

Alcatel-Lucent OmniVista 2500 Network Management System

The Alcatel-Lucent OmniVista® 2500 Network Management System (NMS) provides cohesive management and network-wide visibility, increasing IT efficiency and business agility. It provides a full set of management tools for converged campus networks. This single platform enables operators to easily provision, manage and maintain a network infrastructure with its network elements, alarms, unified access security policies, and virtualization. It also provides advanced network analytics for a full visibility into users, devices and applications, as well as predictive analysis for forward planning.



Providing a network-wide management system for the Alcatel-Lucent Enterprise Network portfolio, the OmniVista 2500 NMS provides a comprehensive set of components and tools for infrastructure configuration, monitoring, security, device configuration, alert management, to accelerate, downtime resolution, and overall management.

BENEFITS

- Provides a web-based user interface for comprehensive, network-wide management platform, increasing IT efficiency and business agility.
- Web interface provides a customizable dashboard that can be tailored to the network administrator's most-used or critical management functions.
- Topology with advanced multilevel discovery to create comprehensive network map
- Northbound interfaces based on RESTful APIs easily integrate customized network management functions or third-party systems.
- The highly scalable system is available as a virtual appliance. It can be installed on major operating systems with virtualization support, or deployed as a virtual appliance with its own operating system on Tier-1 Enterprise hypervisors.
- Network analytics monitor the network bandwidth and key traffic patterns through advanced collection and reporting capabilities. This provides insights for the IT department and CIO on how network resources are consumed, making it possible to proactively optimize the end-user experience.
- Application Visibility, with application monitoring, helps IT organizations to get a better understanding of bandwidth consumption per application. It provides network-wide user-based policies for bandwidth prioritization and enforcement actions. Application Visibility-optimized IT operations, allow better security compliance and network resource use.
- Single Policy Management of the entire Network With UPAM (Unified Policy Authentication Management) services:
 - BYOD (Bring Your Own Devices) integration with UPAM to provide full management and consistency of services
 - Unified access provisioning provides a single set of policy enforcement instructions for both wired and wireless users
- Simplifies configuration change management through scheduling and backup operations.
- Reduces the cost and time required to deploy Quality of Service and access control lists across thousands of devices, delivering consistent policy behavior.
- Provides an open approach by integrating with third-party intrusion detection/protection solutions (IDS/IPS), or any other intrusion notifications, leveraging security and traffic monitoring built into Alcatel-Lucent OmniSwitch® and OmniAccess® wireless solutions.
- Creates seamless, fully integrated management for virtual machine (VM) movements and ensures that network policies move with the VM.

FEATURES

Platform

- Enterprise class , web-based consolidated network management application for network provisioning, troubleshooting, performance analysis and configuration operations
- Unified workflow for network services, resources, and users for wired and wireless infrastructure
- Northbound interface RESTful APIs for application interoperability and ecosystem support

Deployment

- as Available as a virtual software appliance for full turnkey operation, supporting leading Hypervisors and operating systems

User interface

- Web-based client, allowing access through any browser, including mobile browsers
- User interface follows Web 2.0 principles, responsive web design enabling easy navigation, consistent workflow and user experience

Topology

- Detailed discovery of Alcatel-Lucent Enterprise Portfolio and third-party devices
- HTML5 topology with overlay display for Wired/wireless devices and virtual chassis
- Easily Customizable map with cluster rendering for large infrastructure
- Network visualization for logical and physical infrastructure, with actual= neighbor linkage info (IP subnet, Layer 2, LLDP adjacency protocols) and live device status
- Dynamic, customizable, logical map based on user-defined filters (IP subnet, location, model, user-provided descriptive info)

Dashboard

- Real-time monitoring and analysis of critical network performance indicators through visual widgets
- Full choice of displays, data and other important network and device information, with advanced reporting capabilities

Role-based administrative controls

- Provides network administrators with both the tools and the ability to grant access to only those features and resources operators need.
- Provides controls to support IT for best practices. Management rights and access to all devices managed by OmniVista 2500 are granted through operator groups,

device groups, and custom views of the devices with fine granularity on the authorized feature set.

