



Release Note

Edgecore EWS101 Release v3.45.0000

Document # Edgecore_EWS101_v3.45.0000_1.36-1.9737

Enhancement from v3.43.U0_1.27-1.9481.2.43.2.52

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1 AP Management Compatibility

1.1 Compatible Versions for AP Management

AP type	LAPM	WAPM	Compatible version
ECW100	V	V	3.45.0000 or newer
ECW5210-L	V	V	3.45.0000 or newer
ECW5211-L	V	V	3.45.0000 or newer
ECW5410-L	V	V	3.45.0000 or newer
ECWO5210-L	V	V	3.45.0000 or newer
ECWO5211-L	V	V	3.45.0000 or newer
ECWO5213-L	V	V	3.45.0000 or newer
3rd Party		V	

2 Wide Area AP Management Enhancement

2.1 Display AP Serial Number in AP List

Main > Device Management > Wide Area AP Management > AP List

AP List

Type: All
 Status: All
 Map: None
 Tunnel: None

Name: Search

Refresh Interval: Disable Auto Refresh Refresh

Add Delete Add to Map / Floor Plan Backup Config Restore Config Upgrade Apply Settings Reboot Export

Type	Name	IP	MAC	Map	Template	Status	# of Users	Tunnel	AP Admin Web	CAPWAP	AP Ver.	Serial Number
Export Query												

Add “Serial Number” column to show the serial number of the APs in the AP list. Please note that previously shipped APs may not have the serial number information. For those APs without serial number information, it will show “N/A” in AP list.

2.2 Export AP List

Main > Device Management > Wide Area AP Management > AP List

AP List

Type: All
 Status: All
 Map: None
 Tunnel: None
 Name: Search

Refresh Interval: Disable Auto Refresh Refresh

Add Delete Add to Map / Floor Plan Backup Config Restore Config Upgrade Apply Settings Reboot **Export**

Type	Name	IP	MAC	Map	Template	Status	# of Users	Tunnel	AP Ad	Web	CAPWAP	AP Ver.	Serial Number

Export AP List

Type Name IP MAC Map Template Status # of Users Tunnel Version Serial Number

Item Location TX RX Average Client Max. Client Average Traffic Max. Traffic Total Time

Download

AP List can be exported to a file with csv format. After click the “Export” button on the AP List page, administrator can select the columns to be exported for AP List.

2.3 Automatic Daily AP Configuration Backup

Backup Config

Daily Backup Time: 0 Save

Delete Search

Device Type	Version	Size	Backup Time	File Name	Actions

(Total 0) First Prev Next Last Go to Page Row per Page 20

Daily AP Configuration Backup is supported. When enabled, administrator can set the time that the system automatically backup AP configuration.

2.4 Automatic AP Firmware Upgrade

AP Firmware List

Automatic Upgrade Disable Enable

	File Name	Device Type	Version	Size	Actions
<input type="checkbox"/>					

Automatic AP Firmware Upgrade is supported from this version. When there are AP firmwares uploaded to the controller, the controller will check the version of the managed APs. If the uploaded firmware is newer than the version of managed APs, the upgrade will be done automatically.

2.5 AP Load Balance Enhancement

Map Cluster Setting

Map

Cluster 0

Cluster	Device Name	IP Address	RF	Power Level	# of Users	Log

2.6 Other Enhancements on WAPM

- Display the IP address and MAC address of APs in Google map.

3 Network Capacity Enhancement

3.1 Maximum Concurrent User

From this version, EWS controller has a hard limit for the number of concurrent users. The maximum number of concurrent users for EWS101 is **200**. Please note that the recommended number of concurrent users still depends on deployment and applications.

