

# Integrated Network Management

~Analysis and Visualization~



Simplified  
Network  
Management

Issue

Complicated Network Operation

Solution

Unified Management

# Having a Hard Time Understanding your Network?

As the number of IoT devices grows, network complexity increases, making network management laborious.

Allied Telesis offers an integrated solution that simplifies network management.

Issue

Complicated Device Management

Solution

Integrated Asset Management



# WIRELESS LAN

Issue

Unstable  
Wireless  
Network

Solution

Seamless  
wireless  
connectivity



AT-VISTA MANAGER™ EX

Network Details

NOC  
10.36.4.238

6 areas 204 nodes 136 up 48 down 9 safe mode

24 Hour Event History  
May 15, 2017 11:10:12 AM - May 15, 2017 11:10:12 AM

Network Map

Recent Events

Timestamp	Action	Node Name	Notes	Message
2017-04-04 00:22:37	Monitoring	NOC-Edge1	✓	Node recovery started.
2017-04-04 01:07:40	Monitoring	NOC-Edge1	✓	Node recovery started.
2017-04-04 01:40:12	Monitoring	NOC-Edge1	✓	Node recovery started.
2017-04-04 03:12:42	Monitoring	NOC-Edge1	✓	Node recovery started.
2017-04-04 05:59:05	Monitoring	NOC-Edge1	✓	Node recovery started.

# CYBER SECURITY



Issue

Network  
Cyber Security  
Concerns

Solution

Robust and  
Functional  
Network

## Issue

- Cannot understand configurations due to network complexity
- Difficulty in identifying bottlenecks or detecting their signs
- Difficulty in understanding the logical configuration of VLANs
- Difficulty in managing all multi-vendor configurations concurrently

## Solutions

## Display of Unified Maps

- Can display the entire network in a wide view on unified maps
- Easily detect bottleneck signs on the traffic monitor with integrated LAN/WAN
- Display VLANs on unified maps to reduce risk of errors
- Manage IoT devices on unified maps

Equipped with an enhanced unified mapping function to immediately comprehend network configurations, including LAN/WAN, for grouping and tiering. Network device communications can be seen, not only through real-time information, but also by viewing communication history. VLAN settings and management can be easily implemented with point and click simplicity.

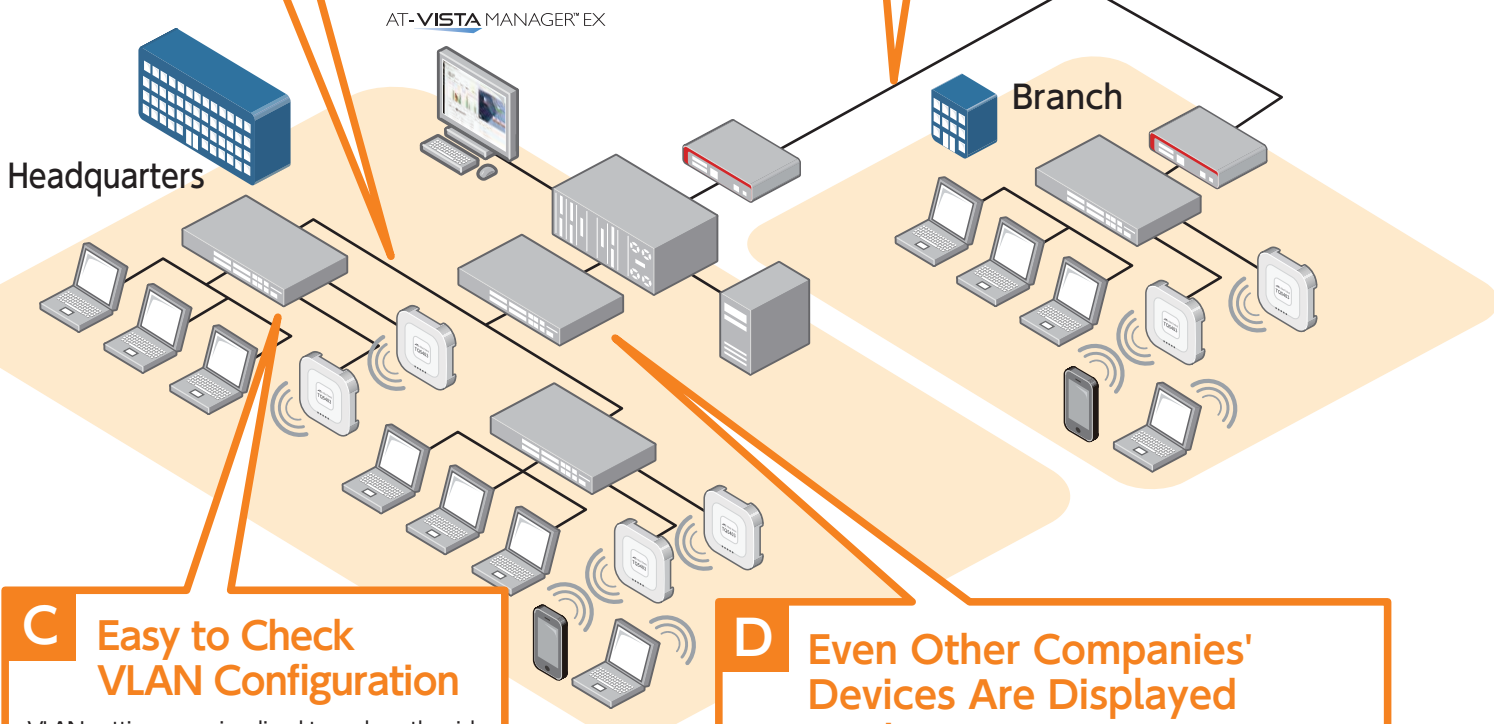
### A Integrated Display of LAN, WAN, and Wireless Networks

An integrated LAN, WAN, and wireless map is automatically created. Manage all devices or groups of devices.



