

AlliedView™ NMS Release 12.2

NETWORK MANAGEMENT SOFTWARE, NSP EDITION

AlliedView NMS is a comprehensive network management platform, designed to offer network providers powerful tools for the management of Allied Telesis products and provisioning of multiple services in the IP and Ethernet-based access network.



With a full suite of provisioning and monitoring tools, AlliedView NMS maximizes operational efficiency by providing proactive diagnostics, minimizing service deployment times and reducing operational expense, shortening the path to profitable revenue.

Flexible Management Tools

With extensive management capabilities, AlliedView NMS allows administration of thousands of Allied Telesis network elements from a remote operations center, reducing the need for support to perform diagnostics or make provisioning changes. Via a user-friendly Graphical User Interface (GUI), AlliedView NMS substantially decreases the time required for deploying and provisioning large networks. Among the key strengths of AlliedView NMS is network monitoring and network-wide service provisioning.

Architecture Overview

The essential constituents of AlliedView NMS architecture are an integrated server and the distributed user clients.

- Integrated server software performs the core server-side network facing tasks, such as the discovery of managed objects, receiving and processing event and alarm notifications, data collection, report generation, status polling and northbound interface. All updates to the relations database take place through the server.

Key Features

- » Automatic topology discovery and creation of network maps
 - » Layer 3 network
 - » Layer 2 network
 - » VLANs
 - » EPSR rings
- » Network inventory
 - » IP networks nodes, cards, ports, physical links
 - » VLANs, VLAN interfaces, EPSR domains
 - » iMG/RG, routers/switches
- » Fault management
 - » Event and alarm notification
 - » System logs and audit trails
- » Performance management
- » Security management
- » Zero touch service provisioning using profiles
 - » Profile creation and management
 - » TR-101 VLAN provisioning models
 - » Subscriber provisioning of multiple services
 - » Internet access, IPTV video, VoIP telephony
 - » Management and configuration of Ethernet Protection Switching Rings (EPSRing)
- » Creation and management of QoS policies
- » Scripting – enabling flexible updates to CLI text strings
- » Device configuration back-up and restore
- » Firmware and software revision and upgrade management
- » Detection of configuration changes
- » Resource management and status monitoring
- » Northbound XML Web services-based interface to Operational Support Systems (OSS)

- The server software also supports the distributed user clients and provides scalability in terms of the number of clients that can be supported. The server performs the following client support:

- » Interfaces with and channels all client requests.
- » Generates user client views through database read operations.
- » Generates alarm and autonomous messaging from the server's database to clients.

- The integrated server code executes in a single physical AlliedView NMS server.
- The distributed clients act as the user interface between the end-users or administrators and AlliedView NMS server. There are two types of client interface – Java and HTML.

Network Inventory

AlliedView NMS provides automatic topology and device discovery of networks, regardless of size. AlliedView NMS allows for multiple network and device views where the user can observe the entire network or focus on an individual network device. In addition, AlliedView NMS contains an inventory of different device types and enables views of VLANs, EPSR domains, nodes, cards, network interfaces, ports, iMGs, and physical links.

Zero Touch Service Provisioning

AlliedView NMS uses the DSLForum TR-101 recommended provisioning models for the rapid deployment of multiple services (e.g. Internet access, IPTV video and VoIP telephony) via VLANs and QoS policies across multiple devices

using a GUI. Provisioning and rollout of new services and devices are significantly accelerated via the use of profiles for the most common types of services in the network.

By defining a common set of profiles AlliedView NMS enables multiple services to a subscriber to be provisioned via a single screen. Service providers have the option of selecting the DSLForum – N:1 VLAN per service provisioning model.

Network Upgrades

AlliedView NMS can perform scheduled or unscheduled network-wide firmware and software upgrades to many Allied Telesis device types. AlliedView NMS maintains control of software releases to ensure all nodes in the network always maintain consistent software loads.

Subscriber Self Service Provisioning via Operational Support System (OSS)

The AlliedView NMS northbound interface has been designed to enable the OSS/BSS system to implement a subscriber Web portal for self service provisioning. Subscriber self service provisioning dramatically reduces the operational expenditure of the service provider.

