

# NMS



## X-MANAGER

A CAPWAP Based Network Management System



Monitoring and Alerting



Visualize network with Google Maps



Statistical Data Collection and Reporting



Configuration and Maintenance



Smart Discovery

## Convenient, flexible and reliable

### Summary

X-MANAGER system is an independent research and development of the company's soft AC products, can be loaded on the vast majority of server hardware platform. Through centralized management, simplify the AP configuration to solve the problem of the traditional fat AP model.

System can be fused with the original network perfectly, and no need to change its architecture, greatly simplifies the deployment and management of the network, saving the user investment. It can manage a maximum of 256 devices; the maximum number of users can reach 5K. System can provide a powerful WLAN access network for the hot cover, the campus covers, the large enterprise campus, the wireless metropolitan area network coverage and so on.

System can be used to upgrade the AP and CPE automatically, automatic configuration, real-time monitoring, greatly reducing the cost and difficulty of the equipment deployment and network maintenance.



#### Monitoring and Alerting

- Support a variety of detection methods to ensure that the device can be successfully on-line in a variety of network architecture
- Support fault warning information, custom fault warning rules, according to the device fault home page remind, pop, mail notification, a variety of ways to warning



#### Statistical Data Collection and Reporting

- Support the statistics of all kinds of device information, such as the number of online and offline device, and operation log information



#### Visualize network with Google Maps

Support the map shows the location of the device, by means of a location information will be automatic positioning equipment to the Google or Baidu map, and the map of the equipment for editing and adjusting, and through offline maps of indoor scene distribution of quadratic precise positioning



#### Configuration and Maintenance

- Support device running status display, such as online, offline, configuring, and upgrading
- Support batch upgrade device, and can choose automatic or manual upgrade
- Support device name, IP address, location information, wireless parameters and other personalized information remote modification
- Support License management, the number of AC supported device can be managed by the license certificate



#### Smart Discovery

- Support device key information retrieval, easy to quickly locate the target device in a large number of device list
- Support NTP Server , to facilitate the online device synchronization time

