

Network Management Suite (NMS)

Network Management Applications for Centralized Visibility and Control



Provides identity-based visibility and control of network resources with an open, standards-based architecture

Automates management tasks to significantly reduce IT administrative effort

Provisions role-based access controls for wired and wireless environments

Simplifies configuration change and troubleshooting procedures

Enables easy policy deployment aligned with industry-specific best practices

Product Overview

The Enterasys NMS suite of management applications provides centralized visibility and granular control of enterprise network resources. NMS is distinctive for granularity that reaches beyond ports and VLANs down to individual users, applications, and protocols. NMS increases efficiency, enabling IT staff to avoid time-consuming manual switch-by-switch configuration tasks. NMS fills the functionality gap between traditional element managers that offer limited vendor-specific device control, and expensive, complex enterprise management applications. NMS is a key component of Enterasys networking solutions and assures that network operations are aligned with the business, operationally efficient, and secure.

Application	Benefits
NMS Console Graphically displays aggregated network information for centralized and simplified management of all infrastructure components as a single system	<ul style="list-style-type: none"> Optimizes the efficiency of network operations Facilitates communication and alignment between IT and line of business Adds value to existing management platforms Reduces total cost of ownership
NMS Policy Manager Automates the definition and enforcement of network-wide policy rules controlling QoS, priority, bandwidth, and security	<ul style="list-style-type: none"> Fully aligns the network infrastructure with business objectives Simplifies policy lifecycle management easing IT burden Reduces troubleshooting time Minimizes risk of disruptions
NMS Automated Security Manager Integrates with Enterasys IPS, NAC, SIEM, and other third party security appliances to respond automatically and remediate threats in real-time	<ul style="list-style-type: none"> Protects corporate data and ensures network availability Ensures response actions are policy-based and executed consistently Reduces IT staff burden and costs
NMS Network Access Control (NAC) Manager Manages the NAC solution providing granular control over users and applications, and featuring a high-level dashboard view of the complete security posture	<ul style="list-style-type: none"> Ensures that only the right users have access to the right information from the right place and time Maintains guest/contractor and user productivity Simplifies end-system compliance monitoring and reporting Delivers quick time to value
NMS Inventory Manager Automates management of device configurations and provides tools to capture, modify, load, and verify configurations	<ul style="list-style-type: none"> Provides network control and better efficiency Streamlines IT operations and enhances staff productivity Enables audit efficiency and cost savings

Benefits

Business Alignment

- Transform complex network data into business-centric, actionable information
- Centralize and simplify the definition, management, and enforcement of policies such as guest access
- Efficiently address regulatory compliance requirements

Operational Efficiency

- Reduce IT administrative effort with the automation of routine tasks
- Streamline management with the integration of wired and wireless networks
- Easily enforce policies network-wide for QoS, bandwidth, etc.
- Integrate with enterprise management platforms

Security

- Protect corporate data with centralized monitoring, control, and real-time response
- Enhance existing investments in network security

Service and Support

- Industry-leading first call resolution rates and customer satisfaction rates
- Personalized services, including site surveys, network design, installation and training

There is nothing more important than our customers.

NMS Value Bundles

NMS applications are designed for flexible deployment. With NMS Console, each application offers a standalone solution that can be seamlessly upgraded as other capabilities are needed. NMS applications are also combined in cost-saving bundles that address high priority IT management needs. Enterasys provides cost efficient choices so enterprises can address their priorities, optimize their budget use, and demonstrate quick time-to-value.

- NMS Single User – NMS Console, Policy Manager, and Inventory Manager for departments, smaller enterprises, or as an introduction to NMS's benefits
- NMS Policy Bundle – NMS Console and Policy Manager for enterprises focusing on policy management efficiency and cost savings
- NMS Advanced Bundle – a cost-effective package including all NMS capabilities
- NMS Advanced Bundle with Redundancy – provides a supplemental NMS license for fault tolerance for those enterprises with high-availability SLA requirements
- NMS Appliance – server with all NMS applications pre-installed (activated via license keys) for enterprises that prefer the easy deployment of an appliance

NMS Console

NMS Console is the foundation for centrally monitoring and managing all the security-enabled components in the infrastructure. NMS Console enables the network infrastructure to be viewed as a unified whole rather than as a collection of disparate individual components. It transforms complex network data into graphical, business-centric information making the network less complicated and better aligned with business requirements.