### B Identification of LAN and WAN bottlenecks

Traffic and path information is displayed with integrated LAN/WAN. This makes it easy to identify bottlenecks.



### C Easy to Check VLAN Configuration

VLAN settings are visualized to reduce the risk of setting errors. It is also easy to check the logical connection between devices on a map.



### D Even Other Companies' Devices Are Displayed on the Map

The unified maps can display other companies' devices as well. Even centralized management of network cameras is possible.




# Seamless Wireless LAN Connection

Issue	Solutions
<ul style="list-style-type: none"> <li>•Intricate wireless network setting.</li> <li>•Time-consuming process to set up.</li> <li>•Indistinguishable connections.</li> <li>•Unstable data communications between mobile devices.</li> </ul>	<h3 style="color: #0056b3;">Optimization and Visualization</h3> <ul style="list-style-type: none"> <li>●Automated optimization of channels and output signals.</li> <li>●Flexibly adapts to any environment, automatically optimizing the wireless signal to maximize performance.</li> <li>●Display of client's location and location history.</li> <li>●Resolves the sticky clients problem and roaming.</li> </ul>

Visualize wireless network and Access Point (AP) registration with just a few mouse clicks. AT-Vista Manager EX includes Autonomous Wave Control (AWC), allowing automatic optimization of wireless signals and channels, and AWC-CB, allowing seamless data communication without roaming.

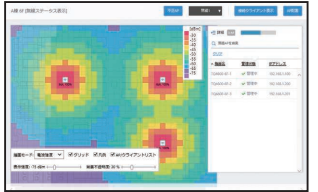
### A Centralized AP Management

Simplified AP registration with just a few mouse clicks, allowing the centralized management of APs.

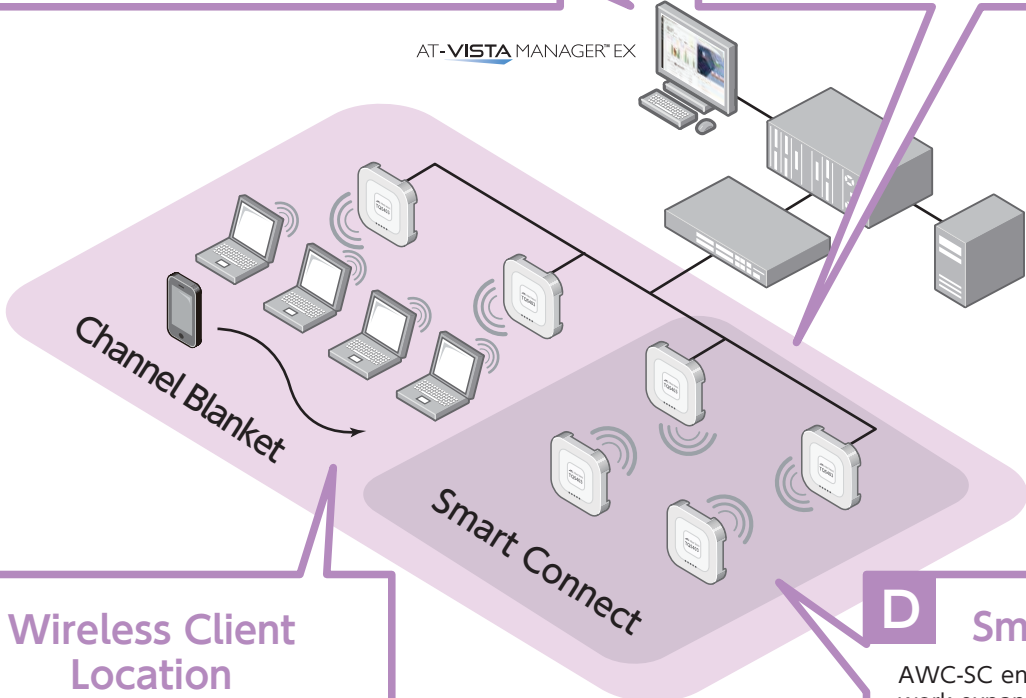


### B Heat Map

Intuitive tools include wireless floor and heat maps to easily check on access point performance and wireless coverage.

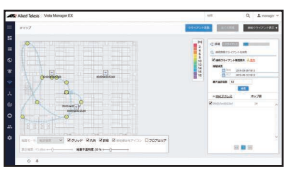


AT-VISTA MANAGER EX



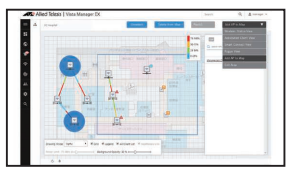
### C Wireless Client Location

AWC-CB provides seamless-roaming with reliable coverage in a busy access area and allows associated client history to display client device movement.



