuring Discovery	• Turn auto-discover (inventory) on/off • Schedule discovery • Initiate manual discovery (single, group, all nodes) • Expand discovery (single node, from file, for region) • Limit discovery (filter by region, type, node or interface level, before/after SNMP query) • Recheck node configuration • Recheck connectivity • Remove discovered objects (individually, by filter, by region)
Module 5: Using the Management Console	• Start the NNMi console • Locate workspaces • Navigate tables, maps, views, and forms • Access object details • Working with Performance and Overview Dashboards • Sort and filter tables
Module 6: Configuring Node and Interface Groups	• Describe how node and interface groups are applied in NNMi • Configure a group by object type, region, specific object, default • Use advanced filtering on object capabilities
Module 7: Customizing Views	• Create a map of a node group • Place the map in the list of topology maps • Control the default map displayed when the console opens • Add a background to a map • Control status propagation • Add connections to Path View maps
Module 8: Status Monitoring Architecture and Operation	• Differentiate between fault monitoring and performance monitoring • Identify data gathered for interface monitoring and component health • Describe the roles of State Poller service and Causal Engine • Describe the operation of neighbor analysis

Module 9: Customizing Status Monitoring	• Turn polling on/off (specific nodes, region, type) • Set polling interval by node or interface group • Set objects to out-of-service mode • Select polling protocol and set of data to be gathered • Verify the polling settings for an object • Perform an on-demand status poll of an object • Check polling backlog/performance • Exclude objects from status polling (individual, region, type)
Module 10: Configuring Users	• Configure a user account for each of your NNMi users with the appropriate capabilities • Describe what each user group may access in the console • Configure Custom Security groups • Configure tenants • Configure command-line permissions • Audit account activity
Module 11: Troubleshooting Network Issues	• Describe the incident life cycle, assignments and ownership, and states • View network incidents and incident details • Sort and filter incidents • Assign and reassign incidents • Delete an incident • Annotate an incident • View historical incidents (closed) • Cross-launch to graphical visualization • Interpret root cause incidents • Launch and interpret network visualization (different types) • List nodes, interfaces, and addresses in the network • View object details • Filter a view by node group or interface group • Invoke troubleshooting tools • Check the status and configuration of a device • Display incidents for a device
Module 12: Troubleshooting Using MIBs	• Describe the use of Management Information Base (MIB) browsing and graphing during troubleshooting • Graph MIB data • Browse MIB data
Module 13: Event Monitoring	• Describe event sources and processing
Module 14: Customizing Event Monitoring	• Add and delete event definitions • Customize event category/severity/message • Create a new category or family • Add vendor trap definitions • Exclude an event from the display • Block trap storms • Block reception of events
Module 15: Thresholds and Custom MIB Monitoring	• Configure iSPI Performance for Metrics Software thresholds and incidents • Configure Custom Polling Threshold Monitoring

Module 16: iSPI Performance for Metrics Software Architecture	• Describe how NNMi passes data to the iSPI for Performance Metrics Software • Describe how the iSPI Performance for Metrics Software stores data • Perform basic troubleshooting steps • Verify that data is being collected by NNMi • Verify that collected data is being used by the iSPI Performance for Metrics Software • Check that the iSPI Performance for Metrics Software is configured properly • Start the iSPI Performance for Metrics Software service • Verify that performance polling is enabled • Verify that the iSPI Performance for Metrics Software Home Page opens
Module 17: Viewing Performance Data and Reports	• List the reports available from the iSPI Performance for Metrics Software • Explain the difference between reports and live reports • Modify the report settings to change the way a report displays data • Determine the appropriate report to view based on use cases
Module 18: Administering NNMi	• Customize NNMi console settings • Back up NNMi data and configuration • Check NNMi health from the GUI • Locate NNMi log files • Move from test to production (import/export tools)
Module 19: Managing Virtualization	• Identify the Hypervisor (ESXi Server) hosting a virtual machine (VM) • Use a loom map to identify the hosting Hypervisor's Network Interface Card (NIC) that the Virtual Machine is connected to • Use a wheel map to identify the hosting hypervisor's
Appendix A: iSPI Engineering Toolset	• Describe the functionality provided by the iSPI Network Engineering Toolset • Generate Incident-triggered diagnostic execution • Generate Trap Analytics reports