

# 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 mobile campus. This single platform enables operators to easily provision, manage and maintain a unified Campus Mobile infrastructure with its network elements, alarms, unified access security policies, and virtualization. It also provides advanced network analytics for a full visibility into wired-wireless devices, IoT endpoints 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 campus mobile infrastructure configuration, monitoring, security, device configuration, alert management, to accelerate, downtime resolution, and overall management.

## Datasheet

Alcatel-Lucent OmniVista 2500 Network Management System

Features	Benefits
High performances	<ul style="list-style-type: none"> <li>Available as a virtual appliance for major virtualization environment and hypervisors</li> <li>Scalable platform accommodating large campus mobile infrastructure</li> <li>Operating in High-Availability Mode (HA) with Active/Stand-by support for Mission-critical deployment</li> </ul>
Open platform	<ul style="list-style-type: none"> <li>Northbound RESTful API for easy integration network management functions with third-party Eco-system applications</li> </ul>
Easy of use	<ul style="list-style-type: none"> <li>Web-based user interface for comprehensive, network-wide management platform, increasing IT efficiency and business agility</li> <li>Customizable dashboard that can be tailored to the network administrator's most-used or critical management functions</li> </ul>
Geo Location based topology	<ul style="list-style-type: none"> <li>Geo-location topology provides intuitive visualization of all network equipment a based on their Geo-location topology provides intuitive visualization of all network equipment based on their actual GPS coordinates and their site assignation</li> </ul>
Topology	<ul style="list-style-type: none"> <li>Unified Network topology for WLAN &amp; LAN Infrastructure</li> <li>Advanced multilevel discovery view to create comprehensive logical and physical maps with L2 and L3 Protocols support</li> </ul>
Unified provisioning for Campus Mobile	<ul style="list-style-type: none"> <li>Reduced campus mobile administration time and effort while providing consistent network experience across LAN and WLAN services</li> </ul>
Unified Access with Authentication Policy Manager	<ul style="list-style-type: none"> <li>Single Policy Management of the entire Network with UPAM (Unified Policy Authentication Management) services: <ul style="list-style-type: none"> <li>Unified access provisioning provides a single set of policy enforcement instructions for both wired and wireless users, with authentication strategies (LDAP, Radius, Active Directory)</li> <li>BYOD (Bring Your Own Devices) integration with UPAM to provide full management and consistency of services</li> <li>Fully customizable Captive Portal with integrated credentials management for email, sms, social Login (Facebook, Google, Rainbow)</li> </ul> </li> </ul>
Life Cycle best practices	<ul style="list-style-type: none"> <li>Simplifies configuration change management through scheduling and backup operations for Stellar Access Points and OmniSwitches</li> <li>Network device Software and firmware update for version baselining</li> </ul>
Auto-Provisioning	<ul style="list-style-type: none"> <li>Automates roll-out of consistent device configuration and translates into translates into deployment of specific device configuration based on adapted network services</li> <li>Allows off-the shelf OmniSwitches to be provisioned simply by connecting to the network</li> <li>Policy-driven provisioning and automation allowing compliance enforcement for provisioning best practices</li> <li>Lower costs by enabling deployment of new devices in minutes, and without onsite support visits, eliminates repetitive tasks and onsite support visits</li> </ul>
Mobile Companion Assistant	<ul style="list-style-type: none"> <li>OmniVista Assistant, an Android Mobile application operating simplifies roll-out of pre-defined devices configuration from OmniVista Templates based Provisioning</li> <li>Reduce the time and the complexity to activate and commission the device without networking Skills</li> </ul>
Real-time network Monitoring	<ul style="list-style-type: none"> <li>Network Operating Center (NOC) style topology provides global visibility of all network equipment in a single view with real-time view of devices, clients, alarms and events with remediation actions</li> <li>Real-time monitoring and analysis of critical network performance indicators through visual widgets</li> </ul>
Smart Analytics	<ul style="list-style-type: none"> <li>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</li> </ul>
IoT Enablement	<ul style="list-style-type: none"> <li>Know your network with a single pane of glass for Inventory view- from traditional IT managed devices up to hard to detect endpoints</li> <li>Real-time wired-wireless endpoints inventory with Cloud based device fingerprinting solution for most diversified network environments with advanced contextual information</li> <li>IoT focus dashboard widgets facilitate the operational management for faster time to decision and better understanding of the IoT population</li> <li>IoT Policy Enforcement with access role profiles automates network-wide access based on IoT classification</li> </ul>

