

FortiWLM™ Wireless Manager

FWM-100D, 1000D and VM

Fortinet's Wireless Manager series provides both hardware platforms and a virtual machine to support Fortinet's controller-based wireless solution. The Wireless Manager offers full management of the controllers and access point configuration along with an extensive set of trouble-shooting and reporting tools.



The FortiWLM 100D is designed for small enterprises, and the FortiWLM 1000D is designed for medium to large enterprises. The FortiWLM-VM provides a virtual management platform that can scale up to 200 controllers and 15,000 APs. The VM also has a 30-day trial license for 50 APs which allows very simple onsite trials and demonstrations. Fortinet also includes, with all FortiWLM Wireless Manager appliances, built-in (at no extra cost) the following applications for up to 50 APs, licenses that enable more APs as required:

- **Network Manager** — Provides wireless performance dashboards, RF visualization, centralized monitoring, configuration, fault management, visibility over long-term trends, and centralized reporting.
- **Spectrum Manager** — Detects and identifies both WiFi and non-WiFi interference on all channels all the time.
- **Service Assurance Manager** — Delivers end-to-end service assurance for the network and its applications.
- **Wireless Intrusion Prevention System (WIPS)** — Detects wireless intrusions using predefined and custom signatures on an integrated platform with other WLAN management applications, PCI 3.0 Compliance reporting. Data Security Standard and Payment Application Data Security Standard now supported up to the latest release.

All of the above applications are now (as of version 8.3) supported in the baseline product, the previously required licenses have been removed. This now ensures the Wireless Manager can form the heart of any Fortinet Wireless Controller-based system.



Features

- Hardware platform to support Fortinet Controller-based wireless network applications
- Network management that supports monitoring, configuring and reporting of wireless network health
- RF interference detection and mitigation
- A choice of appliances sized to fit your business scale

Benefits

- Deliver comprehensive WLAN management
- Detect network congestion and poor wireless environments to improve user experience
- Deliver reporting and historical visibility