Notification manager

- Monitors and analyzes alerts, notifications and network performance from Alcatel-Lucent and third-party devices in real time
- Advanced alert capabilities through customizable filters and sorting capabilities
- Remediation and notification actions based on predefined conditions with a single click

Locator

- Rapid troubleshooting and isolation of network issues through one-click mitigation
- Allows administrators to quickly search and pinpoint device location and associated devices, based on multiple criteria and live or historical searches
- Discovers third-party devices and indicates the nearest device that runs the Alcatel- Lucent operating system and to which the third-party device can be switched, showing the link on a topology map
- Expedites troubleshooting and problem resolution with right-click contextual menu and direct interaction with other OmniVista 2500 NMS components

Resource manager

- Manages complete device configuration life cycle
- Makes complex configuration change management simple.
- Automation tools to create infrastructurewide software image update for baseline version management

Network analytics

- Monitors network bandwidth and traffic patterns down to the device port level through sflow® sampling collection and reporting
- Provides valuable insights into the applications (Top N apps) that are consuming the most network bandwidth, monitors application traffic arriving from users (Top N talkers), and stores and displays flow data with up to one minute granularity
- Provides insight in the network health with advanced graphical analytics on most problematic switches based on device state (CPU, memory, temperature)
- Enables automatic generation of businesscentric, CIO-oriented graphical analytics reports for network

Predictive analytics

- Improves network health by providing capacity trending analysis, application on-port utilization, and potential anomalies in the on-port utilization that could impact network health and operational performance, thus enabling an enhanced end-user experience
- Threshold alert on trend projections and network anomalies, accelerating issue resolution by quickly identifying root causes and early warning signs of situations that could lead to outages, thus reducing downtimes
- Identifies new network resource requirements or needs for network redesign at an early stage, before they become a problem, thus streamlining network deployment

Application Visibility

- Provides Application Visibility through extensive application monitoring, for network-wide application inventory and use, allowing a better understanding of bandwidth consumption
- Allows centralized policy enforcement and application usage policy for the discovered applications by applying QoS policy enforcement such as, rate limiting, blocking and application prioritization
- Maintains application signature library that is always up to date, with subscription services for efficient application monitoring deployment
- Improves user experience and business outcome with embedded analytics engine, showing in depth application usage reports and key measurement indicators

Policy view

- Configures and deploys policies networkwide for bandwidth management and network access credentials through a task-centric workflow

Universal Policy Authentication Management

- Unified user interface for wired and wireless role profiles for user-based access
- Cohesive authentication configuration and end-user profile definition for appropriate network access rights and dynamic business policies

Figure 1. Topology view - Advanced map capabilities for wired and wireless infrastructure

