EnGenius

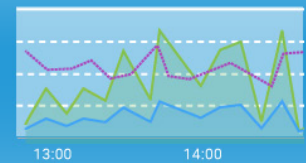# EnGenius Cloud Management

Optimal Performance, Enterprise Features, & Cloud Management

The AI-Driven Cloud for Smart Networking

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 intelligently on your network with important analytics and visualization tools. Artificial intelligence (AI) enables EnGenius Cloud to predict issues before they occur and provide accurate recommendations to proactively improve performance.

- Stability and scalability by the most a serverless Cloud infrastructure
- Secured Cloud deployment for user data
- Plug & Play without complex configuration
- Hierarchy view and multi-user privileges
- Real-time analytics for wired & wireless devices
- Oversee your network in a single glance
- Expert advice from EnGenius' AI-driven advisory board
- Network and monitoring on the go
- Scheduling report with customized settings
- Flexible wireless accessing control with dynamic VLAN

Key Benefits for Your Business

Easy Deployment

With quick registration and group device configuration available on your network, EnGenius Cloud makes it easy to deploy multiple sites without the need for costly site visits or onsite support.

Smart Networking

EnGenius Cloud makes it easy to manage and monitor multiple sites. Hierarchy view provides a big-picture overview of your network, and real-time and historical device data allows for granular control over your hardware. Remotely manage and update firmware for distributed devices with scheduled maintenance.

Visualized Insights

EnGenius Cloud empowers you to perform precise troubleshooting with graphical tools, and its machine-learning component offers accurate and actionable recommendations tailored to your specific infrastructure.

Server-less Cloud Infrastructure for High Resilience

Next-Generation True Cloud for High Stability and Scalability

Most Advanced Serverless

Cloud Infrastructure
No more server boundaries

FaaS: Function-as-a-Service with Dynamic Allocation

Each function has its own scalability
and works together seamlessly
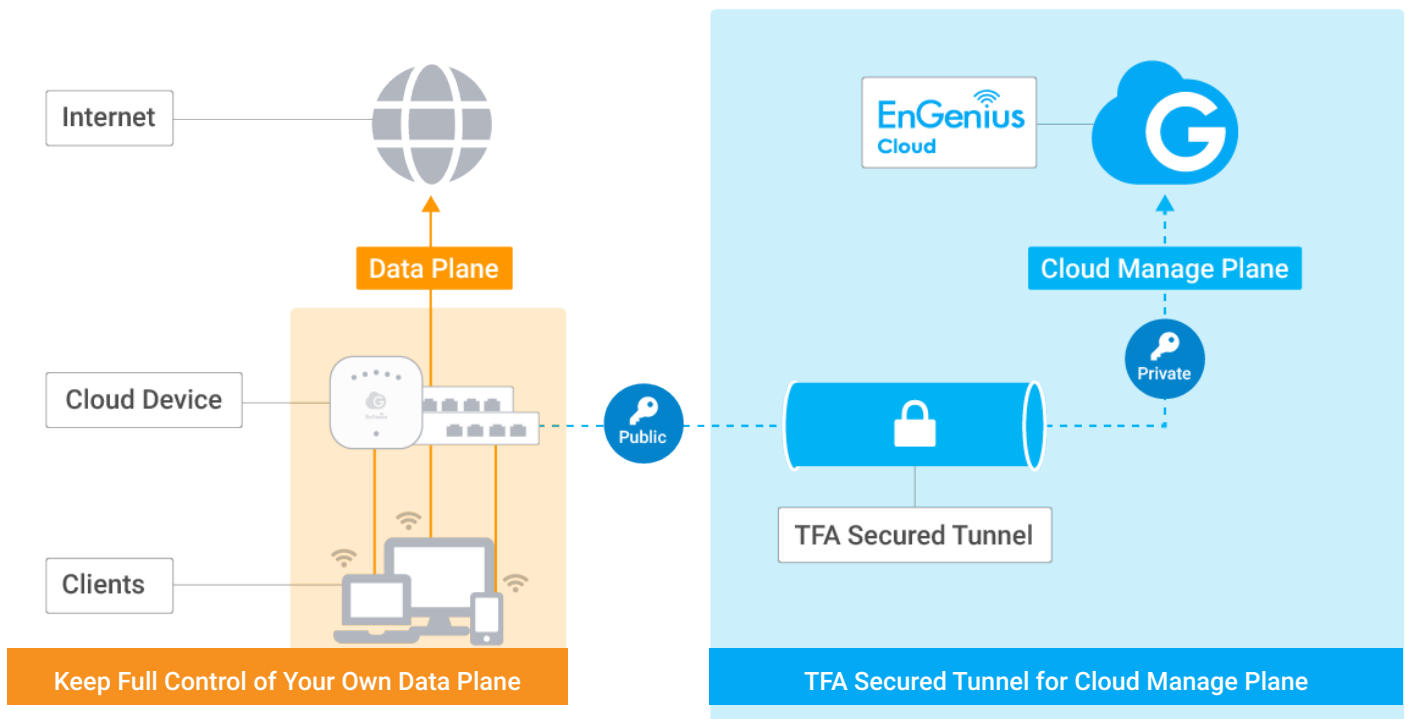
99.99%

