Alcatel-Lucent OmniVista 3600

AIR MANAGER

The Alcatel-Lucent OmniVista 3600 Air Manager is a wireless LAN management software suite that provides centralized visibility and control over today's wireless networks. OmniVista 3600 reduces the cost of operating the wireless infrastructure, improves network performance, improves reliability for wireless end users, and makes the network more secure.

OmniVista 3600 is a true operations management solution that delivers a full set of capabilities including real-time user and device monitoring, centralized configuration and compliance management. These management solutions are designed for the entire IT staff, providing every team member with customized monitoring views and the detailed information needed for his or her job. Most importantly, they provide complete visibility and transparency, so IT can see exactly where users are and how the network is performing at all times.

Key features

- User, session and device monitoring with bandwidth usage, RF signal strength, QoS data, and roaming history
- Storage of nearly two years of historical data, user roaming patterns and detailed capacity reports
- Real time location information
- Management of multiple vendor's wireless solutions

Key benefits

- Level One and Level Two Help Desk with all relevant user information to trouble shoot and fix a WLAN problem in no time.
- Enhanced security through availability of forensic information pertaining to user activity over the wireless network.
- Accurate assessment of performance and network capacity over time. Pro-active planning of network upgrade for increased capacity.
- Correlation between RF heat map, interference map and user location for quick RF troubleshooting.
- Flexibility in deployment strategy with the ability to gradually migrate legacy equipment while using OmniVista 3600 as the common centralized management platform.

Key features

- Compliance audits and configuration policy enforcement
- Rogue access point detection and classification
- Automatic distribution, scheduling and verification of firmware updates

Key benefits

- Prevents a large number of security incidents resulting from improper configuration of wireless equipment
- Detects one of the most dangerous and yet common threats fromwireless LANs
- Simplified firmware distribution task for large organizations

The Alcatel-Lucent OmniVista 3600 Air Manager Software suite includes multiple platforms and modules:

- **OmniVista 3600 Air Manager Core Platform** – This core OmniVista 3600 application provides efficient centralized management of the wireless infrastructure.
- **OmniVista 3600 Air Manager Visual RF module** - This optional software module is an add-on to the OmniVista 3600 Core Platform. VisualRF uses sophisticated RF fingerprinting algorithms to accurately display RF coverage patterns and calculate the location of wireless devices.
- **OmniVista 3600 Air Manager Rogue AP detection module** – This optional software module is an add-on to the OmniVista 3600 Core Platform. It uses a unique combination of discovery techniques across both wireless and wired network infrastructure to find rogue access points no matter where they are located.
- **OmniVista 3600 Air Manager Master Console** - This application runs on a separate server and provides IT with one console for managing and monitoring the entire wireless infrastructure when multiple OmniVista

OmniVista 3600 Air Manager Core Platform

Fundamental to the OmniVista 3600 Air Manager software suite, providing efficient centralized management of the wireless infrastructure, is the OmniVista 3600 Core Platform. The OmniVista 3600 Core Platform application installs on standard PC server hardware (or on an optional hardware appliance) in the network operations center. The OmniVista 3600 software communicates with and controls the wireless infrastructure via standard protocols (SNMP, HTTP, etc.) across a LAN or WAN. Multiple IT staff members can access OmniVista 3600 easy-to-use web-based interface simultaneously, each with a unique login and administrative privileges tailored to their specific job responsibilities.

Key features of the OmniVista 3600 Air Manager Core Platform include:

- Real-time monitoring of every wireless user and device connected to the network, with rapid drill-down from network-wide to device-level monitoring views.
- Centralized discovery and configuration management of WLAN switches and wireless access points (APs) to ensure that network policies are applied uniformly across the entire network.
- Archived device configurations for intelligent management, auditing and version control.
- Efficient remote software distribution to eliminate time-consuming and error-prone manual software updates.
- Automated compliance audits that verify the actual configuration of the APs and WLAN switches against network policies and automatically "repair" mis-configured devices.
- Multi-architecture support for autonomous ("thick"), lightweight ("thin"), and mesh access points as well as point-to-point and WiMax devices.
- Intelligent lifecycle management through OmniVista 3600's unparalleled ability to support both legacy and state-of-the art infrastructure simultaneously.
- Multi-vendor support for wireless infrastructure from Alcatel-Lucent, Aruba, Avaya, Cisco, Enterasys, Foundry, Meru, Motorola/Symbol, ProCurve, Proxim, Trapeze, Tropos and others.
- Historical trend reporting with up to two years of data. All reports are exportable and customizable, and can be distributed automatically via email.

