

EnGenius Cloud

Solution Brochure

Visualize Your Networks with AI-driven Cloud

EnGenius Cloud is built on top of the most advanced cloud computing technology. Scalable and AI-ready, the robust and dynamic cloud computing infrastructure helps you work smarter on your network with important analytics and visualization tools.

Why EnGenius Cloud

Resolve the pain points of traditional networks



Easily manage multiple sites



Precisely debug the networks



Remotely manage device firmware



Cloud-based Unified Management

The Smart Cloud Helps You Achieve More

Artificial intelligence (AI) enables EnGenius Cloud to predict issues before they occur and provide accurate recommendations to proactively improve performance. EnGenius Cloud's Advisory Board uses AI to continuously analyze networks and report potential problems, often before issues occur.



Quick Deployment



Easy Administration



Smart Networking



Visualized Insights



Next-Generation True Cloud Infrastructure for High Stability and Scalability



Serverless

The Cloud is built on the server-less infrastructure without server boundaries



FaaS

Each function is scalable and works seamlessly with dynamic allocation



Reliability

The service-level agreement guarantees 99.99% availability for your network

Quick Deployment

Plug & Play Auto-Provisioning

EnGenius Cloud lets you deploy multiple sites with quick registration and configuration, available on your cloud network.



PLANNING SITE

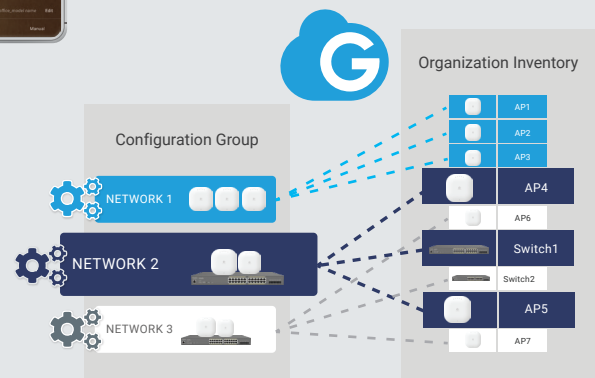
1 Register devices with web or mobile app

Scan a QR code with your device to register it to company inventory on the EnGenius Cloud.



2 Assign devices to network groups

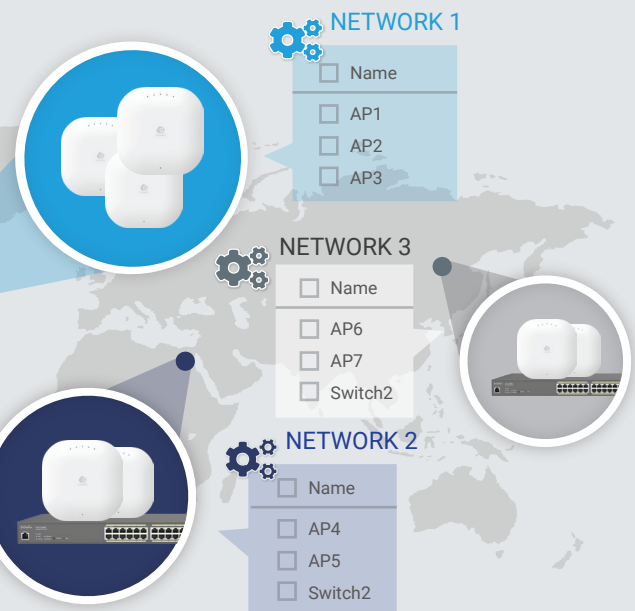
Create networks with predefined configuration profiles for Cloud managed devices under the same network group, and then apply this configuration automatically to new devices



DEPLOYMENT SITE

3 Unbox devices and connect to your network

Once plugged in, EnGenius Cloud will push the proper configuration to the device and work as intended.



4 Multiple site deployment made easy

With EnGenius Cloud, deploying and managing multiple sites in different timezones and with various network policies is easy.

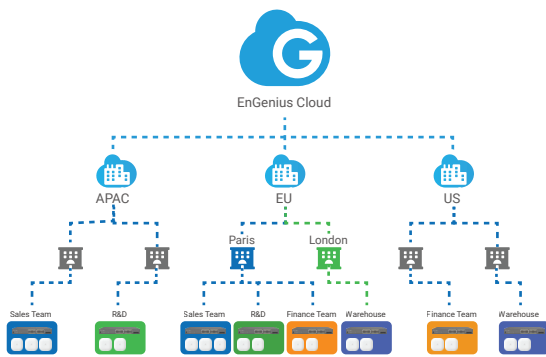
Easy Administration

Get ready for EnGenius Cloud with the easy-to-use features for rapid deployment, initial configuration, and quick registration for one or multiple sites.



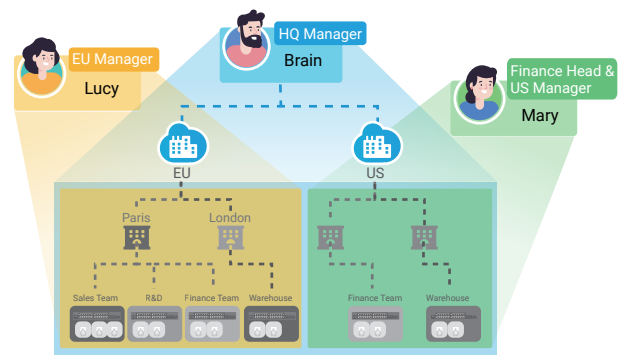
Manage your network with hierarchy view

EnGenius Cloud defines the hierarchy view level as a multilayered group of networks. You can manage and monitor company networks with hierarchy view based on different locations or business setups.



Multi-tenant design with different roles and privileges

Assign different users with roles and privileges to manage your organization's network sites to best fit your business management policy.



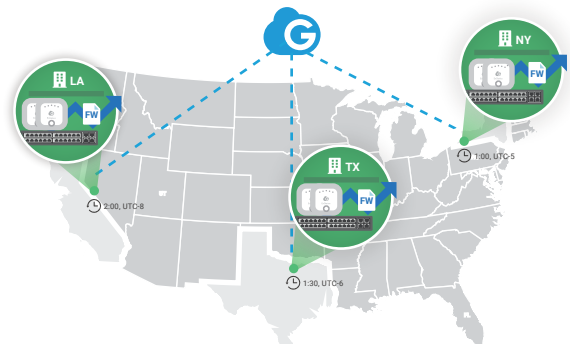
Two factor authentication to secure your account

Add an extra layer of security with the two-step verification to protect users' accounts from attack when signing in.



Scheduled firmware upgrade for multiple sites and networks

It is easy to deploy and manage multiple sites by creating firmware upgrade tasks for different groups of devices based on region, local timezone, and other configurations.



Smart Networking

Work Smarter with EnGenius Cloud

EnGenius Cloud makes it simple to manage and monitor multiple sites with hierarchy view, gather real-time device information, and utilize many other benefits to fit your business.



AP

Quick access to Access Point status

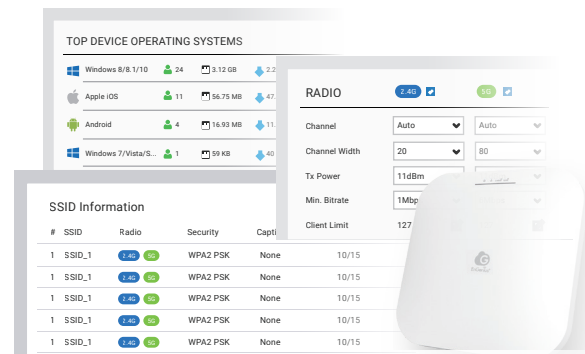
EnGenius Cloud manages all Access Points in a single place. The Access Points list summarizes the most critical current traffic usage data for the network administrator to access quickly.



AP

Master the detailed status of Access Points

Get in-depth information of the SSID, radio, and IP addressing settings for specific Access Point to optimize the network performance according to its policy and have a clear picture of real-time usage, related logs, and connected clients.