4 Alarms and Management Events

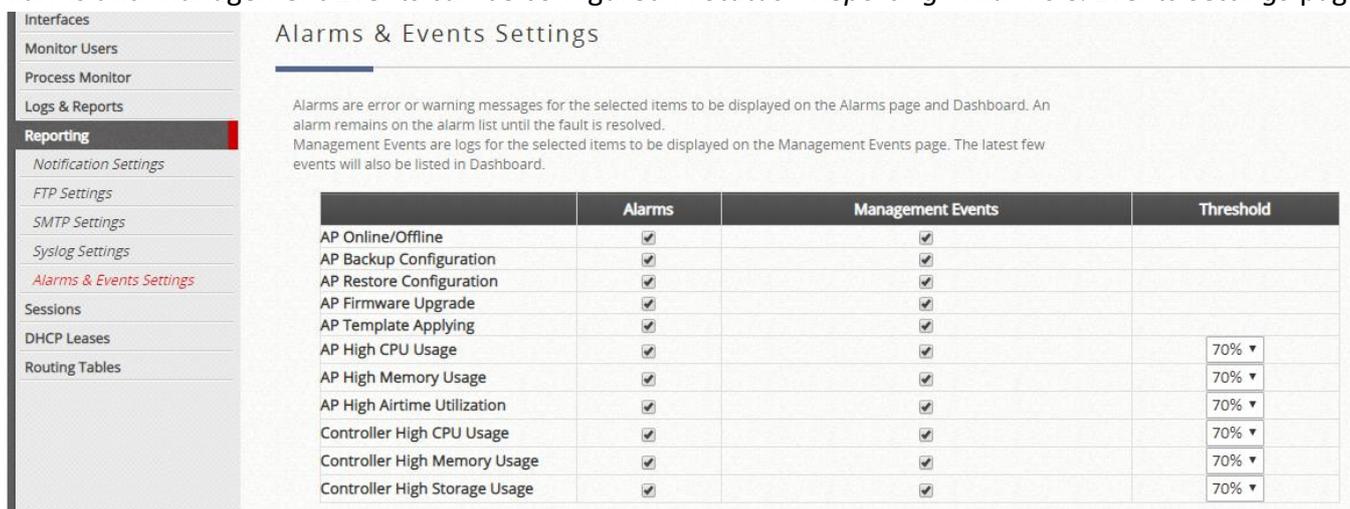
Alarms and Management Events together are new categories of configurable logs supported in this version. **Alarms** are error or warning messages for the selected items to be displayed on the Alarms

page and Dashboard. An alarm remains on the alarm list until the fault is resolved. On the other hand, **Management Events** are logs for the selected items to be displayed on the Management Events page. The latest few events will also be listed in Dashboard.

The following types of events can be enabled as Alarms or Management Events.

- AP Online / Offline
- AP Backup Configuration
- AP Restore Configuration
- AP Firmware Upgrade
- AP Template Applying
- AP High CPU Usage
- AP High Memory Usage
- AP High Airtime Utilization
- Controller High CPU Usage
- Controller High Memory Usage
- Controller High Storage Usage

Alarms and Management Events can be configured in *Status > Reporting > Alarms & Events Settings* page.



The screenshot shows the 'Alarms & Events Settings' page. On the left is a navigation menu with 'Reporting' selected. The main content area has a title 'Alarms & Events Settings' and a descriptive paragraph: 'Alarms are error or warning messages for the selected items to be displayed on the Alarms page and Dashboard. An alarm remains on the alarm list until the fault is resolved. Management Events are logs for the selected items to be displayed on the Management Events page. The latest few events will also be listed in Dashboard.'

	Alarms	Management Events	Threshold
AP Online/Offline	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
AP Backup Configuration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
AP Restore Configuration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
AP Firmware Upgrade	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
AP Template Applying	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
AP High CPU Usage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	70% ▼
AP High Memory Usage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	70% ▼
AP High Airtime Utilization	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	70% ▼
Controller High CPU Usage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	70% ▼
Controller High Memory Usage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	70% ▼
Controller High Storage Usage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	70% ▼

Take AP Online / Offline event as an example. When the status of a managed AP changes to offline, there will be an entry in Alarm page (*Status > Logs & Reports > Alarms*) to notify that the AP is currently offline. Also, an entry will be added to Management Events page (*Status > Logs & Reports > Management Events*) as a log of the event. When this AP backs to online again, the entry in Alarm page will be deleted, representing that the error is resolved. Differently, the offline log will be kept in Management Events. Another entry will also be added to Management Events to log the status change event.

5 Social Media Authentication Enhancements

5.1 Authentication Flow Enhancement

To provide a better user experience on Social Media Login, we have improve the authentication flow as follows.

- (1) User gets login page.
- (2) When the user clicks on the social media login button, the controller temporarily authorizes the user to access the social media site for authentication. The user can only access the requisite domains to authenticate with the social media sites.
- (3) If the user does not complete the authentication in 5 minutes, the controller will restrain the user again. Thus, the user will be redirected to login page when trying to access the social media sites.

