

Xirrus Management System

DATASHEET

Introducing the Xirrus Management System

The Xirrus Management System (XMS) is a wireless network management platform that provides full monitoring and management of the Xirrus wireless Array network via a web based application with graphical map views. XMS scales from small to large networks and from one location to multiple locations, as well as large campus environments with thousands of wireless users. XMS provides help desk, as well as network operations and management capabilities for the Xirrus wireless network. XMS has a flexible license scheme based on the size of the wireless network, and is available as an application to run on legacy Windows Server systems, as well as a virtualized server environment. XMS is also offered on Xirrus Management appliances, for those that prefer a turnkey solution.

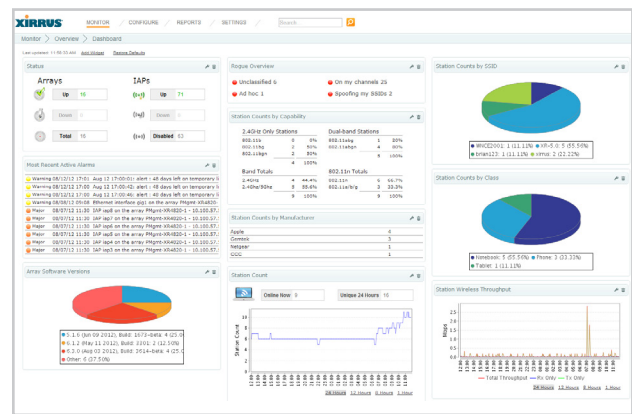
At A Glance

- Web based implementation, monitoring and management of a Xirrus wireless network
- Single management application for small to large Xirrus Wireless Array Networks
- Monitor wireless network performance, traffic and client stations
- Manage configuration of the wireless network and management system
- Configuration templates for bulk configuration changes
- Automated installation and configuration of Xirrus Wireless Array Network allowing simplified deployment of Arrays
- Graphical maps showing wireless coverage heat maps, devices and location
- Comprehensive management reports on Wireless Network benefits and performance.
- Security monitoring, alerting and mitigation for rogues and security events
- Software Image and license management for Xirrus Wireless Arrays
- Troubleshooting tools, packet capture and reports to resolve connectivity and performance issues
- Global Search feature to easily find information such as stations (e.g. IP, MAC address, type) and Arrays
- Web based management of application for easy updates and server management

Monitoring Views

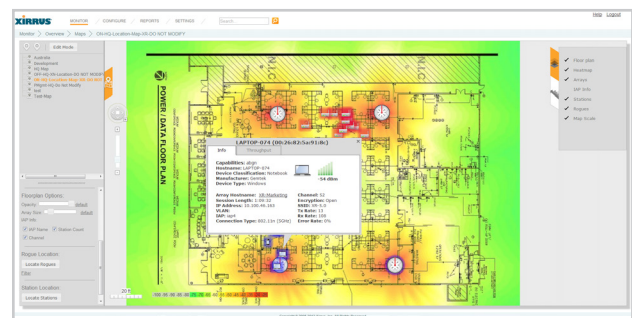
Dashboard View

Summary view of Xirrus Wireless network that is widget based. Each widget shows different summary statistics such as Array/SSID status information, security status, and station information. The Dashboard view is fully customizable to add or remove desired widgets, select data categories displayed, and change the widget layout on a per user basis.



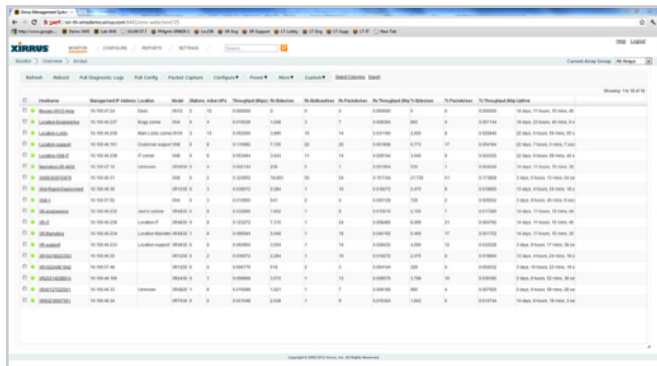
Maps View

View hierarchical maps showing floor plans or images for each location with Xirrus Array placement and selectable layered information views with configurable filters for information displayed. Locate associated stations (user and client device) as well as rogue devices. View Array and Modular AP information as well as associated station information. Perform Array functions directly from maps view, such as packet capture and configuration.



