EnGenius®

EnSky / Solution Brochure

Versatile On-premises Central Management

EnSky's suite of tools helps you deploy managed Wi-Fi to integrate with an existing on-site network or build customized networks from scratch. Users can remotely access the platform to configure, monitor, and manage networks in a centralized web interface or via mobile app.

Powerful Technologies in the EnSky Series

Wi-Fi 6

Next-generation Wi-Fi technology for SMBs

EnJet

Time-based management for maximum throughput

Business Mesh

Enterprise-level mesh for smart networking

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 AP status

Flexible and Scalable Network Deployments

Local network on single site

100 Managed APs + Switches

SkyKey

SMB

Users can deploy their devices onto the SkyKey web interface, which then becomes available for selection to a user-created project for further customization.

Remote access of multiple sites

	Name	MAC	Model Name	AP Online	AP Offline	Switch Online	Last Update	Action

Multiple EnSky controllers can be deployed for cross-network management on a single interface via EnGenius Cloud platform, no matter how many SkyKey-based devices are in your network.

Versatile Management and Product Lines of EnSky

Management Platforms

Controller - SkyKey

Software - ezMaster

Mobile app - EnWiFi

Managed Devices

Indoor wireless

**Outdoor wireless**

PoE switches

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.


11a/b/g/n 11ac 11ax

Qualcomm **11ax**

4x Increased Capacity

With wireless speed up to 2,400 Mbps in 5 GHz band and 1,148 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

Multi-G Switches Achieve Maximum Wi-Fi 6 Performance

Multi-G Switches boost your Wi-Fi 6 performance at up to 2,400 Mbps, eliminating the speed bottleneck of traditional gigabit switches. EnGenius Wi-Fi 6 access points provide a maximum. throughput of 3,550 Mbps (up to 1,150 Mbps on 2.4 GHz & 2,400 Mbps on 5GHz) with EnGenius Multi-G switches, eliminating the speed bottleneck of traditional gigabit switches and achieving real maximum wireless speed for your applications.

Multi-G Switch · Wi-Fi 6 AP

2.5 Gbps

500 1000 1500 2000 2500 **(Mbps)**

1G Switch · Wi-Fi 6 AP

1 Gbps

500 1000 1500 2000 2500 **(Mbps)**
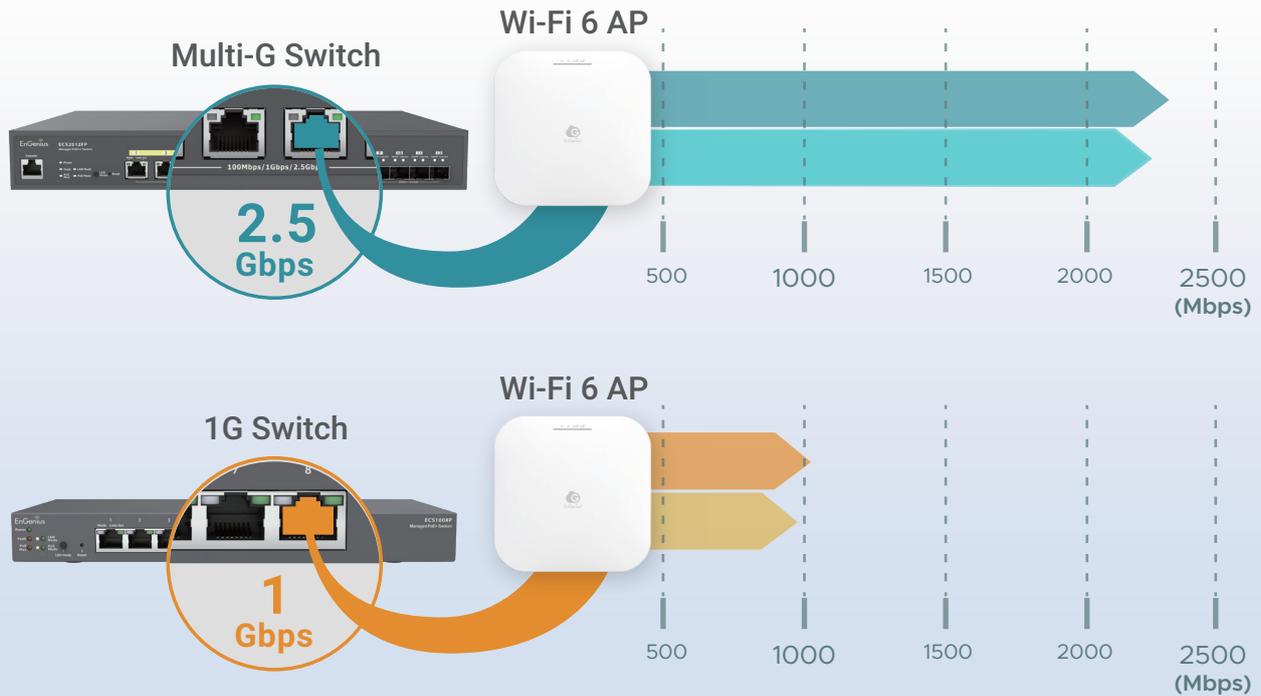
EnGenius Wi-Fi 6 Product Lineups

Wi-Fi 6 (11ax)	Indoor AP		Outdoor AP
Access Points	EWS357AP	EWS377AP	EWS850AP
Wi-Fi Standard	802.11ax	802.11ax	802.11ax
2.4GHz Speed	574 Mbps	1,148 Mbps	574 Mbps
5GHz Speed	1,200 Mbps	2,400 Mbps	1,200 Mbps
PoE Standard	802.3af/at	802.3at	802.3af/at

	Switch
Switch	ECS2512FP
Multi-G Port	8 x 2.5G
PoE Ports	Ports 1-8
PoE Standard	802.3af/at/bt
Total PoE Budget	240W

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 client devices such as smart TVs, smart appliances, and smart lighting that can be associated with access points in smart homes and offices.