HIGHLIGHTS

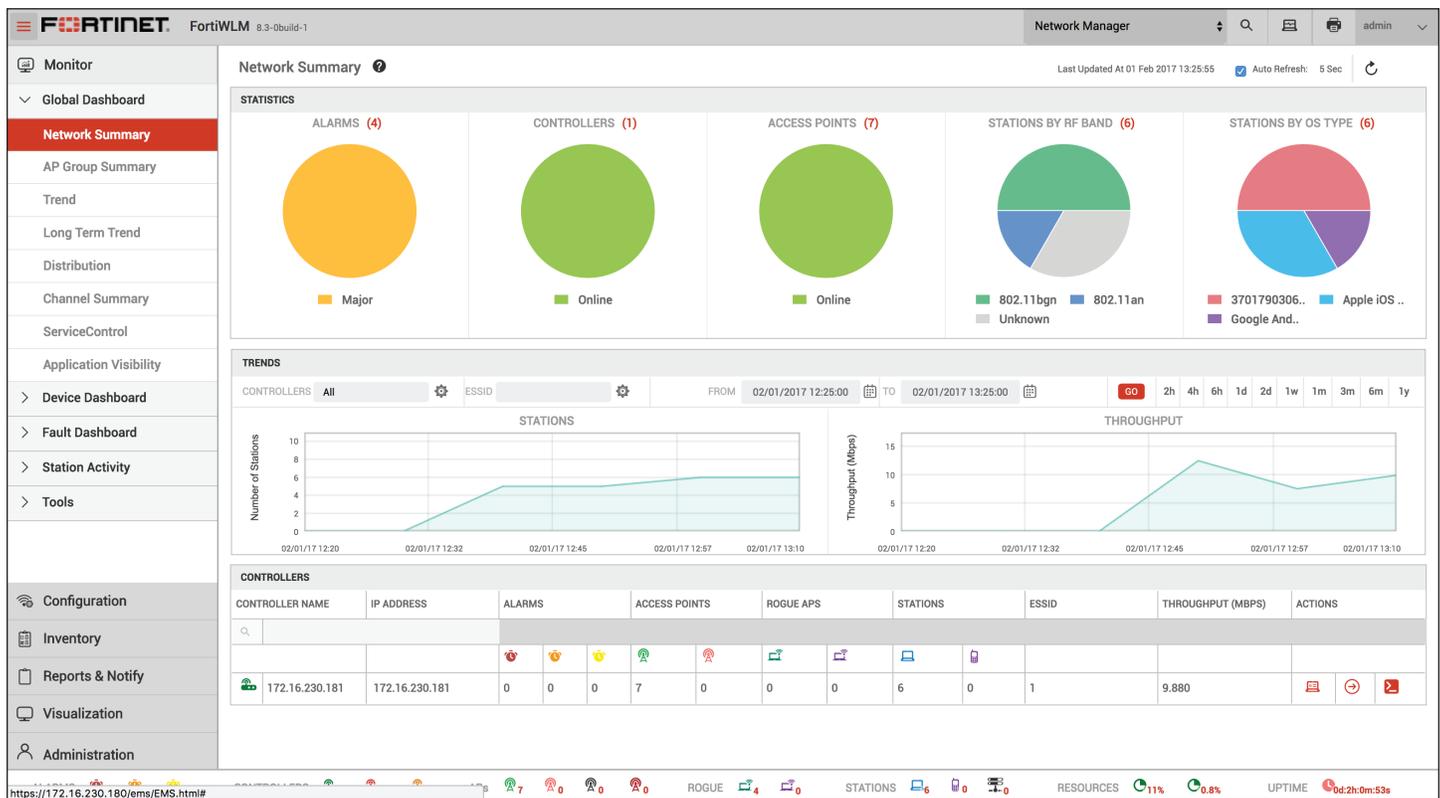
Network Manager

Key Functions

- Comprehensive real-time and historical WLAN performance trends dashboards including RF metrics for a centralized view.
- Real-time and historical RF visualization enables remote management and saves on-site truck-roll expenses.
- Current and historical wireless station metrics enable rapid resolution of issues by rewinding and recreating past state.
- Customized dashboards for mobile devices allow anytime, anywhere management of WLAN network.
- Integrated Rogue AP detection enhances enterprise security.
- Extensive wireless reports support network audits and enterprise reporting requirements.
- Alarms and events with customizable notifications facilitate proactive wireless network monitoring and troubleshooting.
- Enterprise scalability allows management of up to 15,000 APs.

Provisioning and Deployment

The Network Manager enables users to easily provision and manage multiple Fortinet controllers from a single web interface. One of the primary functionalities of the Network Manager is the ability to create a global controller configuration and push it to one or more managed controllers. If a global controller configuration is changed in the Network Manager, all controllers using it are automatically updated with those changes. To enhance security, the global controller configurations are owned by the Network Manager and cannot be altered by the controllers using them. Inventory view in the Network Management platform provides users with a streamlined view to look at all the provisioned controllers. Administrators can also directly add controllers from the Inventory, to be managed by the Network Management Platform.



Spectrum Manager

Detect, classify, and manage wireless interference

Spectrum Manager is a software application that detects and classifies sources of wireless interference to ensure optimal spectrum usage and high service levels. By keeping you informed

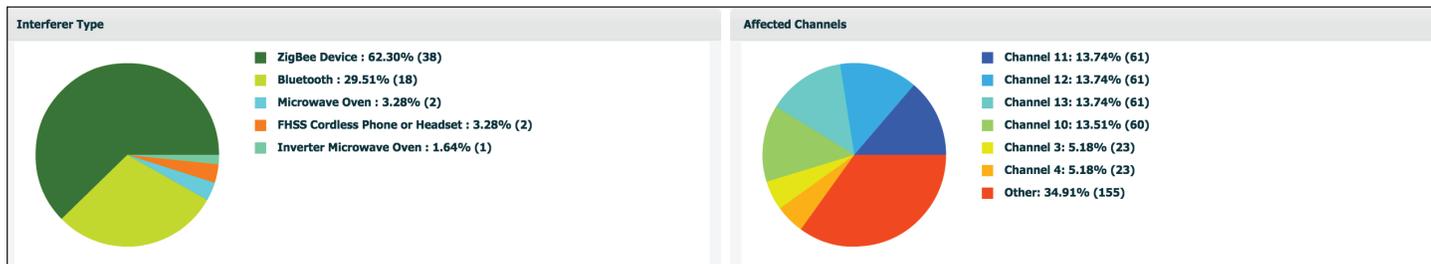
about Wi-Fi interference, Spectrum Manager lets you take action to alleviate problems by removing, adjusting for, or working around the sources of interference.

HIGHLIGHTS

You can proactively manage channel interference issues, avoiding problems before they occur. Graphical dashboard displays and reports provide actionable intelligence on the health of your wireless spectrum, giving you deep insight into both current and historical data.