Arrays View

Customizable view showing discovered Arrays with selectable information for each array and ability to drill down into detailed Array view as well as perform operations on Arrays. Ability to add/remove and sort on columns with preferences stored for each user. Arrays may also be in groups, allowing views and operations on a per group basis.



SSID	MAC	Location	Throughput (Mbps)	Throughput (%)	Throughput (Mbps)	Throughput (%)	Throughput (Mbps)	Throughput (%)
10.108.48.101	000000000000	10.108.48.101	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.102	000000000000	10.108.48.102	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.103	000000000000	10.108.48.103	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.104	000000000000	10.108.48.104	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.105	000000000000	10.108.48.105	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.106	000000000000	10.108.48.106	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.107	000000000000	10.108.48.107	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.108	000000000000	10.108.48.108	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.109	000000000000	10.108.48.109	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.110	000000000000	10.108.48.110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Modular IAP View

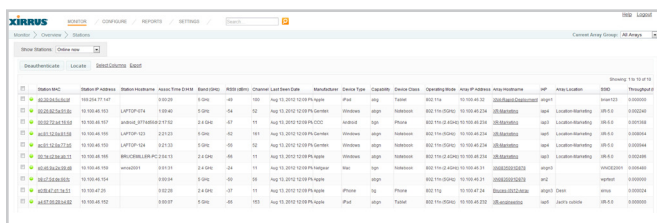
View showing Modular IAP information with drill down into detailed IAP view showing radio settings, traffic statistics and stations associated.

SSID View

View showing SSID's enabled on wireless network, with number of arrays and stations associated to the SSID. Drill down into individual SSID's for detailed view with performance statistics,

Stations View

View showing stations associated to the wireless network, with selectable columns, sorting and order. Drill down into individual station information, as well as ability to "Deauthenticate" or "Locate" station.



SSID	MAC	IP Address	Throughput (Mbps)	Throughput (%)	Throughput (Mbps)	Throughput (%)	Throughput (Mbps)	Throughput (%)
10.108.48.101	000000000000	10.108.48.101	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.102	000000000000	10.108.48.102	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.103	000000000000	10.108.48.103	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.104	000000000000	10.108.48.104	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.105	000000000000	10.108.48.105	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.106	000000000000	10.108.48.106	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.107	000000000000	10.108.48.107	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.108	000000000000	10.108.48.108	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.109	000000000000	10.108.48.109	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10.108.48.110	000000000000	10.108.48.110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Security Monitoring

Rogues View

Customizable view showing potential rogue access points, with SSID, BSSID, channel and band being used, device manufacturer, signal strength, and security settings, IP address, and other relevant information. Ability to classify and locate rogues on map.

Wireless Intrusion Detection Security View

Customizable view listing security events by type, detected by Arrays, with time detected, mac address of device and SSID.

Troubleshooting

Station Assurance

Customizable view showing station assurance events, with station information and association details, and alarm type, such as SNR, Distance, data rate and authentication.

Alarms View

Customizable SNMP alarm view with filtering of alarms by type, severity and time range. Alarm information and description with severity of alarm, and ability to clear or delete the alarm.

Events View

Customizable Syslog message view, with log entry severity, source device information and message details. Filterable by date and time range and severity.

Power Injector View

View of managed Power over Ethernet (PoE) injectors, with address information and software version for each managed PoE injector. Ability to power on/off arrays via XMS using Managed PoE injectors.

Packet Capture

XMS provides management interface to Array packet capture capabilities, including filtering, and upload to XMS for decode using the pcap format.