99.99 Reliability SLA Guaranteed

Your network is always available

Secured Cloud Deployment for User Data

Customers on your network will not have their data shared with EnGenius Cloud. You can be confident that EnGenius Cloud end users retain full ownership of their most sensitive data. EnGenius Cloud only collects device data for management purposes.

In addition, EnGenius Cloud employs two-factor authentication (TFA) to add an extra layer of protection to standard non-sequential serial numbers and MAC address verification. Every Cloud device has an individualized security key built-in during the manufacturing process for first-time authentication. After a device is authenticated,

a secure tunnel is established between the device and the cloud with a unique certificate provided by the EnGenius Cloud to encrypt transmissions. EnGenius Cloud devices will securely transmit data from switches and access points and function normally even in the case of total loss of service on the EnGenius Cloud platform. The only risk in this scenario is the temporary loss of ability to change network device configuration.

Internet

Data Plane

Cloud Device

Clients

Keep Full Control of Your Own Data Plane

EnGenius Cloud

Cloud Manage Plane

Private

Public

TFA Secured Tunnel

TFA Secured Tunnel for Cloud Manage Plane

EnGenius Cloud – Basic Structure

A company may have a complex branching network hierarchy, including a combination of central IT management with total access privileges and regional IT teams with grouped network access. EnGenius Cloud defines the hierarchy view level as a multi-layered group of networks.

Organization - Network - Hierarchical View

The EnGenius Cloud consists of three essential components: Organization, Network, and Hierarchy View (HV).

- **Organization** contains the inventory list of all devices registered within the organization under a single license. It is responsible for one or more networks.
- **Network** refers to a group of cloud devices (access points or switches) under a single device configuration.
- **Hierarchy View** (HV) Layer represents Group of Networks and Hierarchy Views

Multi-Role Privileges

There are two basic user roles:

- Administrator with full access privileges
- Viewers with read-only privileges

These roles can be granted at two levels: Organization-wide, and Network-specific:

- **Organization level**: Administrator has the highest permission in the Cloud and has full power to manage licenses and inventory.
- **Network Level**: Administrator will have permission to access a network and its devices when granted specific access privileges
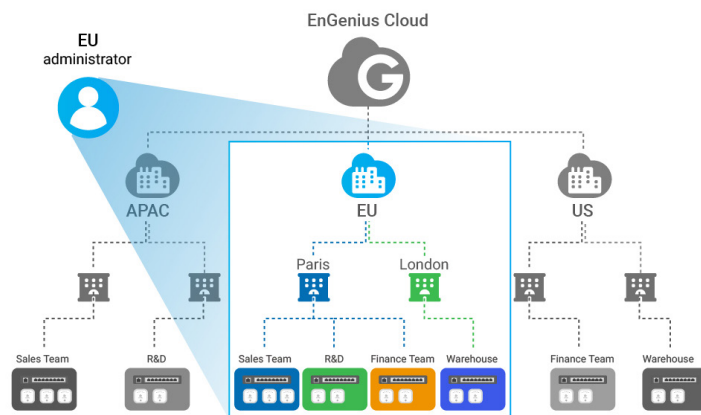
Plug & Play Deployment with Zero Configuration

Quick Devices Registration with Web or Mobile App

Register Cloud managed devices to a company inventory by entering the serial number of device or scanning the QR code on the device.