### D Smart Connect

AWC-SC enables effortless Wi-Fi network expansion using wireless uplinks, and provides resilient wireless traffic throughout. Visualize performance on the network map.



# Integrated Asset Management

## Issue

- Different devices have different administrative software.
- Management of many of device.
- Ineffective delegation of tasks.

## Solutions

### Unified Management, including third-party devices

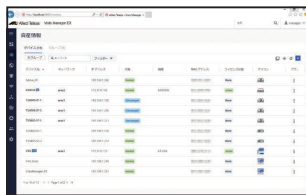
- View the status of the entire network, and manage events.
- Visualize statistics.
- Graphically manage assets.

Central management of a variety of IoT devices, including servers, storage devices, IP cameras, and printers. Network devices from other vendors can be visualized.

**A**

### Asset List

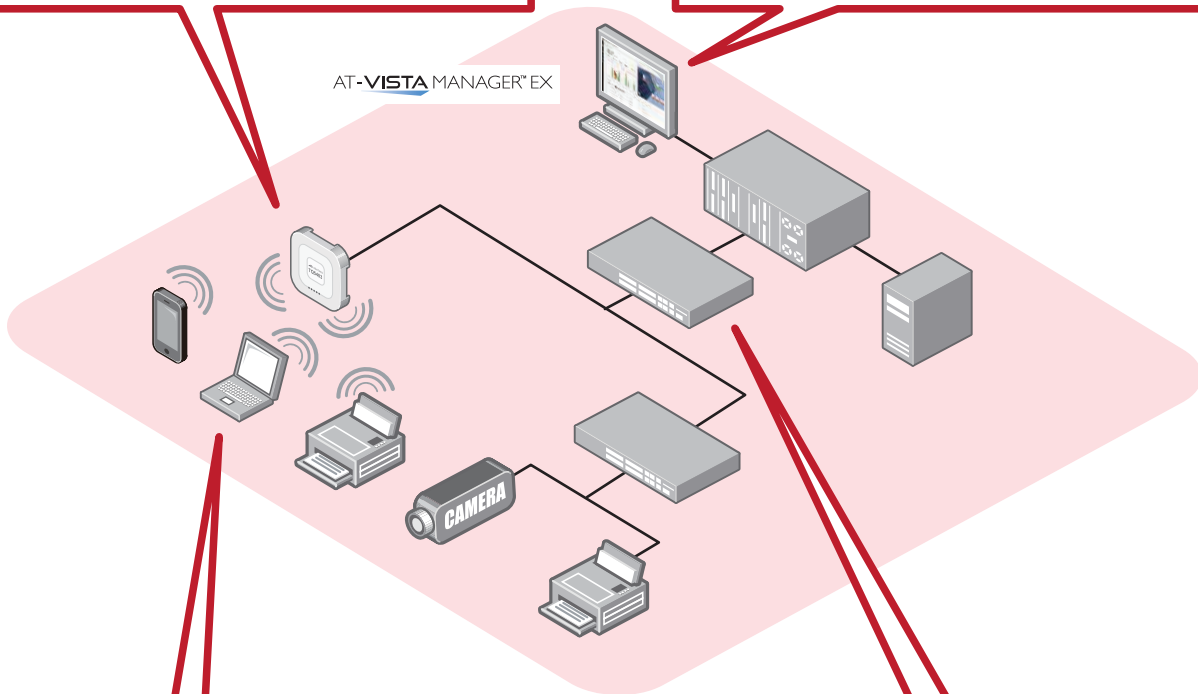
Automatically searches network assets and lists them on the display. Choose icons to match your preferences.



**B**

### Dashboard

The dashboard includes network details and status, event information, a topology map, and the status of up-link and down-link frequencies.



**C**

### Event Management

Create triggers to take action in response to selected events.



**D**

### SNMP Statistical Graph

Visualize the status of links, and statistics gathered from MIBs.



## Issue

## Solutions

- Cyber attacks target IP cameras and IoT devices.
- Location of failed devices or links is unknown.
- Complex data is useless.

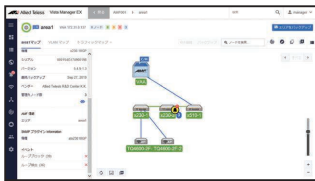
### Network cyber security enhancement and its visualization

- Link with external security applications to stop malicious attacks and threats.
- Automated and immediate response to any malware threats.
- No administrator action required.

AMF-Security (AMF-Sec) enables an immediate and automated response to malware threats or information leakage. Partner with Allied Telesis or other vendors security appliances. Visualize the location of any suspect activity on the network map.