With the enhancement of authentication flow, the system is better protected from unauthorized access of the Internet of non-login users. This flow also improves user experience because the compatibility with captive portal on mobile devices is better.

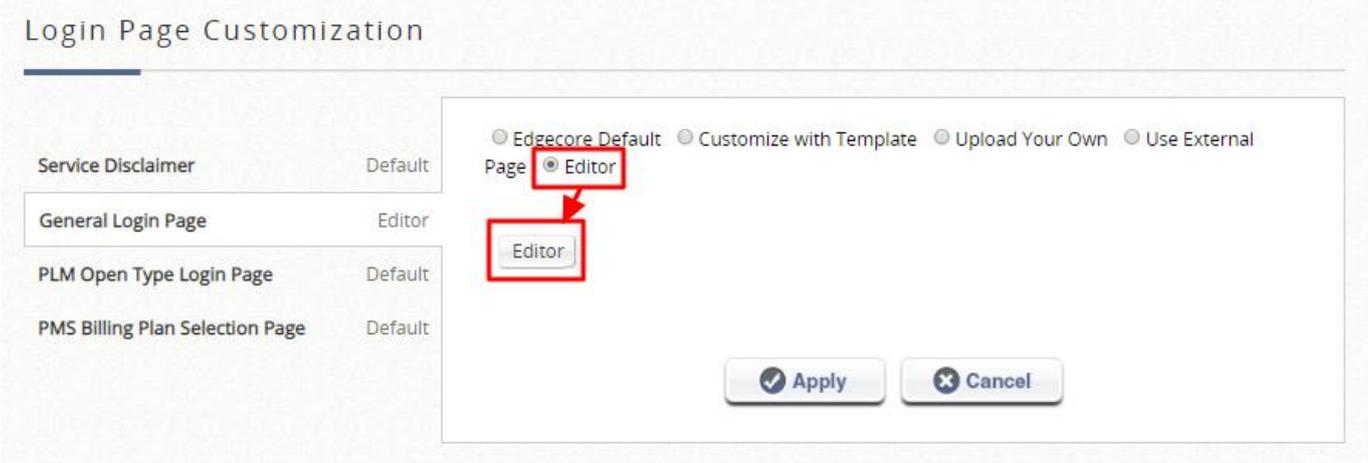
5.2 Supported Social Media List

In version 3.45, the following Social Media are supported.

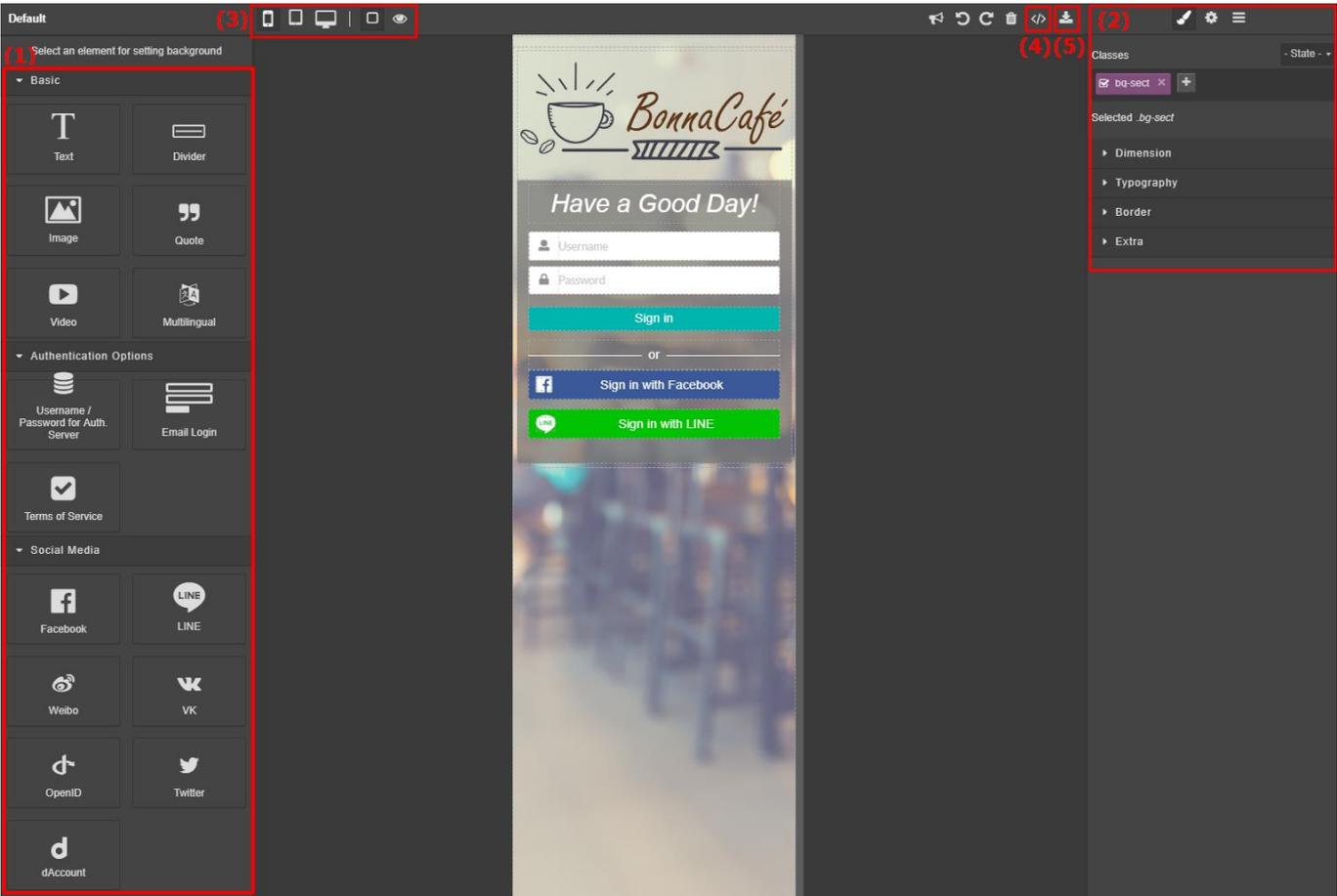
- LINE
- Facebook
- Twitter
- Weibo
- VK
- dAccount
- OpenID

