EnGenius

Fit Solution Brochure

Flexible and Smart Network Solution

EnGenius Fit helps you deploy devices to integrate with an existing on-site network or remotely manage networks on the go. Businesses can easily access the Fit platform to configure, monitor, and manage networks through the appliance, web interface, or mobile app.

An Innovative Total Solution for Your Business

Device Configuration

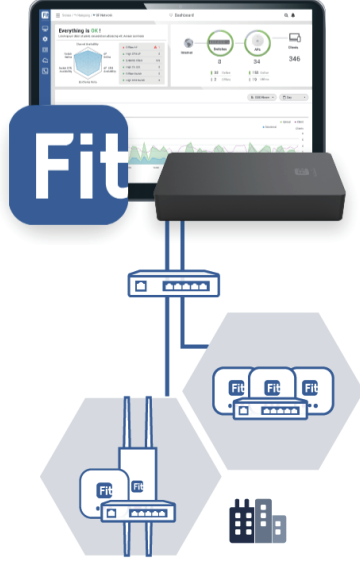WLAN configuration and group settings for APs and switches

Network Management

Multi-tenant system maintenance and real-time event notification

Visualized Monitoring

Monitor and provide visualizations for devices status

Network Management for Various Business Scenarios

	Local	Remote Management	On-Premises Management
	SOHO	**SMALL BUSINESS**	**SMALL BUSINESS**
Management Platform	Device GUI	FitXpress	FitController
Number of devices	≤ 5 devices	≤ 30 devices	≤ 100 devices
Target customer	SOHO, Independent store	Chain stores, Branch offices	Headquater, Campus, Small business

Versatile Management and Product Lines of EnGenius Fit

Management Platforms		Managed Devices		
FitController	FitXpress	Indoor Wireless	Outdoor Wireless	PoE Switches

Wi-Fi 6

Next-Generation Wi-Fi Featuring Higher Capacity, Greater Efficiency, and Improved Performance

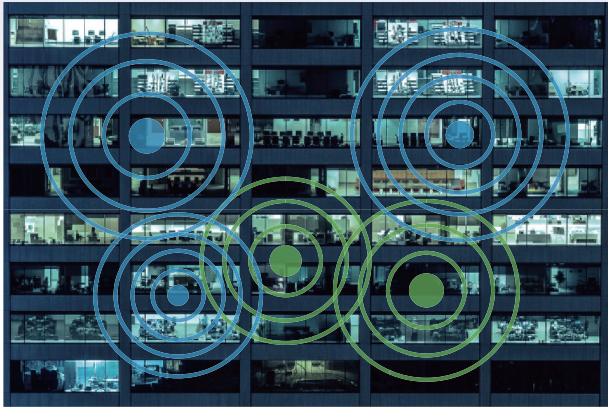## The Game Changing Product - 11ax Access Points

802.11ax (Wi-Fi 6) technology improves upon real-world deployment of 802.11ac. As the next-generation Wi-Fi, 802.11ax brings speed improvements along with greater stability and efficiency in wireless connections.

11ax

11ac

11a/b/g/n

Qualcomm 11ax

4x Increased Capacity

With wireless speed up to 2,400 Mbps in 5 GHz band and 1,200 Mbps in 2.4 GHz band

Innovative Features of Wi-Fi 6

Greater Capacity
Serves more devices simultaneously

8x8 MU-MIMO
Increases capacity up to 4x

OFDMA
Enables more clients to transmit simultaneously

BSS Coloring
Allows access points be placed closer together

Higher Efficiency
Handles simultaneous connections without slowdown

OFDMA
Reduces payload and latency

BSS Coloring
Reuses the channel and improves interference

Target Wake Time
Saves the battery life of devices

Improved Performance
Increases throughput with new modulation scheme

8x8 MU-MIMO
Receives data from multiple antennas, doubling bandwidth

1024QAM
Increases data rates by 25%

Target Wake Time
Reduces the latency from contention of clients

Scenarios Where 802.11ax Can Boost Your Wi-Fi Performance

Heavy Interference
Environment : Office, enterprise environments

802.11ax's spatial reuse feature, through BSS coloring, reduces co-channel interference and improves simultaneous transmissions. This cuts through RF congestion in office environments for greater network efficiency.