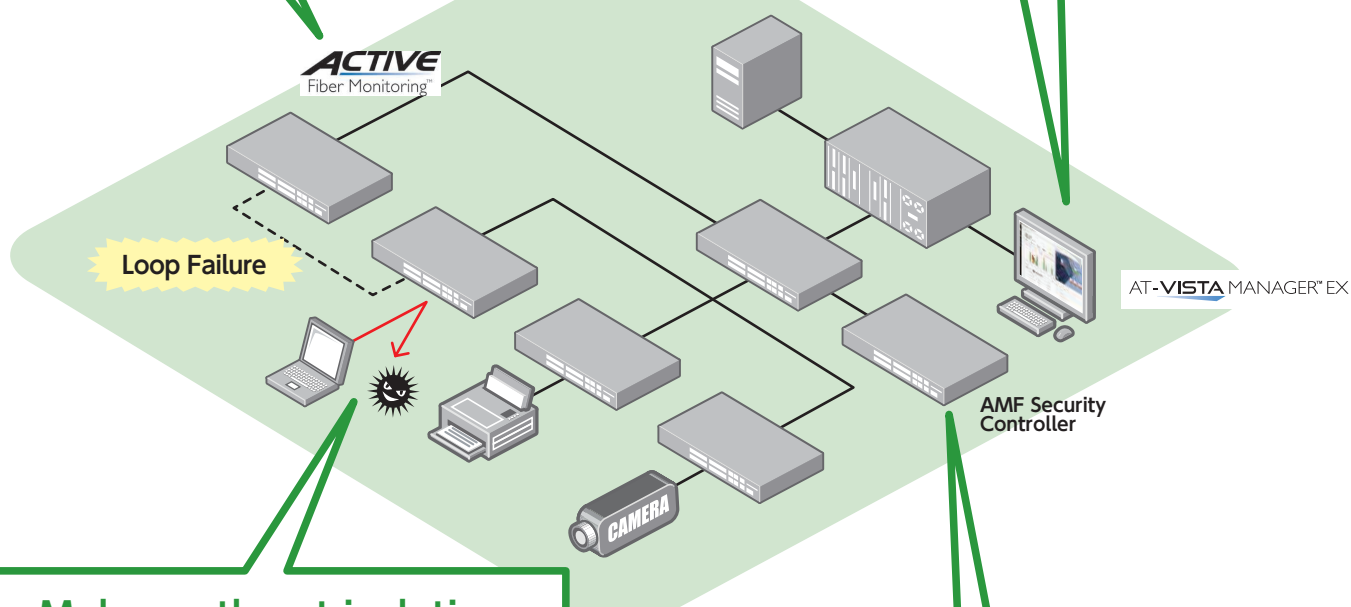
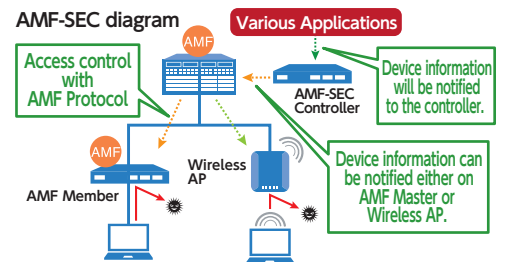
### A Malfunction Notification

Notifies of loop failure and optical fiber connection failure.



### B Application Linkage Access Control<sup>1</sup>

AMF Application Proxy feature allows a user to employ a variety of applications to control access.



### C Malware threat isolation<sup>1</sup>

The AMF-Security controller can isolate traffic anywhere in the network - ideal for protection against internal network threats.



### D A Variety of Applications

The AMF Security controller and tech-partner enterprise applications work together to provide a highly secured network and decrease management effort.

Security Measures

IT Asset Management

HR Management etc

<sup>1</sup>Access Control and Threat Isolation requires use of one of our tech-partner's enterprise applications.  
<sup>1</sup>Please contact our sales to get more information regarding the applications.

# The Best Use for AT-Vista Manager EX

Small to Large sized businesses

Flexible WAN/LAN Management

## Visualizes Large-Scale Networks through Integrated Management

Integrated management of WAN, LAN, wired, and wireless networks and the visualization of device and traffic status provide automated and simplified administration. AT-Vista Manager EX, which uses a plugin system, is a powerful network management tool, supporting up to 3000 APs, and thousands of switches.