5G LTE Complement
Environment ：**Indoor Spaces**

EnGenius Wi-Fi 6 and 5G LTE 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 LTE is optimized for outdoor mobile communications.

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.
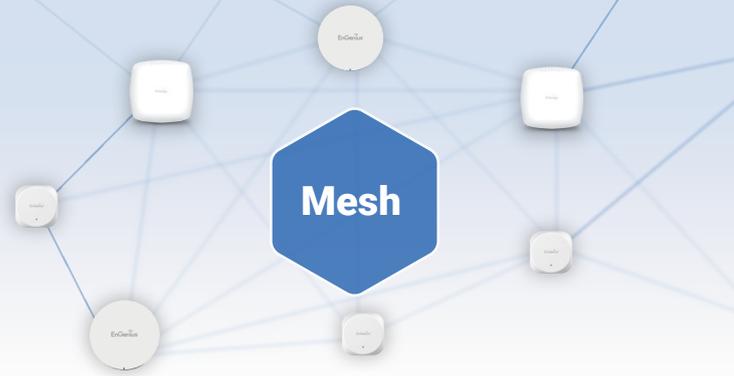
Mesh

Extend Wi-Fi coverage without cabling hassles

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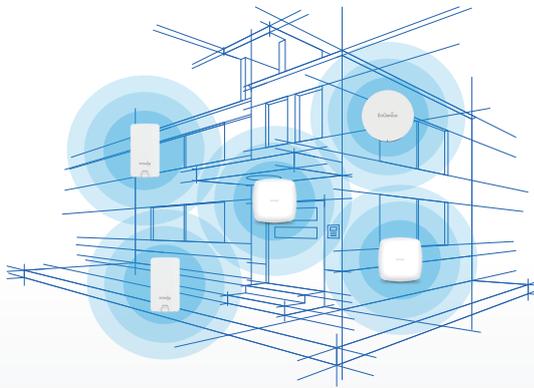
### Smart webbing by Enterprise-grade Mesh

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

NEW
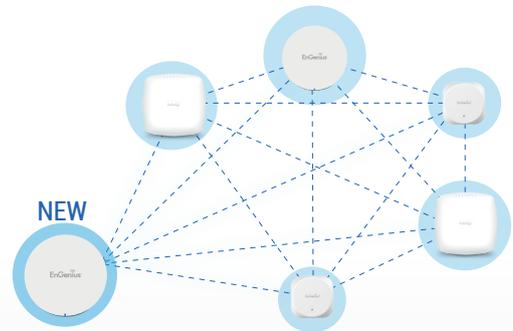
Smart healing when a wireless link is lost

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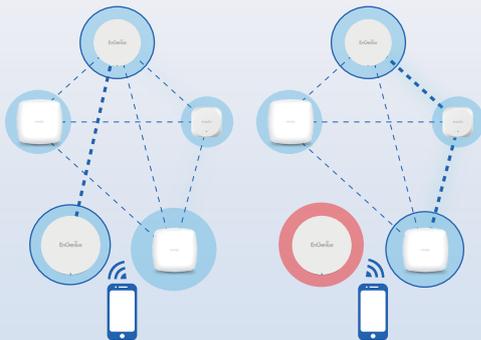
Smart routing for consistently high quality

Constantly optimize path selection on each device using enterprise-grade mesh algorithms.

99

98
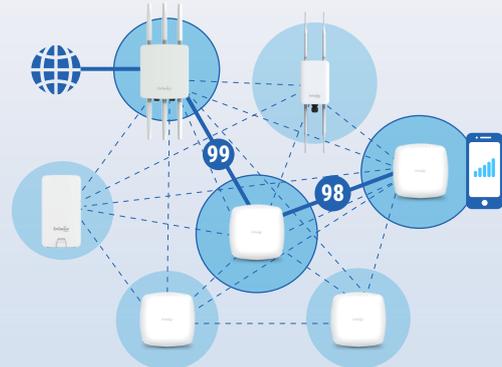
Industrial Case Studies of Mesh Technology

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

EnSky Indoor Access Points Series*

EnSky Outdoor Access Points Series*

*Not all EnSky access points support Mesh technology.

EnGenius Multi-G Switches Build Your Network without Bottleneck

Choose the right switches for your business. EnGenius gigabit switches with 10G uplink and Multi-G switches help you eliminate the speed bottleneck.
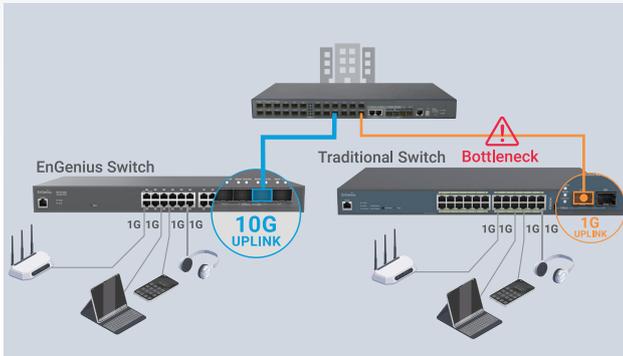
10G Uplink Facilitates Multi-layer Network Efficiency For SMB

EnGenius Gigabit Switches come with SFP+ 10G Uplink ports, designed to link the multi-layer switch connection for SMB networks. With 10G uplink, multiple end devices with more than 1G data can access the server without congestion, while 1G uplink cannot handle more than 1G data and becomes a bottleneck.
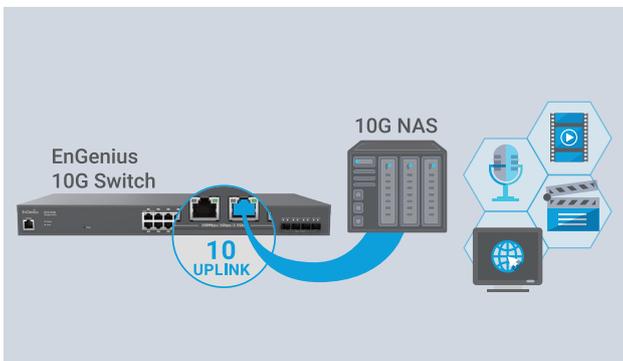
10GbE Switches Optimize For Bandwidth-Intensive Applications

EnGenius 10GbE Switches are designed for the increasing needs of bandwidth-demanding tasks and provide blazing-fast transfer speeds for NAS applications. 10G switches enable end devices like workstations to access large files faster via a 10G NAS, ideal for multimedia and video editing tasks.