Features	Benefits
Application Visibility	<ul style="list-style-type: none"> <li>• Application Visibility, with application monitoring, helps IT organizations to get a better understanding of bandwidth consumption per application</li> <li>• Provides network-wide user-based policies for bandwidth prioritization and enforcement actions</li> <li>• Application Visibility-optimized IT operations, allow better security compliance and network resource use</li> </ul>
Intrusion Control	<ul style="list-style-type: none"> <li>• 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 ALE OmniSwitch® and OmniAccess® Stellar solutions</li> </ul>
Data center & Virtualization environment	<ul style="list-style-type: none"> <li>• Creates seamless, fully integrated management for virtual machine (VM) movements and ensures that network policies move with the Virtual Machine</li> <li>• Open approach supporting all leading Virtualization environment and hypervisors</li> </ul>

## Features

### Platform

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

### Deployment

- Available as a virtual software appliance for full turnkey operation, supporting leading Hypervisors and operating systems
- Available in High Availability mode for mission critical deployment with Active-Stand-by operations over Layer 2 and Layer 3 for Wired and Wireless deployments

### 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

### Geo-location topology

- Google map integration by displaying devices or network sites by its physical location address or by its GPS coordinates
- Display device list, equipment status associated to a geographical site

### Network discovery

- Detailed discovery of Alcatel-Lucent Enterprise OmniSwitches and third-party devices over SNMP v2c/v3
- Registration for Stellar Access Points with wireless & RF services configuration

### Topology

- HTML5 topology with overlay display for Wired/wireless devices and virtual chassis
- Hierarchical Map layout for large infrastructure
- Network visualization for logical and physical infrastructure, with actual adjacency info and live device status
- Layer 2, LLDP adjacency views
- IP subnet, ERP, SPB-M protocol views with
- Dynamic, customizable, logical map based on user-defined filters (IP subnet, location, device model, user-provided descriptive info, custom maps)

## Datasheet

## **Dashboard**

- Real-time monitoring and analysis of critical network performance indicators through visual widgets for LAN and Stellar Access Points Stellar wireless access points
- Full choice of displays, data and other important network and device for wired and Wireless performances management information, with advanced reporting capabilities

## **Network administration controls**

- Provides network administrators with both the tools and the ability to grant access to only those features and resources operators need with role-based administrative controls
- 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
- Secure administration credentials with authentication over RADIUS for network administration user and user groups

## **Notification manager**

- Monitors and analyzes alerts, notifications and network performance from Alcatel-Lucent Portfolio 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 (Back-up, Restore)
- Automation tools to create infrastructure wide software image update for baseline version management for Stellar Access Point and OmniSwitches

## **Template based Provisioning**

- Automatically roll-out consistent provisioning policies and pushed device configuration
- Allows off the-shelf OmniSwitches devices to be provisioned simply by connecting to the network
- Enforce Golden configuration and best practices by monitoring compliance and audit reporting

## **Network analytics**

- Provides insight in the network health with advanced graphical analytics on most problematic devices based on device state (CPU, memory, temperature)
- Wireless performances insights and KPIs for Stellar APs (Health, SSID, throughput, band utilization)
- Monitors network bandwidth and traffic patterns down to the device port level through sflow<sup>®</sup> 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) and on PoE (Power over Ethernet) for power utilization at Port or switch level for trending analysis
- Enables automatic generation of business centric, CIO-oriented graphical analytics reports for network

## **Datasheet**

## **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 deploymentIoT visibility
- IoT Inventory assisted with cloud-based Endpoints fingerprinting service gives a full spectrum visibility of all connected devices across the network with complete contextual information
- Contextual information of all connected devices including Key attributes such as device type, vendor, hardware version, network location and time information
- IoT focus dashboard with Endpoint analytics provides real-time and historical summary view of IoT activity for better informed analysis and reporting

## **Application visibility**

- Provides Application Visibility through extensive application monitoring, for network-wide application inventory and use, allowing a better understanding of bandwidth consumption across wired and wireless networks
- 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 across Stellar Aps and OmniSwitches
- Automatic update for application signature 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

## **Unified Access Management**

- Reduced administration time and effort while providing consistent network experience across LAN and WLAN services
- Single troubleshooting environment and notification support for Wired and Wireless devices, with advanced filtering and triage capabilities to accelerate resolution