### AT-VISTA MANAGER™ EX

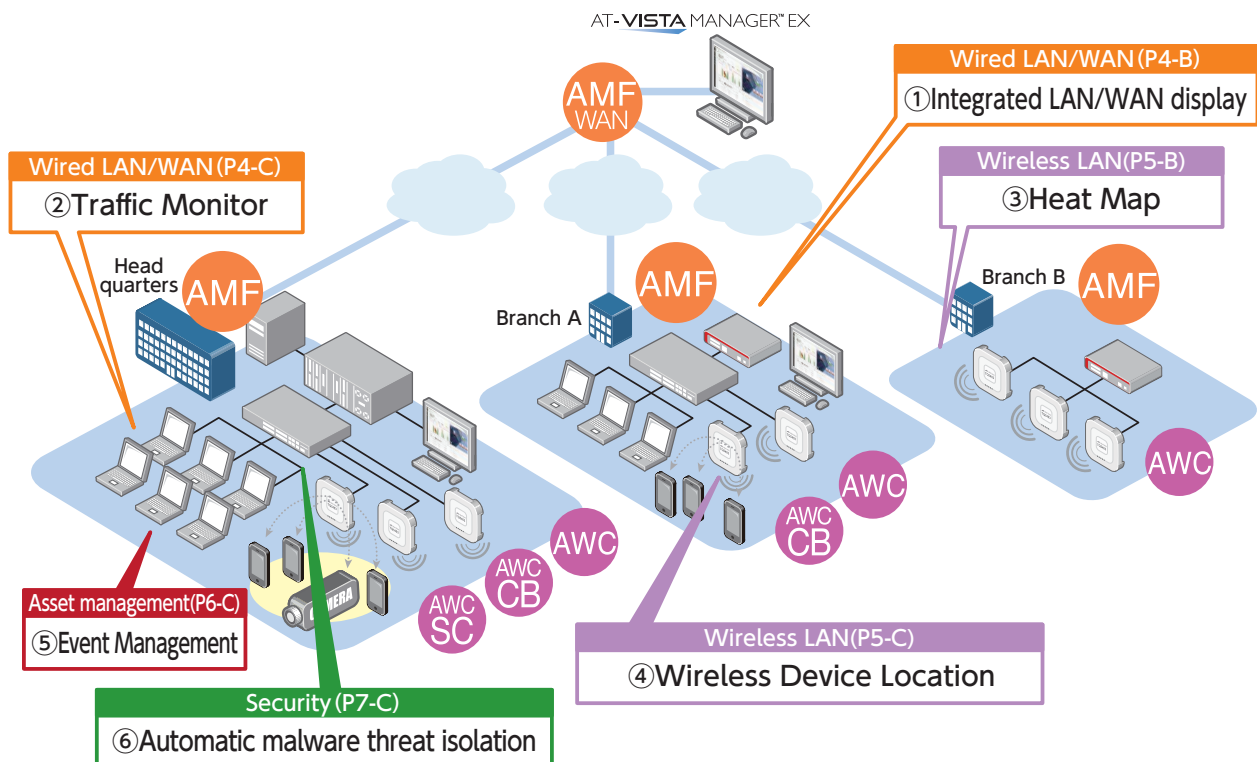


#### Benefits of AT-Vista Manager EX

- Unified management of WAN, LAN, wired, and wireless networks
- Support third-party devices with SNMP
- Flexible licensing enables easy network growth

### Usage Example

① Unified management of headquarters and branches. ② Visualize bandwidth utilization and protocol use. ③ Visualize wireless network coverage and performance. ④ Monitor the location history of mobile devices, which supports asset and network planning. ⑤ Notifies the administrator of events, based on device trap information. ⑥ Automatically blocks malware anywhere in the network.





# The best use for the Vista Manager Network Appliance / mini

Small to Medium sized businesses

Manage multiple locations with a single VST-APL

## Unified Network Management with Integrated LAN/WAN

The Vista Manager network appliance (VST-APL) incorporates Vista Manager EX's enhanced network management, with AMF, AWC, AMF-Sec automation tools in a single integrated platform.

### Benefits of VST-APL

- Suitable for up to medium-scale LAN/WAN management
- Contains all functions required for integrated network management

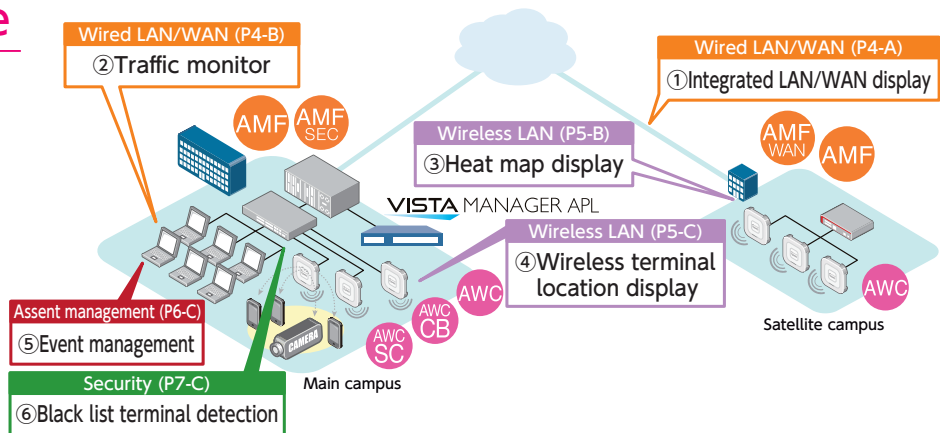
VISTA MANAGER APL



AT-VST-APL-06  
AT-VST-APL-10 (coming soon)  
Check our website for updated information.

### Usage Example

- ① Unified management of headquarters and branches.
- ② Visualize bandwidth utilization and protocol use.
- ③ Visualize wireless network coverage and performance.
- ④ Monitor the location of wireless terminals, and easily track assets.
- ⑤ Notifies the administrator of events, based on device trap information.
- ⑥ Prevents access from unauthorized devices.



Small to Medium sized businesses

Built into switches and routers and suitable for LAN management

## Visualizes Small to Medium-Scale Networks through Integrated Management

Intuitive network management focused on the LAN.  
Useful for managing switches, routers, and the wired and wireless network.  
Flexible deployment for small to medium sized businesses.