Figure 1: OmniVista 3600 Air Manager Core Platform

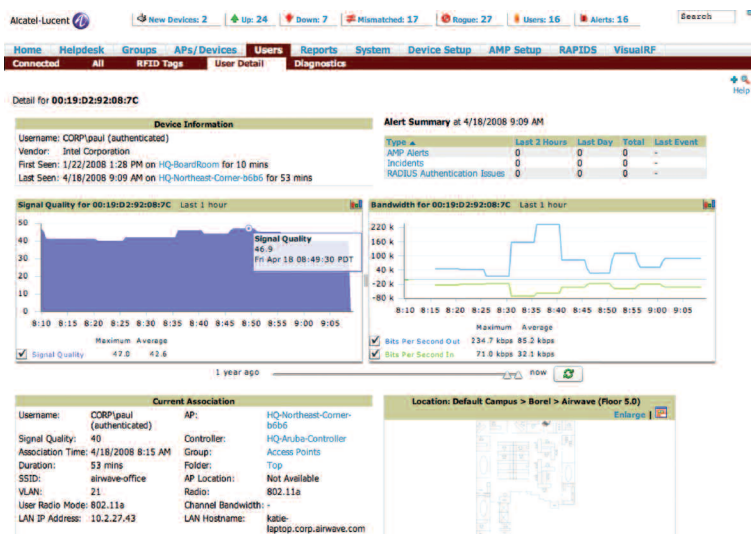
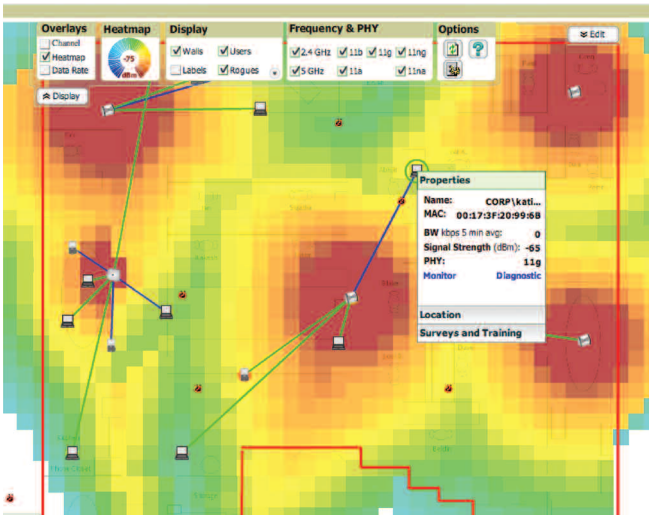


Figure 2: OmniVista 3600 Air Manager Visual RF module



- Alerts and diagnostics to notify the administrator when potential problems are detected. Alerts can be sent via email or via SNMP traps to another fault management system.

OmniVista 3600 Air Manager Visual RF module

To understand what is happening on the wireless network, a network administrator needs to know where the users and devices are located – and to actively monitor the radio frequency (RF) environment in those areas. The OmniVista 3600 Air Manager VisualRF module puts this information at the administrator's fingertips, displaying fully integrated maps and location information. The OmniVista 3600 VisualRF module uses sophisticated RF fingerprinting algorithms to accurately display coverage patterns and calculate the location of every wireless device in range. Best of all, OmniVista 3600 VisualRF does not require dedicated RF sensors or a costly additional location appliance.

Key features of the OmniVista 3600 VisualRF module include:

- Accurate location calculation for each wireless user and device, using RF data from existing access points (APs) and WLAN switches. Location accuracy increases with higher density, providing more data points to triangulate the location of each device.
- Integrated QuickView maps present location information wherever needed, allowing for quick zooms from a building view to an individual user's location.
- Google Earth integration for depiction of outdoor coverage and device location.
- RF heat maps and channel maps generated on a near real-time basis.
- Direct CAD and bulk floor plan import, saving hundreds or thousands of man-hours for organizations with large networks and hundreds of locations.
- Visual display of alerts and error conditions customizable on a per-user basis (i.e., an AP icon will display in red when a critical alert is active or when usage conditions exceed pre-defined thresholds).
- Enhanced location accuracy through the continuous recalculation of RF attenuation grid and device locations based on real-time data from the wireless infrastructure.
- Flexible XML Location API for integration with other location-based services.
- RFID tag tracking for enhanced asset management.
- Flash-based interface for improved responsiveness and support across leading browsers.

