

NVK WiFi Hotspot Solution 2015

Managed, Legally, Future-Proof
WiFi Hotspot Networks



N.V.K.INTER CO., LTD.

 @nvkwireless

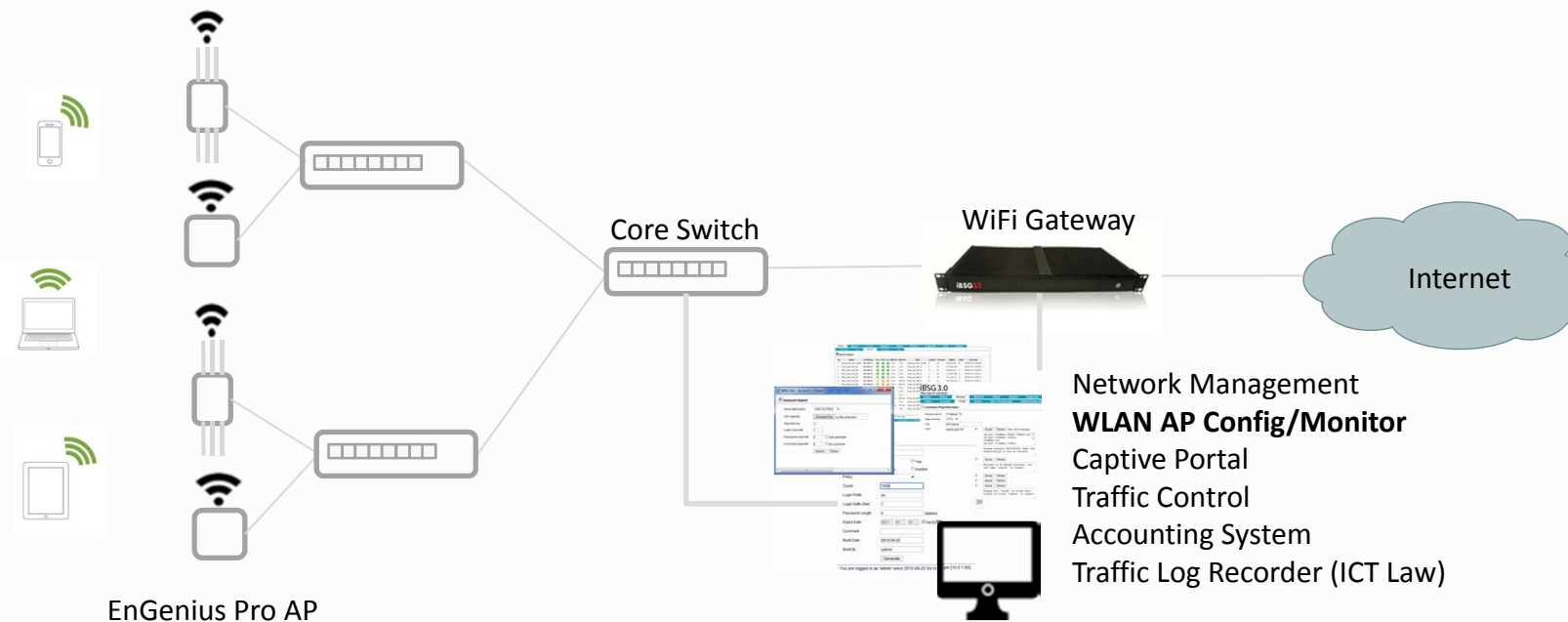
 facebook.com/nvkinter

 www.nvk.co.th