Packet Capture Parameters	
Capture Source	<input checked="" type="radio"/> WiFi Channel <input type="text" value="1"/> Bond <input type="checkbox"/> off <input type="radio"/> Network
Stop Capture	Time (mm:ss) <input type="text" value="00"/> : <input type="text" value="10"/> Or <input type="checkbox"/> Stop after Packet Count <input type="text" value="10"/>
802.11 Filter	<input checked="" type="checkbox"/> Management <input checked="" type="checkbox"/> Control <input checked="" type="checkbox"/> Data <input type="checkbox"/> BSSID
MAC Address Filter	<input type="checkbox"/> Source Separator can be : or - <input checked="" type="radio"/> And <input type="radio"/> Or <input type="checkbox"/> Destination Separator can be : or - <input type="checkbox"/> Either Separator can be : or -
IP Address Filter	<input type="checkbox"/> Source Example: 1.2.3.4 <input checked="" type="radio"/> And <input type="radio"/> Or <input type="checkbox"/> Destination Example: 1.2.3.4 <input type="checkbox"/> Either Example: 1.2.3.4
Protocol Filter	<input type="checkbox"/> UDP Protocol: <input type="text"/> <input type="checkbox"/> TCP Protocol: <input type="text"/> <input type="checkbox"/> ICMP <small>* For UDP/TCP port enter either an integer in the range 1-65535 or a protocol name e.g. snmp or http</small>
Protocol Filter	Show Advanced Filter
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

Configuration management

Provides configuration management of Arrays, with configuration file management, configuration templates, as well as wireless and network configuration management for individual or multiple arrays.

Software Management

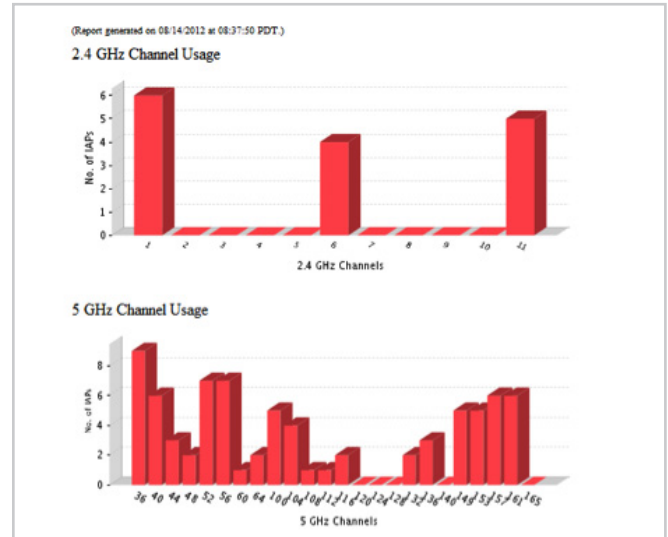
Allows deployment of new software to one or more Arrays, or groups of Arrays for centralized management of Array software.

License Management

Allows easy management of Array licenses with import and export capabilities.

Reporting

Create and view reports, customize reports with custom report headers. Email and download reports in PDF, XLS and CSV format. Choose from various Traffic, Station, Array, RF and Security reports. Run reports on a schedule or on demand basis.



XMS Appliance and Application Management

Allows easy management of XMS users, roles, licenses, database backup, trap notification email settings, and also XMS application upgrades.

XMS Specifications and Sizing Guidelines

XMS-9000-WIN	SMALL SCALE INSTALL	MEDIUM SCALE INSTALL	LARGE SCALE INSTALL
Max modular APs Managed	1,000	2,500	5,000
Max Stations Managed	5,000	10,000	25,000
Recommended Processor	Single Quad-Core	Dual Quad-Core	Dual Quad-Core
Recommended RAM	4GB	8GB	16GB
Recommended Storage	150GB	500GB RAID-1	1TB RAID-10
Operating System	Windows 2003 or 2008/R2 Server x86 (32-bit) or x64 (64-bit)	Windows 2003 or 2008/R2 Server x86 (32-bit) or x64 (64-bit)	Windows 2003 or 2008/R2 Server x86 (32-bit) or x64 (64-bit)