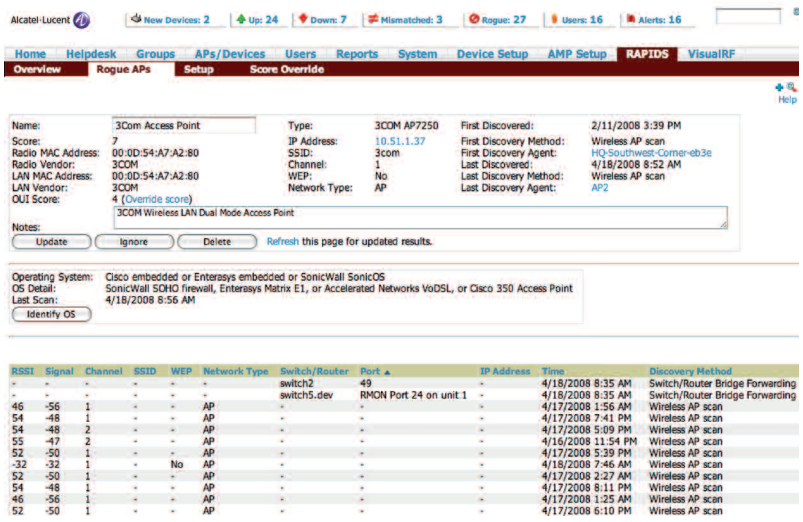
OmniVista 3600 Air Manager Rogue AP Detection Module

Unauthorized rogue access points are one of the most widespread and serious wireless security threats in the enterprise. With the OmniVista 3600 Air Manager (OmniVista 3600) Rogue AP Detection Module, existing access points are used as sensors to listen for unknown access points (APs) in range. Unfortunately, wireless techniques alone often cannot detect all rogue APs unless wall-to-wall coverage is provided in every facility worldwide. The OmniVista 3600 Rogue AP Detection module uses a unique combination of discovery techniques across both the wireless and wired network infrastructure to find rogue APs no matter where they are located.

Key features of the OmniVista 3600 Rogue AP Detection Module include:

- Wireless rogue scanning using existing access points (thick or thin) to detect and locate rogue devices within range.
- Wire line rogue discovery by polling routers and switches. Discovered devices are compared to OmniVista 3600's database of 9,000+ MAC address ranges

Figure 3: OmniVista 3600 Air Manager Rogue AP Detection Module



to determine which are most likely to be rogue access points.

- Enhanced correlation of wired and wireless scans to provide all known information about a potential rogue in a single message.
- Display of rogue location on the OmniVista 3600 VisualRF site map for quick localization and removal of unauthorized devices.
- Enhanced and expanded rogue scoring system that assigns a score to each potential rogue device based on multiple factors, eliminating false positive results and focusing on the most significant threats.
- Automated high-priority alerts containing all known information about the rogue, including SSID, security settings, switch port, etc.
- Ignores known and neighbor APs.
- Option to view or ignore ad-hoc devices depending on each particular threat environment.
- Logs IDS traps and alerts from leading infrastructure providers.

OmniVista 3600 Air Manager Master Console

The need for real-time information and centralized control increases as wireless networks expand to encompass tens of thousands of wireless access points and WLAN switches. Large organizations need a management architecture that scales without sacrificing visibility and control – which often means distributing the OmniVista 3600 Air Manager platform on multiple servers for optimal performance. These servers may be collocated or distributed in NOCs around the world, depending on the network architecture.