AP

User authentication for Wi-Fi access per SSID

EnGenius Cloud provides a range of authentication methods to cater to diverse business needs. The AAA authentication can be configured either on the cloud or via the Customer's RADIUS server. Additionally, you can set up a Guest Wi-Fi service with voucher functionality, or enable users to sign in by connecting to their social media account.



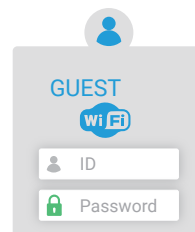
Cloud Authentication

Authentication and authorization on EnGenius Cloud



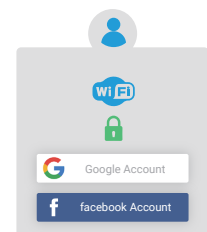
Custom Radius

Use local radius server for authentication



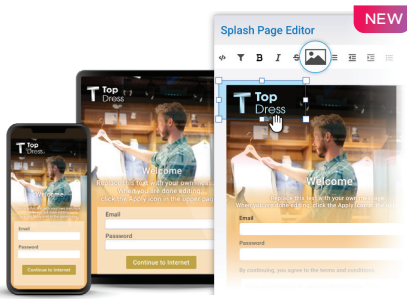
Voucher Service

Pre-defined access templates and specific portal for front-desk



Social Login

Login with a Facebook or Google account



AP
Customize a splash page for your Captive Portal

Use the WYSIWYG editor to create a pleasing entrance for your captive portal. You can select one of the available templates and place a logo in your preferred position. The customized captive portal properly guides visitor traffic while delivering important messages to your guests.

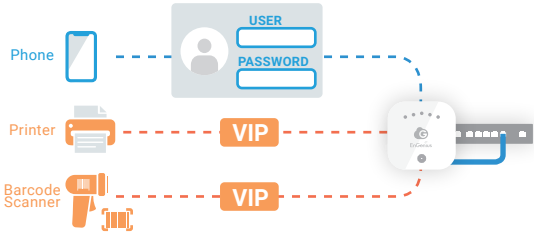
AP
Block suspicious clients from your networks

Rogue client monitoring tools allow you to deny access to your SSID for selected clients.



AP
Give devices VIP permission to join networks and bypass Captive Portal

You can skip authentication for specific clients such as barcode scanners or printers with no web-based interface to proceed.



SWITCH
Quick view of network Switches

Conveniently monitor and troubleshoot all of your network switches in one location with the switch list by checking overall configurations and real-time meters.

Name	Serial Number	MAC	Model Name	WAN IP	LAN IP	Ports(Active/Total)
7F_01_ECS1528FP	30290*****	88:***:***:***:***	ECS1528FP	211.23.68.199	10.0.93.245	10/0.93.245
7F_02_ECS1552FP	79360*****	88:***:***:***:***	ECS1552FP	211.23.68.199	10.0.93.245	10/0.93.245

Port View

Legend: 10/100Mbps (orange), 1G (green), 2.5G (dark green), 5G (light green), 10G (dark blue), Disconnected (grey), Disabled (light grey), PoE (light blue)

SWITCH
Detailed view of Switch port and PoE status

Check real-time information of port connection state and PoE utilization and make configurations for each port of individual switches.

8F_05_ECS1552FP 88DC9668694A ECS1552FP 211.72.124.13 10.0.85.247 10/52 1.1.16

Port view

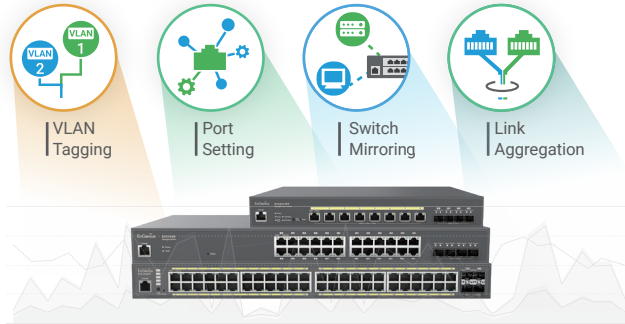
Legend: 100/10 Mbps (orange), 1 Gbps (green), 10 Gbps (dark green), Disconnected (grey), Disabled (light grey), PoE (light blue), Uplink (light green)

VLAN

Name	default
Tagged	-
Untagged	49-52

SWITCH
Comprehensive and flexible Switch configuration

Get full control and flexibility in configuring network switches. Setup network ports, VLAN tags, and other details for one or a group of devices to optimize overall network performance.



GATEWAY

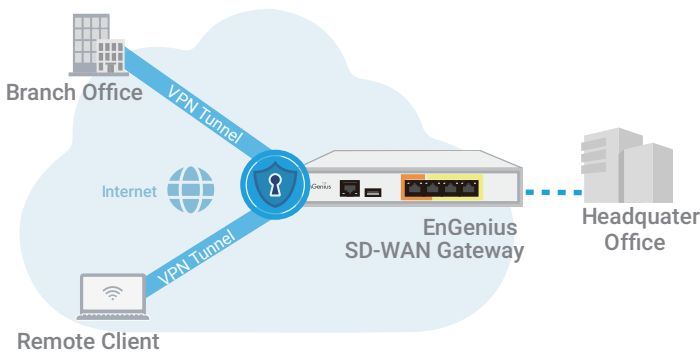
Unified Cloud-management integrating with APs and Switches

Experience effortless network management with EnGenius Cloud-Management and unified integration with SD-WAN gateways, APs, and switches. Monitor and control all your network devices with ease through a centralized, user-friendly interface.



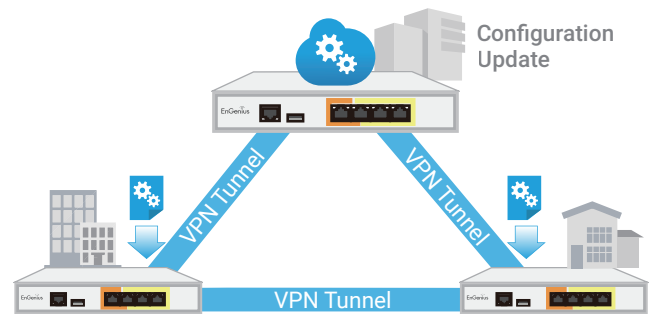
Easy setup and Secure SD-WAN connections

Streamline your remote work and communication with site-to-site and client VPN. Forget the complexity of traditional VPN configurations and embrace effortless, secure, and private connections for your business.



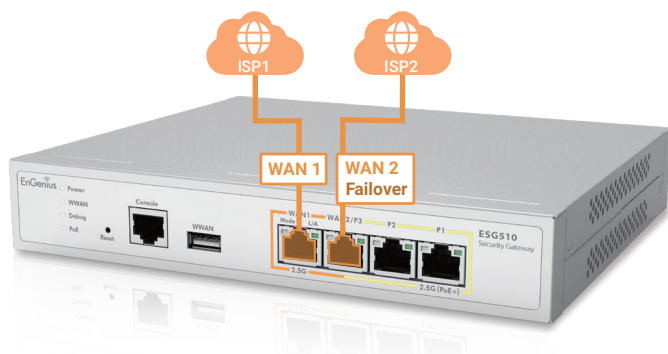
Effortlessly Networking with Self-healing Auto VPN

EnGenius Cloud automatically updates related VPN parameters to all peers, ensuring a seamless and secure connection even in case of WAN IP address reassignment or forwarding port changes.



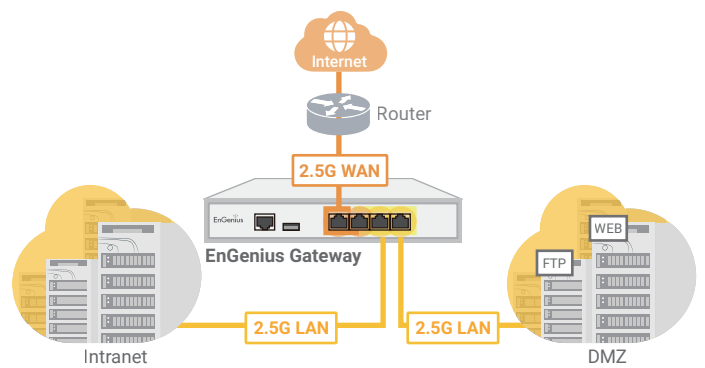
Flexible Connectivity via Dual WAN Ports Integration

The SD-WAN Gateway is capable of highly efficient load-balancing and redundancy, optimizing traffic by utilizing all available paths among multiple sites.