6 WYSIWYG Editor for General Login Page

A new customization option is supported for General Login Page. The “What You See Is What You Get” (WYSIWYG) editor is available for customization in a more intuitive way.



To customize the login page with the editor in a specific Service Zone, you have to go to System > Service Zone > Service Zone Configuration > Login Page Customization, select “Editor” option for General Login Page, and click the “Editor” button to open the editor in a new window.



As the above figure shows, the features of the editor can be categorized into several parts.

- (1) The elements in the left-side panel can be dragged and placed on the desired location of the login page. Basic elements include text, image, and divider, providing basic components of the login page.

Necessary Authentication Options, including Username / Password field for authentication, Email login field, and Terms of Service option, can also be added to the captive portal. Also, different types of social media login button can be included in the login page design.

- (2) The right-side panel includes Style Manager, Component Settings, and Layer Manager. You can easily adjust the appearance of each component.
- (3) In the top-side bar, the buttons to switch different view for different types of devices are on the left-hand side.
- (4) Click the “View code” button, code viewer will popped up to show html and css source.
- (5) Click “Save” button to make sure that your modification is saved and takes effect.

Finally, after finishing login page customization, you have to enable or configure the authentication server properly to make sure the authentication flow works. For example, if you put “Facebook Sign-in Button” in the login page, you have to enable “Social Media Login” authentication option in the Service Zone, and set Facebook App ID and App Secret.

7 SNMP Proxy for Configuring APs

A new SNMP Proxy mechanism is supported for configuring AP via sending SNMP commands to the controller. That is, when the controller receives the specific SNMP command, it will interpret and forward the SNMP command to the target AP, and forward the result from the AP to the sender.

Currently, this feature only supports the AP managed by WAPM. That is, the controller on proxy the SNMP request to the APs in the WAPM AP List.

The SNMP OID for AP configuration is as follows:

.1.3.6.1.4.1.259.7.1.<Device_ID>.<AP_OID>

After receive the SNMP request for this OID, the controller will then forward the SNMP request for <AP_OID> to the AP with <Device_ID>.

<Device_ID> is the index of the APs in the WAPM AP List. A device ID will be assigned to the AP after it is successfully added to WAPM AP List. The device ID can be obtained in the URL of the detail status page for each AP. Please refer to the following figure.