## Practical Feature

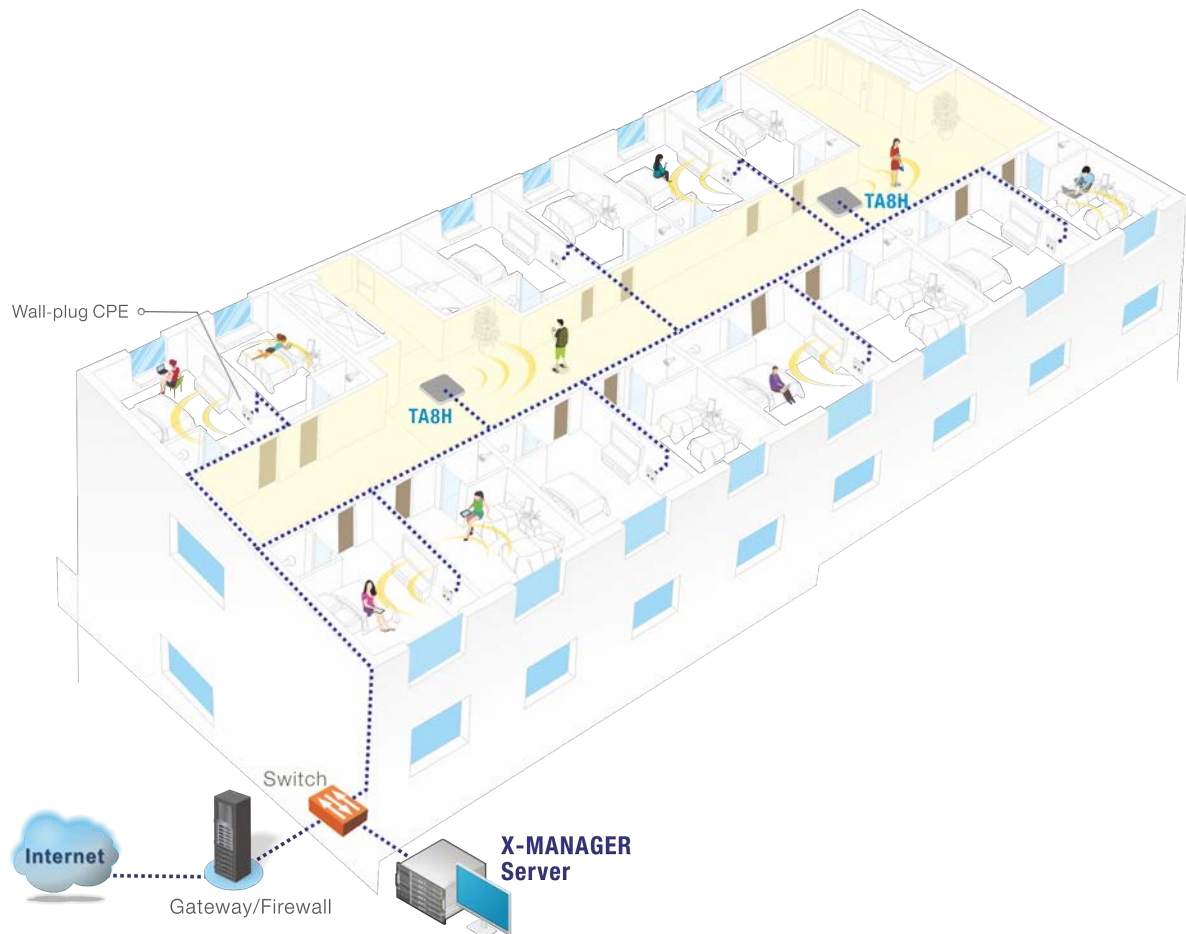
- Management of Multiple Devices



- ✧ Support CAPWAP Protocol
- ✧ Management of multi stage equipment
- ✧ Support manual or automatic upgrade equipment

System provides a very friendly interface for the WEB configuration, to help group network administrators to complete the maximum efficiency of the equipment configuration and maintenance work.

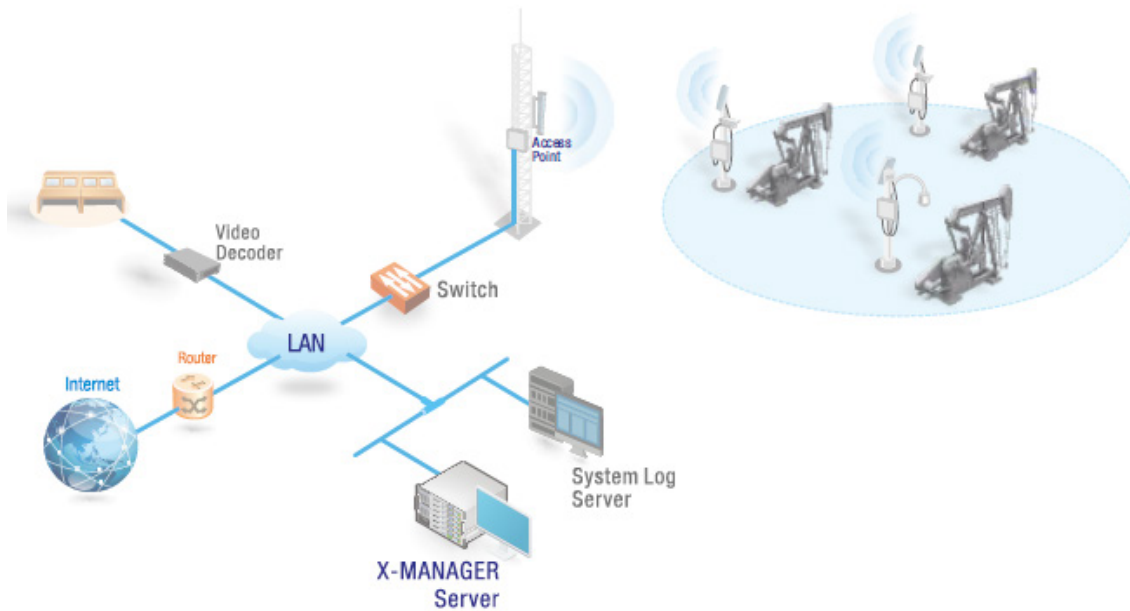
## ● Deployment Device in L2/L3 Network



- ✧ Discover devices by static IP or WTP
- ✧ Send wireless configuration template

System has the functions of user control management, intelligent radio frequency management, recovery and so on. The product can achieve seamless and secure wireless network deployment in any existing L2/L3 network without the need to interrupt the operation of the current network.

## ● Real Time Monitoring System



- ◇ Support for a variety of system information
- ◇ Support for a variety of alarm information
- ◇ Support System log server

System provides real-time monitoring function which can monitor network operation status, timely reporting of connection, disconnection and other information, and the abnormal alarm. At the same time, all the records are reported to the server for the record.

## ●Display Devices on Map



- ◇ Devices can display on user's map or Internet map
- ◇ Intuitive and easy to display device's information on the map

The function of the map display device, we can observe the distribution of the equipment and the operation of the equipment.