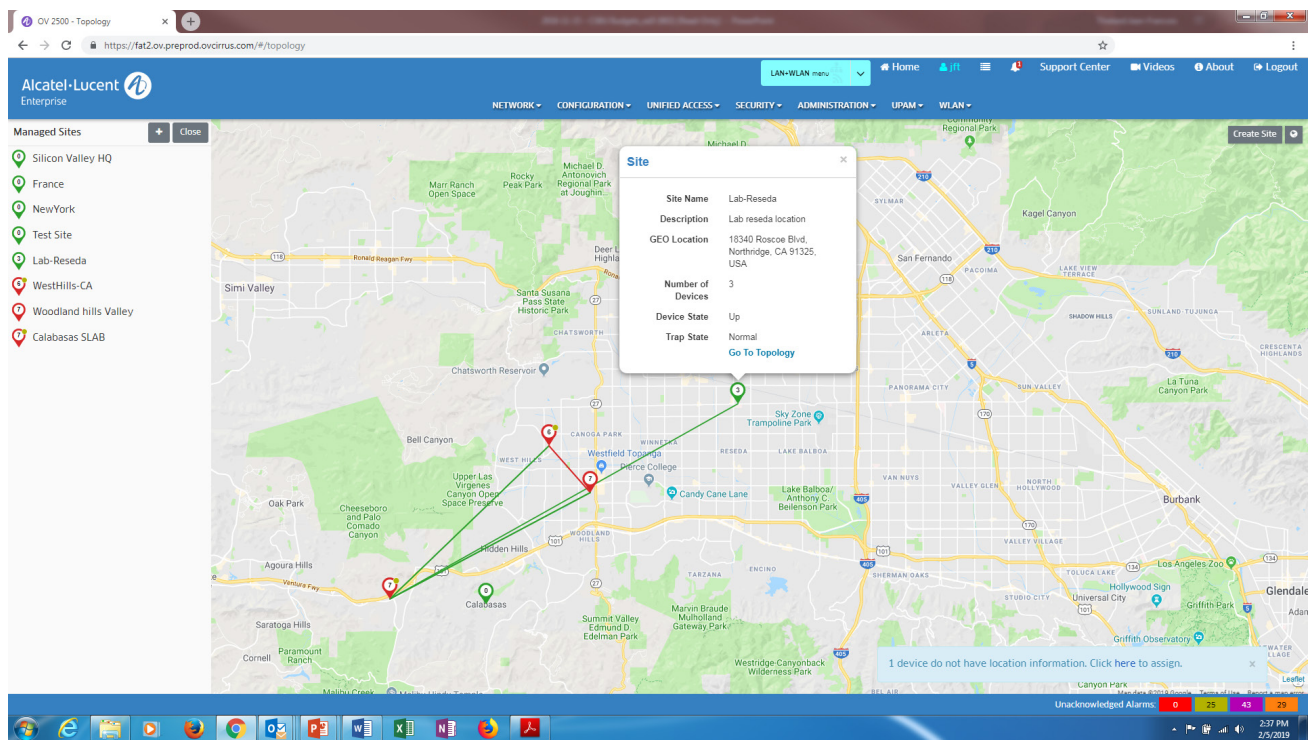
## **Universal Policy Authentication**

- Unified user interface for wired and wireless role profiles for user-based access
- Flexible authentication strategy with easy configuration for end-user profile definition allowing appropriate network access rights and dynamic business policies
- IPv6 client on-boarding including authentication and authorization extending the Unified Access policy framework

## **Captive Portal**

- Integrated captive portal with credentials management for email, sms, social Login Facebook, Google, Rainbow)
- External captive portal redirection (FQDN, redirect URL, Radius Server Authentication)

Figure 1. Geo-Location topology



Geo-location node map shows nodes and device status in geographical context using Google map

Figure 2. Network topology view - Advanced map capabilities for wired and wireless infrastructure