EnGenius Switch Lineups for 10G Uplink and Multi-G

10G Uplink and Multi-G Models	Switch				
Switches	ECS1528	ECS1528P	ECS1528FP	ECS1552	ECS1552P
Gigabit Ethernet Ports	24	24	24	48	48
SFP+ Port(10G)	4	4	4	4	4
PoE Ports	-	Ports 1-24	Ports 1-24	-	Ports 1-48
PoE Standard	-	802.3af/at	802.3af/at	-	802.3af/at
Switching Capability	128 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps

10G Uplink and Multi-G Models	Switch				
Switches	ECS1552FP	ECS2512	ECS2512FP	ECS5512	ECS5512FP
Gigabit Ethernet Ports	48	8 x 2.5G	8 x 2.5G	8 x 10G	8 x 10G
SFP+ Port(10G)	4	4	4	4	4
PoE Ports	Ports 1-48	-	Ports 1-8	-	Ports 1-8
PoE Standard	802.3af/at	-	802.3af/at/bt	-	802.3af/at/bt
Switching Capability	176 Gbps	120 Gbps	120 Gbps	240 Gbps	240 Gbps

The Best Switch for Surveillance
Advanced PoE features
solve the pain points of deploying and managing IP cameras

PD Lifeguard

PoE Extended Mode

Continuous PoE Power
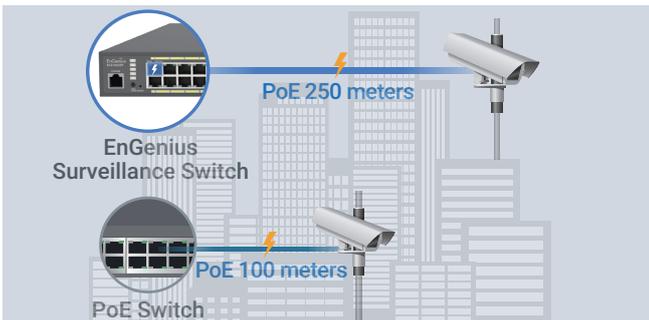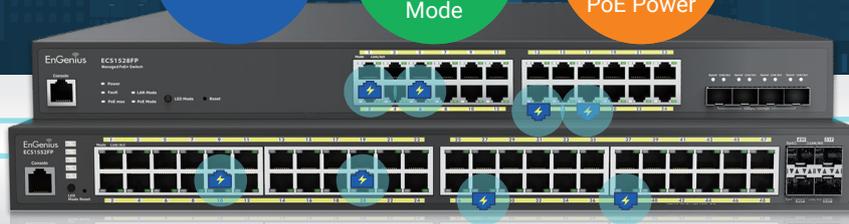
Extending the Deployment Range of PoE Camera

PoE 250 meters

EnGenius Surveillance Switch

PoE 100 meters

PoE Switch

The EnGenius Switch can extend the deployment range of PoE cable up to 250 meters using the original Cat5e cable while providing a sufficient speed for data transmission, which significantly improves traditional PoE deployment that extends the cable distance to only 100 meters. *
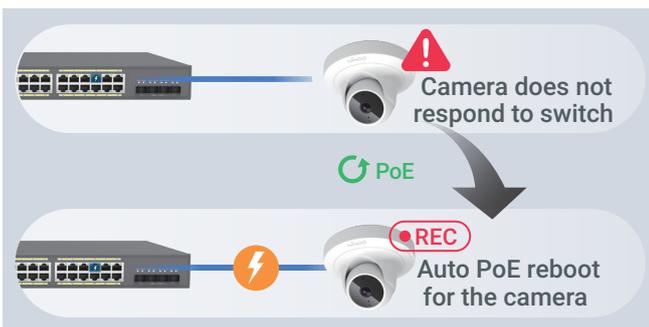
Smart Monitoring and Auto PoE Reboot When the Camera is Down

Camera does not respond to switch

PoE

REC

Auto PoE reboot for the camera

The EnGenius Switch uses intelligent LLDP technology to real-time monitor the status of the camera. Once the camera stops working and does not respond to the Switch, the Switch will automatically cut off then resume the PoE power to reboot the camera, which makes the surveillance management easier.
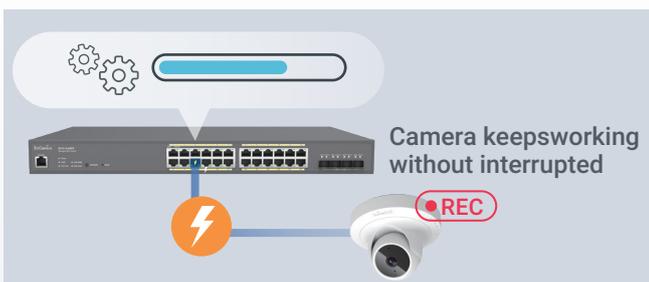
Non-stop PoE Power Supply for Cameras During Switch Firmware Upgrading

Camera keepsworking without interrupted

REC

EnGenius surveillance Switch provides continuous PoE power to the IP camera even while the switch needs a firmware upgrade. Even during reboot, security surveillance continues uninterrupted.