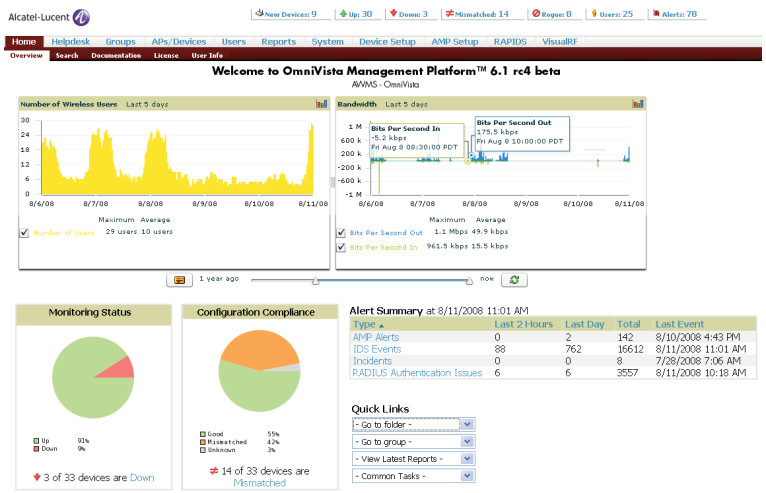
While the OmniVista 3600 platforms may be distributed, the OmniVista 3600 Master Console provides IT with one console for managing and monitoring the entire wireless infrastructure.

The OmniVista 3600 Master Console communicates with each server running the OmniVista 3600 software, aggregating and presenting critical information to provide a single view across the network.

Key features of the OmniVista 3600 Master Console include:

- Centralized network-wide reporting: Any report that can be generated via an individual instance of OmniVista 3600 platform can be generated network-wide from the OmniVista 3600 Master Console.
- Scalable centralized configuration: With increasingly strict requirements for network security, even the most distributed global enterprises must centralize control over configuration policies and security settings. The OmniVista 3600 Master Console allows the administrator to define model group policies that are then pushed out system-wide.
- Executive level reporting: Generates high-level executive reports depicting the performance of the entire network as well as more detailed reports for groups, locations, or even individual devices.
- Efficient scheduling for local time zones: Configuration changes and software updates are scheduled in local time, rather than simultaneously on a system-wide basis.
- Many-to-one failover: Provides cost-effective high-availability management when the OmniVista 3600 platforms are distributed on multiple servers.

Figure 4: OmniVista 3600 Master Console



Technical Specification OmniVista 3600 Air Manager Core Platform

Device discovery

- Uses SNMP, HTTP, CDP, and other discovery protocols to locate all Wi-Fi devices
- Operates in any network environment

Policy enforcement and audit

- Uses group-based templates for efficient central management of any number of access points
- Routinely audits each Wi-Fi device's configuration and compares it to policy
- Sends alerts for mis-configured devices, and automatically performs repairs
- Provides password-based login and administrative user permissions for multiple classes of users
- Keeps user log files for two years

Provisioning and configuration

- Enables group-based policy definition for efficient central management of thousands of access points
- Automatically ensures that all devices are using approved, up-to-date versions of vendor firmware
- Supports multiple WLAN architectures (including hybrid networks with intelligent APs, WLAN switches and even mesh devices)
- Automates RF channel assignment and management
- Automatically assigns IP addresses to newly-installed access points

Monitoring and diagnostics

- Monitors every device and user on the wireless network live
- Identifies and searches for users by username
- Graphical views show current users and throughput of every device
- User views show signal strength and roaming history of each user
- Performs intelligent diagnostics and sends automated alerts when problems are detected
- Integrates with network management systems (HP OpenView Network Node Manager) for seamless management of wired and wireless networks
- Optimized to use minimal network overhead for SNMP monitoring
- Supports networks with high-latency or intermittent connections

Reporting and visualization

- Integrated reporting package includes use, inventory, client session, device uptime reports and more
- Exports all reports (via XHTML)
- Automated email distribution lists
- Fully customizable reports by group, time, etc.
- Integrates with VisualRF to provide real-time RF monitoring data
- Maintains data for up to two years

Platform data

- Centralized in network operations center (no local agents required)
- Installs on standard PC hardware
- Secure Linux operating system
- Web-based user interface via Apache web server
- SSH, Telnet, SNMPv1, SNMPv2, and SNMPv3 for device communication
- SQL-based databases, RRD data repositories
- Standard XML API for third-party applications
- Unlimited unique, role-based administrative log-ins
- Scalable architecture to 10,000+ wireless access points
- Integrates with leading wireless authentication solutions (including Cisco 3030, Cisco ACS, Bluesocket, HP 700 series, etc.)