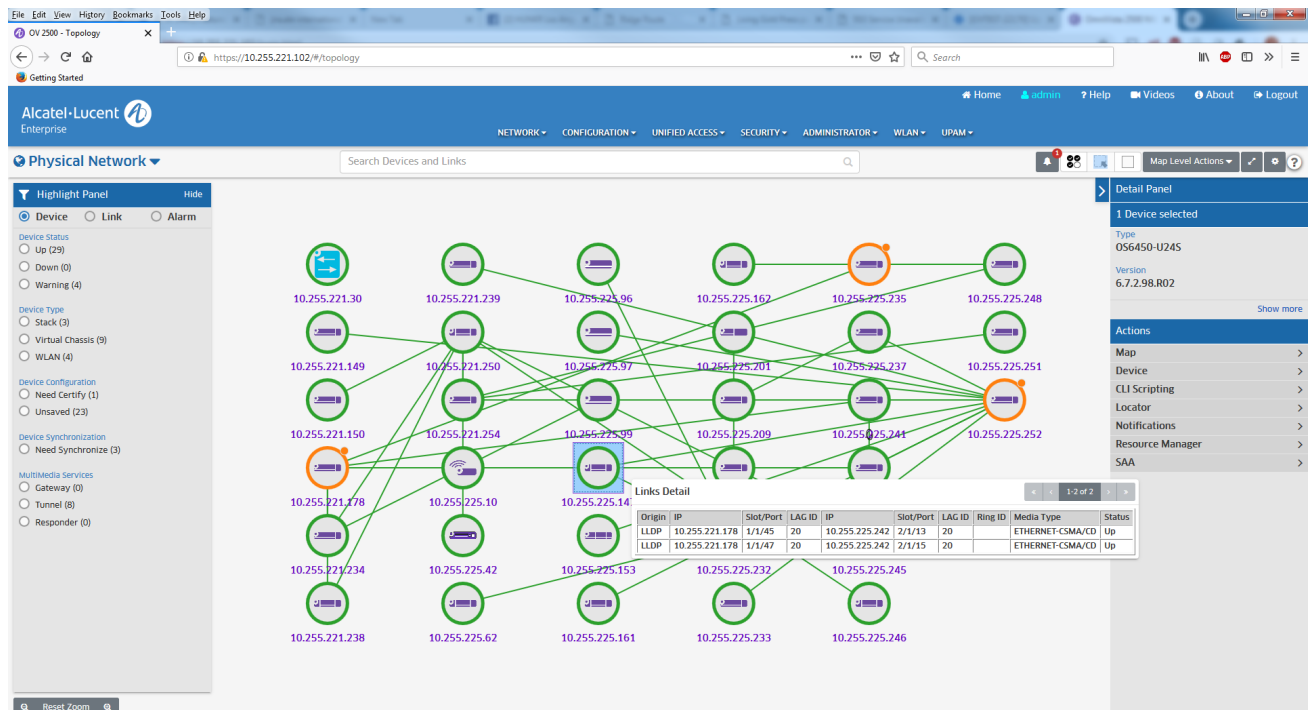


Figure 3. Dashboard - Key indicators for faults, availability and performances for wired and wireless infrastructure