With its distributed client/server architecture, NMC Console is exceptionally convenient to use. A user with appropriate security credentials anywhere on the network can access a launch page and log into any of the NMS-managed applications. NMS Console simplifies routine and one-time tasks such as reconfiguring switches and access points, monitoring network performance, and isolating faults. It takes advantage of advanced functionality in Enterasys switching, routing, and wireless products including topology maps, FlexViews (graphical depictions of a broad range of network parameters), VLAN management, device discovery, and event logging.

NMS Policy Manager

NMS Policy Manager centralizes all the policies for users, applications, protocols, VLANs, ports, and data flows. It automates the definition, distribution, and enforcement of policy rules across the entire network. With an intuitive user interface, administrators can define policies once and then automatically enforce them on Enterasys policy-enabled infrastructure devices.

Policy Manager is role-based, significantly streamlining policy administration. Individual users with similar behavior profiles, such as sales managers, executives, or guest users are grouped into a far smaller number of roles. Applying roles makes it far easier to align the network infrastructure with the business and control guest users, enforce regulatory mandates, and enforce acceptable use rules.

Policy Manger includes a unique tool for delegating limited administration controls to non-technical line of business users. From a secure web-based console, a delegated user such as a line of business manager, receptionist, or classroom instructor can easily select a policy to implement. Policies are enabled or disabled with a simple mouse click and changes are instantly acknowledged on the console.

NMS Automated Security Manager (ASM)

NMS Automated Security Manager is a unique threat response solution that translates security intelligence into security enforcement. It interoperates with the Enterasys Intrusion Prevention System (IPS) and third-party network security appliances to automate responses to security incidents, remediating threats in real-time. It ensures that corporate data is protected, secure, and available.

ASM executes policy-based rules, and when triggered, maps IP addresses to ports and takes assigned actions. The range of possible response actions is broad and configurable, including quarantining the user, disabling the switch port, or rate-limiting the traffic flow. Taking the action does not disrupt other users.

Combined with NMS Policy Manager and IPS, ASM provides sophisticated identification and management of threats and vulnerabilities. For example, when notified by the IPS, ASM can determine the exact source location of a threat, determine a response based on the security policy, and trigger the configured action on the network switch.

NMS Network Access Control Manager

NMS Network Access Control (NAC) Manager combines with Enterasys NAC Controller and/or NAC Gateway appliances for a complete network access control solution ensuring that only the right users have the right access to the right information from the right place at the right time.

NMS NAC Manager software provides secure, policy-based NAC management. From one, centralized location IT staff can configure and control the NAC solution, simplifying deployment and on-going administration. The Enterasys NAC IP-to-ID Mapping capability binds together the username, IP address and MAC address, and physical port of each endpoint. NMS NAC Manager reports this important information for audit or forensics analysis.

NMS NAC Manager provides additional value through its integration with other NMS applications and Enterasys security products. For example, NMS NAC Manager with NMS Policy Manager enables “one click” enforcement of role-based policies. IP-to-ID Mapping is also used by NMS ASM for location-independent distributed intrusion prevention and by Enterasys Security Information & Event Manager (SIEM) to pinpoint the source of the threat.

NMS Inventory Manager

NMS Inventory Manager is a tool for efficiently documenting and updating the details of the ever-changing network. It simplifies the deployment and management of Enterasys devices. IT staff can easily perform a broad list of tasks including device administration on configuration files, schedule firmware updates, archive configuration data, or restore one or multiple devices to a known good state. Inventory Manager identifies unused ports and chassis slots and tracks moves, adds, and changes for Field Replaceable Units.