Supported hardware vendors

- Alcatel-Lucent
- Aruba
- Avaya
- Cisco (Aironet and Airespace)
- Colubris Networks
- Enterasys
- HP ProCurve
- Juniper Networks
- LANCOM Systems
- Nomadix
- Proxim
- Symbol

OmniVista 3600 Air Manager Visual RF Module - Functionality

Location data

- Shows where client devices (users) are connected to the WLAN for rapid location identification and trouble-shooting
- Uses different icons for each device type (laptop computer, PDA, wireless VOIP phone, etc.) Icons accompanied by username for easy identification
- Icon color reflects current bandwidth use for each client device (red = high usage, etc.)
- Integrates with OmniVista 3600 Core Platform so you can quickly click and toggle to a detailed client view of any device on the map, accessing all relevant client information

RF coverage maps

- Provides real-time updated coverage maps, showing the physical location and coverage areas of wireless APs, using RF data gathered from access points
- Supports both 2.4GHz and 5GHz spectrums
- Recalculates and redisplays coverage areas by data rate and office environment (normal, high-density, or open environments)
- Considers antenna settings, receive sensitivity, transmission power, and other manufacturer settings
- Uses color-coded RF channels for easy identification of overlapping channels
- Pan and zoom feature uses scalable vector graphics (SVG) to zoom in on a detailed subsection of any RF map
- Supports directional antenna settings
- Creates an Adobe PDF of the RF map to provide a permanent record of your RF environment at any time

Figure 5: OmniVista 3600 Visual RF Client Location View

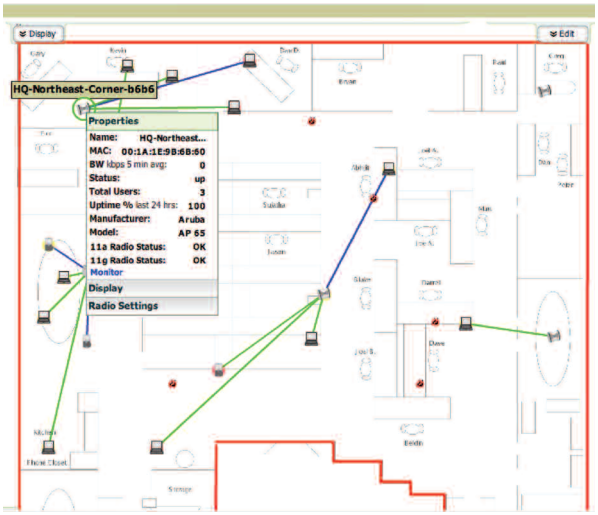
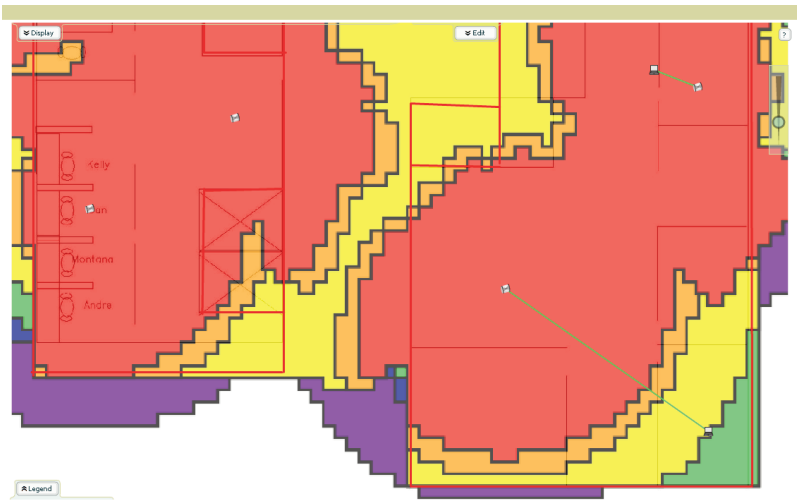


Figure 6: OmniVista 3600 Visual RF Coverage Map



Rogue view

- Integrates with the OmniVista 3600 Rogue AP Detection Module to place rogue APs on the map for fast location and removal
- Uses RF data from multiple access points to triangulate the likely location of a rogue; Accuracy increases as the number of discovering devices increases
- Displays all known information about the rogue device, including name, SSID, BSSID, channel, security settings, operational mode, and more
- Provides any information about any rogue device discovered via wired network scans

Optimization views

- Displays simple, easy-to-understand before and after views showing the results of OmniVista 3600 Core Platform's automated RF channel optimization feature
- Allows for review and approval of the changes required to achieve the optimal RF configuration before implementing them