Dense Usage
Environment : Stations, libraries, and shopping malls

802.11ax's uplink and downlink of MU-MIMO provides greater network efficiency and focuses radio energy on specific users. Capable of handling demand-heavy environments with many client devices, such as airports, gas stations, libraries, and shopping malls.

5G Complement
Environment：Indoor Spaces

EnGenius Wi-Fi 6 and 5G can provide more smart applications with higher data rates and increased capacity.
Wi-Fi 6 is ideal for indoor or high-density areas, while 5G is optimized for outdoor mobile communications.

EnGenius Fit Wi-Fi 6 Access Points

| Wi-Fi 6 (11ax)	Indoor AP			Outdoor AP
Access Points	Fit6 2x2	Fit6 4x4	Fit6 2x2 Lite	Fit6 2x2 Outdoor
Wi-Fi Standard	802.11ax	802.11ax	802.11ax	802.11ax
2.4GHz Speed	574 Mbps	1,148 Mbps	574 Mbps	574 Mbps
5GHz Speed	1,200 Mbps	2,400 Mbps	1,200 Mbps	1,200 Mbps
PoE Standard	802.3af/at	802.3at	802.3af	802.3af/at

Business Mesh

A Smarter Way to True Wireless

Optimized Mesh Technology
Brings You Wi-Fi without Dead Spots

Place EnGenius Mesh devices where you need coverage and let EnGenius Mesh technology automatically connect them to your network.
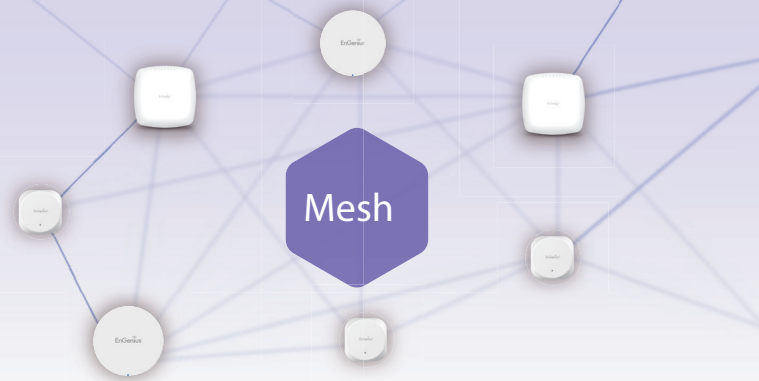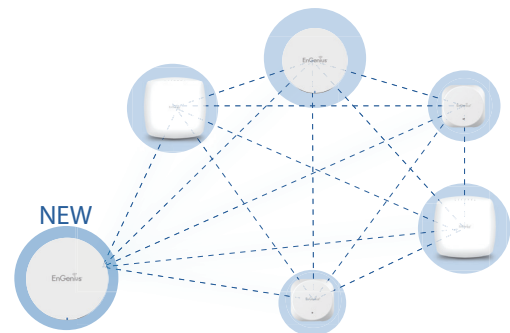
Mesh

Extend Wi-Fi coverage without cabling hassles

Provides all-encompassing coverage in your home or office without any cables required.
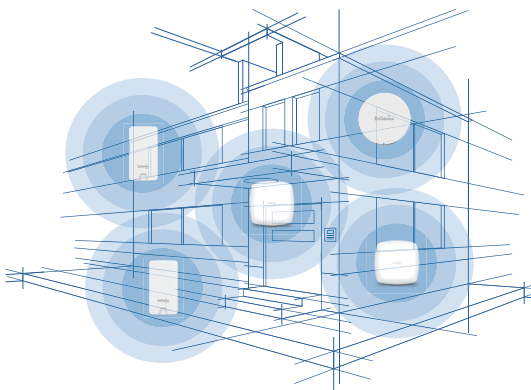
Smart webbing by Enterprise-grade Mesh

The network automatically links up the nodes to the existing structure without needing manual adjustments.