Inventory Manager also tracks configuration changes for Enterasys devices made by other NMS applications, third-party management applications, or the command line interface.

NMS Suite Features

Device Discovery

The discovery process locates network attached devices, stores attributes for these devices, and reports device status. Devices may be discovered automatically by specifying an IP address range or via both standard and multiple vendors' proprietary discovery protocols. Devices may also be added manually or imported into the NMS database using a device list file.

Network Topology Maps

A topology map is an automatically generated visual representation of network connectivity. Topology maps provide network administrators with in-depth graphical views of device groupings, device links, VLANs, and Spanning Tree status. Color codes are used to indicate device status and SNMP/SNMPv3 or information traps are easily generated.

FlexViews and Graphing

FlexViews are NMS Console tools that allow network support staff to view a broad range of network configuration parameters in graphical format—including tables, bar graphs, line graphs, and pie charts. FlexView data is searchable and sortable. For example, an administrator can use a FlexView to quickly determine the top instances of ports with sustained load over 30% across all networked devices.

NMS Console ships with pre-defined FlexViews that depict status and configuration information for the entire network. An administrator can easily modify and apply filters to these pre-defined FlexViews, or create additional ones. FlexView data may also be exported in CSV, XML, and HTML formats.

Basic Policy Management

Basic Policy Management allows users to view and configure port default policy for network attached devices. Use Basic Policy Management to view information about each port login session, including authentication type and authenticated user role.

Compass

Compass is an endpoint and user search tool that allows the user to quickly locate information pertaining to an individual network user or group of users. It provides searches by user name, switch authentication, physical location, MAC address, IP address, IP Subnet, and other parameters.

VLAN Tools

NMS Console includes a set of VLAN management tools to simplify the system-wide deployment of VLAN configuration and monitoring capabilities. Using these tools a user can easily create VLAN configuration parameters which may be deployed automatically to multiple devices or to groups of ports.

MIB Browser Tools

NMS Console's Management Information Base (MIB) Browser allows the user to examine the SNMP MIB variables of network attached devices and set the values of writable MIB objects.

Alarms and Events

The alarms/events interface reports alarm and event information from managed devices. This information may be archived, exported, filtered, or searched. NMS Console includes a configuration tool to trigger email or other notifications based on predefined alarm conditions.

Ease of Installation

All NMS client-server applications are installed in a single step and the license key automatically determines which features are enabled. Product upgrades to add additional functionality are fast and straightforward. The Java®-based NMS client application is automatically installed and launched by clicking on a URL and is automatically upgraded if not at the correct revision level. This ensures that the server and client are always in sync, and all installation and upgrades only need to be performed on the server. The NMS client supports single sign-on so users are prompted just once for their authentication credentials across any of the NMS plugin applications. Permission consistency also limits user access to only authorized MIB information.

System Requirements

NMS Server and Client OS Requirements

These are the operating system requirements for both the NMS Server and remote NMS client machines. Only 32-bit operating systems are supported.

Windows (qualified on the English version of the operating systems)

Windows Server® 2003 w/ Service Pack 2
 Windows XP® w/ Service Pack 2 or 3
 Windows Vista® (Service Pack 1 Optional)
 Windows Server® 2008 Enterprise

Linux

Red Hat Enterprise Linux WS and ES v4 and v5
 SuSE Linux versions 10 and 11

NMS Server and Client Hardware Requirements

These are the hardware requirements for the NMS Server machine and the requirements for remote NMS client machines:

NMS Server (Includes NMS Server and Local Client)

Recommended P4-2.4 GHz, 2 GB RAM
 (Windows Vista requires 2 GB RAM)
 Free Disk Space – 1 GB
 (User's home directory requires 50 MB for file storage)

Remote Client

Recommended P4-2.4 GHz, 1 GB RAM
 (Windows Vista requires 2 GB RAM)
 Free Disk Space – 100 MB
 (User's home directory requires 50 MB for file storage)
 Supported Web Browsers:
 Internet Explorer version 6 and 7
 Mozilla Firefox 2.0 and 3.0
 Java Runtime Environment (JRE) 1.5 or higher
 (Windows Vista requires JRE 1.6 or higher)

NMS Console must be installed and configured prior to installing:

- NMS Automated Security Manager
- NMS Inventory Manager
- NMS NAC Manager
- NMS Policy Manager

NMS Inventory Manager is designed for use with Microsoft® Windows XP®, Windows Server 2003®, and Linux operating systems.