## Specifications

Server Hardware Platform	
CPU:	Pentium\Celeron 1GHz
Memory:	256MB
Hard Disk Space:	1GMB
Physical Interface:	10/100M Base-TX (Cat. 5/5E, RJ-45)
OS	WINDOWS 2000/XP WINDOWS 7/Vista WINDOWS 8 WINDOWS 10

Performance	
Number of Device	256
Number of Wireless Configuration Template	20
Number of Wireless Client	5k

WEB Style		
Color	Blue	Support
Font	Microsoft YaHei	Support
Menu	Touch and show	Support
Program running window	Minimize, show status, Link login page	Support

Access Management		
Login IP	Support to modify the IP address of the login web page	Support
Login User Name / Password	Support	Support
Language	English, Simplified Chinese	Support
Wizard	Support	Support
Limited Entry	At the same time, only one user can log in	Support
Permissions Management	Support multi-level permissions	Enhancement
Account Management	Different accounts can view different devices. Management account can see all of the equipment management.	Enhancement
Access restrictions	The illegal user access to any URL will be redirected to the login interface.	Support

Information Statistics		
Basic Information		
Platform Information	Platform name, FW version, IP address, CPU/Memory utilization, Run time, system time, etc.	Support
AP Information	Total number of equipment, number of online equipment, number of off-line equipment;	Support
CPE Information	Total number of equipment, number of online equipment, number of off-line equipment;	Support
Warning Information	Prompt the number of new warning log. Refresh every once in a while.	Support
STA Statistics		
STA Information	STA information connected with AP	Enhancement
Statistics Show the Way	Histogram, pie chart, time axis diagram etc.	Support

Device Management		
AP Management		
Status	Shows online, offline, not managed, is being upgraded, is configuration, upgrade failure, configuration failure, etc.	Support
Device Name	Show device name	Support
Device Model	Show device model	Support
IP	Show device's IP	Support
MAC	Show device's MAC	Support
FW Version	Show device's FW Version. Support to upgrade devices.	Support
Running Time	Show device online time	Support
Service Template Name	Show the template name that is currently used	Support
Service Information	Support the following wireless parameter information display	Support
Channel	Show device's channel	Support
Bandwidth	Show device's bandwidth	Support
Transmit Power	Show device's transmit power	Support
Maximum transmission rate	Show device's maximum transmission rate	Support
SSID	Show device's SSID	Support
Encryption mode	Show device's encryption	Support



	mode	
TDMA	Show device's TDMA	Support
Location	Show device's location	Support
CPE List	Show online CPE. Support the following information display	Support
Status	Shows online, offline, not managed, is being upgraded, is configuration, upgrade failure, configuration failure, etc.	Support
Device Name	Show device name	Support
Device Model	Show device model	Support
IP	Show device's IP	Support
MAC	Show device's MAC	Support
Location	Show device's location	Support
Signal	Show the signal strength of the client	Support
Rate	Show the transceiver rate with the client;	Support
FW Version	Show device's FW Version. Support to upgrade devices.	Support
Running Time	Show device online time	Support
STA List	Show STA information connected with AP. Support the following information display	Enhancement
STA Type	Show the type of STA connected (IOS, Android, PC, etc.)	Enhancement
IP	Show device's IP	Enhancement
MAC	Show device's MAC	Enhancement
Location	Show device's location	Enhancement
Signal	Show the signal strength of the client	Enhancement
Running Time	Show device online time	Enhancement
<b>Management and Editor</b>		
Advanced Editor	TBD	Enhancement
Delete	Delete the offline device from the device list	Support
Refresh	Support for online information refresh	Support
Sort	Support column sort (such as offline, IP, MAC, group name, FW version, running time, etc.)	Enhancement
Client Recovery	Restore the connection between CPE and AP. When CPE cannot associate with	Support

	the AP, it can be recovered by this function.	
STA Management (TBD) Advanced Management Template management		
Show Contents	List display the current template, showing the contents include: the template name, the national code, channel, bandwidth, SSID, power levels, the maximum transmission rate, encryption type, etc.	Support
Template Classification	According to different types of equipment, the list shows different templates.	Support
Edit Template	Choose and edit the existing template	Support
Create	Create a new template. Support the following parameter information.	Support
Network port	Support network port bridge settings	Support
Country code	Support China, the United States, test mode settings	Support
Channel	Selected according to the different national codes supported by the channel	Support
Bandwidth	Support 5/10/20/40+/40-MHz bandwidth	Support
Transmit Power	Support high/medium/low configuration	Support
Multi -VAP	Supports 8 VAP settings, support for opening or closing	Support
SSID	Support configuration SSID	Support
SSID Hidden	Support configuration SSID hidden	Support
Client isolation	Support client isolation settings	Support
TDMA	Support TDMA switch configuration, only the template support bridge	Support
Maximum number of users	Support access to the number of users, the scope of the configuration 1~127	Support
Authentication / encryption mode	Support authentication / encryption settings	Support
Automatic matching	According to each of the	Support