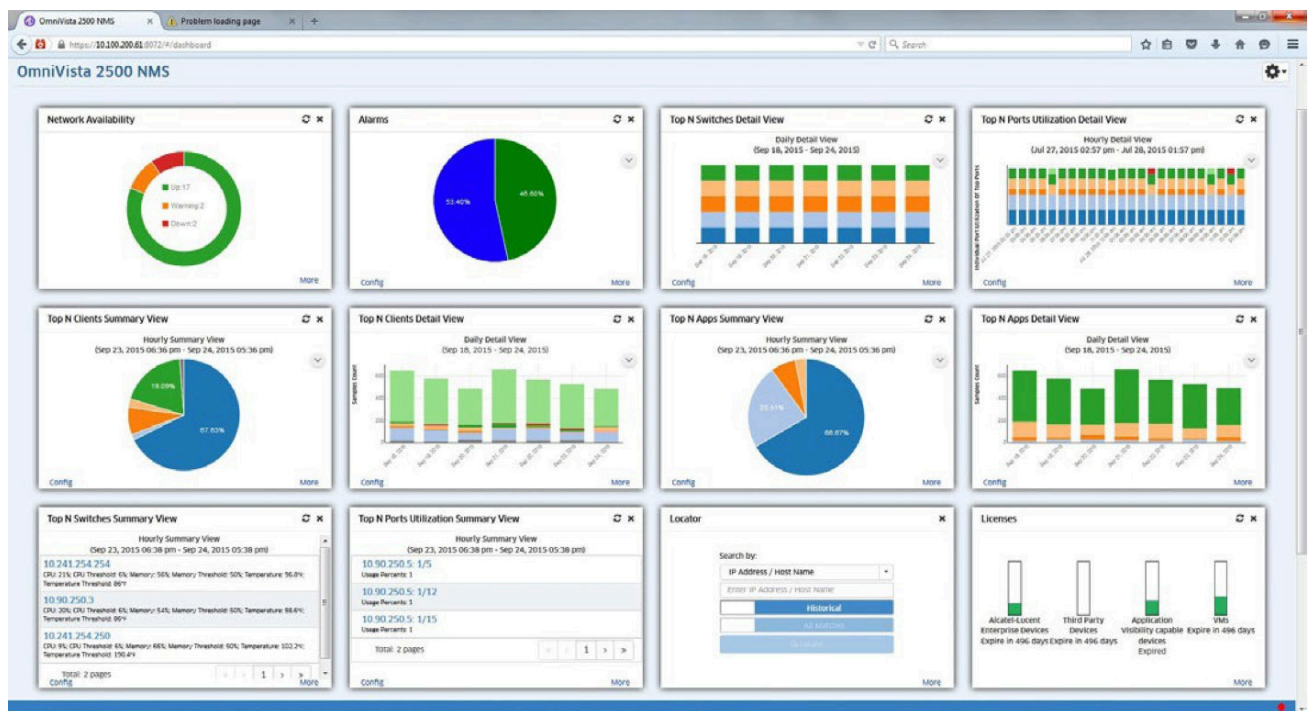


Figure 4. Policy-driven provisioning and automation reduce cost