OmniVista 3600 Air Manager Rogue AP Detection Module - Functionality

Wired network scans and AP identification

- Uses SNMP, HTTP, CDP, and other discovery protocols to identify all devices on the wired network
- Interrogates devices with manufacturer default and configurable passwords to fingerprint a wireless AP
- Examines the MAC address of each device on the network and compares it to OmniVista 3600 Rogue AP Detection Module's database of 9,000+ known MAC address ranges to identify devices with MAC addresses commonly used by wireless hardware manufacturers
- Uses OmniVista 3600 Rogue AP Detection Module's database of 1,700+ OS types to identify the device operating system to help eliminate false positive results (i.e., a device with an embedded OS is far more likely to be a rogue access point than a device with a Windows OS)

Wireless network scans

- Instructs authorized access points to scan the airwaves for other wireless APs
- Compares results of RF scans to the list of known access points to create a rogue list
- Allows for distinguishing between true rogues and neighboring APs that are in RF range but not connected to your network

Rogue scoring and elimination of false positives

- Correlates rogue detection data from both wireless and wired network scans
- Assigns each device on the network a score reflecting the likelihood that the device is a rogue access point
- Provides filters to establish lists of the highest priority devices that are most likely to be rogues

Alerts and reports

- Assigns varying alert priority to each discovered AP (critical vs. major vs. warning) depending on its rogue score
- Generates automated email alerts containing all known information about rogue devices, including:
  - ¬ Radio MAC address
  - ¬ LAN MAC address
  - ¬ Discovery method
  - ¬ SSID
  - ¬ Channel
  - ¬ Security settings
  - ¬ Switch port
  - ¬ IP address
- Rogue summary screens display real-time, up-to-date information on all suspected rogues Visualization
- Integrates with OmniVista 3600 Visual RF module to display the likely location of each rogue device on an office map
- Triangulates location using signal level data collection from APs
- Location accuracy increases when the rogue device is discovered by more RF scanning agents

Ordering information

OmniVista 3600 Air Manager software suite – bundle

PART NUMBER	DESCRIPTION
OV3600-AM25	OmniVista 3600 Air Manager software suite for a single server managing up to 25 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes OmniVista 3600 Air Manager Core Platform, Visual RF module, and Rogue AP Detection module.
OV3600-AM50	OmniVista 3600 Air Manager software suite for a single server managing up to 50 devices (WLAN switches, wireless access points, LAN switches*, etc.). Includes OmniVista 3600 Air Manager Core Platform, Visual RF module, and Rogue AP Detection module.
OV3600-AM100	OmniVista 3600 Air Manager software suite for a single server managing up to 100 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes OmniVista 3600 Air Manager Core Platform, Visual RF module, and Rogue AP Detection module.
OV3600-AM200	OmniVista 3600 Air Manager software suite for a single server managing up to 200 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes OmniVista 3600 Air Manager Core Platform, Visual RF module, and Rogue AP Detection module.
OV3600-AM500	OmniVista 3600 Air Manager software suite for a single server managing up to 500 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes OmniVista 3600 Air Manager Core Platform, Visual RF module, and Rogue AP Detection module.
OV3600-AMPRO	OmniVista 3600 Air Manager software suite for a single server managing up to 1000 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes OmniVista 3600 Air Manager Core Platform, Visual RF module, and Rogue AP Detection module.
OV3600-AMENT	OmniVista 3600 Air Manager Software suite for a single server managing up to 2500 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes OmniVista 3600 Air Manager Core Platform, Visual RF module, and Rogue AP Detection module.