EnGenius Surveillance Switch Lineups

EnGenius Surveillance Switch Models	Switch			
Switches	ECS1528P	ECS1528FP	ECS1552P	ECS1552FP
PoE Extended Mode*	●	●	●	●
PD Lifeguard	●	●	●	●
Continuous PoE Power	●	●	●	●

*For ECS1528FP and ECS1552FP, PoE Extended Mode is only available in v2 hardware.
*PoE Extended mode excels in long-range installation, but the actual performance may be affected by Ethernet cable quality or IP camera's electrical design. We suggested end-users to have an interoperability test before physical deployment.

Empower Local or Remote Management

Experience the Unprecedented Convenience of Management

EnGenius EnSky's on-premises network management platform consists of SkyKey hardware and ezMaster management software. The platform empowers you to monitor, manage, and troubleshoot an indoor or outdoor network remotely.


EnSky On-Premises Management Platform

Software

ezMaster

ezMaster software lets you easily configure and maintain thousands of devices. You can manage up to 10,000 devices using the ezMaster VM for local sites or the AWS-deployed version for multiple sites with remote access.

Hardware

SkyKey I

SkyKey I is the on-premises network controller with built-in ezMaster that manages up to 100 devices. With the plug and play and installation free controller, you can easily deploy your network without complex configuration.

Manage Networks Smarter with EnSky Solution

ezMaster network management platform empowers you to setup and maintain multiple customer sites to save time and reduce the operational costs of site visits.

Choose the best options to manage your network

Unlimited Flexibility
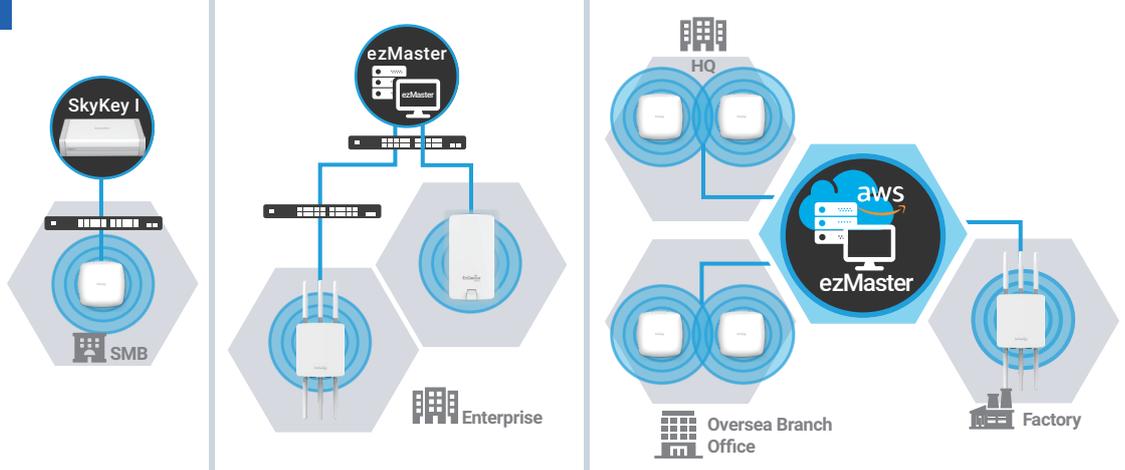
	Same Subnet	Cross-subnet	Over Internet
Deployment	Single site	Multiple sites	Remote sites
Management platform	**SkyKey controller**	**ezMaster with local server**	**ezMaster with AWS**
Suggested No. of AP	**≤ 100 APs**	**≤ 5,000 APs**	**≤ 10,000 APs**
Target consumer	**Budget hotels, offices, and wired campuses**	**Large campuses, multi-network deployments, and chain stores**	**Citywide hotspots, international hubs, and chain offices**

Remote management for distributed networks

Complete Scalability

SkyKey devices allow for centralized network management via EnGenius Cloud platform, no matter how widely distributed.

Secure tunnel connection for managed networks

Comprehensive Secured

Control packets are encrypted when transmitting between ezMaster and managed devices.

Rich Reporting & Analytics

Dashboard
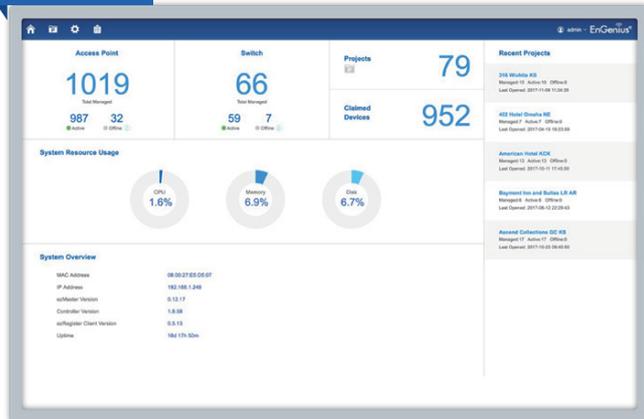
Get insights at a glance into your network's health. Drill down to discover potential problem areas with switches, access points, or client devices.

Wi-Fi Coverage
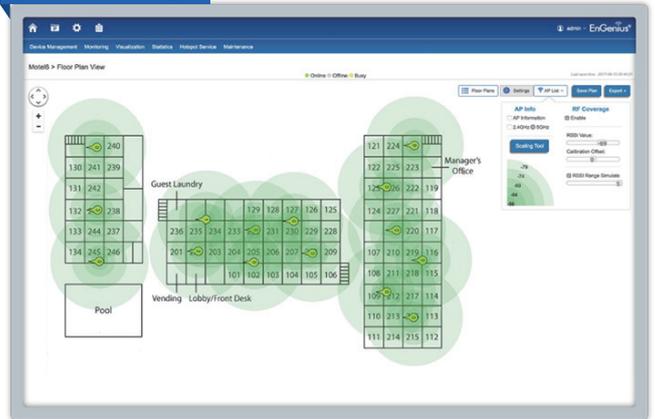
Pinpoint and address potential problems before they affect users with invaluable reporting, analytics, and real-time monitoring tools.