of new device deployment

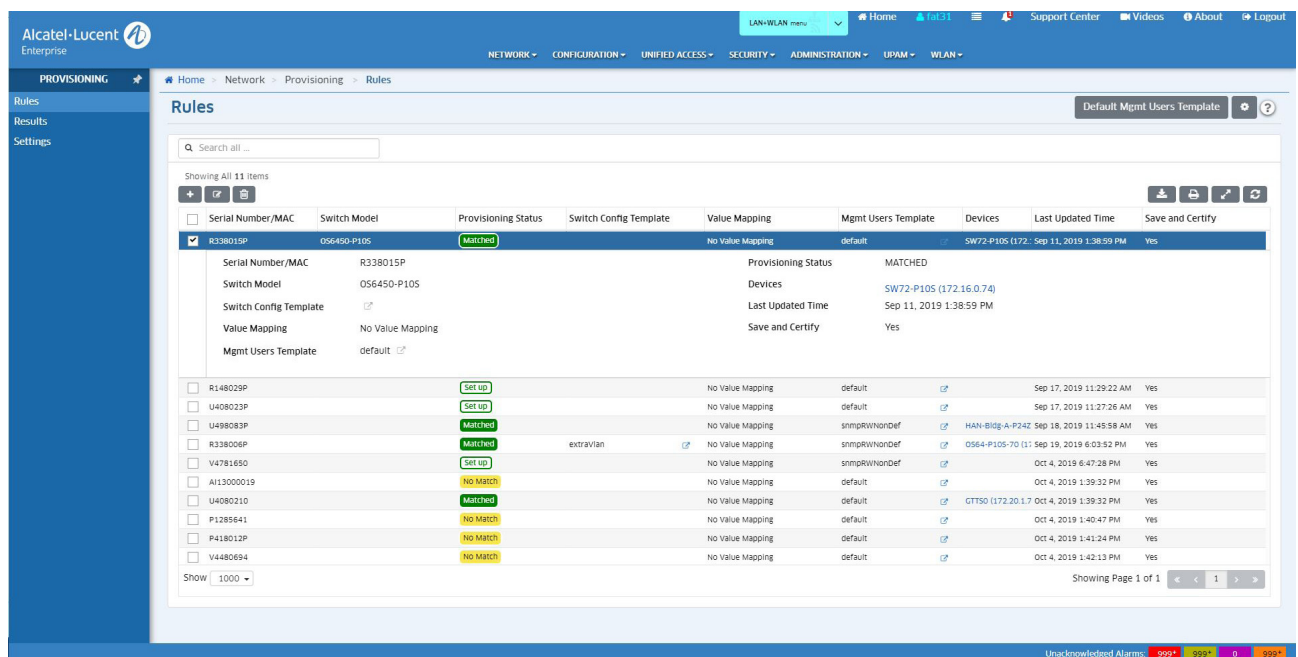
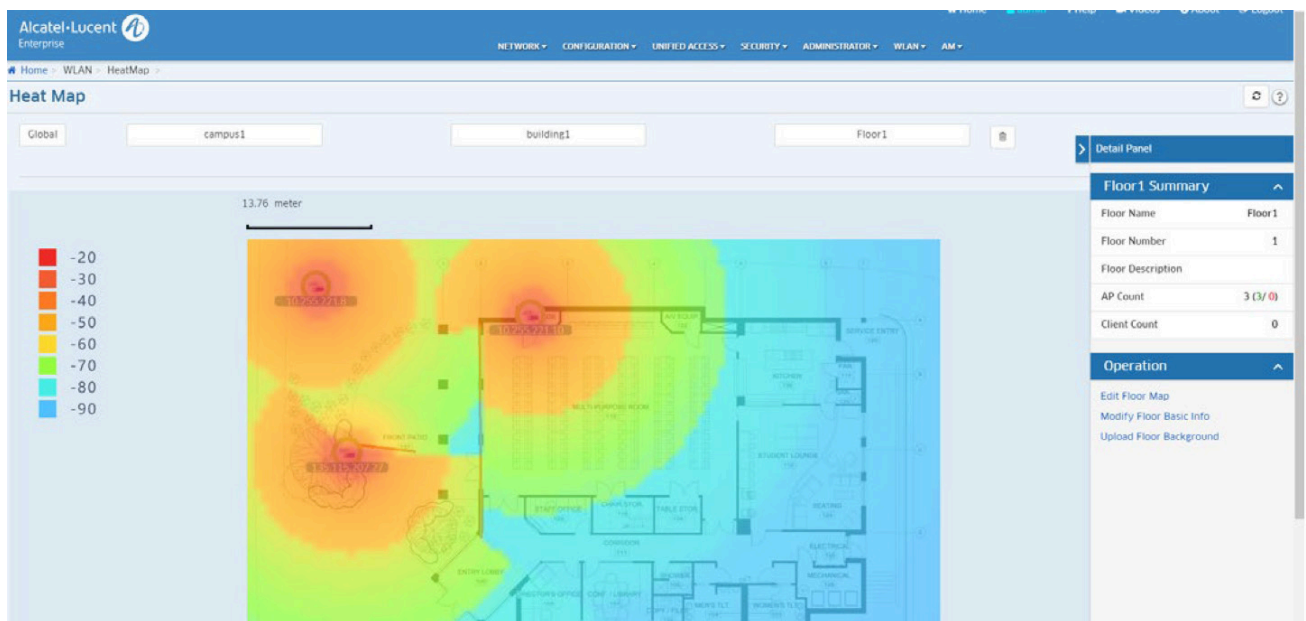