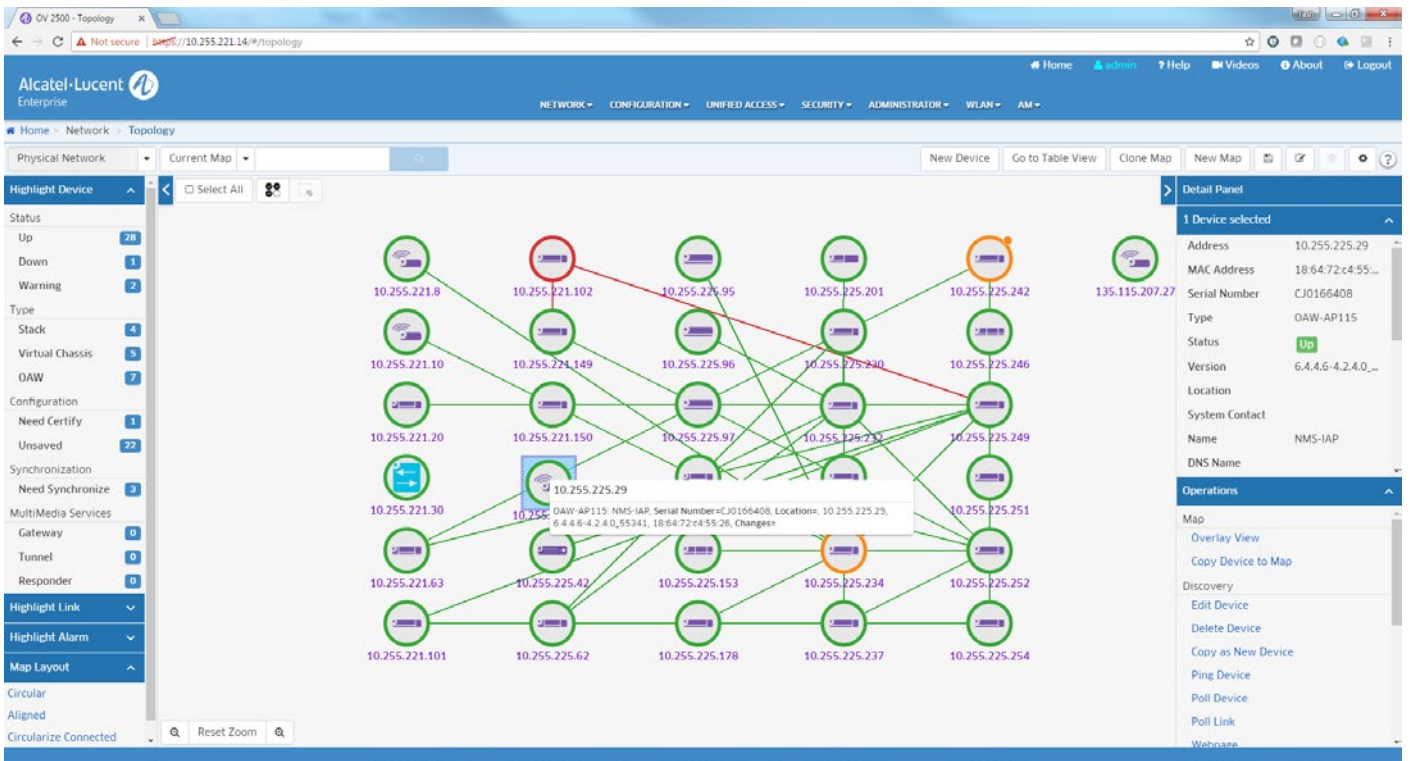


Figure 2. Dashboard - Key indicators for faults, availability and performances for wired and wireless infrastructure