Optimal Performance with Multiple 2.5G Ports

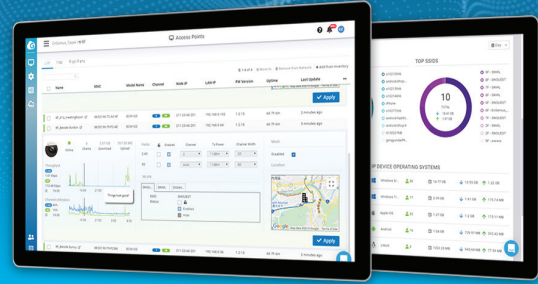
EnGenius Cloud-managed SD-WAN Gateway boosts four powerful 2.5G ports for your networks, is ideally suited for high-speed WAN environments, and offers in-line architecture design for seamless 2.5G uplink to your existing router.



Explore the Visualized Interface and Features of EnGenius Cloud

EnGenius Cloud provides reliable performance, predictive analysis, and real-time insights to allow companies to focus on growing their business. The enterprise-class features help IT quickly build reliable and efficiently managed networks.

Learn more of EnGenius Cloud: www.engenius.ai/cloud



Visualize Your Networks with AI-driven Cloud

Network Health Center

Counseling Floor Plan

Client Network Timeline

Device Real-Time Diagnostics

AI-Driven Advisory Board

Topology View

Historical Network Traffic

Layer-7 Apps Dashboard

Management On-the-Go

Captive Portal

Mesh Technology



engenius.ai/cloud

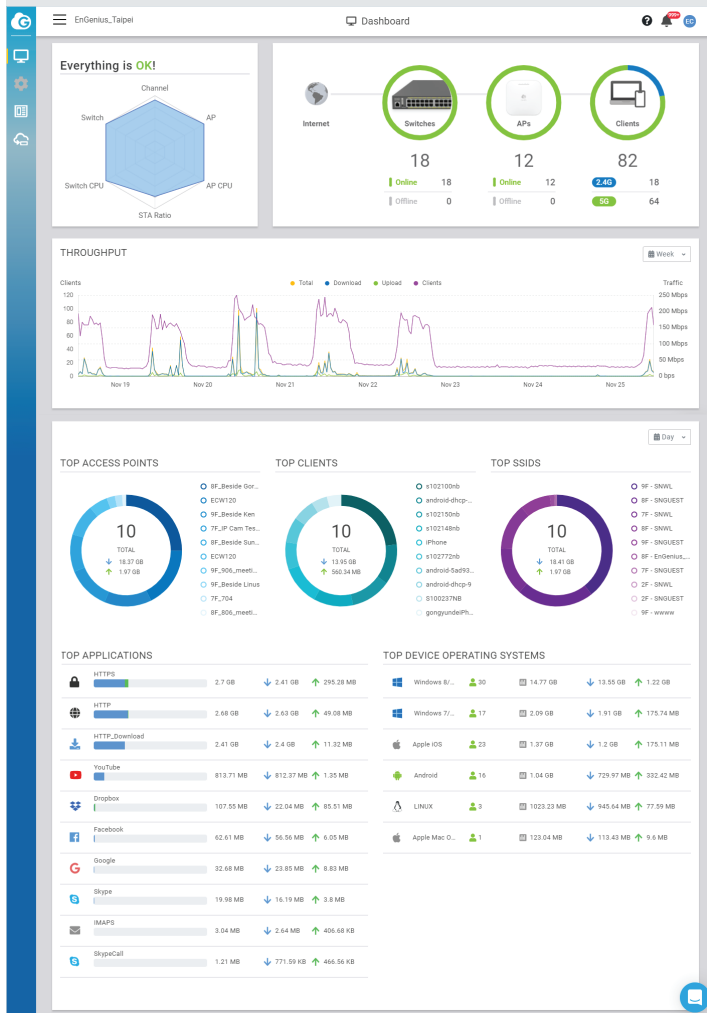
Visualized Insights

Insights from the Big Picture Down to the Smallest Detail

EnGenius Cloud always keeps you updated on your networks status. It performs troubleshooting accurately and effectively, backed by the latest in AI-driven computing insights.

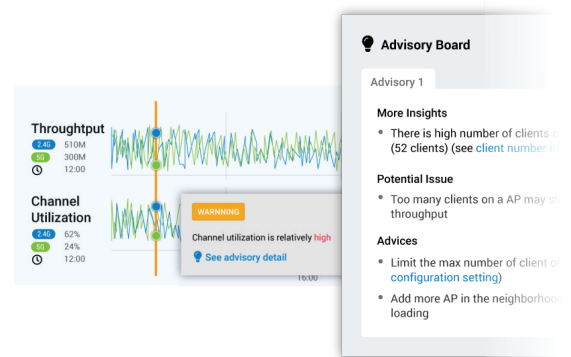
Network health at a glance

EnGenius AI is a web-based management platform on EnGenius Cloud that lets you manage your networks from an intuitive central interface. This feature-rich, easy-to-use management tool helps you work more efficiently. Its holistic assessments of real-time network health assist you in pinpointing potential issues and organizing a rapid response.



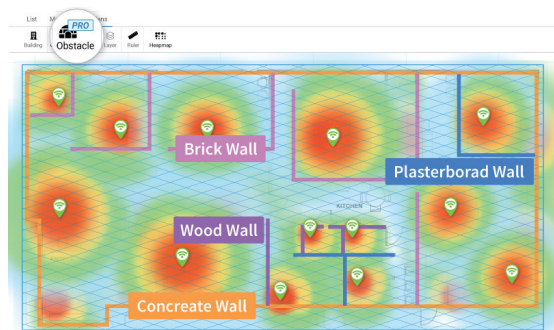
Pinpoint issues with the AI-Driven advisory board

AI-powered alerts and recommendations guide you to the appropriate solution whenever any problems occur in your network.

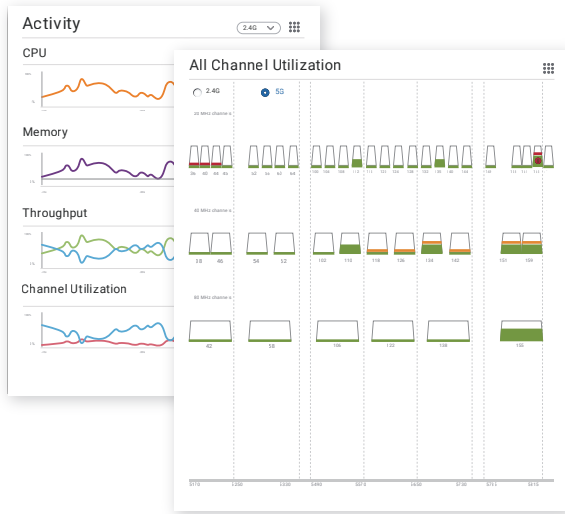


Wi-Fi planner calculates optimal AP placement and signal strength on your floor plan

Upload a floor plan and preview your Wi-Fi coverage in simulated conditions with heatmaps that factor in real-world obstacles such as walls.



* Real environmental effects is available in professional plan.



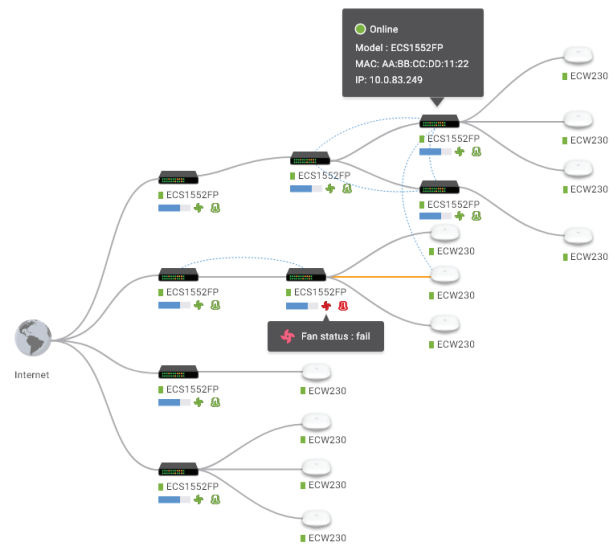
Supervise devices with real-time metrics

EnGenius Cloud provides the capability to display device performance in real-time. It breaks down key performance diagnostics such as CPU, memory, and throughput to determine the root cause of any current network problem.