### Benefits of Vista Manager mini

- Suitable for LAN management
- Built into switches and routers
- Simply add more AP licenses as your wireless network expands

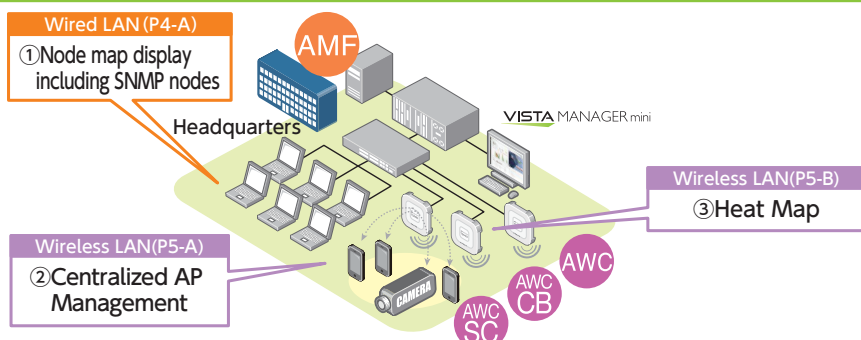
VISTA MANAGER mini



\*See page 10 for supported models and licenses

### Usage Example




- ① Centralized view of the wired network, with status of AT and third-party nodes.
- ② Centralized management and automatic optimization of the wireless network.
- ③ Visualize wireless network coverage and performance.



# Comparison Table for Product Features/License Table

## STEP 1

Select AT-Vista Manager EX/AT-VST-APL/Vista Manager mini based on required functionality and the number of devices that need to be managed

Comparison Table for Product Features			AT-Vista Manager EX	VST-APL Series	Vista Manager mini (Built into compatible switches and routers *1)			
Wired	 Centralized, simplified, automated network management to reduce operating costs.	WAN map	○	○	Not Supported			
		Traffic monitor						
Wireless	 Providing an optimal wireless environment by automatically adjusting each AP's channel and transmit power	TracePath	○	○	○ *2			
		VLAN config/viewer						
		Node connection (CLI)						
		Node rebooting						
		Topology map						
		Icon editing						
		Background image registration						
		Node status						
		Number of managed APs.				Max. 3,000	Max. 500	Max. 305
		AWC calculation history				Requires additional license. See step 2 below.	○	Not Supported
		TQ auto recovery					○	Not Supported
		Display rogue APs					○	Not Supported
Display client connection history	○	Not Supported						
Autonomous radio management	○	Not Supported						
Heat Map	○	Not Supported						
Floor Map	○	Not Supported						
F/W Update	○	Not Supported						
Captive Portal	○	Not Supported						
MAC Filter	○	Not Supported						
Client location estimation/traffic management	○	Not Supported	Not Supported					
Channel blanket profiles	○	Not Supported	Not Supported					
Displaying the associated client location	○	Not Supported	Not Supported					
Expanding the wireless network without additional cabling	○	Not Supported	Not Supported					
Asset Management	 SNMP	TRAP receive	○	Not Supported	Not Supported			
		Device search						
		Event settings (E-mail)	○	Not Supported	Not Supported			
		Event settings (external commands)						
		Periodic device monitoring						
		MIB compiler						

\*1 Vista Manager mini is supported by AT-SBx908 GEN2, x950 series, x930 series, x550 series, x530 series, and AR routers (AT-AR4050S, AT-AR3050S, AT-AR2050V, and AT-AR2010V).

\*2 Vista Manager mini supports wired network management of up to 2 members by default. More devices can be added with additional licenses. Visit our website for more details.

## STEP 2

Use this section to find the appropriate licenses.

### AT-Vista Manager EX License Selection Table/System Requirement

AT-Vista Manager EX			AT-Vista Manager EX system requirement (ver. 3.2.0) *4	AMF Devices: 3,000 nodes or less Wireless LAN APs: 600 or less Not using SNMP Manager(Without the use of SNMP Manager)	AMF Devices: 1,500 nodes or less Wireless LAN APs: 600 or less SNMP Agents: 200 or less	AMF Devices: 3,000 nodes or less Wireless LAN APs: 601 to 3,000 Not using SNMP Manager(Without the use of SNMP Manager)	AMF Devices: 3,000 nodes or less Wireless LAN APs: 601 to 3,000 SNMP Agents: 2,000 or less
Basic License *Required			CPU	Intel Core i5, 4 core processor, 2.5 GHz or higher	Intel Xeon Gold, 12 core processor, 2.6 GHz or higher *5		
Wired	AMF*1	AT-FL-VISTA-BASE-1YR*3	Memory (RAM) *6	8 GB or larger	16 GB or larger	16 GB or larger	32 GB or larger
Additional Feature License*2			HDD size *6	200 GB or larger	300 GB or larger	600 GB or larger	1.5 TB or larger
Wireless	AWC	AT-FL-VISTA-AWC10-1YR	Note: Only 1-year and 5-year licenses are available.				
	AWC-CB	AT-FL-VISTA-AWC10-1YR AT-FL-VISTA-CB10-1YR	*1 Separate AMF controller/master licenses are required. *2 Use of licenses for additional features only is not allowed. Basic license is still required, if only the features of wireless and asset management needs to be used. *3 Up to 10 APs can be managed per license.				
	AWC-SC	AT-FL-VISTA-AWC10-1YR AT-FL-VISTA-SC10-1YR	*4 Visit our website for updates. *5 Set the Wireless Client Update Interval for the AWC plug-in to 10 minutes. *6 The figure is calculated without using the wireless LAN controller's history management feature.				
Asset management	SNMP	AT-FL-VISTA-SNMP-1YR					