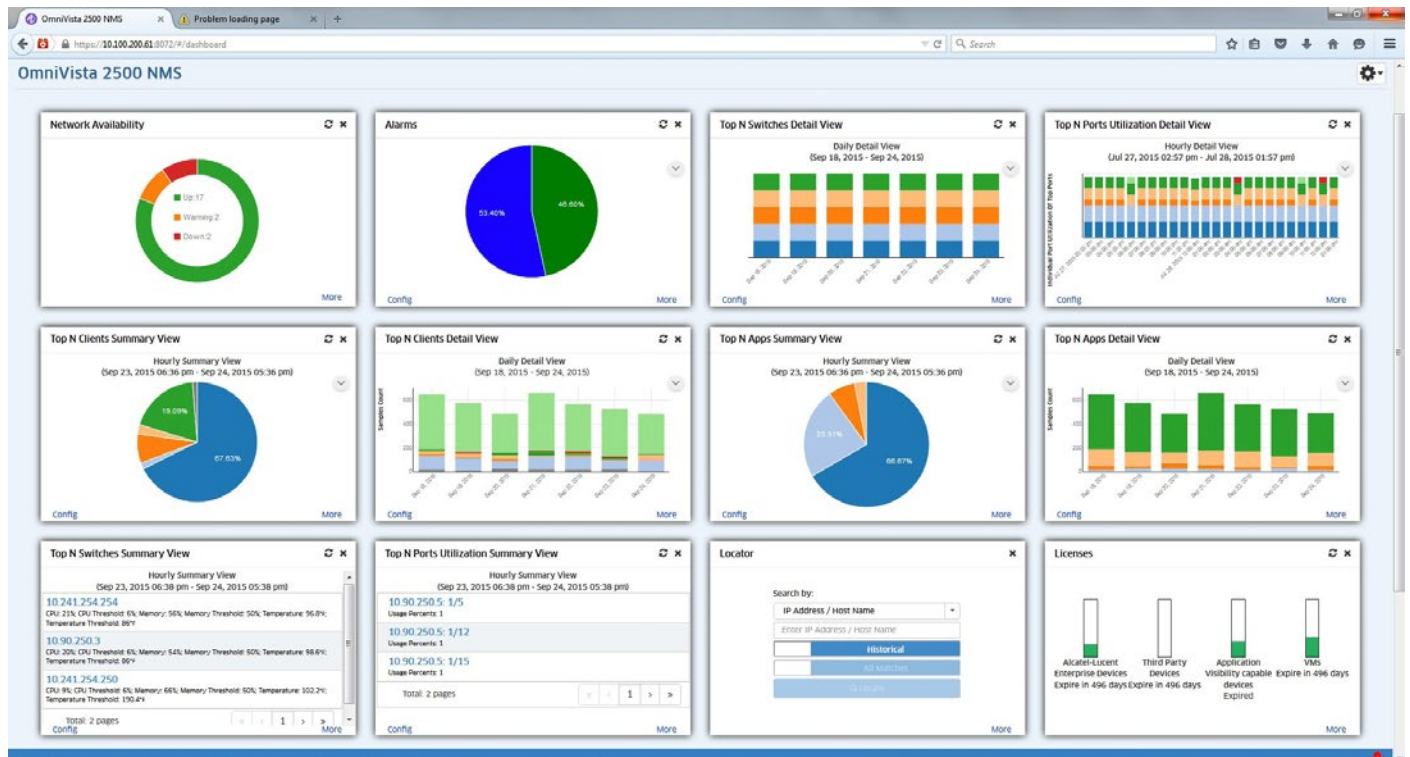


Figure 3. Heatmap for optimizing WiFi coverage and wireless performances



Quarantine Manager

- Provides threat mitigation through a secure perimeter against intrusion and malware attacks
- Provides mitigation and remediation through various actions (quarantine VLAN, port shutdown, blocking MAC addresses)

Virtual machine manager

- Single pane-of-glass for end-to-end physical and virtual networks infrastructure operations
- Agnostic support, Interfaces with VMware vCenter®, Microsoft Hyper-V® and Citrix™ XenServer® for discovery and inventory
- Real-time tracking between VM and its network location

ProActive Lifecycle Management

- Facilitates customer support and maintenance operations by delivering automated network insights and in-depth device inventory
- Captures hardware and software information at the device level based on warranty level, and lifecycle status based on hardware and software status through graphical reporting and instant dashboard reporting widgets
- Analyzes and correlates data against the Alcatel-Lucent Enterprise service and support maintenance best practices for faster support and easy remediation operations (requires an adequate support and service maintenance contract for feature access)

TECHNICAL SPECIFICATIONS

The OmniVista 2500 NMS solution is available as a Virtual appliance running on certified operating systems with hypervisors and Virtualization platforms

- The OmniVista 2500 NMS client is HTML5 web-based.