View the real connections of devices with topology view

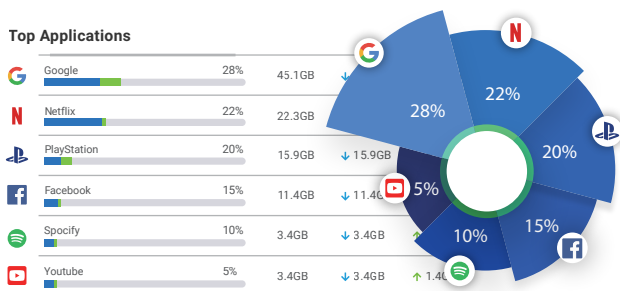
The topology view displays all the devices managed by EnGenius Cloud and the relationships between network devices. You can see the real-time status of Access Points and switches and check the detailed information of PoE status, IP and MAC address, and throughput.

- Third-party devices are visible in professional mode.



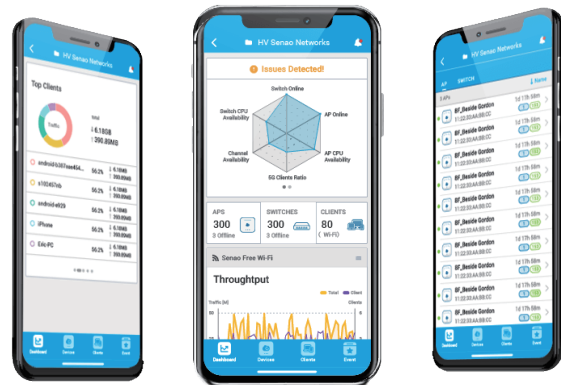
Get information about layer 7 applications

Take full control of the applications in service with layer 7 dashboards for ranking and usage information.



Monitor your networks on the go

With the EnGenius Cloud To-Go mobile app, you can always have full control of cloud-managed Switches, Access Points, and devices no matter where you go.



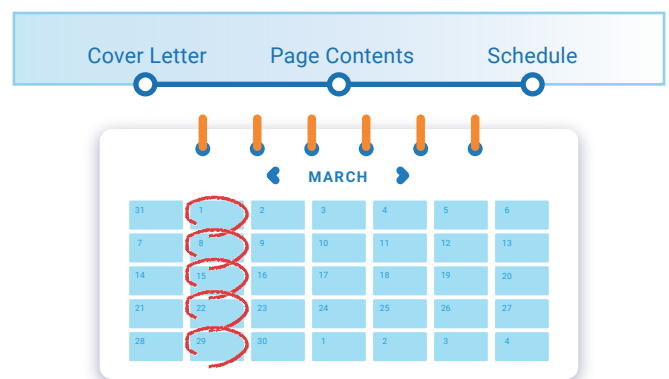


Empower Your Networking with Professional Features

Scheduling Report

Customize and schedule network reports in minutes

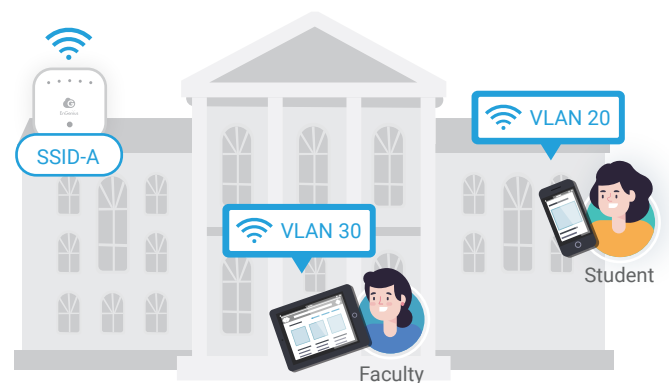
For MSPs to provide regular reports to customers and MIS to continuously track network status, Scheduling Report allows users to generate reports regularly and email to designated persons with customized content, including logo, sender, and selected dashboards.



Pre-user VLAN

User-based VLAN to keep your access privilege within network

Each client can be assigned to a VLAN to access different network resources even under the same SSID and remain the same VLAN across the network, regardless of the SSID with which they are associated. For example, faculty and students accessing the same SSID will be assigned to different VLANs.



myPSK

Each user has a unique PSK to access the same Wi-Fi Network

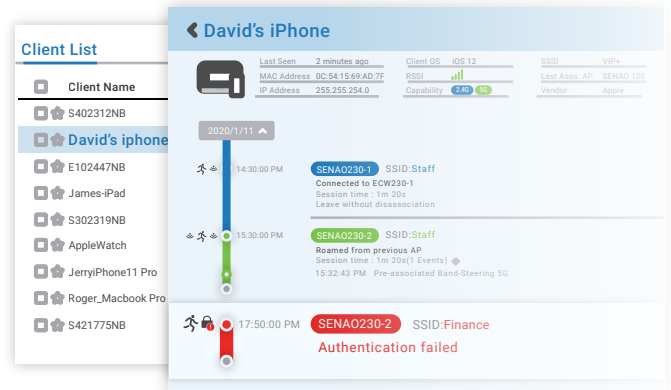
When accessing the same SSID, each tenant will have a unique PSK and be associated with different VLAN tags based on the privilege. In the case of dormitory Wi-Fi management, when a user's unique myPSK expires along with his stay, he or she will no longer be able to access the Wi-Fi network.



Client Timeline

Discover potential connection problems with Client Timeline

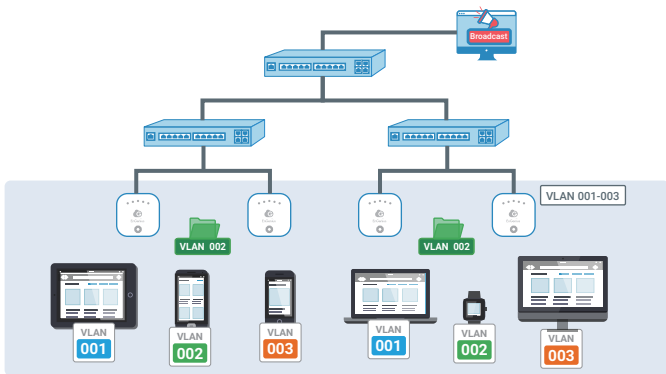
Pull up the entire history of a client device to trace back the time and behavior when a network problem may have originated.



Cloud Authentication

Easy Cloud authentication and voucher services

Use EnGenius Cloud to authenticate client access to the network without the time and cost of deploying an on-premise server. The voucher service is also available to provide users with pre-defined access profiles that help you manage the guest Wi-Fi conveniently.



VLAN Pooling

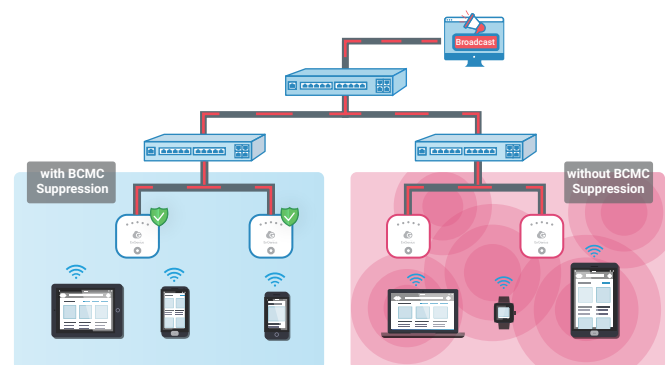
Automatic partitioning of a broadcast domain to avoid broadcast flooding

To prevent broadcast traffic from flooding the network, Access Point will randomly assign a VLAN from a pool of user-defined VLANs to each client associated with it, thereby automatically separating the broadcast traffic of clients into multiple VLANs.