Assign Devices to Network Groups

Create networks with predefined configuration profiles for Cloud devices (access point or switch) under the same network group to apply a uniform configuration when connecting to the Cloud.

Plug and Play Auto Provisioning

When a device is plugged in for the first time, EnGenius Cloud will push the proper configuration to the device and work automatically.

Multiple-Site Deployment Made Easy

EnGenius Cloud makes it easy to deploy and manage multiple sites in different time zones and with different network policies.
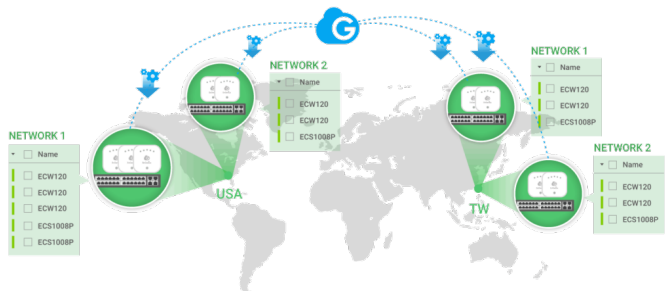

Monitor Whole Network Topology

Besides Engenius Switch and AP to be viewed in the TopologY, it is easy to have a holistic view of the Networking with the advanced Topology to discover the 3rd party devices with the information of device name, capability, vendor, and IP address of them.
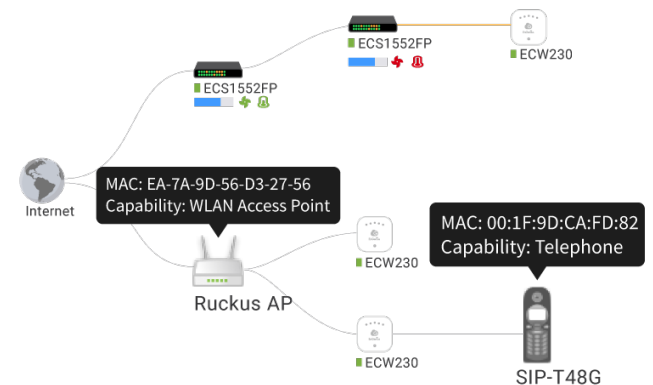
Smart Management with EnGenius Cloud

EnGenius Cloud organizes your network workload to make your workflow more efficient, pinpoints network issues quickly even when you're on the go. The cloud interface allows users to view and manage a network where each device—access points, switches, and gateways—can be explored for more granular visibility and options.
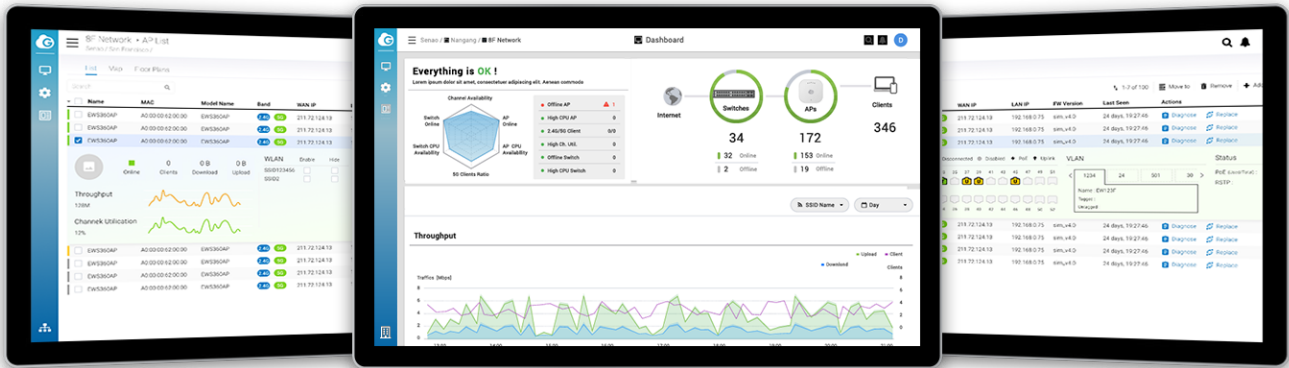
Manage Your Network with Hierarchy View