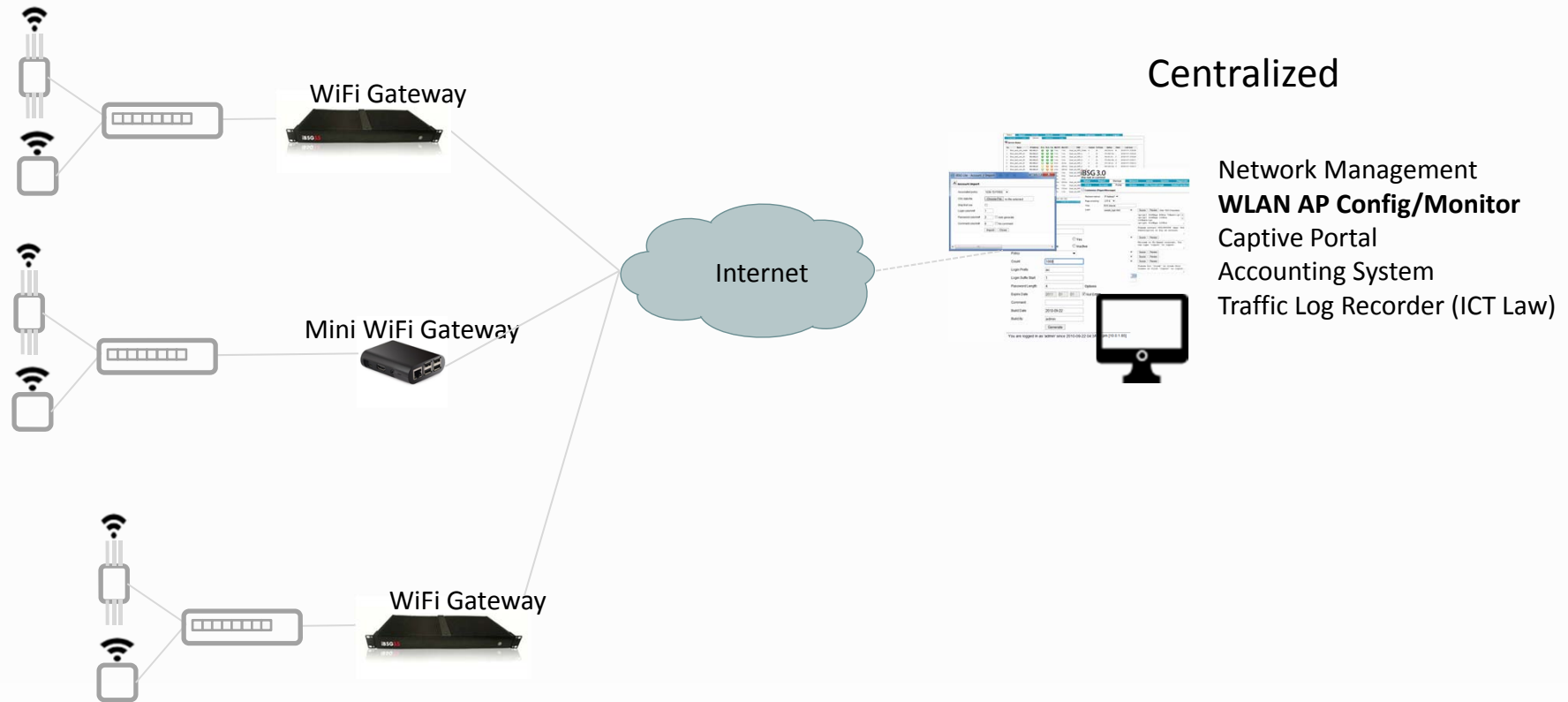
Agenda

- Basic WiFi Architecture
- Monetized WiFi Architecture
- NVK's Solution providing
- EnGenius Professional AP
- EnGenius EWS SOLUTION
- NVK WiFi Hotspot Solution
- Cloud-based iBSG Solution