OmniVista 2500 NMS server

- Certified operating systems (64-bit version only) with hypervisor support
 - Microsoft® Windows™ Server 2012 R2 Hyper-V
 - Microsoft Windows 8.1 Pro & Enterprise Editions (with Hyper-V installed)
 - Red Hat® Enterprise Server 6.5 or higher with VirtualBox v5.0.12 or higher installed
 - SUSE® Linux Professional v12 with VirtualBox v5.0.12 or higher installed
- Certified hypervisors:
 - VMware ESXi™ 5.5 and 6.0
 - Microsoft Hyper-V 2012
 - VirtualBox v5.0.12 min.
- Minimum resource requirements
 - Intel® Pentium™ Quad Core 2.4 GHz
 - 16 GB RAM
 - 306 GB free disk space

OmniVista 2500 NMS appliance

- Certified web browsers:

- Microsoft Internet Explorer™ 10+ for Windows PC client
- Mozilla® FireFox™ 26+ for Windows PC and Linux clients
- Google Chrome 26+ for Windows PC and Linux clients

- Minimum configuration
 - Microsoft Windows, Red Hat ES, SUSE LP (64-bit version only)
 - Intel Pentium Dual Core 2.4 GHz min.
 - 4 GB RAM

OmniVista 2500 NMS client

- Minimum configuration
 - Microsoft Windows, Red Hat ES, SUSE LP (32- and 64-bit versions)
 - Intel Pentium Dual Core 2.4 GHz minimum
 - 4 GB RAM
- Certified web browsers:
 - Microsoft Internet Explorer™ 10+ for Windows PC client
 - Mozilla® FireFox™ 26+ for Windows PC and Linux clients
 - Google Chrome 26+ for Windows PC and Linux clients

OmniVista 2500 NMS unified Role based profiles with UPAM support

- OmniAccess Stellar Series (AP1101, AP1221, AP1222, AP1231, AP1232, AP1251) with Stellar OS Release 3.0 and higher in WiFi Enterprise mode.

- | | | |
|--|---|---|
| <p>OmniVista 2500 NMS Application Visibility</p> <ul style="list-style-type: none"> • OmniSwitch 6860 and 6860E with AOS release 8.2.1 or higher • OmniAccess Stellar series (AP1221, AP1222, AP1231, AP1232, AP1251) with | <p>Stellar OS 3.0 and higher operating in WiFi Enterprise mode</p> <p>OmniVista 2500 NMS third-party systems interoperability</p> <ul style="list-style-type: none"> • Virtual Machine Manager hypervisor interoperability | <ul style="list-style-type: none"> - VMware vCenter™ Standard Release 6.0 and higher - Microsoft Hyper-V 2012 - Citrix XenServer™ Advanced and Enterprise Release 6.5 and higher |
|--|---|---|

Ordering Information

Alcatel-Lucent OmniVista® 2500 NMS follows a “Pay-as-you-grow” flexible licensing model. The licensing model covers network infrastructure such as Alcatel-Lucent Enterprise Portfolio (Switches and Access points) and third-party devices under supervision (NM series), as well as Alcatel-Lucent OmniAccess® Stellar Access Point series for unified management (AP series). The OmniVista 2500 embedded Unified Policy Authentication Manager (UPAM) provides advanced authentication functionalities, covered by supplemental licenses, for guest access (“GA” license series) and BYOD for on-boarding devices (“BYOD” license series). The optional Virtual Machine Manager (VMM license series) provide support for datacenter virtualization support such as virtual machine inventory and tracking.

Node management license

Network management (“NM”) licenses provide device management for advanced provisioning, monitoring and analytics for ALE devices, including Application Visibility and signature updates for Alcatel-Lucent OmniSwitch® 6860/6860E series. An NM license includes third-party node management capabilities, such as discovery, topology and troubleshooting for Simple Network Management protocol (SNMP) capable third-party devices. Network management licenses are available in various quantities and can be combined to match any required configuration.