Ordering Information

Part Number	NMS Advanced Bundle
NS-AB-50	NMS Advanced Bundle (50 device Console license for 1 server plus 3 concurrent users with Policy Manager, Automated Security Manager, Inventory Manager, and NAC Manager)
NS-AB-50FT	NMS Advanced Bundle FT (50 device Console license for 1 server plus 3 concurrent users, Policy Manager, Automated Security Manager, Inventory Manager, NAC Manager, a redundant NMS license for fault tolerance (manual fail-over), Includes Lab License)
NS-AB-U	NMS Advanced Bundle (Unrestricted device Console license for 1 server plus 25 concurrent users with Policy Manager, Automated Security Manager, Inventory Manager, and NAC Manager)
NS-AB-UFT	NMS Advanced Bundle FT (Unrestricted device Console license for 1 server plus 25 concurrent users, Policy Manager, Automated Security Manager, Inventory Manager, and NAC Manager, a redundant NMS license for fault tolerance (manual fail-over), includes Lab License)
Part Number	NMS Policy Bundle
NS-PB-50	NMS Policy Bundle (50 device Console license plus 3 concurrent users, and Policy Manager)
NS-PB-U	NMS Policy Bundle (Unrestricted device Console license for 1 server plus 25 concurrent users, and Policy Manager)
Part Number	NMS Single User
NS-SU-10	NMS Single User (10-device, single client (on same machine as server) license for Console, Policy Manager, and Inventory Manager)
Part Number	NMS Console
NS-CON-50	NMS Console (50 device license plus 3 concurrent user licenses)
NS-CON-U	NMS Console (Unrestricted device license plus 25 concurrent user licenses)
NS-USER	NMS User (Add 1 concurrent user license to existing NMS server)
Part Number	NMS Applications
NS-ASM	NMS Automated Security Manager. Requires existing NS-CON-50 or NS-CON-U license.
NS-IM	NMS Inventory Manager. Requires existing NS-CON-50 or NS-CON-U license.
NS-NAC	NMS NAC Manager. Requires existing NS-CON-50 or NS-CON-U license.
NS-PM	NMS Policy Manager and Policy Control Console. Requires existing NS-CON-50 or NS-CON-U license.
NS-LAB	NMS Lab License (Non-production use, one-time fee inclusive of maintenance. 50 device license for 1 server plus 2 concurrent users with Policy Manager, Automated Security Manager, Inventory Manager, and NAC Manager. Requires existing NS-CON-50 or NS-CON-U license.)
Part Number	NMS Appliance
SNS-NSS-A	Rack mountable server with all NMS applications pre-installed. Purchased applications (licensed separately) are activated via license keys.

Warranty

As a customer-centric company, Enterasys is committed to providing quality products and solutions. In the event that one of our products fails due to a defect, we have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired or media replaced as soon as possible.

The NMS Appliance comes with a one year warranty against manufacturing defects. Software warranties are ninety (90) days, and cover defects in media only. For full warranty terms and conditions please go to: www.enterasys.com/support/warranty.aspx.

Service and Support

Enterasys Networks provides comprehensive service offerings that range from Professional Services to design deploy and optimize customer networks, customized technical training, to service and support tailored to individual customer needs. Please contact your Enterasys account executive for more information about Enterasys Service and Support.

Additional Information

For additional technical information on NMS suite of management applications please go to: <http://www.enterasys.com/products/visibility-control/index.aspx>.

Contact Us

For more information, call Enterasys Networks toll free at **1-877-801-7082**, or +1-978-684-1000 and visit us on the Web at enterasys.com



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