Broadcast and Multicast Suppression

Optimize broadcast and multicast traffic for Wi-Fi networks

When a broadcast or multicast packet floods the subnet, a broadcast storm will reduce network performance. Broadcast and multicast suppression can reduce the number of traffic sending from wired networks to wireless networks.

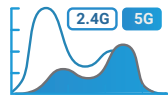




Counter the Risk of Wireless Threats with EnGenius Security Access Points



AirGuard WIPS/WIDS



Spectrum Analysis



Zero-wait DFS



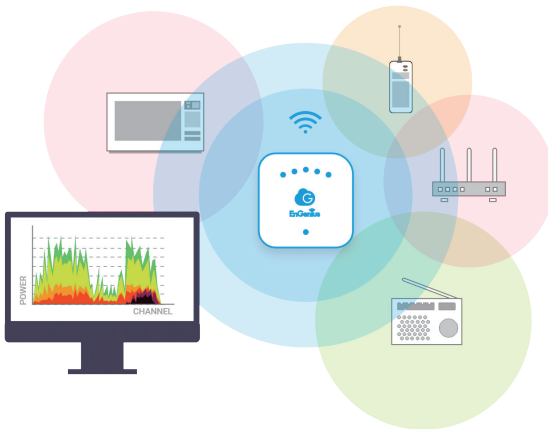
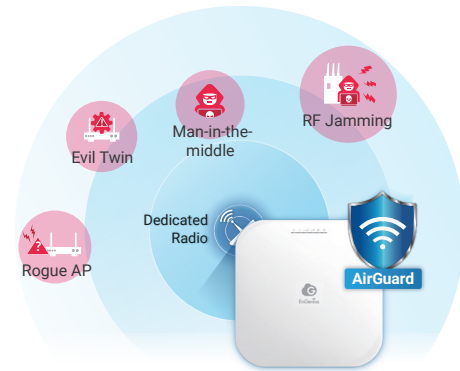
BLE Capability

AirGuard™ is an intelligent wireless security system built into the EnGenius Cloud security AP to protect the airspace from rogue devices and wireless threats 24/7. Using dedicated scanning radios, AirGuard security APs continuously scan the environment for rogue APs and other threats without degrading network speed at all.

AirGuard™

AirGuard™ WIPS/WIDS to secure your WLAN

AirGuard™ is an intelligent wireless security system built into the EnGenius Cloud security AP to protect the airspace from rogue devices and wireless threats with dedicated scanning radios.



RF Spectrum Analysis**

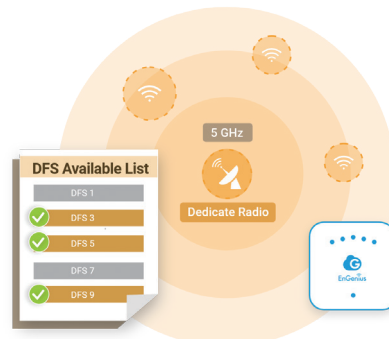
Spectrum analysis while maintaining performance

The security AP can perform real-time spectrum analysis of its environment with dedicated radio scanning without decreasing performance.

Zero-Wait DFS

Zero-Wait DFS to avoid disrupting client connection

The dedicated radio continuously scan all DFS channels in the background and maintain a list of available DFS channels—preventing client devices from being temporarily disconnected.



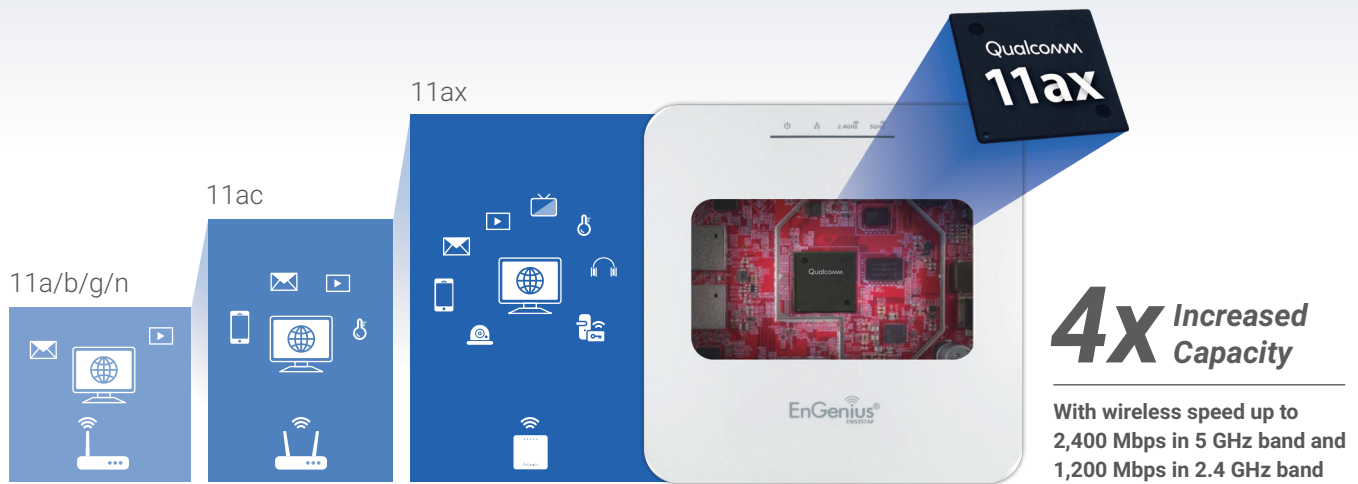
**Available for AP models with dedicated radio only. (i.e. ECW-xxxS)

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.



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 to be placed closer together

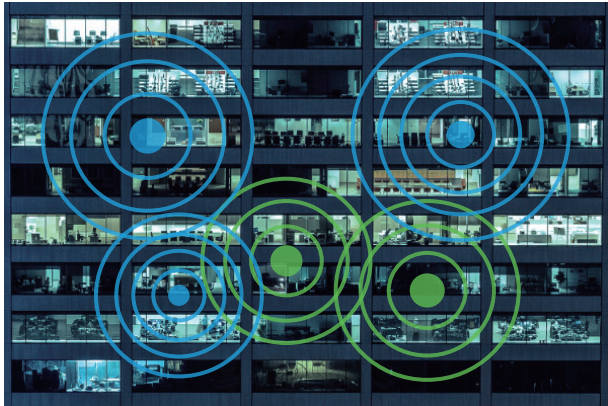
Higher Efficiency
Handles simultaneous connections without slowdown

- 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.



Multiple Devices

Environment : **Smart home (IoT)**

Features in 802.11ax extend the number of IoT devices such as smart TVs, smart appliances, and smart lighting that can be associated with access points in smart homes and offices.



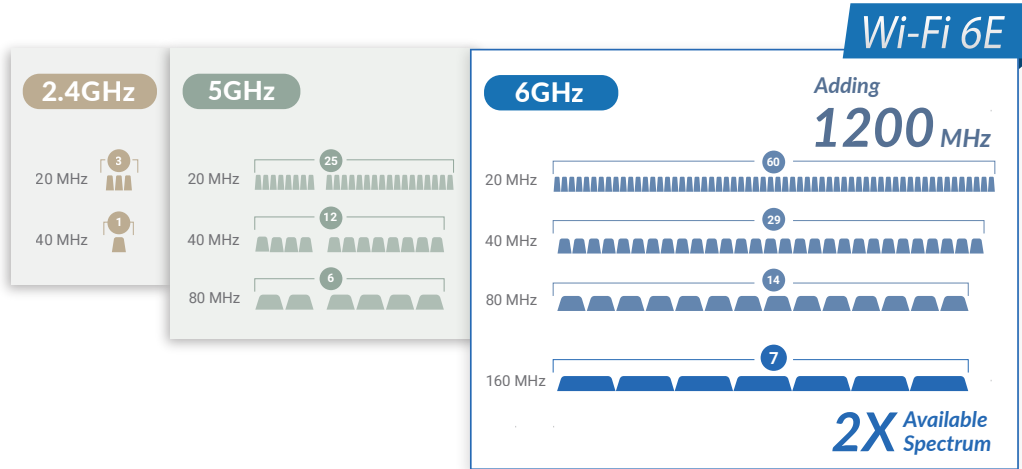
5G Complement

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.