EnGenius Cloud removes the complication of tagging and allows you to create and organize networks, add managed access points & switches, and assign team members all in one place. You can manage and monitor company networks with a hierarchy view based on different locations or business setups.

Quick Access to Access Point Status

Manage all access points in one place and get quick access to current configuration and traffic usage data.

## User Authentication for Secure Guest Networks

EnGenius Cloud offers various authentication methods for different business requirements. You can configure the AAA authentication on the Cloud or by a customer's RADIUS server, create a guest Wi-Fi network with preset access, or let users login by linking to their social account. IT administrators are flexible to customize the Splash Page from Captive Portal with what-you-see-is-what-you-get way that you want clients to see or do before accessing the network.

Scheduled Firmware Upgrades for Multiple Sites and Networks

Create firmware upgrade tasks for different groups of devices based on region, local time zone, or other parameter.
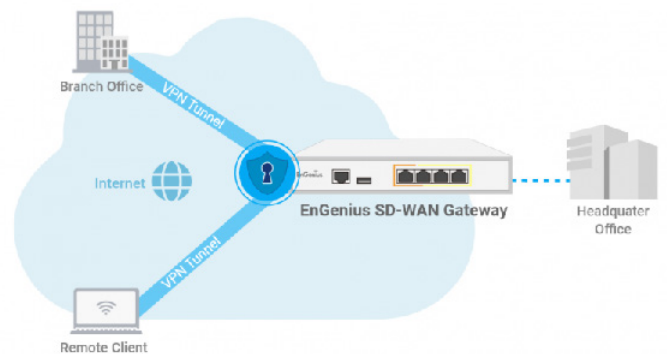
Detailed Switch Port View and PoE Status

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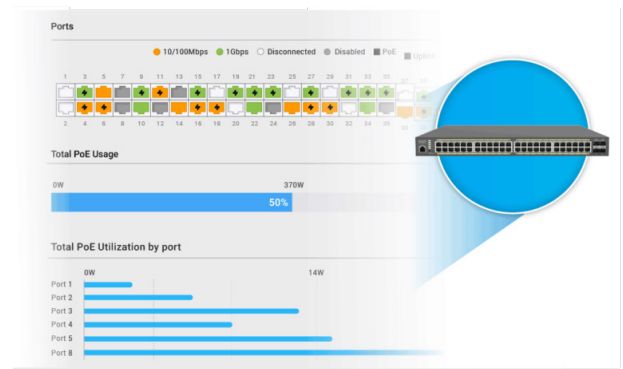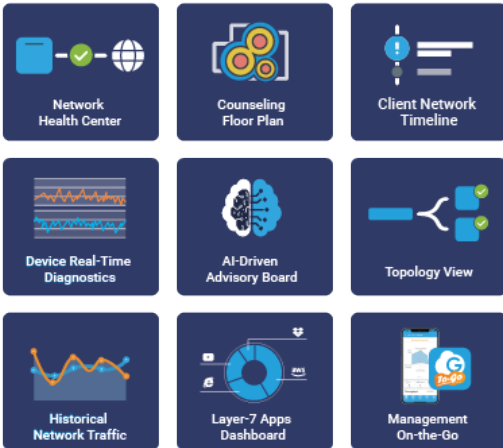

Easy setup and Secure SD-WAN connections for Branch Sites

Streamline your remote work and communication with site-to-site and client 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.