Southbound Interface

On the southbound, AlliedView NMS communicates with devices via multiple protocols including Simple Network Management Protocol (SNMP), the device Command Line Interface (CLI) and Trivial File Transfer Protocol (TFTP).

Scripting

Provisioning network devices requires that many CLI text string have to be issued to network devices. The AlliedView NMS administrator does

not have to learn or understand what operations are encapsulated by these text strings because the GUI will automatically generate the necessary CLI text for these operations. To increase the flexibility of the AlliedView NMS further, extensive text scripting capability has been added. The CLI scripts can now be dynamically generated and variables can be substituted using information stored in the database or acquired by AlliedView NMS from the network.

Northbound Interface

AlliedView NMS can interoperate with existing Operation Support Systems (OSS) and Business Support Systems (BSS) through northbound protocols, such as SNMP and XML/SOAP. The northbound interface supports the following read/write Apache/AXIS XML based APIs:

| Faults (wsdl) | Inventory (wsdl) |
|-------------------------------------|------------------------|
| getTrapParsers | getNodeNames |
| getTotalEventsCount | getNetworks |
| getEvents | getNodes |
| getEventFilters | getCards |
| getEventParsers | getPorts |
| setEventTarget | getIpInterfaces |
| removeEventTarget | getVlanInterfaces |
| getEventTargets | getVlans |
| getTotalAlertsCount | getPhysicalLinks |
| getAlertsCount | getEpsrDomains |
| getAlerts | getProfiles |
| getAlertFilters | getTasks |
| getAlertAnnotation | getInventoryObjects |
| getAlertHistory | getDiscoveryProperties |
| AdminService (wsdl) | Mdti (wsdl) |
| AdminService | getDeviceInfo |
| Version (wsdl) | |
| getVersion | |
| Provisioning module (Administrator) | Subscriber module |
| getDeviceInterfaces | getServices |
| getDeviceVlans | updateService |
| getRGDeviceDetails | |
| provisionPort | |
| deprovisionPort | |
| modifyPort | |
| modifyRG | |
| provisionPorts | |
| deprovisionPorts | |
| modifyPorts | |
| modifyRGs | |

Specifications

Recommended Server and Platform Requirements

Client: Java 1.16.0_16 enabled browser: Windows, Solaris
Database: MySQL

NMS Server

Windows Server 2003 or 2008
Processor: Intel Xeon dual core 2GHz or equivalent, Intel Xeon quad core 2.4GHz or equivalent
RAM: 4GB
Disk: 20GB
Monitor: 1280 x 1024 resolution

Solaris 10Processor: UltraSPARC T1 1.0GHz (UltraSPARC T2 1.2GHz)
RAM: 4GB (8GB)
Disk: 20GB
Monitor: 1280 x 1024 resolution

Client to Communicate with AlliedView NMS 12.2 Client

Windows client
OS: Windows 2000, 2003, XP
Processor: 1GHz minimum
RAM: 1GB
Monitor: 1280 x 1024 resolution
Java JRE: 1.5.0_11
Browser: Explorer 6.0 and above, Mozilla 1.7 and above (platform independent)

Solaris Server
OS: Solaris 10
Processor: 1GHz
RAM: 1GB
Monitor: 1280 x 1024 resolution
Java JRE: 1.5.0_11
Browser: Mozilla 1.7 and above (platform independent)