Wi-Fi 6E - The Ultimate-Performance Access Point Solution

EnGenius Wi-Fi 6E Access Points extend Wi-Fi 6 features into the 6 GHz band for groundbreaking performance with the newly available spectrum of 1,200 MHz.



Higher Speed

Additional large bandwidth channels in the 6 GHz spectrum enable enterprises to provide faster and more reliable wireless networks, perfectly supporting application requirements at multi-gigabit speeds.



Greater Capacity

Wi-Fi 6E's newly added 1200 MHz spectrum in the 6 GHz band allows multiple devices to handle simultaneous uplink and downlink traffic more smoothly, even when high-throughput applications are deployed.



Lower Latency

The extra spectrum of Wi-Fi 6E in the 6 GHz frequency band solves the problem of high-end devices in the past having to share bandwidth with other low-bandwidth wireless devices in the 5 GHz frequency band making them prone to delays.



Less Interference

The 6 GHz frequency band used by Wi-Fi 6E features low interference and good continuity that new high-end equipment can operate in the 6 GHz frequency band unimpeded by equipment in the 2.4 and 5 GHz spectrums.

Wi-Fi 6E Creates a Perfect Experience for Future-proof Application

Wi-Fi 6E improves the responsiveness of cloud and collaboration applications and allows teams to enjoy the fastest speed when sharing, backing up, and updating files.

4K /8K Streaming



Cloud Computing and Collaboration



Wi-Fi 6E supports larger bandwidth loads, processes faster multi-gigabit data, achieves low latency, and provides reliable and secure connections.

Wi-Fi 6E can alleviate the problem of network congestion and solve the challenges of crowded workplaces.

Multi-users Workplace



AR, VR, Metaverse



Wi-Fi 6E meets the requirement of augmented reality (AR), virtual reality (V), and metaverse applications that demand greater bandwidth for real-time mass transmission.

Deploy and Monitor Your Networks On the Go



EnGenius Cloud To-Go

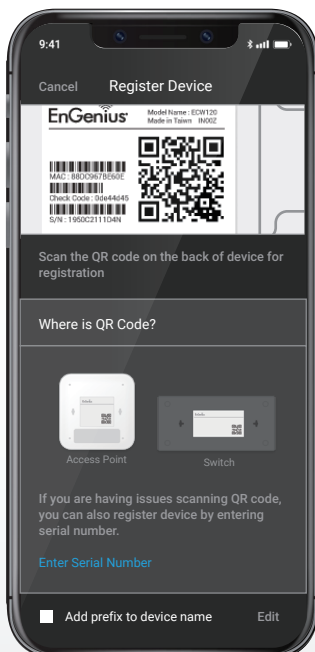
Smart Networking at Your Fingertips

With the EnGenius Cloud To-Go mobile app, you can always have full control of cloud-managed switches, access points, and other devices. Get real-time alerts no matter where you are. Easy device deployment, visualized monitoring, and alerts for abnormal network activity available within an intuitive mobile app.



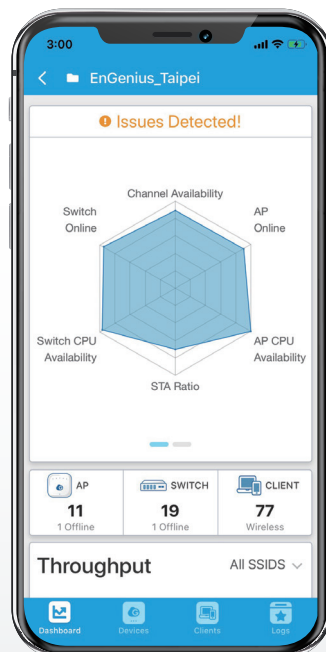
Easy deployment and configuration

Scan, register, and quickly configure Cloud network devices



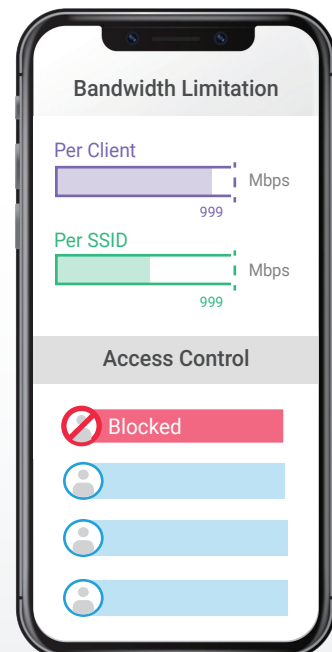
Simple monitoring and management

Smartly manage Access Points, Switches and clients and stay informed to troubleshoot



Highly secured and flexible

Rich features your business needs in one place



Keep Your Network Growing with Your Business



Manage all branch networks remotely



Leverage expertise for local site network management



Expand networks in no time

How EnGenius Cloud To-Go Cares for Your Business

Retail Store



Flexible network deployment

Cloud To-Go managed devices can be mounted to ceilings, walls, or poles. They can easily fit into any environment.

Always-on networks for business

Cloud networks let you smoothly run all in-store services that need to be online, such as streaming music and realtime surveillance.

Multi-site management

You can easily assign new members to manage and remotely control the networks for all branch businesses.

Hospitality



Setup-and-go in minutes

Follow the easy step-by-step guidelines of the app to quickly set-up your cloud-managed devices.

Ideal Wi-Fi access for all guests

Set up traffic shaping and bandwidth for your guests to ensure everyone has fast and steady Wi-Fi.

In-store messages for branding

Customize the captive portal with your brand to welcome your guests to access the Wi-Fi and share their positive experiences in your store.

Small & Home Office



Improve the working efficiency

A fast connection for employees to focus and accelerate their work without any latency despite the type of office.

Monitor networks remotely

No matter when or where you are, you can check the real-time status and manage settings for your networks with your mobile device.

Secure connection and data

The Cloud-managed networks are well-protected for the connection and data of your company, staff, customers, and visitors.

Start with essential features and upgrade with Pro licenses.

EnGenius Cloud provides two types of feature plans, Basic and PRO. You need to set up the feature plan to either Basic or PRO for product categories so that you can use the Basic/Pro feature set in the AP, Switch, or Gateway.

	Basic Basic Plan	For SOHO, SMB, and fast-growing retail and hospitality to manage networks in a simple way	PRO Professional Plan	For SMEs, managed service providers and networks required more advanced features
Cloud License Price	FREE (no license needed)		\$ Require Cloud PRO License	
Platform-wide				
	Easy Administration	Smart Networking	Visualized Insights	
Cloud Network Management	Quick deployment with QR-code scan Hierarchy view & multi-tenant design Two factor authentication Schedule firmware upgrade	Quick access to device live view Variety of user authentications Custom splash page Block/ VIPed client	Network dashboard AI-driven advisory board Device real-time metrics Usage of Layer 7 applications	
Statistic Data Stored	3 days		30 days	
Team Members	10 users		Unlimited	
Clone Network	–		V	
Cloud Radius and Voucher Service	100 entries		10,000 entries	
Alert Notification	On-line/ off-line		V	
Backup & Restore (Network-wide settings)	–		V	
Client List Export (.csv)	–		V	
API Integration (3rd party)	–		V	
Scheduling Report System	1 report		V	
Customer Support	Limited support		Priority support with on-line tool	
PRO AP Access Point				
Client Timeline	–		V	
Wi-Fi Floor Plan Heatmap	V		V	
Wi-Fi Floor (Obstacle & Virtual AP)	–		V	
Dynamic VLAN	–		V	
myPSK (dynamic/private PSK)	–		V	
VLAN Pooling	–		V	
Broadcast Suppression	–		V	
AD / LDAP / Google Authentication	–		V	
Live Diagnostic Tools	Limited		V	
Live Client List	–		V	
RF Spectrum Analysis **	–		V	
AirGuard**	–		V	
Zero-Wait DFS **	V		V	

**Available for AP models with dedicated radio only. (i.e. ECW-xxxS)






Start with essential features and upgrade with Pro licenses.