Visualize Your Network with the 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

Network Health at a Glance

EnGenius Cloud's dashboard promptly checks network health, provides managed device monitoring, and collects analytics data (including client applications & operating systems) to grant users better insights into the performance of their network.

Pinpoint Issues with the AI-Driven Advisory Board

Notifications can be sent to you based on customizable settings to identify any abnormal situation in your network devices, including AI-recommended best responses to common issues.

Monitor and Troubleshoot with the Client Timeline

The client timeline pulls up an entire device's history to allow for tracing of potential problems at their source. It provides information about issues by analyzing the authentication process between devices, such as a smartphone and wireless access points. The timeline also assists you to realize if the network problems are related to weak signals or incorrect password between clients and access points.
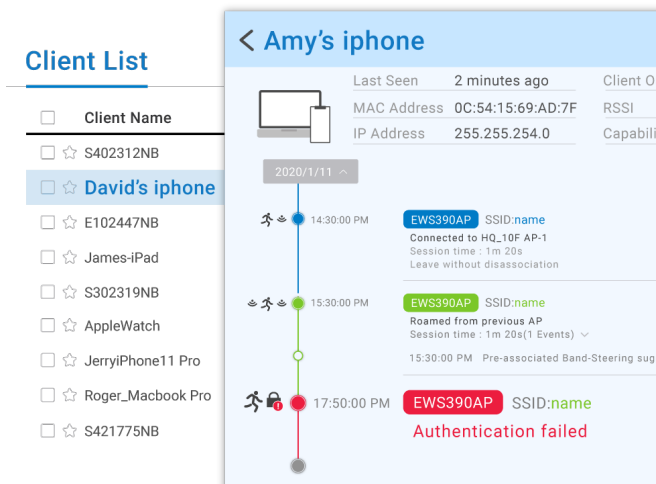

Supervise Devices with Real-Time Metrics

Break down key performance diagnostics such as CPU, memory, and throughput to determine the root cause of the current network problem.

Wi-Fi Heatmaps for Access Point Monitoring in Real Time

The included Wi-Fi site survey tool accepts an upload of your floor plan and simulates Wi-Fi coverage with a heat map of your desired Tx power, RSSI value, and channel. It is capable of factoring in physical obstacles and other impediments to coverage in its forecast.
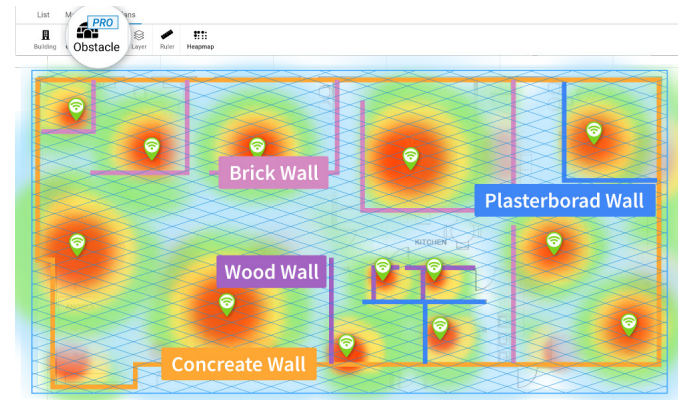

Get Information of Layer 7 Applications

View the actual Wi-Fi coverage according to the floor map you uploaded, including the factor in realworld obstacles such os wall effects.