The screenshot shows the WAPM AP List interface. At the top, there are several action buttons: Add, Delete, Add to Map / Floor Plan, Backup Config, Restore Config, Upgrade, Apply Settings, and Reboot. Below these is a table with columns: Type, Name, IP, MAC, Map, Template, Status, # of Users, Tunnel, AP Admin Web, CAPWAP, and AP Ver. The table contains one entry for an AP with Type ECW5211-L, Name TN-16-19, IP 10.0.0.10, MAC 3C:2C:99:C1:66:96, Map Overview, Template 1, Status Online, # of Users 0, and AP Ver. 3.43.20. The 'Status' cell is highlighted with a red box, and a red arrow points down to the 'AP Status : TN-16-19' page. The URL in the browser address bar is 10.70.19.203/OutdoorEquipmentManagement/APStatus.shtml?embedded_html=1&dev_id=2, with 'dev_id=2' highlighted in a red box. The detailed status page shows the following information:

AP Status : TN-16-19	
Type	ECW5211-L
Name	TN-16-19
IP Address	10.0.0.10

8 Remove Legacy Features

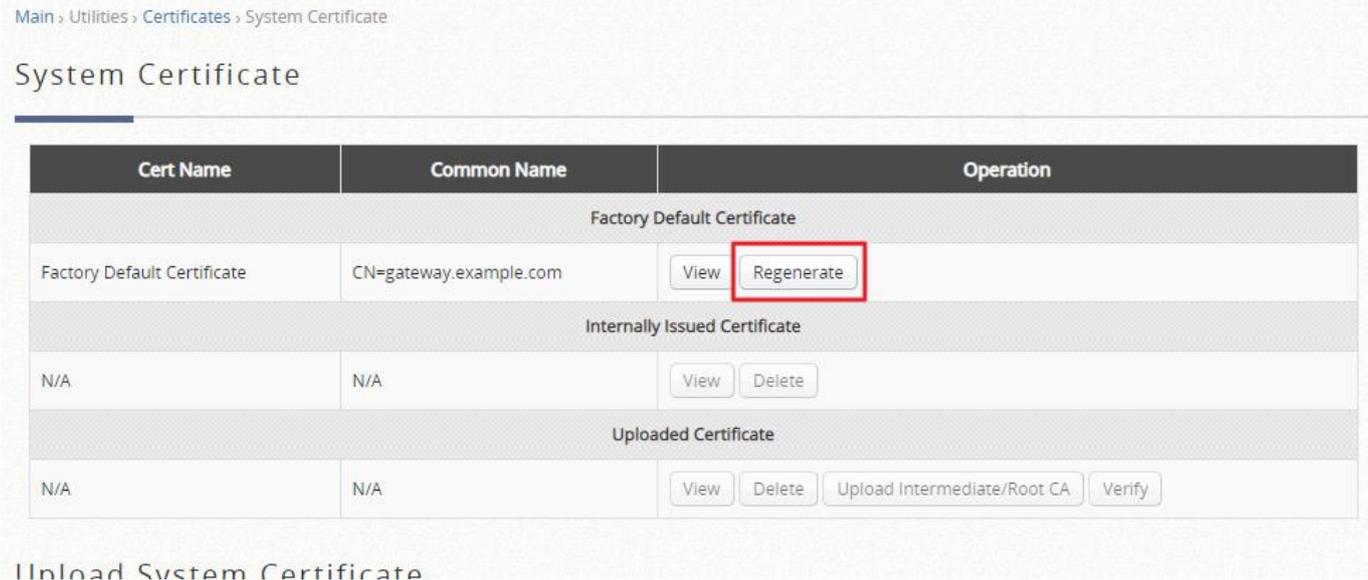
The following features are removed because the services are terminated or deprecated.

- IPv6 – Go6
- PMS Interface – NetRetriever
- Remote VPN – PPTP
- Social Media Login – Google+