NEW

Smart healing when a wireless link is lost

Recalculate link quality to find the best path whenever a node loses connection.
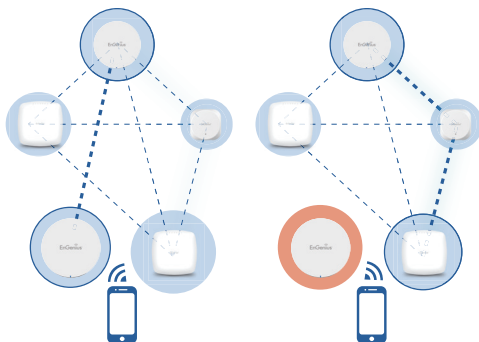
Smart routing for consistently high quality

Constantly optimize path selection on each device using enterprise-grade mesh algorithms.
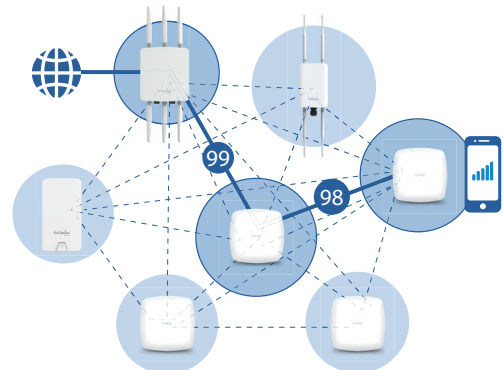
Industrial Case Studies of Mesh Technology

Warehouse/Industrial Areas

Challenges

- Insufficient cabling connections.
- Wireless signals are blocked by moving obstacles.

EnGenius Mesh solution

- Mesh APs are flexible to deploy with wall, ceiling, and pole mount options.
- Fewer wiring constraints makes it easy to place access points based on desired coverage area with minimal environmental modification.

Hospitality & Heritage

Challenges

- Installation without remodeling existing structures or disrupting business.
- Off-the-grid locations are difficult for high-speed internet service providers.

EnGenius Mesh solution

- Mesh access points can be powered by DC Input or PoE on existing power sources.
- High flexibility of network deployment with mesh nodes that can be easily added or removed.

Concerts Fairs, and Gatherings

Challenges

- Significant coverage and capacity requirements of internet connectivity.
- Flexible deployment for different activities requirements.

EnGenius Mesh solution

- Network deployment for more than 1,000 devices across large areas remotely.
- Mesh technology enables flexible and mobile deployment.

Mesh Featured Models

Fit Indoor Access Points Series*

Fit Outdoor Access Points Series*

Empower Local or Remote Management

Experience the Unprecedented Convenience of Management

EnGenius Fit offers various network management platforms, including FitController and FitXpress, which make businesses easy to monitor, manage, and troubleshoot for both remote and on-premises networks.

Flexible and Smart Management Planes

Remote Managing On-the-go	On-Premises Networking
EnGenius FitXpress	EnGenius FitController
Web or mobile app allows businesses to easily and remotely manage distributed network devices.	Simplified deployment and port management for expandable business.
• Manage on-the-go • Easy to use • Multi-location networking • Capable Up to 30 devices/sites	• On-premise deployment • Plug & Play • Built-in enterprise-level features • Capable Up to 100 devices/sites

Fit EnGenius Fit
FitXpress

Super easy network management via mobile app or web

GET IT ON Google Play

Download on the App Store

Outstanding Features for Managing Network On-the-Go

FitXpress is a mobile app for simple configuration and management for EnGenius network devices. Users can quickly get devices on board and monitor the deployed devices on their smartphones or tablets.

Rapidly Deploy From Anywhere

Deploy smarter by scanning with mobile to get each device onboard in seconds. With just a few clicks of initiating setup, your devices will be auto-provisioning.
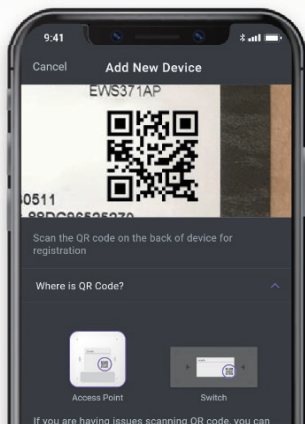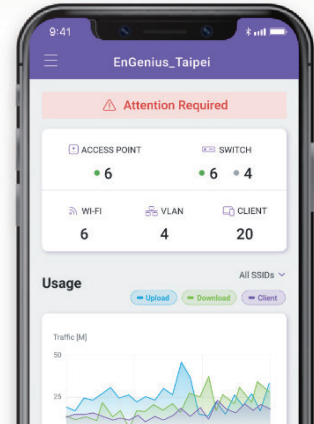
Initiate A Wi-Fi In Minutes