EnGenius Cloud provides two types of feature plans, Basic and PRO. You need to set up the feature plan to either Basic or PRO for product categories so that you can use the Basic/Pro feature set in the AP, Switch, or Gateway.

	Basic Basic Plan	PRO Professional Plan	
Cloud License Price	FREE (no license needed)	\$ Require Cloud PRO License	
Platform-wide			
Cloud Network Management	Easy Administration Quick deployment with QR-code scan Hierarchy view & multi-tenant design Two factor authentication Schedule firmware upgrade	Smart Networking Quick access to device live view Variety of user authentications Custom splash page Block/ VIPed client	Visualized Insights Network dashboard AI-driven advisory board Device real-time metrics Usage of Layer 7 applications
PRO SW Switch			
SwitchTemplate (Port Configuration)	–	V	
Real-time Wired Client List	–	V	
PD Lifeguard	V	V	
Auto Cam Lifeguard	–	V	
IGMP	Basic	V	
Extended Range	V	V	
Switch Backup & Restore	–	V	
Packet Capture (.pcap)	–	V	
Diag Tools	Limited	Full / real-time client	
MAB (MAC Auth Bypass)	–	V	
Network Topology	EnGenius devices only	EnGenius and 3rd-party devices	
PRO GW Gateway			
Auto VPN	V	V	
Auto VPN NAT Traversal	–	V	
VPN Topology	–	V	
VPN Client (IPsec)	V	V	
Backup & Restore	–	V	
Network Clone	–	V	










**Available for AP models with dedicated radio only. (i.e. ECW-xxxS)









Cloud - Access Points

Indoor					
	 Wi-Fi 6		 Wi-Fi 6	 Wi-Fi 6	 Wi-Fi 6
Models Name	Cloud6 2x2 Wallplate	Cloud5 2x2	Cloud6 2x2	Cloud6 2x2 S	Cloud6 4x4
Models Number	ECW215	ECW120	ECW220	ECW220S	ECW230
Wi-Fi Standard	Wi-Fi 6 (11ax)	11ac Wave 2	Wi-Fi 6 (11ax)	Wi-Fi 6 (11ax)	Wi-Fi 6 (11ax)
Frequency	2.4 GHz & 5 GHz	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)	600 Mbps	400 Mbps	600 Mbps	600 Mbps	1200 Mbps
Data Rate (5 GHz)	1200 Mbps	867 Mbps	1200 Mbps	1200 Mbps	2400 Mbps
Data Rate (6 GHz)	-	-	-	-	-
Radio Chains	2 x 2:2	2 x 2:2	2 x 2:2	2 x 2:2	4 x 4:4
Tx Power (2.4 GHz)	20 dBm	23 dBm	22 dBm	22 dBm	23 dBm
Tx Power (5 GHz)	20 dBm	23 dBm	22 dBm	22 dBm	23 dBm
Tx Power (6 GHz)	-	-	-	-	-
Antennas (2.4 GHz)	2 x 4 dBi Omni	2 x 5 dBi Omni	2 x 4 dBi Omni	2 x 4 dBi Omni	4 x 5 dBi Omni
Antennas (5 GHz)	2 x 5 dBi Omni	2 x 5 dBi Omni	2 x 5 dBi Omni	2 x 5 dBi Omni	4 x 6 dBi Omni
Antennas (6 GHz)	-	-	-	-	-
PoE Standard	802.3af/at	802.3af	802.3af/at	802.3af/at	802.3at
Scanning Radio	-	-	-	●	-
BLE	-	-	-	●	-
Power Consumption (Peak)	14.2W	12W	12.8W	12.8W	19.5W
Ethernet Port	2x Gigabit ports (PoE+) 1x Gigabit port (PSE Out)	1x Gigabit port (PoE)	1x Gigabit port (PoE+)	1x Gigabit port (PoE+)	1x 2.5G port (PoE+)
Mounting	Wall	Wall/ Ceiling	Wall/ Ceiling	Wall/ Ceiling	Wall/ Ceiling
IP Rating	N/A	N/A	N/A	N/A	N/A
Dimensions	140 x 90 x 40 mm	161 x 161 x 41 mm	160 x 160 x 33 mm	160 x 160 x 33 mm	205 x 205 x 33 mm
Mesh Technology	●	●	●	●	●
Mobile app (Cloud To-Go)	●	●	●	●	●

	Indoor		Outdoor		
	 Wi-Fi 6	 Wi-Fi 6E		 Wi-Fi 6	 Wi-Fi 6
Models Name	Cloud6 4x4 S	Cloud6E 4x4x4	Cloud5 2x2 Outdoor	Cloud6 2x2 Outdoor	Cloud6 4x4 Outdoor
Models	ECW230S	ECW336	ECW160	ECW260	ECW270
Wi-Fi Standard	Wi-Fi 6 (11ax)	Wi-Fi 6E (11ax)	11ac Wave 2	Wi-Fi 6 (11ax)	Wi-Fi 6 (11ax)
Frequency	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz & 6 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5GHz	2.4 GHz & 5GHz
Data Rate (2.4 GHz)	1200 Mbps	1,200 Mbps	400 Mbps	600 Mbps	1200 Mbps
Data Rate (5 GHz)	2400 Mbps	2,400 Mbps	867 Mbps	1200 Mbps	2400 Mbps
Data Rate (6 GHz)	-	4,800 Mbps	-	-	-
Radio Chains	4 x 4:4	4 x 4:4	2 x 2:2	2 x 2:2	4 x 4:4
Tx Power (2.4 GHz)	23 dBm	23 dBm	23 dBm	23 dBm	24 dBm
Tx Power (5 GHz)	23 dBm	23 dBm	23 dBm	25 dBm	24 dBm
Tx Power (6 GHz)	-	23 dBm	-	-	-
Antennas (2.4 GHz)	4 x 5 dBi Omni	4 x 5 dBi Omni	2 x 5 dBi External Omni	2 x 5 dBi External Omni	4 x 5 dBi Omni
Antennas (5 GHz)	4 x 6 dBi Omni	4 x 6 dBi Omni	2 x 5 dBi External Omni	2 x 5 dBi External Omni	4 x 7 dBi Omni
Antennas (6 GHz)	-	4 x 5 dBi Omni	-	-	-
PoE Standard	802.3at	802.3at	802.3af/at	802.3af/at	802.3at/bt
Scanning Radio	●	-	-	-	-
BLE	●	-	-	-	-
Power Consumption (Peak)	19.5W	22.5W	12.6W	15.9W	46W
Ethernet Port	1X 2.5G port (PoE+)	1X 5G port (PoE+)	1X Gigabit port (PoE+)	1X 2.5G port (PoE+)	1x 2.5G port (PoE++) 1x 1G port (PSE Out)
Mounting	Wall/ Ceiling	Wall/ Ceiling	Wall/ Pole	Wall/ Pole	Wall/Pole
IP Rating	N/A	N/A	IP67	IP67	IP68
Dimensions	205 x 205 x 33 mm	205 x 205 x 33 mm	112 x 173 x 30 mm	124 x 190 x 52.5 mm	218 x 285 x 53 mm
Mesh Technology	●	●	●	●	●
Mobile app (Cloud To-Go)	●	●	●	●	●