XMS-9000-VM	SMALL SCALE INSTALL	MEDIUM SCALE INSTALL	LARGE SCALE INSTALL
Max modular APs Managed	1,000	2,500	5,000
Max Stations Managed	5,000	10,000	25,000
Recommended Processor	Single Processor +	Dual Processor	Dual Processor +
Recommended RAM	4GB	8GB	16GB
Recommended Storage	RAID-0 or 1/Thin Provision	RAID-1/Thin Provision	RAID-10/Thin Provision
Recommended VMWare OS	ESXi-5	ESXi-5	ESXi-5

XMS Appliance Specifications and Sizing Guidelines

XMS APPLIANCE	XM-3320	XM-3340	XM-3360
Max modular APs Managed	1,000	2,000	3,000
Max Stations Managed	5,000	10,000	15,000
Processor	1xIntel® XEON®	2xIntel® XEON®	2xIntel® XEON®
RAM	4GB	4GB	8GB
Storage	1x150GB	2x150GB RAID-1 Mirror	4x150GB RAID-10 Redundant
Power Supply	Single	Single	Dual Redundant
Dimensions	Depth: 15" Width: 17" Height: 1U Weight: 12 lb	Depth: 15" Width: 17" Height: 1U Weight: 12 lb	Depth: 15" Width: 17" Height: 2U Weight: 18 lb

Contact Xirrus for sizing guidelines on larger deployments.
Sizing is based on specific settings and loads and will vary for each installation.
XMS will run on VMWare workstation and player, for production environments we recommend ESXi.



Ordering Information

PART NUMBER	DESCRIPTION
Choose your base platform:	
XMS-9000-WIN	Xirrus Management System to operate on customer supplied Windows Server. Requires license, order desired number of modular APs.
XMS-9000-VM	Xirrus Management System to operate on customer supplied VMware virtual machine. Requires license, order desired number of modular APs.
XMS-9000-XM	Requires license, order desired number of modular APs. Requires Appliance, order desired size of Linux-based appliance.
Choose the number of modular APs to be managed. Includes 90 day Software Product Warranty.	
XMS-9000-50	Xirrus Management System license for up to 50 modular APs.
XMS-9000-100	Xirrus Management System license for up to 100 modular APs.
XMS-9000-200	Xirrus Management System license for up to 200 modular APs.
XMS-9000-500	Xirrus Management System license for up to 500 modular APs.
XMS-9000-1000	Xirrus Management System license for up to 1000 modular APs.
XMS-9000-2000	Xirrus Management System license for up to 2000 modular APs. Not for XM-3320 Linux-based appliance.
XMS-9000-5000	Xirrus Management System license for up to 5000 modular APs. Not for XM-3320 or XM-3340 Linux-based appliance.
XMS-9000-10000	Xirrus Management System license for up to 10000 modular APs. Not for XM-3320 or XM-3340 Linux-based appliance.
XMS-9000-PLUS	Xirrus Management System license for over 10000 modular APs. Not for XM-3320 or XM-3340 Linux-based appliance.
For XMS-9000-XM, choose the desired size of Linux-based appliance:	
XM-3320	XMS Linux-based 1U appliance, includes 1 year Hardware Warranty. Supports up to 1000 Modular APs.
XM-3340	XMS Linux-based 1U appliance, includes 1 year Hardware Warranty. Supports up to 2000 Modular APs.
XM-3360	XMS Linux-based 2U appliance, includes 1 year Hardware Warranty. Supports up to 3000 Modular APs.

Support & Maintenance

Xirrus is committed to the success of our customers and provides warranties and support options to best fit your needs. For further information on the Xirrus hardware warranties, software support and premium support offerings visit:

<http://www.xirrus.com/support/>

About Xirrus

To organizations who depend on wireless access to transform their business, Xirrus is the wireless network solution provider that provides the world's most powerful, scalable, and trusted solutions. Through product invention and system design, commitment to customer success, and the industry's best price performance, Xirrus gives you confidence that your wireless network performs under even the most demanding circumstances. Headquartered in Thousand Oaks, CA, Xirrus is a privately held company and designs and manufactures its family of products in the USA.



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