Map View
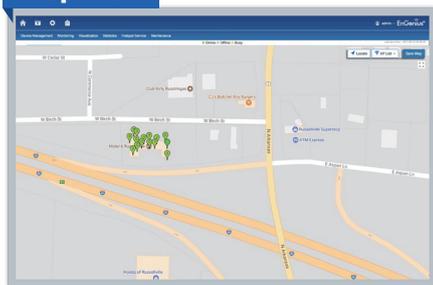
Upload floor plans and drop markers to represent real and prospective locations for your access points in the real world.

Topology View
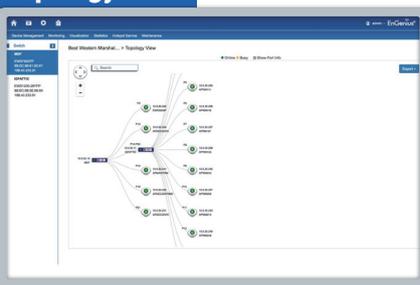
The topology view automatically maps your network deployment and creates a visualization of device relationships and physical connections.

Statistics View

Indicates the coverage of indoor access points for Wi-Fi planning purposes, and displays the reference signal strength.

Quick Deployment with SkyKey Controller

The plug-and-play SkyKey I can manage up to 100 EnGenius access points or switches directly with built-in ezMaster software.

- **No computer or server required**
- **No installation with built-in software**
- **No complex configuration**
- **Plug & play with Power-over-Ethernet**

Quick Deployment for Wireless Networks

Outstanding Features for Managing Network On-the-Go

EnWiFi is a simple Wi-Fi configuration and management tool for EnGenius outdoor and indoor Wi-Fi devices. Users can configure devices on-site and monitor the installed or deployed devices on their smart phones or tablets.

Auto-discover devices

Support for all EnGenius indoor and outdoor models
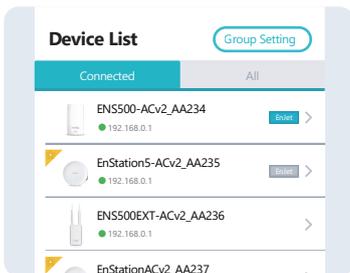
Group settings

Configuration for a single device or group of devices
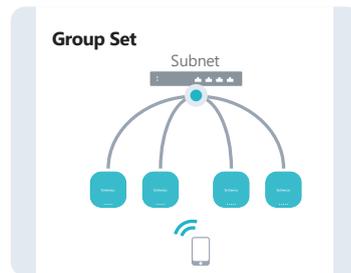
Firmware upgrades

Auto-detection and upgrades of new firmware
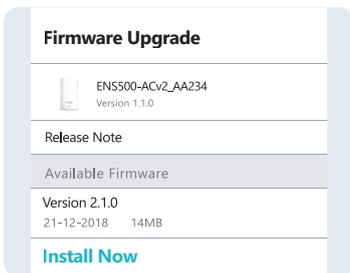
Real-time performance

Get detail of signal level and performance of devices
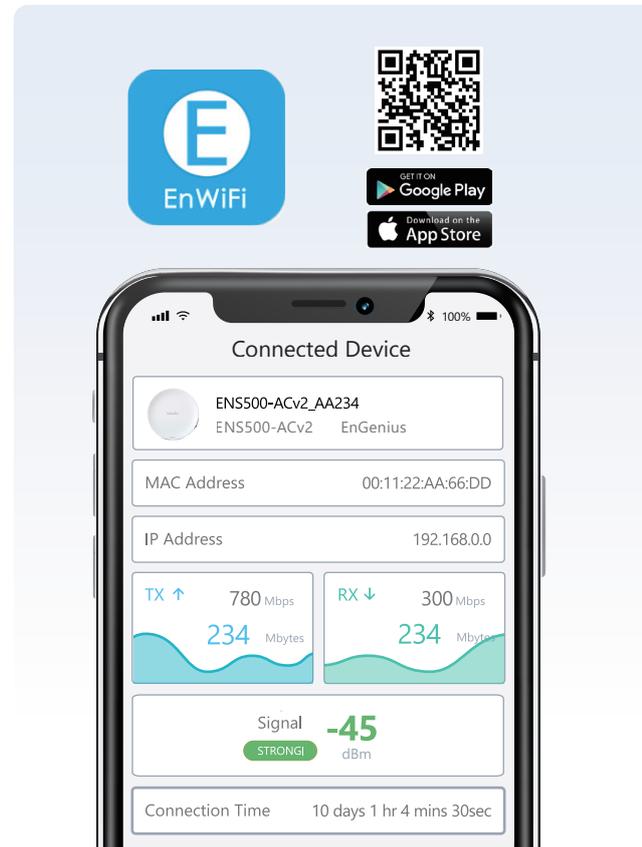
Features of EnWiFi Mobile App

Deployment
• Auto-discover devices
• Group configuration
• Initial settings
• Operation mode switch

Management
• Backup configuration
• Group management
• Reboot network
• New firmware detection

Monitoring
• Monitor real-time throughput
• Get RSSI signal level details
• Find root cause of issues
• Login or kick out devices