Setup Wi-Fi networks easily with the predefined and custom profiles through a straightforward interface. Separate the Wi-Fi for staff and guest for security.
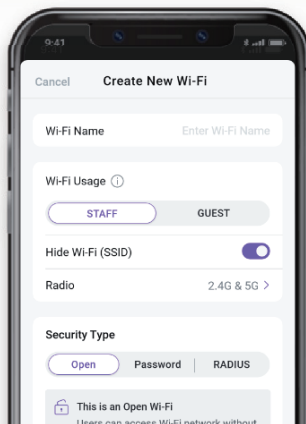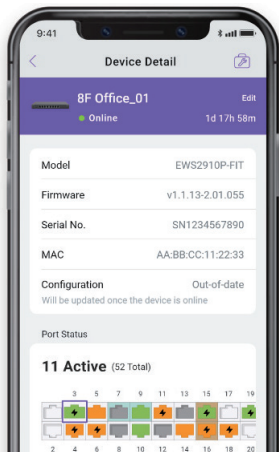
Network Health in Dashboard

Grasp the real-time and conphrehensive information of your networks and get alerted when problem occurred.

Monitor with in-depth Info.

Have clear views of Access Points, Switches, and connected clients to check abnormal network behavior or troubleshoot.
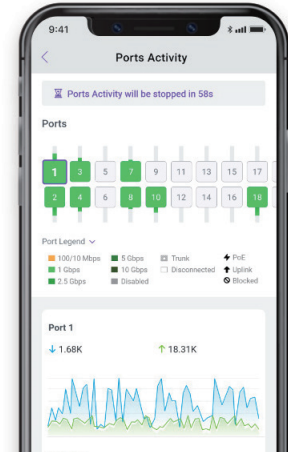
Access Control and Blocking

Control the accessability of Wi-Fi networks and block the suspicious client to acc ess your Wi-Fi from the client list.
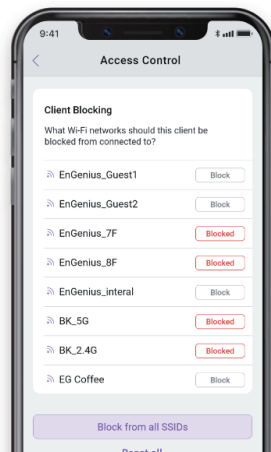
Handy Troubleshooting Tools

A bunch of visualized diagnostic tools is in place whenever a device is found problematic.

Fit

EnGenius Fit
FitController

Keep Autonomy and Data Privacy

All control packets are encrypted through the secure tunnel connection between FitController and managed devices, allowing businesses to use these features securely while maintaining autonomy and data privacy.

## Group Settings for Multiple Device

FitController prompts users to provide group configuration for the following parameters of devices: SSID based WLAN Settings, mesh settings, and wireless radio settings.

Topology View

Show the relationships of all deployed devices. Check the status of switch ports and the information of connected client number, IP address, and wireless operating channels.