PART NUMBER	DESCRIPTION
OV4-START-NEW	STARTER PACK- NEW Deployment - Virtual appliance for OmniVista 2500 NMS application. Configuration starter includes nodal and AP management licenses (10 for ALE nodes, 10 for third-party devices, 10 for Alcatel-Lucent Stellar AP series with additional licenses for BYOD on boarding devices (10 BYOD), 10 guest access (10 GA),and VMM application (10 VMs).
OV-NM-EX-10-N	NODE MANAGEMENT EXTENSION 10 nodes - NEW Deployment. Additional node management license for 10 Alcatel-Lucent Enterprise nodes and 10 third-party devices. One license is required per physical unit for VC and stack configurations for ALE nodes. Application Visibility included for supported devices.
OV-NM-EX-20-N	NODE MANAGEMENT EXTENSION 20 nodes - NEW Deployment. Additional node management license for 20 ALE nodes and 20 third-party devices. One license required per physical unit for VC and stack configurations for ALE nodes. Application Visibility included for supported devices.
OV-NM-EX-50-N	NODE MANAGEMENT EXTENSION 50 nodes - NEW Deployment. Additional node management license for 50 ALE nodes and 50 third-party devices. One license required per physical unit for VC and stack configurations for ALE nodes. Application Visibility included for supported devices.
OV-NM-EX-100-N	NODE MANAGEMENT EXTENSION 100 nodes - NEW Deployment. Additional node management license for 100 ALE nodes and 100 third-party devices. One license required per physical unit for VC and stack configurations for ALE nodes. Application Visibility included for supported devices.
OV-NM-EX-500-N	NODE MANAGEMENT EXTENSION 500 nodes - NEW Deployment. Additional node management license for 500 Alcatel-Lucent Enterprise nodes and for 500 third-party devices. One license required per physical unit for VC and stack configurations for ALE nodes. Application Visibility included for supported devices.
OV-NM-EX-1K-N	NODE MANAGEMENT EXTENSION 1000 nodes - NEW Deployment. Additional node management license for 1000 ALE nodes and for 1000 third-party devices. One license required per physical unit for VC and stack configurations for ALE nodes. Application Visibility included for supported devices.

Access point license

Access point (“AP”) licenses provide unified management for the Alcatel-Lucent OmniAccess Stellar series (AP1101, AP1221, AP1222, AP1231, AP1232, AP1251). AP licenses include unified network management operations such as access point registration, topology, monitoring, converged lifecycle, application visibility and unified role base definition. Wireless specific functionalities likes RF management, Heat Map, WiPS (Wireless Intrusion Prevention System) are included. AP licenses are available in various quantities and can be combined to match any specific count.

PART NUMBER	DESCRIPTION
OV-AP-EX-10-N	ACCESS POINT EXTENSION 10 APs - NEW deployment. Unified management license for 10 OmniAccess Stellar Access Point series. One license required per unit.
OV-AP-EX-20-N	ACCESS POINT EXTENSION 20 APs - NEW deployment. Unified management license for 10 OmniAccess Stellar Access Point series. One license required per unit.

PART NUMBER	DESCRIPTION
OV-AP-EX-50-N	ACCESS POINT EXTENSION 50 APs - NEW deployment. Unified management license for 10 OmniAccess Stellar Access Point series. One license required per unit.
OV-AP-EX-100-N	ACCESS POINT EXTENSION 100 APs - NEW deployment. Unified management license for 10 OmniAccess Stellar Access Point series. One license required per unit.
OV-AP-EX-500-N	ACCESS POINT EXTENSION 500 APs - NEW deployment. Unified management license for 10 OmniAccess Stellar Access Point series. One license required per unit.