EnSky - Indoor Access Points

Indoor Access Points

	ax (Wi-Fi 6)		ac Wave 2	
	EWS357AP	EWS377AP	EWS385AP	EWS330AP
Wi-Fi Standard	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Radio	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz
Max. Data Rate on 2.4 GHz	574 Mbps	1,148 Mbps	400 Mbps	400 Mbps
Max. Data Rate on 5 GHz	1,200 Mbps	2,400 Mbps	867 + 867 Mbps	867 Mbps
Radio Chains/ Spatial Streams	2 x 2:2	4 x 4:4	2 x 2:2	2 x 2:2
Transmit Power	Up to 20 dBm on 2.4 GHz Up to 20 dBm on 5 GHz	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 22 dBm on 2.4 GHz Up to 22 dBm on 5 GHz	Up to 26 dBm on 2.4 GHz Up to 25 dBm on 5 GHz
Antenna	2 x 3 dBi (2.4 GHz) 2 x 3 dBi (5 GHz)	4 x 3 dBi (2.4 GHz) 4 x 3 dBi (5 GHz)	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)
Power-over-Ethernet	802.3af/at	802.3at	802.3af	802.3af
Ethernet Ports	1 x 10/100/1000 Ethernet Port	1 x 10/100/1000/2500 Ethernet Port	2 x 10/100/1000 Ethernet Ports	1 x 10/100/1000 Ethernet Port
Dimensions	160 x 160 x 26.9 mm	205 x 205 x 33.2 mm	200 x 200 x 45 mm	Ø132.4 x 37.44 mm
Mounting Type	Ceiling / Wall	Ceiling / Wall	Ceiling / Wall	Ceiling / Wall
Mesh Technology	●	●	●	●
On-premise management (ezMaster)	●	●	●	●
Mobile app (EnWiFi App)	●	●	●	●

Indoor Access Points

	ac Wave 2		11ac
	EWS550AP	EAP1250	EWS360AP
Wi-Fi Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Radio	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz
Max. Data Rate on 2.4 GHz	400 Mbps	400 Mbps	450 Mbps
Max. Data Rate on 5 GHz	867 Mbps	867 Mbps	1,300 Mbps
Radio Chains/ Spatial Streams	2 x 2:2	2 x 2:2	3 x 3:3
Transmit Power	Up to 21 dBm on 2.4 GHz Up to 20 dBm on 5 GHz	Up to 23 dBm on 2.4 GHz Up to 22 dBm on 5 GHz	Up to 28 dBm on 2.4 GHz Up to 26 dBm on 5 GHz
Antenna	2 x 4 dBi (2.4 GHz) 2 x 6 dBi (5 GHz)	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)	3 x 3 dBi (2.4 GHz) 3 x 5 dBi (5 GHz)
Power-over-Ethernet	802.3af/at	802.3af	802.3at
Ethernet Ports	3 x 10/100/1000 Ethernet Ports	1 x 10/100/1000 Ethernet Port	1 x 10/100/1000 Ethernet Port
Dimensions	188 x 125 x 26 mm	Ø132.4 x 37.44 mm	161.5 x 161.5 x 41.5 mm
Mounting Type	Wall Plate	Ceiling / Wall	Ceiling / Wall
Mesh Technology	●	●	●
On-premise management (ezMaster)	●	●	●
Mobile app (EnWiFi App)	●	●	●

EnSky - Outdoor Access Points

Outdoor Access Points

	ax (Wi-Fi 6)	ac Wave 2		
	EWS850AP	EWS860AP	ENH1350EXT	ENH1750EXT
Wi-Fi Standard	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Operating Radio	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5GHz	2.4 GHz & 5GHz
Management Radio	-	-	-	-
Max. Data Rate on 2.4 GHz	574 Mbps	450 Mbps	400 Mbps	400 Mbps
Max. Data Rate on 5 GHz	1,200 Mbps	1,300 Mbps	867 Mbps	1,300 Mbps
Radio Chains / Streams	2 x 2:2	3 x 3:3	2 x 2:2	3 x 3:3
Transmit Power	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 29 dBm on 2.4 GHz Up to 29 dBm on 5 GHz	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 29 dBm on 2.4 GHz Up to 29 dBm on 5 GHz
Integrated Antenna	-	-	-	-
External Antenna	4 x 5 dBi	3 x 5 dBi (2.4 GHz) 3 x 7 dBi (5 GHz)	4 x 5 dBi	3 x 5 dBi (2.4 GHz) 3 x 7 dBi (5 GHz)
Power-over-Ethernet	802.3af/at	802.3at (at in + af out)	802.3af/at	802.3at (at in + af out)
Ethernet Ports	1 x 10/100/1000 Ethernet Port	2 x 10/100/1000 Ethernet Ports	1 x 10/100/1000 Ethernet Port	2 x 10/100/1000 Ethernet Ports
IP Rating	IP67	IP68	IP67	IP68
Dimensions	111.2 x 173.6 x 30.29 mm	285 x 217.93 x 53.34 mm	173.6 x 111.2 x 30.29 mm	285 x 217.93 x 53.34 mm
Mesh Technology	●	●	●	●
EnJet Technology	-	-	-	-
On-premise management (ezMaster)	●	●	●	●
Mobile app (EnWiFi App)	●	●	●	-

Outdoor Access Points

	ac Wave 2				
	EnStationAC	EnStation5-AC	ENS500-AC	ENS500EXT-AC	ENS620EXT
Wi-Fi Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Operating Radio	5 GHz	5 GHz	5 GHz	5 GHz	2.4 GHz & 5GHz
Management Radio	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz	-
Max. Data Rate on 2.4 GHz	-	-	-	-	400 Mbps
Max. Data Rate on 5 GHz	867 Mbps	867 Mbps	867 Mbps	867 Mbps	867 Mbps
Radio Chains / Streams	2 x 2:2	2 x 2:2	2 x 2:2	2 x 2:2	2 x 2:2
Transmit Power	Up to 26 dBm on 5 GHz	Up to 26 dBm on 5 GHz	Up to 23 dBm on 5 GHz	Up to 23 dBm on 5 GHz	Up to 27 dBm on 2.4 GHz Up to 27 dBm on 5 GHz
Integrated Antenna	19 dBi (5GHz)	19 dBi (5GHz)	14 dBi (5GHz)	-	-
External Antenna	-	-	-	x 5 dBi (5 GHz)	4 x 5 dBi
Power-over-Ethernet	802.3at (at in + af out)	24V Proprietary	24V Proprietary	24V Proprietary	24V Proprietary
Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports
IP Rating	IP55	IP55	IP55	IP55	IP55
Dimensions	Ø190 x 38 mm	Ø190 x 38 mm	100 x 185 x 27 mm	100 x 185 x 27 mm	191.6 x 114.3 x 47.7 mm
Mesh Technology	-	-	-	-	●
EnJet Technology	●	●	●	●	-
On-premise management (ezMaster)	●	●	●	●	●
Mobile app (EnWiFi App)	●	●	●	●	●