Spectrum Manager gathers interference data from a network of dedicated sensors. It can also gather data from the APs which can dedicate one of its three radios to act as a sensor. The software

creates detailed logs on a broad range of wireless interference sources. The information captured includes the type of interferer, signal strength, impacted channels, start/end time, and duration. Spectrum Manager is fully integrated with Service Assurance Manager, correlating data to let you quickly determine if any connectivity failures are caused by interference.



Service Assurance Manager

Fortinet's Service Assurance Manager is the industry's only predictive diagnostic software for remotely diagnosing the health of wireless networks without requiring overlay sensors. With Service Assurance Manager, the network automatically performs predictive health checks and reports any issues before end users are impacted. Service Assurance Manager creates network baselines and runs application-level tests continuously or on demand. It provides you with an executive summary of network operations through a simple dashboard.

Unlike conventional wireless technology, Fortinet's single-channel architecture enables wireless access points within the network to communicate with each other. This allows a Virtual Client to

temporarily be placed on the access point, emulating a client station for the duration of Service Assurance Manager's diagnostic tests.

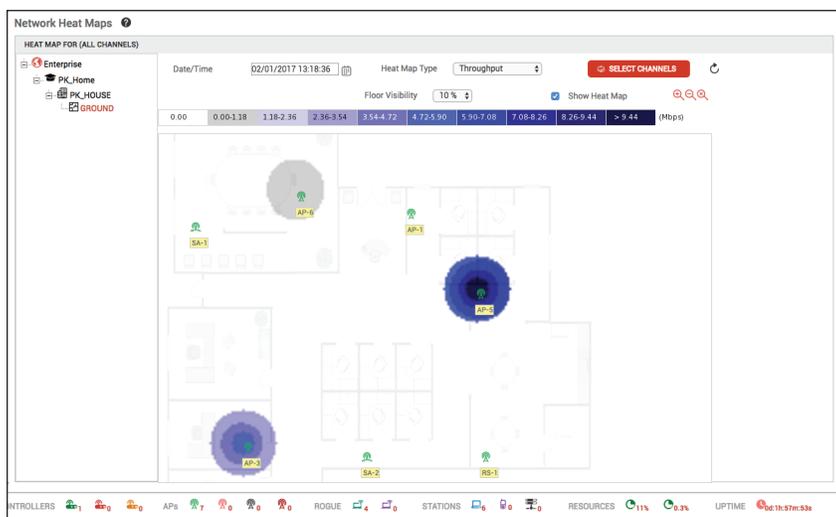
Virtual Clients test for application performance from the client to the application server, without impacting users on the network. This approach enables Service Assurance Manager to proactively detect service failures that ordinary management software cannot — for example, if an antenna has fallen off an access point.

Many network issues require more detailed visibility. That used to require setting up an onsite test network, running diagnostic and performance tests, and analysing results on a variety of wireless security profiles. Service Assurance Manager uses the Virtual Client

to automate these tasks remotely, providing visibility into network operations without the need to send IT staff and equipment onsite.

Benefits

- Dashboard with executive summary of network health lets you proactively detect network issues
- Remote diagnostic tests reduce onsite visits
- Fully integrated — no need for additional equipment
- Inject real, application-level traffic into the live network without disrupting service
- Identify root causes with automatic analysis of connection failure stage



HIGHLIGHTS

WIPS

Fortinet Wireless Manager includes a signature-based Wireless Intrusion Prevention System able to detect and counter wireless security issues. Network administrators can customize the

response to threats based on an organization's individual needs, as well as define new signatures and generate reports of all activity that affects security.