Figure 5. Single Pane of glass for IoT endpoints inventory

The screenshot shows the 'Inventory' page in the Alcatel-Lucent Enterprise management system. It displays a table with 68 items, each representing an IoT endpoint. The table columns include Endpoint MAC, Endpoint IP, Status, UNP, Category, VLAN/Tunnel, Port/ESSID, End Time, Manufacturer, Endpoint Name, and Switch/AP Name. The status of each endpoint is indicated by a colored icon: green for 'Active', red for 'Error', and grey for 'Offline'. The table lists various devices such as Android OS, Amazon Alexa, and Vizio TV, all connected to different VLANs and ports.

Endpoint MAC	Endpoint IP	Status	UNP	Category	VLAN/Tunnel	Port/ESSID	End Time	Manufacturer	Endpoint Name	Switch/AP Name
c8e542dec884	172.16.121.110	Active	unpCommonFAT31	Operating System	0	SLAB-HOT-FAT31			Android OS	AP-245_3D40 (172.16.121.12)
7810b24fa503	0.0.0.0	Error				SLAB-HOT-simple-FAT31				AP-245_3D40 (172.16.121.12)
64eb3e1d1f34	172.16.131.85	Active	unpFAT31IoTCommon	Operating System	131	SLAB-HOT-simple-FAT31			Android OS	AP-261_0530 (172.16.13C)
00a7241a003d	172.16.122.86	Active	unpCommonFAT31	Audio, Imaging or Video Equipment	0	SLAB-HOT-FAT31			Vizio TV	AP-245_3D40 (172.16.121.12)
dc1e1193f06	172.16.122.104	Active	unpCommonFAT31	Operating System	0	SLAB-HOT-FAT31			Android OS	AP-245_3D40 (172.16.121.12)
a0cc20bac875	172.16.131.103	Active	unp8021xcommon	Operating System	131	SLAB-8021x-FAT31			Murata Manufactu...	AP-261_0530 (172.16.13C)
684d65375ff5	172.16.131.88	Active	unpFAT31IoTCommon	Operating System	131	SLAB-HOT-simple-FAT31			Android OS	AP-261_0530 (172.16.13C)
78e103249749	0.0.0.0	Error		AmazonCustomCategory	0	SLAB-HOT-simple-FAT31			Amazon Technolog...	AP-245_3D40 (172.16.121.12)
70a8559e80ad	172.16.121.102	Active	unpFAT31IoTCommon	Operating System	0	SLAB-HOT-simple-FAT31			Android OS	AP-239_3870 (172.16.207)
38221e010982	172.16.131.95	Active	unpFAT31IoTCommon	Operating System	131	SLAB-HOT-simple-FAT31			Android OS	AP-261_0530 (172.16.13C)
2426ea8ba59	172.16.131.96	Active	unpFAT31IoTCommon	Operating System	131	SLAB-HOT-simple-FAT31			Android OS	AP-261_0530 (172.16.13C)
4cef0cc4233	172.16.131.83	Active	unpFAT31IoTCommon	AmazonCustomCategory	131	SLAB-HOT-simple-FAT31			Amazon Technolog...	AP-261_0530 (172.16.13C)
34808bd4af8e	172.16.122.95	Active	unpCommonFAT31	Operating System	0	SLAB-HOT-FAT31			Android OS	AP-245_3D40 (172.16.121.12)
50dc9f553e7c	172.16.121.81	Active	unpFAT31IoTCommon	AmazonCustomCategory	131	SLAB-HOT-simple-FAT31			Amazon Technolog...	AP-261_0530 (172.16.13C)
c096391520d3	172.16.121.72	Offline	unpCommonFAT31	Operating System	0	SLAB-HOT-FAT31	Monday, September 30, 20...		Android OS	AP-245_3D40 (172.16.121.12)
68a29e224591	172.16.121.116	Active	unpCommonFAT31	Operating System	0	SLAB-HOT-FAT31			Android OS	AP-245_3D40 (172.16.121.12)
68246430e0e9	172.16.122.108	Offline	unpFAT31IoTCommon	Operating System	0	SLAB-HOT-simple-FAT31	Monday, September 30, 20...		Android OS	AP-245_3D40 (172.16.121.12)
dc2a847ae217	172.16.122.103	Offline	unpCommonFAT31	Operating System	0	SLAB-HOT-FAT31	Monday, September 30, 20...		Android OS	AP-245_3D40 (172.16.121.12)
60e1c215d9bc	172.16.131.87	Active	unpFAT31IoTCommon	Operating System	131	SLAB-HOT-simple-FAT31			Android OS	AP-261_0530 (172.16.13C)
4c7c61448f47	172.16.121.96	Offline	unpCommonFAT31	Operating System	0	SLAB-HOT-FAT31	Monday, September 30, 20...		Android OS	AP-245_3D40 (172.16.121.12)
b8a3f1297e0f	172.16.121.91	Offline	unpFAT31IoTCommon	Operating System	0	SLAB-HOT-simple-FAT31	Monday, September 30, 20...		Android OS	AP-245_3D40 (172.16.121.12)

Figure 6. Heatmap for optimizing Wi-Fi coverage and wireless performance



## 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)

## Datasheet



## 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™ Hypervisor 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

### Virtual appliance

- Certified hypervisors:
  - VMware ESXi™ 6.0, 6.5, 6.7
  - Microsoft Hyper-V 2012, 2016 & 2019 (Microsoft® Windows™ Server 2012 R2, 2016 & 2019, Windows 8.1 Pro & Enterprise Editions, Windows 10 Edition)
  - Linux-KVM
- Minimum requirements (single instance configuration)
  - Intel® Pentium™ 2.4 GHz with eight Logical processors
  - 20 GB RAM - Minimum RAM reserved for the virtual appliance
  - 500 GB free disk space
- Minimum requirements (High-Availability configuration)
  - Intel® Pentium™ 2.4 GHz with eight Logical processors
  - 16 GB RAM - Minimum RAM reserved for the virtual appliance
  - 500 GB free disk space

### Certified Web browsers

- Google Chrome 65+ for Windows PC and Linux clients
- Mozilla® FireFox™ 59+ for Windows PC and Linux clients
- Microsoft Edge Chromium for Windows PC client

### OmniVista 2500 NMS client

- PC Client Minimum configuration
  - Microsoft Windows, Red Hat ES, SUSE LP (32 and 64 bit versions)
  - Intel Pentium Dual Core 2.4 GHz minimum
  - 8 GB RAM

- Mobile device (early availability)
  - iOS release 10.0 min & Android release 7.0 min
  - Google Chrome 65+

### Certified AOS releases and models

- OmniSwitches series with AOS release 8.4.1 and higher
- OmniSwitches series AOS release 6.7.2 and higher
- OmniSwitches series (OS2220) with OS8.3.1.2 and higher

### Unified role-based profiles with UPAM support

- OmniAccess Stellar Series (AP1101, AP1201, AP1201H, AP1221, AP1222, AP1231, AP1232, AP1251) with Stellar AWOS 3.0.6 in Wi-Fi Enterprise mode.
- OmniAccess Stellar Series (AP1321, AP1322, AP1361, AP1362) with Stellar AWOS 4.0.0 in Wi-Fi Enterprise mode