### Vista Manager APL License Selection Table

AT-VST-APL-06/AT-VST-APL-10 (coming soon)		
AMF Cloud	Controller	AT-FL-AMFCLOUD-CTRL-1YR
	Master	AT-FL-AMFCLOUD-EX10-1YR AT-FL-AMFCLOUD-EX1-1YR
Wired	AMF	AT-FL-VISTA-BASE (Non-Expiring License as Basement)
Wireless	AWC	AT-FL-VISTA-AWC10-1YR
	AWC-CB	AT-FL-VISTA-CB10-1YR
	AWC-SC	AT-FL-VISTA-SC10-1YR
Cyber Security	AMF-Sec	AT-FL-SESC-BASE-1YR

### Vista Manager mini License Selection Table

Vista Manager mini							
Product	AT-SBx908 GEN2 (Switch)	x950 series (Switch)	x930 series (Switch)	x550 Series (Switch)	x530 series (Switch)	AT-AR4050S (Router)	
Wired	AMF*1	Supporting wired network management of up to 2 members by default. *Manageable devices can be added with additional licenses. Visit our website for more details.					
Wireless	AvL Manageable Wireless LAN APs	Max.305APs	Max.185APs	Max.125APs	MAX. 45APs	Max.45APs	Max.25APs
	AWC	AT-FL-GEN2-AWC300-1YR	AT-FL-x950-AWC180-1YR	AT-FL-x930-AWC120-1YR	AT-FL-x550-AWC40-1YR	AT-FL-x530-AWC40-1YR	AT-FL-AR4-AWC20-1YR
	AWC-CB*2	AT-FL-GEN2-AWC300-1YR AT-FL-GEN2-CB300-1YR	AT-FL-x950-AWC180-1YR AT-FL-x950-CB180-1YR	AT-FL-x930-AWC120-1YR AT-FL-x930-CB120-1YR	AT-FL-x550-AWC40-1YR AT-FL-x550-CB40-1YR	AT-FL-x530-AWC40-1YR AT-FL-x530-CB40-1YR	AT-FL-AR4-AWC20-1YR AT-FL-AR4-CB5-1YR
AWC-SC*2	AT-FL-GEN2-AWC300-1YR AT-FL-GEN2-SC300-1YR	AT-FL-x950-AWC180-1YR AT-FL-x950-SC180-1YR	AT-FL-x930-AWC120-1YR AT-FL-x930-SC120-1YR	AT-FL-x550-AWC40-1YR AT-FL-x550-SC40-1YR	AT-FL-x530-AWC40-1YR AT-FL-x530-SC40-1YR	AT-FL-AR4-AWC20-1YR AT-FL-AR4-SC5-1YR	
Asset management	SNMP	Receives TRAPs from SNMP nodes by default					

Note: You can choose a 1-year, 5-year license for your desired period of use. Note: Vista Manager mini can be used with AT-SBx908 GEN2, x950 series, x930 series, x550 series, x530 series, and AR routers (AT-AR4050S, AT-AR3050S, AT-AR2050V, and AT-AR2010V). \*1 Separate AMF controller/master licenses are required. \*2 There are licenses that can be selected corresponding to the number of managed devices for each model. Please make a purchase that corresponds your operating environment. Check the website for details.



How to use the tables on p.10

## Which license is appropriate in this situation?

〈Example〉 I'd like to build and manage an easy wireless LAN environment that is able to use IP phones and tablets without roaming issues.

### STEP 1 Check the comparison tables for product features

#### Check the required feature and number of wireless LAN APs

#### Select AT-Vista Manager EX, AT-VST-APL, or Vista Manager mini.

〈Example〉 I want to use AWC-CB to remove issues with roaming.

⇒You can select AT-Vista Manager EX, AT-VST-APL, or Vista Manager mini.

〈Example〉 If there are more than 500 managed access points, select AT-Vista Manager EX. If there are 305 to 500, select AT-Vista Manager EX or AT-VST-APL. If there are fewer, you can select any one of the three.



### STEP 2 Check the License Table

APs to manage: up to 3,000

#### Select AT-Vista Manager EX

Check the License Table for AT-Vista Manager EX

Purchase both the basic license and the license listed in the row for AWC-CB.

APs to manage: up to 500

#### Select AT-VST-APL

Check the AT-VST-APL series License Selection Table.

Purchase the license listed in the row for AWC-CB according to the number of APs.

APs to manage: up to 305

#### Select Vista Manager mini

Check the Vista Manager mini License Table, then select the product(s) to use, based on the number of APs.

Purchase the basic license listed in the row for AWC-CB with the corresponding product, and additional licenses according to the number of APs.

#### CASE 1

Required to manage more than 1000 APs in large scale wireless network.

Use of AWC(Large-Scale)  
→Select AT-Vista Manager EX

- AT-FL-VISTA-BASE-1YRx1
- AT-FL-VISTA-AWC10-1YR (10 APs)x100

\*Only 1-year and 5-year licenses are available.

#### CASE 2

Required to manage 500 APs, with 300 APs in the Channel Blanket

Use AWC, AWC-CB(medium scale)  
→Select AT-VST-APL

- AT-VST-APL series
- AT-VST-WL-1Y(10 AP)x50
- AT-VST-CB-1Y(10 AP)x30

\*1-year and 5-year licenses are available.