Device List with Details

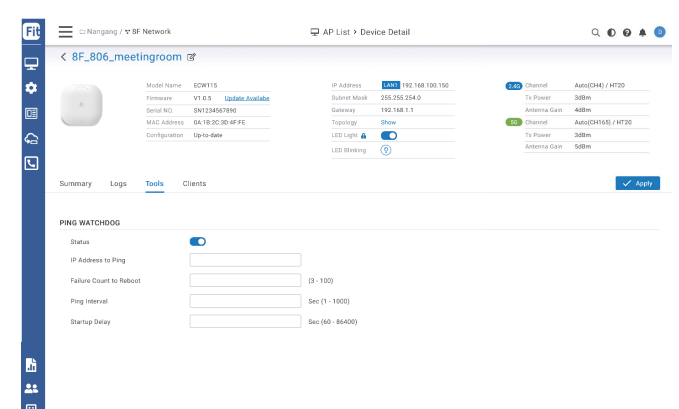Check the device list and drill down to discover potential problem areas with switches, access points, or client devices.
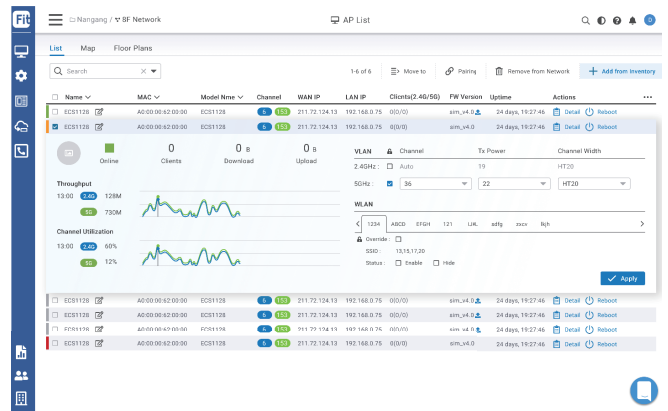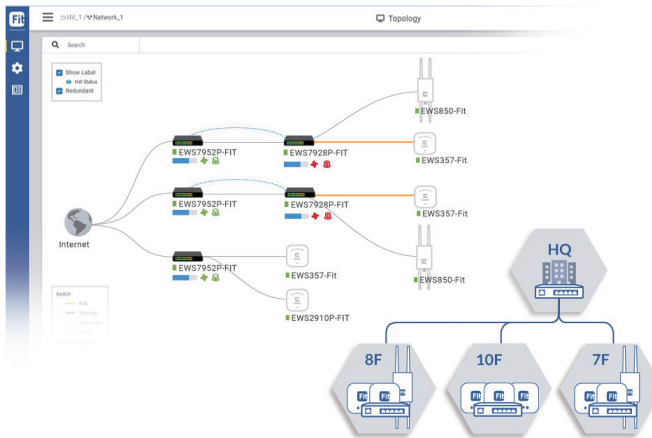
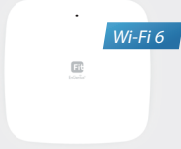## Event Monitoring and Notification

Apply filters of management strategies on events of particular concern. Monitoring can be linked to the system's email server to notify managers of events of interest via their inbox.

Diagnosis and Troubleshooting

Run the diagnostic tests with intuitive interface to find potential issues and adjust device settings to improve user experience and network performance.
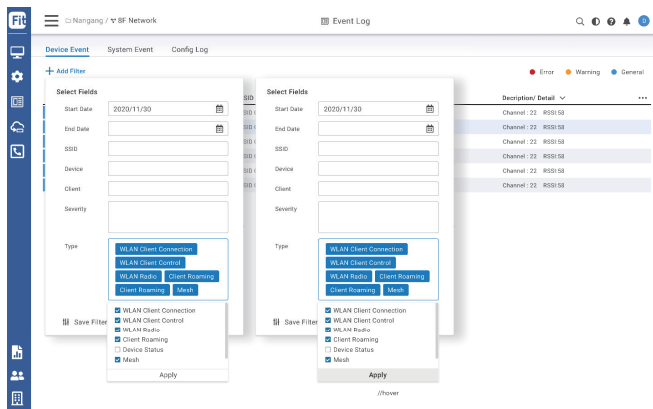
EnGenius Fit Access Points