Manage and Monitor Your Networks On the Go

EnGenius Cloud To-Go Mobile App

The EnGenius Cloud To-Go mobile app grants you full control of cloud-managed switches, access points, SD-WAN gateways, and devices. It offers easy device deployment, visualized monitoring, and real-time alerts for abnormal network activity. The notification is highly customizable for users to pinpoint and quickly rectify issues at their source.
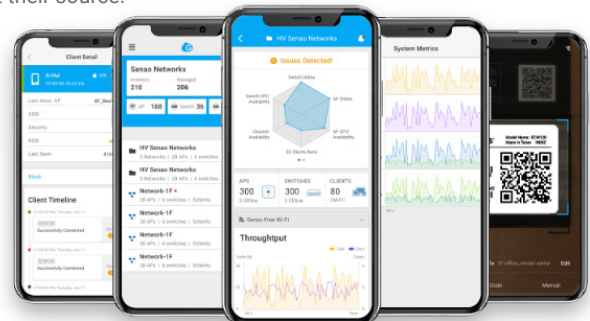
Visualize Your Network with the AI-Driven Cloud

Customize and Schedule Network Reports In Minutes

For MSP 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.


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 is associated. For example, faculty and students accessing the same SSID will be assigned to different VLANs.

Each User Has a Unique PSK to Access 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 is expired along with his stay, he will no longer be able to access the Wi-Fi network.
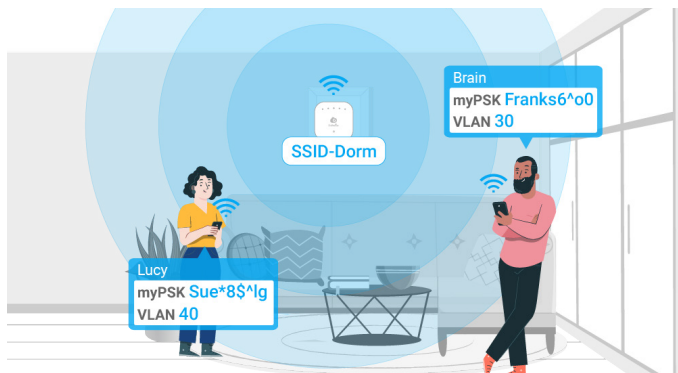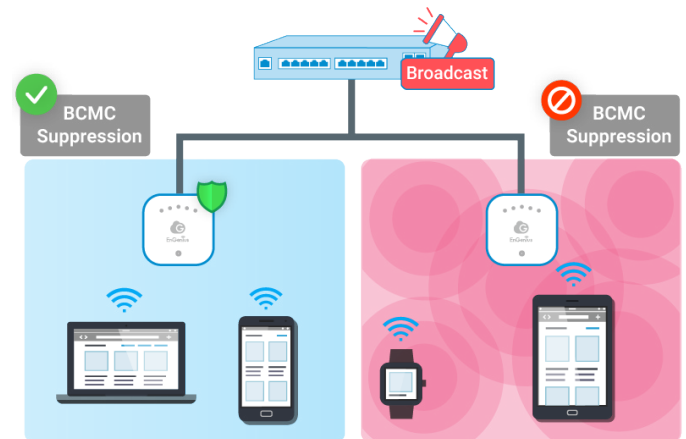

Automatic Partitioning of a Broadcast Domain to Avoid Broadcast Flooding

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.
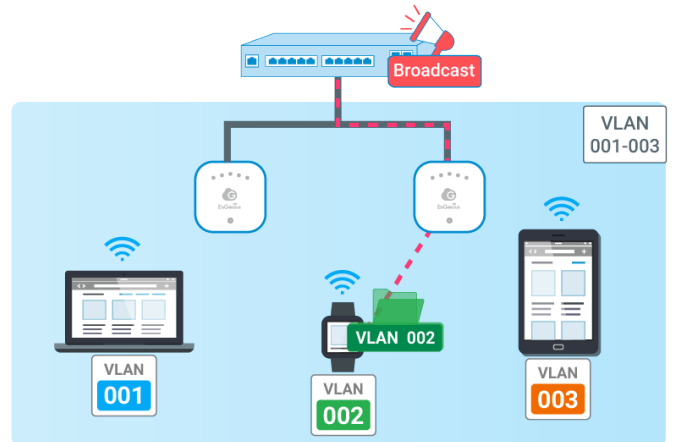
Easy Cloud Optimize Optimize Broadcast and Multicast Traffic for Wi-Fi Networks

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.

EnGenius®