	online device categories, automatically match the applicable template	
<b>Image Management</b>		
Show Contents	Support list display, display information including the name, version number, image size, upload time, etc.	Support
Upload	Support image upload and storage	Support
Auto Upgrade	Support the switch settings; upgrade the equipment to meet the conditions of upgrade automatically;	Support
Manual Upgrade	Upgrade by manually selecting version and device	Support
Storage Space	To display the available storage space system	Support
<b>Configuration Management</b>		
Save	Click save, you can configure the login information, template, equipment location information stored as an encrypted configuration file, output to the local computer;	Support
Recovery	Click on the recovery, the legitimate configuration files can be imported into the product.	Support
Map file upload	Click to upload offline map files, maps can be used to view and configure the device information; Note: it can be switched online map or offline map in the map mode; the default use of online Baidu map;	Support
<b>Log Management</b>		
Log classification	Common run logs, modify logs, and alert logs	Support
Show Contents	Classification, and the statistics of the generated log; The common log list display, according to the time sequence; ordinary log information should include log production time, the user operation, equipment on line information;	Support

	Alarm log by using a tabular display and statistics content should include untreated amount of alarm and alarm history such as the number of; alarm log information should contains log processing identification, log of time, alarm relates to the equipment, content of alarm, fault information and print content.	
Alarm clearance	Alarm log is required to be cleared, the user selects the log, and then click the clear button;	Support
Display Cycle	Configurable log list display cycle; after the cycle, automatically clear the list of the display box;	Support
Alarm Notification	Configure the warning mail address, and the alert log message to the user.	Support
Log Export	Support in accordance with the classification of the log file export;	Support
Log Upload	Support synchronous upload remote syslog server;;	Support
Storage Space	Log automatically stored to the storage space, support more than 50MB log storage space; After the storage space is full, automatic covering the first log, and add an alarm log;	Support
Log Cleanup	Delete the log files stored in the storage space, all the statistical information cleared	Support
Log Search	Support keyword search; Only for the log box display, the history log does not support page retrieval;	Support

Map Mode		
Online Map	The device is displayed on the Baidu map	Support
Automatic Placement	According to the position information provided by the user, the automatic layout is arranged on the map; Information is not correct and no information is placed to the default location;	Support
Manual Placement	You can edit the location of the device on the map	Support
Information View	Equipment logo display device MAC and device name, click to view details: state, equipment name, equipment models, IP, MAC, equipment location, SSID, frequency, the number of clients, etc.	Support
Information Editing	You can edit the parameters by clicking on the online device: IP, device name, device location, etc.; Offline device cannot be edited and adjust the location, but you can delete it.	Support
Offline Map	Offline maps can be used. By editing, the device can be displayed on the offline map.	Support
Connection Mode Indication	Connection mode (wired and wireless) and signal intensity by different connection colors	Support
Type Distinction	Through different color or shape to distinguish the device or wireless mode	Support

System Settings		
Basic Settings		
Platform Name	The name of platform. Support modification.	Support
Login Timeout	Support login timeout configuration: 1 minutes /30 minutes /10 minutes / Unlimited	Support
Login Information Setting	Support user name, password modify settings	Support
Platform IP Address	Support platform IP address through the DHCP way to obtain or configure the static address Note: DHCP method is not implemented;	Support
Network and Security Settings		
Management Protocol	CAPWAP	Support
Discovery Method	Support DHCP discovery (Option43); Enhanced support for DNS discovery; Support static IP discovery; Support broadcast discovery;	Support
Network Management Setup	Support protocol V1 SNMP (RFC 1157), V2C SNMP (2011-2013 RFC)	Enhancement
VLAN Settings	Support port VLAN settings	Support
DHCP Server	Support to enable DHCP Server	Enhancement
Broadcast Suppression	Support	Enhancement
Preventing DoS Attack	Support	Enhancement
IPv6	Support IPv4/v6 dual stack	Enhancement

Upgrade Configuration		
Upgrade	Support page upgrade; Support online download; Note: after the download is complete, prompt alarm information. User manual upgrade equipment. After downloading the new version, delete the previously downloaded version;	Support
Interrupt time of Service	Interrupt time of service is less than 7 min when the device is upgraded	Support

Other		
Restore factory default	Support to restore factory defaults;	Support
open source	Product use of open source code to meet the License requirements of the open source code, to avoid the risk of open source code.	Enhancement

## Ordering Information

Creatcomm Technologies Co., Ltd.  
 Suite619, Build A, Modern Plaza, No.18 Weiye Road Kunshan Development Zone, Jiangsu, China. 215300  
 Tel: +86-512-86186383  
 Email: sales@creatcomm.com  
 Website: www.creatcomm.com