Access Points	Indoor			Outdoor
	Wi-Fi 6	Wi-Fi 6	Wi-Fi 6	Wi-Fi 6
Model Name	Fit6 2x2 Lite	Fit6 2x2	Fit6 4x4	Fit6 2x2 Outdoor
Model Number	EWS356-FIT	EWS357-FIT	EWS377-FIT	EWS850-FIT
Wi-Fi Standard	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac/ax
Frequency	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz
Data Rate (2.4 GHz)	574 Mbps	574 Mbps	1,148 Mbps	574 Mbps
Data Rate (5 GHz)	1,200 Mbps	1,200 Mbps	2,400 Mbps	1,200 Mbps
Radio Chains	2 x 2:2	2 x 2:2	4 x 4:4	2 x 2:2
Tx Power (2.4 GHz)	21 dBm	22 dBm	23 dBm	23 dBm
Tx Power (5 GHz)	21 dBm	22 dBm	23 dBm	25 dBm
Antennas (2.4 GHz)	2 x 4 dBi	2 x 4 dBi	4 x 5 dBi	2 x 5 dBi (SMA-Type)
Antennas (5 GHz)	2 x 5 dBi	2 x 5 dBi	4 x 6 dBi	2 x 5 dBi (SMA-Type)
Antenna Beamwidth	360 °	360 °	360 °	360 °
PoE Standard	802.3af	802.3af/at	802.3at	802.3af/at
Network Interface	1 x 10/100/1000 Ethernet Port	1 x 10/100/1000 Ethernet Port	1 x 10/100/1000/2500 Ethernet Port	1 x 10/100/1000/2500 Ethernet Port
Mounting Type	Ceiling / Wall	Ceiling / Wall	Ceiling / Wall	Wall / Pole
Dimensions	160 x 160 x 30 mm	160 x 160 x 27 mm	205 x 205 x 33 mm	190x 124 x 47 mm
Operating Modes	AP/Mesh	AP/Mesh	AP/Mesh	AP/Mesh
IP Rating (Outdoor only)	N/A	N/A	N/A	IP67
Surge Protection (Outdoor only)	N/A	N/A	N/A	1KV
ESD Protection (Outdoor only)	N/A	N/A	N/A	Contact: 4KV Air: 8 K
Mesh Technology	●	●	●	●
MU-MIMO	●	●	●	●
Beamforming	●	●	●	●
On-premise Management (FitController)	●	●	●	●
Mobile App (FitXpress)	●	●	●	●

EnGenius Fit Switches

	Fit Switches				
PoE Switches					
Model Name	FitSwitch 8 PoE	FitSwitch 24 PoE	FitSwitch 24 Full PoE	FitSwitch 48 PoE	FitSwitch 48 Full PoE
Model Number	EWS2910P-FIT	EWS7928P-FIT	EWS7928FP-FIT	EWS7952P-FIT	EWS7952FP-FIT
Switching Class	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+
OS Version	SNOS 2.0	SNOS 2.0	SNOS 2.0	SNOS 2.0	SNOS 2.0
Cloud-managed (FitXpress)	●	●	●	●	●
On-premises (FitController)	●	●	●	●	●
Standalone Switch	●	●	●	●	●
Gigabit Ethernet Ports	8	24	24	48	48
SFP Ports	2	4	4	4	4
Form Factor	Desktop	19"1U	19"1U	19" 1U	19" 1U
RJ45 Console Ports	-	1	1	1	1
Power-over-Ethernet	802.3af	802.3af/at	802.3af/at	802.3af/at	802.3af/at
PoE Capable Ports	Ports 1-8	Ports 1-24	Ports 1-24	Ports 1-48	Ports 1-48
Total PoE Budget	55W	240W	410W	410W	740W
Switching Capacity (Gbps)	20Gbps	56Gbps	56Gbps	104Gbps	104Gbps
Full load Power Consumption	63.72 Watts	283.88 Watts	470.5 Watts	430.2Watts	840.8 Watts
Packet Buffer Memory	512KB	512KB	512KB	1.5MB	1.5MB
Max. Packet Forwarding Rate (Mpps)	14.88Mpps	41.664Mpps	41.664Mpps	77.376Mpps	77.376Mpps
MAC Address Table Size	8K	8K	8K	16K	16K
Jumbo Frame Size	9K	9K	9K	9K	9K
Weight	0.6 kg	3.6 kg	3.8 kg	6.4 kg	6.4 kg
Dimension	240mm x 105mm x 27mm	440mm x 260mm x 44mm	440mm x 260mm x 44mm	440mm x 310mm x 44mm	440mm x 310mm x 44mm
Operating Temp.	0 to 40℃	0 to 50℃	0 to 50℃	0 to 50℃	0 to 50℃
Storage Temp.	-20 to 70℃	-20 to 70℃	-20 to 70℃	-20 to 70℃	-20 to 70℃
Humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%

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