SPECIFICATIONS

	FWM-100D	FWM-1000D	FWM-VM
Target Deployment	Small enterprises	Medium to large enterprises	
Interfaces			
GE RJ45 Port	4	4	
SFP Port	—	4	
USB (Type-A)	1	2	
Serial Console (RJ45)	1	1	
Hard Disk	1x 1 TB	2x 2 TB	
Capacity			
Maximum Number of Controllers Supported	20	250	200
Maximum Number of Access Points Supported	1,000	15,000	15,000
Maximum Number of Stations Supported	5,000	75,000	75,000
License			
Licenses Included (Number of APs) NM, SM, SAM, WIPS	50	50	50
Physical			
Mounting	1U rack mount	1U rack mount	
Height x Width x Length (inches)	1.73 x 17.32 x 8.62	1.73 x 17.24 x 16.18	
Height x Width x Length (mm)	44 x 440 x 219	44 x 438 x 411	
Weight	7.72 lbs (3.5 kg)	19.62 lbs (8.9 kg)	
Form Factor / Platform	1 RU	1 RU	Supports VMware, Hyper-V, AWS and KVM hypervisors.
Environment & Power			
Power Source	100–240V AC, 50–60 Hz, 65 W openframe single PSU	100–240V AC, 50–60 Hz, 300 W Redundant PSU	
Power Consumption (Average / Maximum)	28 W / 36 W	137 W / 192 W	
Current (Maximum)	100V/1.5A, 240V/1.5A	100V/5A, 240V/3A	
Heat Dissipation	123 BTU/h	655 BTU/h	
Operating Temperature	32–104°F (0–40°C)	32–104°F (0–40°C)	
Storage Temperature	-13–158°F (-25–70°C)	-13–158°F (-25–70°C)	
Humidity	5–95% non-condensing	5–95% non-condensing	
Compliance			
Regulatory Approval	FCC part 15B Class B — USA UL 60950-1 — USA CSA C22.2 No. 60950-1-07 — Canada EN 60950-1 — EU IEC 60950-1 — International ICES-003 Class B — Canada EN55022 Class B — EU EN55024 — EU VCCI Class A — Japan	FCC part 15B Class A — USA UL 60950-1 — USA CSA C22.2 No. 60950-1-07 — Canada EN 60950-1 — EU IEC 60950-1 — International ICES-003 Class A — Canada EN55022 Class A — EU EN55024 — EU VCCI Class A — Japan	
Certification	RoHS, REACH, WEEE	RoHS, REACH, WEEE	
Warranty			
Standard Warranty	1 year	1 year	1 year



FortiWLM 100D



FortiWLM 1000D

ORDER INFORMATION

Product	SKU	Description
FortiWLM 100D Wireless Manager	FWM-100D	FortiWLM 100D Wireless Network Manager, Maximum 20 Controllers, 1,000 APs, 5,000 Stations and 100 Spectrum Sensors. Includes 50 AP licenses. 4x GE RJ45 ports, 1x RJ45 Serial Console port, 1x 1TB HDD Storage, Single PSU.
	FC-10-WM100-311-02-DD	8x5 FortiCare Contract
	FC-10-WM100-247-02-DD	24x7 FortiCare Contract
FortiWLM 1000D Wireless Manager	FWM-1000D	FortiWLM 1000D Wireless Network Manager, Maximum 250 Controllers, 15,000 APs, 75,000 Stations and 750 Spectrum Sensors. Includes 50 AP licenses. 4x GE RJ45 ports, 4x GE SFP ports, 1x RJ45 Serial Console port, 2x 2TB HDD Storage, Redundant PSU.
	FC-10-WM101K-311-02-DD	8x5 FortiCare Contract
	FC-10-WM101K-247-02-DD	24x7 FortiCare Contract
FortiWLM-VM Wireless Manager	FWM-VM	FortiWLM Wireless LAN Management Virtual Appliance. Utilizes FWM licenses and can support up to 200 controllers/15,000 APs. Comes with 50 AP license included when purchased (30-day trial for demo). Supports VMware, Hyper-V, AWS and KVM hypervisors.
	FC-10-WLMVM-851-02-DD	8x5 FortiCare Contract
	FC-10-WLMVM-248-02-DD	24x7 FortiCare Contract
FortiWLM 50 AP Software License	FWM-NM-50-A	FortiWLM 100D and FortiWLM 1000D 50 AP Software License. Includes network management, spectrum analysis, service assurance management and WIPS Features.
	FC-10-WM05L-311-02-DD	8x5 FortiCare Contract
	FC-10-WM05L-247-02-DD	24x7 FortiCare Contract
FortiWLM 250 AP Software License	FWM-NM-250-A	FortiWLM 100D and FortiWLM 1000D 250 AP Software License. Includes network management, spectrum analysis, service assurance management and WIPS Features.
	FC-10-WM25L-311-02-DD	8x5 FortiCare Contract
	FC-10-WM25L-247-02-DD	24x7 FortiCare Contract
FortiWLM 2500 AP Software License	FWM-NM-2500-A	FortiWLM 100D and FortiWLM 1000D 2500 AP Software License. Includes network management, spectrum analysis, service assurance management and WIPS Features.
	FC-10-WM2KL-311-02-DD	8x5 FortiCare Contract
	FC-10-WM2KL-247-02-DD	24x7 FortiCare Contract



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