EnSky PoE Switches

	PoE Switches			
	EWS1200-28TFP	EWS7928P	EWS7952FP	EWS7952P
PoE Switches				
Switch Class	Layer 2	Layer 2	Layer 2	Layer 2
Gigabit Ports	24	24	48	48
Multi-G Ports	0	0	0	0
SFP Ports	4	4	4	4
SFP+ Ports	0	0	0	0
RJ45 Console Port	●	●	●	●
PoE Capable Port	Ports 1 - 24	Ports 1 - 24	Ports 1 - 48	Ports 1 - 48
Powe-over-Ethernet	802.3af/at	802.3af/at	802.3af/at	802.3af/at
Total PoE Budget	410W	185W	740W	410W
Form Factor	19"1U	19"1U	19"1U	19"1U
Switching Capacity	56 Gbps	56 Gbps	104 Gbps	104 Gbps
MAC Address Table Size	8K	8K	16K	16K
Dimensions	440 x 260 x 44 mm	440 x 260 x 44 mm	440 x 310 x 44 mm	440 x 310 x 44 mm
Cloud Managed	-	-	-	-

Hybrid Cloud Switches (EnSky compatible)

Hybrid Cloud Switches

	Gigabit Switches					
	ECS1008P	ECS1112FP	ECS1528	ECS1528P	ECS1528FP	ECS1552
Switch Class	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+
Gigabit Ports	8	10	24	24	24	48
Multi-G Ports	0	0	0	0	0	0
SFP Ports	0	2	0	0	0	0
SFP+ Ports	0	0	4	4	4	4
RJ45 Console Port	-	●	●	●	●	●
PoE Capable Port	Ports 1 - 8	Ports 1 - 8	-	Ports 1 - 24	Ports 1 - 24	-
Powe-over-Ethernet	802.3af	802.3af/at	-	802.3af/at	802.3af/at	-
Total PoE Budget	55W	130W	-	240W	410W	-
Form Factor	9.45 (Desktop)	13"1U	19"1U	19"1U	19"1U	19"1U
Switching Capacity	16 Gbps	24 Gbps	128 Gbps	128 Gbps	128 Gbps	176 Gbps
MAC Address Table Size	8K	8K	16K	16K	16K	32K
Dimensions	240 x 105 x 27 mm	330 x 230 x 44 mm	440 x 200 x 44 mm	440 x 260 x 44 mm	440 x 260 x 44 mm	440 x 260 x 44 mm
Cloud Managed Mode	●	●	●	●	●	●
On-Premises Managed Mode	●	●	●	●	●	●
Standalone Mode	●	●	●	●	●	●

Hybrid Cloud Switches

	Gigabit Switches		Multi-G Switches			
	ECS1552P	ECS1552FP	ECS2512	ECS2512FP	ECS5512	ECS5512FP
			2.5 GbE	PoE++ 2.5 GbE	10 GbE	PoE++ 10 GbE
Switch Class	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+
Gigabit Ports	48	48	0	0	0	0
Multi-G Ports	0	0	8 x 2.5G	8 x 2.5G	8 x 10G	8 x 10G
SFP Ports	0	0	0	0	0	0
SFP+ Ports	4	4	4	4	4	4
RJ45 Console Port	●	●	●	●	●	●
PoE Capable Port	Ports 1 - 48	Ports 1 - 48	-	Ports 1 - 8	-	Ports 1 - 8
Powe-over-Ethernet	802.3af/at	802.3af/at	-	802.3af/at/bt	-	802.3af/at/bt
Total PoE Budget	410W	740W	-	240W	-	420W
Form Factor	19"1U	19"1U	13"1U	13"1U	13"1U	13"1U
Switching Capacity	176 Gbps	176 Gbps	120 Gbps	120 Gbps	240 Gbps	240 Gbps
MAC Address Table Size	32K	32K	16K	16K	32K	32K
Dimensions	440 x 310 x 44 mm	440 x 310 x 44 mm	330 x 230 x 44 mm	330 x 230 x 44 mm	330 x 230 x 44 mm	330 x 230 x 44 mm
Cloud Managed Mode	●	●	●	●	●	●
On-Premises Managed Mode	●	●	●	●	●	●
Standalone Mode	●	●	●	●	●	●

Accessories

Transceiver Modules

	SFP + Switch Module		SFP Switch Module	
	SFP3213-10	SFP3185-03	SFP2213-10	SFP2185-05
Data Rate	10G bps	10G bps	1.25G bps	1.25G bps
Wave Length	1310 nm	850 nm	1310 nm	850 nm
Max Transmission Dist.	10 km	0.3 km	10 km	0.5 km

PoE Converters

	PoE Converters
	EPD-4824
PoE System	24V Proprietary
Max Output Power	24W
Powered LAN	2*10/100/1000

Surge Arrestors

	Surge Arrestors	
	ESA-7500	ESA7600G
Ethernet Cable Support	10/100 Base-T Cat 5	10/100/1000 Base-T Cat 5/6
Lightning Protection	2kV	6kV