### Application visibility

- OmniSwitch 6860 and 6860E with AOS release 8.4.1 or higher
- OmniAccess Stellar series (AP1201, AP1221, AP1222, AP1231, AP1232, AP1251) with Stellar AWOS 3.0.6 operating in Wi-Fi Enterprise mode
- OmniAccess Stellar Series (AP1321, AP1322, AP1361, AP1362) with Stellar AWOS 4.0.1) operating in Wi-Fi Enterprise mode

### IoT visibility

- OmniAccess Stellar Series (AP1101, AP1201, AP1201H, AP1221, AP1222, AP1231, AP1232, AP1251) with

Stellar AWOS 3.0.7 operating in Wi-Fi Enterprise mode

- OmniAccess Stellar Series (AP1321, AP1322, AP1361, AP1362) with Stellar AWOS 4.0.0 operating in Wi-Fi Enterprise mode

### IPv6

- IPv6 supported on Wireless clients for Unified Access, locator and Authentication related applications such as Captive Portal with Stellar Access Points supporting AWOS 3.0.6 in Wi-Fi Enterprise mode

### Mobile Application

- OmniVista Assistant for template based provisioning automation
  - Phones & Tablets operating with Android up to release 10
  - Provisioning over Bluetooth with OmniVista Assistant required
- OmniSwitches operating with AOS 8.6R2 min

### Third-party systems interoperability

- Virtual Machine Manager hypervisor interoperability
  - VMware vCenter™ Standard Release 6.0 and higher
  - Microsoft Hyper-V 2012 & 2016
  - Citrix Hypervisor Advanced and Enterprise Release 6.5 and higher

### Performances and scalability

- Up to 5000 network devices including 4000 Stellar Access Points either in Single Instance or in High availability deployment

## 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.

### Platform management license

STARTER PACK (OV4-START-NEW) is the starting element for each Omnivista 2500 Configuration. This is mandatory, first component for each configuration. High Availability (HA) Platform license provides optional Software service for critical infrastructure deployment for Active-Stand-by configuration. 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).
OV4-NMS-HA	HIGH AVAILABILITY license - Optional Software feature license for High Availability Service. One license required per OmniVista 2500 NMS Configuration. Provide Active-Stand-by failover for OmniVista 2500 platform covering all functionalities including UPAM. Minimum release 4.3R1 to operate.

### 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).

### Access point license

Access point (“AP”) licenses provide unified management for the Alcatel-Lucent OmniAccess Stellar series (AP1101, AP1200, AP 1300 Series). 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 like RF management, Heatmap, WiPS (Wireless Intrusion Prevention System) are included. AP licenses are available in various quantities and can be combined to match any specific count.

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Part number	Description
OV-AP-NM-XX-N	ACCESS POINT EXTENSION xx APs - NEW deployment. Unified management license for xx OmniAccess Stellar Access Point series. One license required per unit. (See note below for appropriate ordering details)

For Access point extension, replace XX by one of the following values: 10,20,50,100,500, 1K - For example OV-AP-NM-1K for an extension of 1000 Stellar APs.

### 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-XX-N	GUEST ACCESS EXTENSION for OmniAccess Stellar Solution - XX Guests - NEW deployment. Unified Policy Authentication Manager (UPAM) enables access for XX concurrent guests. (See note below for appropriate value convention)

For Guest Access extension, replace XX by one of the following values: 20,50,100,500,1000,5k,25k - For example, OV-GA-500-N for an extension of 500 Guest Access.

Part number	Description
OV-BYOD-XX-N	BYOD EXTENSION for OmniAccess Stellar Solution-XX devices - NEW deployment. Unified Policy Authentication Manager (UPAM) enables XX BYOD concurrent active devices on an ALE network. (See note below for appropriate value convention)

For Guest Access extension, replace XX by the following values: 20,50,100,500,1000,5k,25k - For example OV-GA-500-N for an extension of 500 BYOD devices.

### 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-XXX-N	VMM EXTENSION - XXX VM - NEW Deployment. License for XXX 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 Hypervisor platforms.

For VMM extension, replace XXX by the following values: 200,500,1K - For example OV-VMM-1K-N for an extension of 1000 VMM virtual Machines.

ALE provides access to services and a continuous update maintenance support program for the OmniVista 2500 NMS.

Contact your ALE representative for further details. <http://enterprise.alcatel-lucent.com/?product=OmniVista2500NetworkManagementSystem&page=overview>