9 Misc. Feature Enhancements

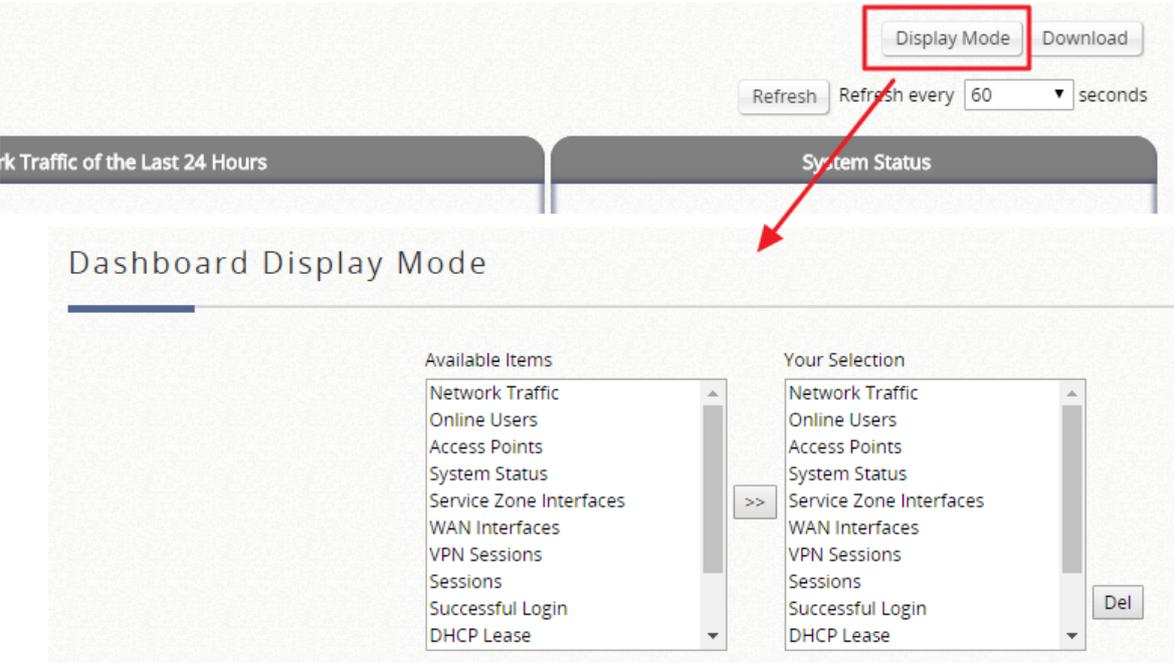
9.1 Default Certificate Update

The default system certificate can be regenerated when pushing the “Regenerate” button in the System Certificate page. The regenerated certificate will have a unique CN, and with stronger security.



9.2 Customizable Dashboard

The items displayed in Dashboard can be customized now. Administrator is able to decide which items to be displayed.



9.3 Associated SSID of Users

The SSID associated for the users are displayed in Online Users List and Non-Login Device List now. Please note that the AP must be managed by WAPM first to support this feature.

Online Users List

Select Mode: Summary Detail

IP or MAC: Search

Logout Refresh Refresh Disable

No.	Username	IP Address	IPv6 Address	MAC Address	SZ / VLAN	Access From (AP/SSID)
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(Total:0) First Prev Next Last Go to Page (Page:1/1) Row per Page: 50

Non-Login Devices List

Refresh Refresh Disable

MAC Address	IP Address	VLAN ID	Service Zone	Associated AP/SSID
-------------	------------	---------	--------------	--------------------

(Total:0) First Prev Next Last Go to Page (Page:1/1) Row per Page: 50

9.4 Display Administrator Name

The administrator account used to login is displayed in WMI now.

Edge-core® Dashboard ★ Setup Wizard ? Help Logout admin

SYSTEM USERS DEVICES NETWORK UTILITIES STATUS

9.5 Remove Unused Column in User Events

“Quota” column in User Events is removed because it is not used for any kinds of events.

9.6 Security Enhancement for HTTPS connection

When enable “Secure” option for User HTTPS Login, the deprecated protocols are not allowed now. Only TLS 1.2 and TLS 1.3 are accepted as cryptographic protocols.

9.7 Intuitive Domain Name for Getting User Login / Logout pages

The clients have easier way to login and logout for network service. When a non-login user access <http://login/>, the client will be redirected to the user login page. When an online user access <http://logout/>, the user will logout from the system automatically.

10 Issue Fixed

- 10.1 Client would be correctly kicked out when roaming between two split-tunnel SSIDs under different Service Zones**
- 10.2 Single Fixed IP is Acceptable for Management IP**
- 10.3 SMS Gateway Web Pages Customized with “Upload Your Own” Can Show Correctly**
- 10.4 Session Log and Firewall Log will display in System Log only when “SYSLOG” option is enabled**
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- 10.9 Websheet for Android devices can pop-up automatically when enabling Social Media Authentication**
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