Guest Access and B.Y.O.D (Bring your own device) licenses

Guest Access & B.Y.O.D Licenses. The OmniVista 2500 Unified Policy authentication Manager (UPAM) provides advanced authentication functionalities, covered by specific licenses, for Guest Access ("GA" license series) and B.Y.O.D for on-boarding devices ("BYOD" license series)

PART NUMBER	DESCRIPTION
OV-GA-20-N	GUEST ACCESS EXTENSION for OmniAccess Stellar Solution - 20 Guests - NEW deployment. Unified Policy Authentication Manager (UPAM) enables access for 20 concurrent guests.
OV-GA-50-N	GUEST ACCESS EXTENSION for OmniAccess Stellar Solution - 50 Guests - NEW deployment. Unified Authentication Policy Manager (UPAM) enables access for 50 concurrent guests.
OV-GA-100-N	GUEST ACCESS EXTENSION for OmniAccess Stellar Solution - 100 Guests - NEW deployment. Unified Policy Authentication Manager (UPAM) enables access for 100 concurrent guests.
OV-GA-500-N	GUEST ACCESS EXTENSION for OmniAccess Stellar Solution - 500 Guests - NEW deployment. Unified Policy Authentication Manager (UPAM) enables access for 500 concurrent guests.
OV-GA-1000-N	GUEST ACCESS EXTENSION for OmniAccess Stellar Solution - 1000 Guests - NEW deployment.. Unified Policy Authentication Manager (UPAM) enables access for 1000 concurrent guests.
OV-BYOD-20-N	BYOD EXTENSION for OmniAccess Stellar Solution-20 devices - NEW deployment. Unified Policy Authentication Manager (UPAM) enables 20 BYOD concurrent active devices on an ALE network.
OV-BYOD-50-N	BYOD EXTENSION for OmniAccess Stellar Solution - 50 devices - NEW deployment. Unified Policy Authentication Manager (UPAM) enables 50 BYOD concurrent active devices on an ALE network.
OV-BYOD-100-N	BYOD EXTENSION for OmniAccess Stellar Solution - 100 devices - NEW deployment. Unified Policy Authentication Manager (UPAM) enables 100 BYOD concurrent active devices on an ALE network.
OV-BYOD-500-N	BYOD EXTENSION for OmniAccess Stellar Solution - 500 devices - NEW deployment. Unified Policy Authentication Manager (UPAM) enables 500 BYOD concurrent active devices on an ALE network.
OV-BYOD-1000-N	GA EXTENSION for OmniAccess Stellar Solution - 1000 devices - NEW deployment. Unified Policy Authentication Manager (UPAM) enables 1000 concurrent active devices on an ALE network.

Virtual Machine Manager license

Virtual Machine Manager licenses are optional. This license enables features set such as VM inventory, location, and state monitoring, with all the network infrastructure provisioning automation required to move VMs. VM licenses are available in various quantities and can be combined to match any specific virtual machine count.

PART NUMBER	DESCRIPTION
OV-VMM-200-N	VMM EXTENSION - 200 VM - NEW Deployment. License for 200 VMs. Supplemental feature license for VMM applications for VM inventory, monitoring and uNP (Universal Network Profile) provisioning automation for VMware vCenter, Microsoft Hyper-V and Citrix XenServer platforms.
OV-VMM-500-N	VMM EXTENSION - 500 VM - NEW Deployment. License for 500 VMs. Supplemental feature license for VMM applications for VM inventory, monitoring and uNP (Universal Network Profile) provisioning automation for VMware vCenter, Microsoft Hyper-V and Citrix XenServer platforms.
OV-VMM-1K-N	VMM EXTENSION - 1000 VM- NEW Deployment. License for 1000 VMs. Supplemental feature license for VMM applications for VM inventory, monitoring and uNP (Universal Network Profile) provisioning automation for VMware vCenter, Microsoft Hyper-V 2012 and 2016 and Citrix XenServer platforms.

ALE provides access to services and a continuous update maintenance support program for the OmniVista 2500 NMS. Evaluation licenses and parts upgrade numbers from previous deployments are available upon request.

Contact your ALE representative for further details.

<http://enterprise.alcatel-lucent.com/?product=OmniVista2500NetworkManagementSystem&page=overview>