Supported Allied Telesis Devices

| iMAPS | iMGs | ALLIEDWARE LAYER 3 SWITCHES | ALLIEDWARE PLUS LAYER 3 SWITCHES | LAYER 2 SWITCHES | ALLIEDWARE ROUTERS |
|-------------------|-----------------|-----------------------------|----------------------------------|------------------|--------------------|
| iMAP Express 7101 | AT-AR250E | AT-8624T/2M | AT-x600-24Ts | AT-8000S/16 | AT-AR410 |
| iMAP Express 7105 | AT-RG213 | AT-8624POE | AT-x600-24Ts/XP | AT-8000S/24 | AT-AR415S |
| iMAP Express 7112 | AT-IMG606 | AT-8624T | AT-x600-24Ts-POE+ | AT-8000S/24POE | AT-AR440S |
| MiniMAP 9101 | AT-IMG624A | AT-8624/SP | AT-x600-48Ts | AT-8000S/48 | AT-AR720 |
| MiniMAP 9102 | AT-IMG624B | Rapier 24i | AT-x600-48Ts/XP | AT-8000S/48POE | AT-AR740 |
| MiniMAP 9103 | AT-IMG634A | Rapier 24iDCNEBS | AT-x900-24XT | AT-8000GS/24 | AT-AR750S |
| iMAP 9400 Series | AT-IMG634B | Rapier 48i | AT-x900-24XS | AT-8000GS/24POE | AT-AR725 |
| iMAP 9700 Series | AT-IMG634W | AT-8824 | AT-x900-24XT-N | AT-8000GS/48 | AT-AR745 |
| iMAP 9810 | AT-IMG624-R2 | AT-8824DC | AT-x900-12XT | AT-8012M | AT-AR750 |
| | AT-IMG634-R2 | AT-8848 | SwitchBlade x908 | AT-8016F/MT | |
| | AT-IMG634W-R2 | AT-8848DC | | AT-8016F/SC | |
| | AT-IMG646BD | AT-9812T | | AT-8016F/ST | |
| | AT-IMG646-PX-ON | AT-9812TDC | | AT-8012M-QS | |
| | AT-IMG626MOD | AT-9812TF | | AT-8024 | |
| | AT-IMG646MOD | AT-9816GB | | AT-8024M | |
| | AT-IMG726MOD | AT-SB4104AC | | AT-8024GB | |
| | AT-IMG746MOD | AT-SB4108AC | | AT-8026FC | |
| | | AT-SB4108DC | | AT-8026T | |
| | | AT-9724TS | | AT-8088/MT | |
| | | AT-9924SP | | AT-8088/SC | |
| | | AT-9924T | | AT-8324 | |
| | | AT-9924T/4SP | | 8500 Series | |
| | | AT-x900-24XT | | AT-8724XL | |
| | | AT-x900-24XS | | AT-8724XLDC | |
| | AT-x900-48FE | | AT-8724XLDCNEBS | | |
| | AT-x900-48FS | | AT-8748XL | | |
| | | | AT-8748XLDC | | |
| | | | SwitchBlade x3112 | | |

Support for Non-Allied Telesis Devices
GenBand-G6

Ordering Information

AlliedView NMS

Release 12.2, AlliedView NMS server requires license key

AT-TN-NMS-R12-S

NMS service provider server software download. Requires license key at end of "free" evaluation period. Supports 100 managed subscribers (or nodes) and five NMS clients. Requires license key AT-TN-NMS-100S, 1000S-SK to support 100, or 1,000 managed subscriber CPEs or nodes and five NMS clients.

AT-TN-NMS-100S-SK

License key for NMS service provider 100 starter. Supports 100 managed subscriber CPEs (or nodes) and five NMS clients. Requires purchase of upgrade license key AT-TN-NMS-900S-UK to support additional 900 managed subscriber CPEs (or nodes) up to a maximum of 1,000.

AT-TN-NMS-900S-UK

License key, NMS upgrade to AT-TN-NMS-100S-SK to add support for an additional managed subscriber CPEs (or nodes) in increments of 900 up to a maximum of 1K.

AT-TN-NMS-5KS-UK

License key, NMS upgrade to AT-TN-NMS-1KS-SK to add support for an additional 5K managed subscriber CPEs (or nodes).

AT-TN-NMS-10CS-UK

License key, NMS client upgrade to AT-TN-NMS-SK to add support for an additional 10 NMS clients per single server.

AT-TN-NMS-5K-UK

License key, NMS client upgrade to AT-TN-NMS-1KS-SK to add support for an additional 10 NMS clients per server.

AT-TN-NMS-1KS-SK

License key for NMS service provider 1000 server. Supports 1K managed subscribers or nodes and five NMS clients. Requires license key AT-TN-NMS-5KS-UK to support additional 5K managed subscriber CPEs (or nodes). Requires license key AT-TN-NMS-10CS-UK to support additional 10 NMS clients.

AT-TN-NMS-NK

License key, Northbound Web Services Interface. XML/SOAP Web services interface to heterogeneous computer systems. Requires "professional services" quote.