#### CASE 3

Using an x530 series switch and managing 40 APs in a Channel Blanket

Use of AWC and AWC-CB(Small-Scale)  
→Select Vista Manager mini

- x530 series switch<sup>\*1</sup>
- AT-FL-x530-AWC40-1YR<sup>\*2</sup>
- AT-FL-x530-CB40-1YR<sup>\*2</sup>

\*1 If you have already purchased the switch, you only need to purchase the licenses.

\*2 Only 1-year and 5-year licenses are available.

## Vista Manager Series Implementation Example



### Kumamoto Southern Regional Hospital

Located in Kumamoto, Japan. Recognized as a regional key hospital for over 50 years, the hospital built a centralized network at the core of their medical service.



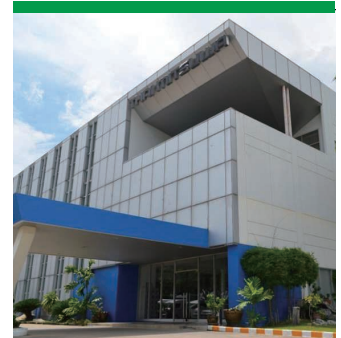
### Toyohashi University of Technology

Located in Toyohashi, Japan. Known for over 40 years as leaders in technology education, they built a campus network to support education and research.



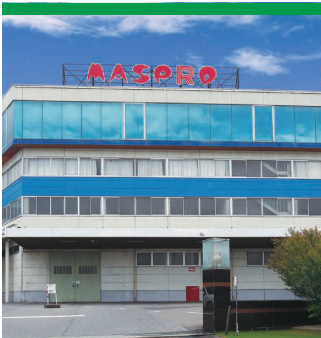
### AGC Inc. Sagami Plant

Located in Chiyoda City, Tokyo. The world's largest glass company created integrated factory control networks in its Sagami Plant.



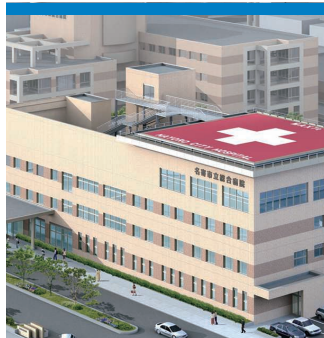
### Thai Mitsuwa Public Co. Ltd.

Located in Pathumthai, Thailand. A cutting-edge wireless network upgrade brought seamless roaming and total Wi-Fi coverage to the factories of one of the world's largest manufacturing companies.



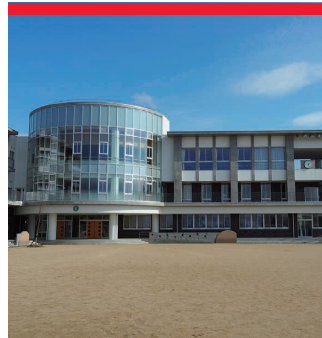
### Maspro Denko Corporation

Located in Nisshin, Japan. An electronics manufacturing company with over 50 years of history built a wireless LAN system with unified management for conference rooms and distributed warehouses.



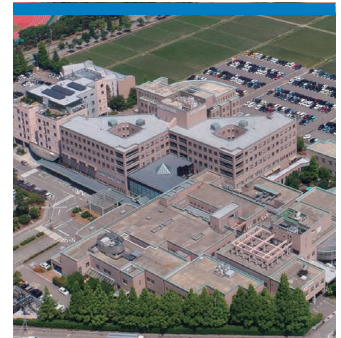
### Nayoro City General Hospital

Located in Nayoro, Hokkaido, Japan. At the hospital recognized as the city's most essential for more than 70 years, a seamless wireless LAN environment improved service.



### Uozu City Board of Education

Located in Uozu, Japan. A network for elementary and middle schools promoted the board's key goal of digitizing education.



### Public Central Hospital of Matto Ishikawa

Located in Hakusan, Japan. The core crucial-care hospital in Hakusan built a network to manage digital medical record systems, which connects with 5 associated hospitals.

Visit here for more information. >>>  
<https://www.alliedtelesis.com/success-stories>



### For safety

Please be sure to read the attached manual and use the product correctly.

● CentreCOM, SwitchBlade, Secure EnterpriseSDN, AMFramework, AMFPlus, VCStack, EPSRing, LoopGuard, AlliedView, AT-Vista Manager, AT-VA, AT-AWC, AT-UWC, Allied Telesis Unified Wireless Controller, EtherGRID, Envigilant, Net.Service, Net.Cover, Net.Monitor, Net.Assist, Allied Hikari, Net.CyberSecurity, and Net.Campus are registered trademarks of Allied Telesis Holdings K.K. ● Other company names and product names are either trademarks or registered trademarks of each company. ● Product specifications, appearances, standard prices, and other information listed are subject to change without notice. ● If Allied Telesis products are taken outside of Japan or provided to a non-resident, as described in the Foreign Exchange and Foreign Trade Act, it is assumed that the customer agrees to comply fully with the export-related legislation of the government of Japan, including the Foreign Exchange and Foreign Trade Act, as well as that of foreign governments, and that all necessary procedures will be carried out at the responsibility and cost burden of the customer. ● These products are intended for use in Japan and, if taken outside of Japan, will not be covered by any product warranty or quality assurance guarantee, nor any kind of support or repair services. ● Photographs may differ from actual product colors due to printing. ● Listed details are as of September 2020. ● Unauthorized use, duplication, copying, modification, processing, reprinting, etc., of the materials herein is prohibited.



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