PoE Adapters

PoE Adapters			
EPA5012GP	**EPA5006GP/GR**	**EPA5006GAT**	**EPA5006HAT**
Input Voltage	100V~240V AC	100V~240V AC	100V~240V AC	100V~240V AC
Input Current	1.12A @ 120V AC	0.8A @ 120V AC	0.8A @ 120V AC	0.8A @ 120V AC
Power-over-Ethernet	54V Proprietary	54V Proprietary	802.3at	802.3at
Max Output Power	60W	32.8W	30W	30W
Ethernet Ports Std.	10/100/1000 Mbit/s	10/100/1000 Mbit/s	10/100/1000 Mbit/s	10M/100M/1000M/2.5G bit/s
Dimension	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm
Temperature	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)

PoE Adapters

PoE Adapters		
EPA2410GP	**EPA2406FP**	**EPA2406GP/GR**
Input Voltage	100V~240V AC	100V~240V AC	100V~240V AC
Input Current	0.7A @ 120V A	0.4A @ 120V AC	0.4A @ 120V AC
Power-over-Ethernet	24V Proprietary	24V Proprietary	24V Proprietary
Max Output Power	24W	14.4W	14.4W
Ethernet Ports Std.	10/100/1000 Mbit/s	10/100 Mbit/s	10/100/1000 Mbit/s
Dimension	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm
Temperature	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)

European Diving Championships Case Study

Sport Life Teremki | Kyiv, Ukraine

The Site

The 2019 LEN European Diving Championships was held at Sport Life Teremki (Lico Sports Center) in Kyiv, Ukraine. Approximately 350 people attended the event, 250 of which were seated and 100 consisted of the participants, media and organizers of the event.

The Situation

The previous brand was unable to cater dense network capacities requirements. The contractor was in search of another capable solution and this is where EnGenius was offered as an alternative to be able to meet all of the requirements.

Project Requirements

• Access Point for Olympic swimming pool use

• Concurrent High-speed Wi-Fi connectivity to the devices of media, journalists, and visitors

• Live streaming must have strong, stable and secure Wi-Fi coverage with no latency

• Rugged and weatherproof IP rating (IP55 and above)

• Able to operate in high-density and high-humidity environment
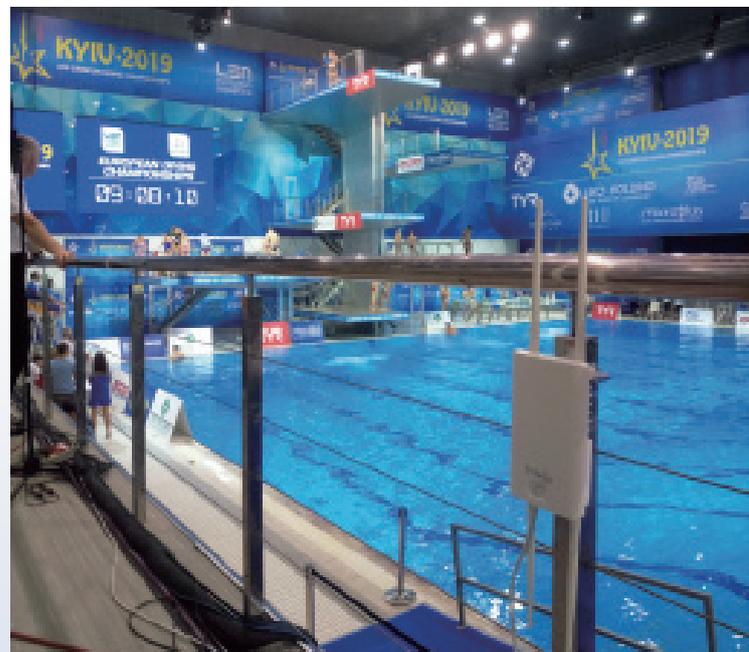
The EnGenius Solution

EnGenius accommodates guest experience by providing seamless solid Wi-Fi performance. The EWS377AP 4x4 with the latest 11ax (Wi-Fi 6) technology supports multi-user uplink & downlink of MU-MIMO for optimal signal & reception reliability as well as stronger, steadier and more efficient wireless connections. One ENS620EXT device with peak performance can cater to up to 150 concurrent users.

The combination of using both of these Indoor and Outdoor APs promises beam-forming technology which optimizes antenna signal and targets signals directly to the devices, creating a stronger, faster and more reliable wireless communication.

With the ability to manage the network remotely, the license-free EnGenius ezMaster network management software is used to configure, manage and monitor all APs from one centralized dashboard.
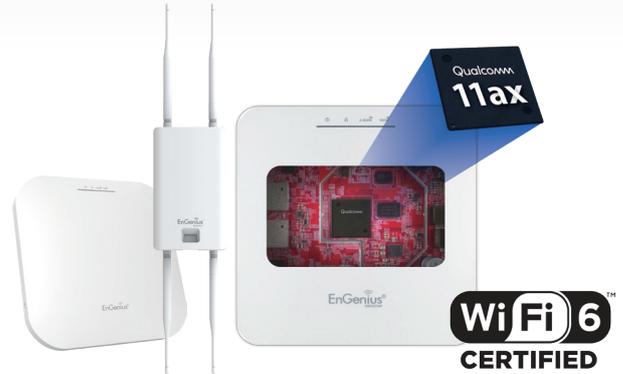
- EWS377AP (Indoor 11ax 4x4 APs)
- ENS620EXT (Outdoor 11ac Wave 2 2x2 APs)
- ezMaster (Network Management Software)

"We are holding this event for the third year in a row and there have always been problems with the Wi-Fi. This year there were also many complaints on the first day, and I decided to try the EnGenius solution as an alternative. The result exceeded all of my expectations! The deployment and configuration of the network took no more than one hour, which made it possible to quickly provide service to users. After installing EnGenius, for the week of   the championship, I, no longer had any complaints about the quality of the wireless network. In comparison to the previous two years, where the cheaper equipment of the other vendor was used, everything went perfectly! I made certain that the equipment specifications presented on the site are not a bit exaggerated and I recommend solutions of EnGenius for similar events."

— **Alexander Radzievsky**
(Head of IT Department at Liko-Holding LLC).

EnGenius®