Cloud - Switches

Gigabit Switch									
									
Models Name	L2Plus 8 PoE	L2Plus 8 Full PoE	L2Plus 24	-	L2Plus 24 PoE	L2Plus 24 Full PoE	L2Plus 48	L2Plus 48 PoE	L2Plus 48 Full PoE
Model Number	ECS1008P	ECS1112FP	ECS1528T	ECS1528	ECS1528P	ECS1528FP	ECS1552	ECS1552P	ECS1552FP
Switch Class	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+
Gigabit Ethernet Ports	8	10	24	24	24	24	48	48	48
Multi-Gigabit Ethernet Ports	-	-	-	-	-	-	-	-	-
SFP Ports	-	2	-	-	-	-	-	-	-
SFP+ Ports	-	-	4	4	4	4	4	4	4
RJ45 Console Port	-	●	●	●	●	●	●	●	●
Form Factor	9.45" (desktop)	13" 1U	13" 1U	19" 1U	19" 1U	19" 1U	19" 1U	19" 1U	19" 1U
Power-over-Ethernet	802.3af	802.3af/at	-	-	802.3af/at	802.3af/at	-	802.3af/at	802.3af/at
Total PoE Budget	55W	130W	-	-	240w	410w	-	410w	740w
PoE Capable Ports	Ports 1-8	Ports 1-8	-	-	Ports 1-24	Ports 1-24	-	Ports 1-48	Ports 1-48
Switching Capacity	16Gbps	24Gbps	128Gbps	128Gbps	128Gbps	128Gbps	176Gbps	176Gbps	176Gbps
Packet Forwarding Rate (Mpps)	11.904Mpps	17.856Mpps	95.23Mpps	95.23Mpps	95.23Mpps	95.23Mpps	130.95Mpps	130.95Mpps	130.95Mpps
MAC Address Table	8K	8K	16K	16K	16K	16K	32K	32K	32K
Packet Buffer Memory	512KB	512KB	1.5MB	1.5MB	1.5MB	1.5MB	2MB	2MB	2MB
Full load Power consumption	62.05 Watts	152.8 Watts	24.41 Watts	24.41 Watts	297.6 Watts	500.46 Watts	43.92 Watts	476.3 Watts	885 Watts
*PoE Extended Mode	●	●	-	-	●	●	-	●	●
PD Lifeguard	●	●	-	-	●	●	-	●	●
Continuous PoE Power	●	●	-	-	●	●	-	●	●
Dimension	240mm x 105mm x 27mm	330mm x 230mm x 44mm	330mm x 230mm x 44mm	440mm x 260mm x 44mm	440mm x 260mm x 44mm	440mm x 260mm x 44mm	440mm x 260mm x 44mm	440mm x 310mm x 44mm	440mm x 310mm x 44mm

Multi-G Switch								
								
Models Name	MGPlus 8 Full PoE	MGPlus 8	MGPlus 8 Full PoE	MGPlus 24 Full PoE	MGPlus 48 Full PoE	Aggregate 8XG	Aggregate 8XG Full PoE	Aggregate 12
Model Number	ECS2510FP	ECS2512	ECS2512FP	ECS2528FP	ECS2552FP	ECS5512	ECS5512FP	ECS5512F
Switch Class	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+
Gigabit Ethernet Ports	-	-	-	16	32	-	-	-
Multi-Gigabit Ethernet Ports	8x2.5G	8x2.5G	8x2.5G	8x2.5G	16x2.5G	8 x 10G	8 x 10G	-
SFP Ports	-	-	-	-	-	-	-	-
SFP+ Ports	2	4	4	4	4	4	4	12
RJ45 Console Port	●	●	●	●	●	●	●	●
Form Factor	13" 1U	13" 1U	13" 1U	19" 1U	19" 1U	13" 1U	13" 1U	Half Rack
Power-over-Ethernet	802.3af/at	-	802.3af/at/bt	802.3af/at	802.3af/at	-	802.3af/at/bt	-
Total PoE Budget	240w	-	240w	410w	740w	-	420w	-
PoE Capable Ports	Ports 1-8	-	Ports 1-8	Ports 1-24	Ports 1-48	-	Ports 1-8	-
Switching Capacity	80Gbps	120Gbps	120Gbps	152Gbps	224Gbps	240Gbps	240Gbps	240Gbps
Packet Forwarding Rate (Mpps)	59.52 Mpps	89.29 Mpps	89.29 Mpps	113.10 Mpps	166.67 Mpps	178.57 Mpps	178.57 Mpps	178.57 Mpps
MAC Address Table	16k	16k	16k	16k	32k	32k	32k	32k
Packet Buffer Memory	512KB	512KB	512KB	1.5MB	2MB	2MB	2MB	2MB
Full load Power consumption	270.47 Watts	23.52 Watts	299 Watts	499.85 Watts	913 Watts	29.22 Watts	506.7 Watts	43.4 Watts
*PoE Extended Mode	-	-	-	●	●	-	-	-
PD Lifeguard	-	-	-	●	●	-	-	-
Continuous PoE Power	-	-	-	●	●	-	-	-
Dimension	330mm x 230mm x 44mm	330mm x 230mm x 44mm	330mm x 230mm x 44mm	440mm x 260mm x 44mm	440mm x 310mm x 44mm	330mm x 230mm x 44mm	330mm x 230mm x 44mm	210mm x 230mm x 44mm

*The actual performance is based on the Ethernet cable's quality or IP camera's electrical design.

SD-WAN Gateways

SD-WAN Gateway				
				
Models Name	Gateway3 4G	Gateway5 4mG	Gateway6 4mG	Gateway6 8mG 2SFP+
Models Number	ESG320	ESG510	ESG610	ESG620
Processor	Dual Core	Quad Core	Quad Core	Quad Core
Operating Frequency	2.1GHz	1.6GHz	2.2GHz	2.2GHz
Memory	4GB	4GB	8GB	8GB
Flash Storage	8GB	8GB	8GB	16GB
RJ-45 Interface	4 x 2.5G	4 x 2.5G	4 x 2.5G	8 x 2.5G
SFP interface	1 x SFP	-	-	2 x SFP+
PoE ports	1	1	1	4
PoE Standard	802.3 af/at	802.3 af/at	802.3 af/at	802.3 af/at
I/O Interfaces	1 x RJ-45 console/1 x USB 3.0	1 x RJ-45 console/1 x USB 3.0	1 x RJ-45 console/1 x USB 3.0	1 x RJ-45 console/1 x USB 3.0
Mounting Method	Wall mount	Wall mount	Wall mount	Rack mount
Firewall (SPI throughput)	TBD	4G	6.7G(**)	9.5G(**)
VPN throughput	TBD	970M	1.7G(**)	1.7G(**)
Max. Concurrent VPN Tunnels	TBD	200	300(**)	300(**)
Max. Concurrent VPN Users*	TBD	250	500(**)	500(**)
Max. TCP Concurrent Sessions	TBD	1,000,000	1,250,000 (**)	1,500,000 (**)
Max VLAN	TBD	96	256(**)	256(**)
Power	54V/1.2A	54V/1.2A	54V/1.2A	300w internal power
Operation Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 50°C
Humidity (non-condensing)	5 to 95% non-condensing	5 to 95% non-condensing	5 to 95% non-condensing	5 to 95% non-condensing
Dimensions	210 x 179.5 x 35 mm	210 x 179.5 x 35 mm	210 x 179.5 x 35 mm	330 x 230 x 44 mm
Package Contents	<ul style="list-style-type: none"> - Power Adapter - Power Cord - RJ-45 Console Cable - Wall Mount Kit - Product Card 	<ul style="list-style-type: none"> - Power Adapter - Power Cord - RJ-45 Console Cable - Wall Mount Kit - Product Card 	<ul style="list-style-type: none"> - Power Adapter - Power Cord - RJ-45 Console Cable - Wall Mount Kit - Product Card 	<ul style="list-style-type: none"> - Power Cord - RJ-45 Console Cable - Rack Mount Kit - Product Card
Regulatory Compliance	<ul style="list-style-type: none"> - FCC Part 15 (Class B) - IC - CE EMC - CB - UL 	<ul style="list-style-type: none"> - FCC Part 15 (Class B) - IC - CE EMC - CB - UL 	<ul style="list-style-type: none"> - FCC Part 15 (Class B) - IC - CE EMC - CB - UL 	<ul style="list-style-type: none"> - FCC Part 15 (Class B) - IC - CE EMC - CB - UL

*The test methodology is based on RFC2544 to have maximum throughput. Actual performance may be different under different testing condition and services enabled

**The performance no are estimated number for reference only. Specifications are subject to change with final test results

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