OmniVista 3600 Air Manager Core Platform

PART NUMBER	DESCRIPTION
OV3600-C25	OmniVista 3600 Air Manager Core Platform for a single server managing up to 25 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes core management functionality, including monitoring, reporting, alerting and configuration management. Does not include Visual RF or Rogue AP Detection module.
OV3600-C50	OmniVista 3600 Air Manager Core Platform for a single server managing up to 50 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes core management functionality, including monitoring, reporting, alerting and configuration management. Does not include Visual RF or Rogue AP Detection module.
OV3600-C100	OmniVista 3600 Air Manager Core Platform for a single server managing up to 100 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes core management functionality, including monitoring, reporting, alerting and configuration management. Does not include Visual RF or Rogue AP Detection module.
OV3600-C200	OmniVista 3600 Air Manager Core Platform for a single server managing up to 200 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes core management functionality, including monitoring, reporting, alerting and configuration management. Does not include Visual RF or Rogue AP Detection module.
OV3600-C500	OmniVista 3600 Air Manager Core Platform for a single server managing up to 500 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes core management functionality, including monitoring, reporting, alerting and configuration management. Does not include Visual RF or Rogue AP Detection module.
OV3600-CPRO	OmniVista 3600 Air Manager Core Platform for a single server managing up to 1,000 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes core management functionality, including monitoring, reporting, alerting and configuration management. Does not include Visual RF or Rogue AP Detection module.
OV3600-CENT	OmniVista 3600 Air Manager Core Platform for a single server managing up to 2,500 devices (WLAN switches, wireless access points, LAN switches*, etc.) Includes core management functionality, including monitoring, reporting, alerting and configuration management. Does not include Visual RF or Rogue AP Detection module.

OmniVista 3600 Air Manager Visual RF module

PART NUMBER	DESCRIPTION
OV3600-V25	OmniVista 3600 Air Manager Visual RF module. Supports RF mapping and Wi-Fi device location for up to 25 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-C25.
OV3600-V50	OmniVista 3600 Air Manager Visual RF module. Supports RF mapping and Wi-Fi device location for up to 50 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-C50.
OV3600-V100	OmniVista 3600 Air Manager Visual RF module. Supports RF mapping and Wi-Fi device location for up to 100 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-C100.
OV3600-V200	OmniVista 3600 Air Manager Visual RF module. Supports RF mapping and Wi-Fi device location for up to 200 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-C200.
OV3600-V500	OmniVista 3600 Air Manager Visual RF module. Supports RF mapping and Wi-Fi device location for up to 500 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-C500.
OV3600-VPRO	OmniVista 3600 Air Manager Visual RF module. Supports RF mapping and Wi-Fi device location for up to 1,000 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-CPRO.
OV3600-VENT	OmniVista 3600 Air Manager Visual RF module. Supports RF mapping and Wi-Fi device location for up to 2,500 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-CENT.

OmniVista 3600 Air Manager Rogue AP Detection module

PART NUMBER	DESCRIPTION
OV3600-R25	OmniVista 3600 Air Manager Rogue AP detection module. Uses wired and wireless scanning techniques for up to 25 devices (WLAN switches, wireless access points, LAN switches*, etc.).Must be licensed with and run on the same server as OV3600-C25.
OV3600-R50	OmniVista 3600 Air Manager Rogue AP detection module. Uses wired and wireless scanning techniques for up to 50 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-C50.
OV3600-R100	OmniVista 3600 Air Manager Rogue AP detection module. Uses wired and wireless scanning techniques for up to 100 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-C100
OV3600-R200	OmniVista 3600 Air Manager Rogue AP detection module. Uses wired and wireless scanning techniques for up to 200 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-C200.
OV3600-R500	OmniVista 3600 Air Manager Rogue AP detection module. Uses wired and wireless scanning techniques for up to 500 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-C500.
OV3600-RPRO	OmniVista 3600 Air Manager Rogue AP detection module. Uses wired and wireless scanning techniques for up to 1,000 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-CPRO.
OV3600-RENT	OmniVista 3600 Air Manager Rogue AP detection module. Uses wired and wireless scanning techniques for up to 2,500 devices (WLAN switches, wireless access points, LAN switches*, etc.) Must be licensed with and run on the same server as OV3600-CENT.

OmniVista 3600 Air Manager Master Console

PART NUMBER	DESCRIPTION
OV3600-MASTER	Single-server software licensed to manage multiple OmniVista 3600 servers from a single console.

OmniVista 3600 Air Manager Master Console

PART NUMBER	DESCRIPTION
OV3600-HWPRO	Hardware appliance for OmniVista 3600 Air Manager Professional Edition and smaller software licenses.
OV3600-HWENT	Hardware appliance for OmniVista 3600 Air Manager Enterprise Edition and smaller software licenses.

* OmniVista 3600 Air Manager does not manage LAN switches, however the OmniVista 3600 Rogue AP Detection module queries LAN switches to gather information that contributes to the detection, identification, and classification of rogue APs.

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