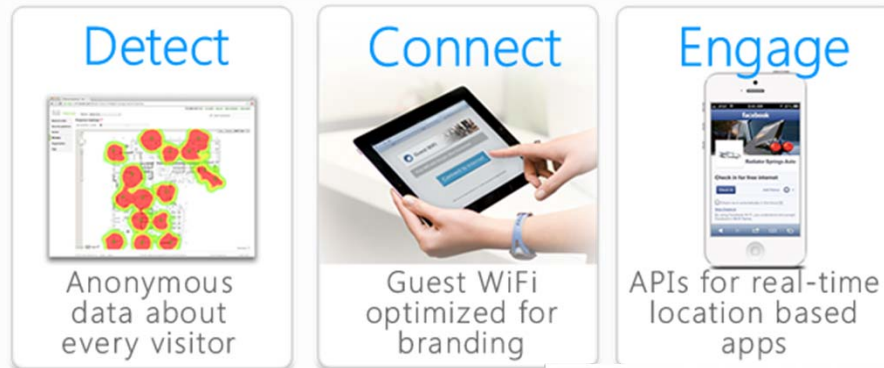
Single WiFi Network Architecture



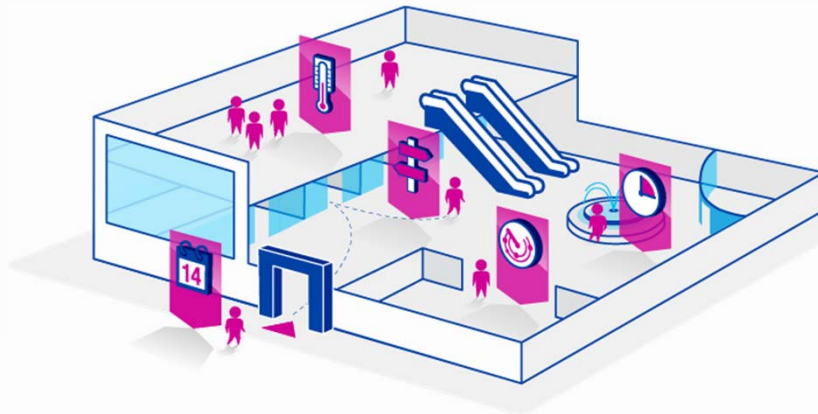
Centralized WiFi Network Architecture



WiFi Monetization



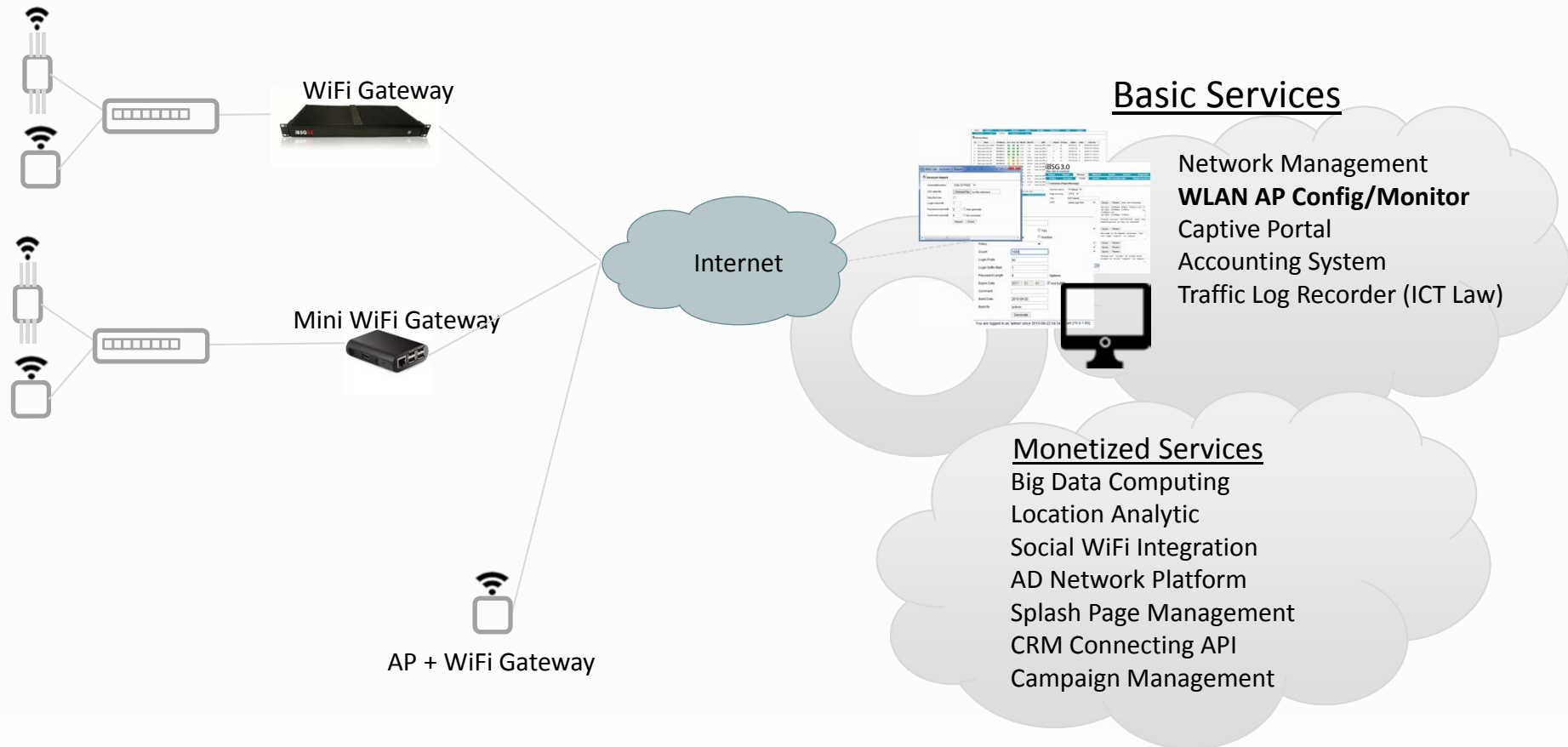
LBS Marketing : Smart Retail Store



Sponsored WiFi



Monetized WiFi Network Architecture



NVK WiFi 2015 Solution providing...

Full-range of Professional WLAN AP



Quality POE Switches



Network Management



Best-Selling Hotspot Gateway



EnGenius Professional AP



Gigabit Speeds



Power Source



Multiple Mode AP/Client Bridges



Comprehensive Security



Leaders in Long Range Wi-Fi



Multiple SSID-to-VLAN tagging



Durable and Weatherproof Designs



EZ CONTROLLER

iBSG
NET IN CONTROL

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Multi Operation Mode

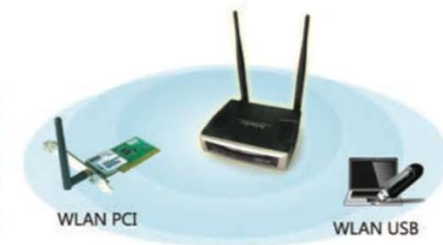
Client Bridge

Also known as Ethernet Client. In this mode, AP will act as a WLAN card to connect with remote AP. Users can connect PC or local LAN to the Ethernet port of the client bridge mode AP. This mode is mostly used as a CPE device for WISP subscriber service.



Access Point

The most basic mode of multi-function is Access Point. In this mode, the AP will act as a central hub for different wireless LAN clients. Some hotspot APs require 802.1x authenticator function to authenticate a user before providing Internet service.



Universal Repeater

A universal repeater extends the wireless coverage of another wireless AP or router. The advantage of the universal repeater is that the remote device does not need to have WDS function and may not need to be the same brand. Therefore, it can work with almost any wireless device.



Client Router

In this mode, the AP will behave as client. In addition, router function is added between the wireless WAN side and the Ethernet LAN side. Therefore, the WISP subscriber can share the WISP connection without the need of extra router.



Multi Operation Mode II

AP Router

The Ethernet port will behave as a WAN port for wired connection to ADSL or Cable modem. The NAT routing will be performed between the WAN and WLAN. Making IP sharing possible.



WDS Access Point

This function extends wireless range of another wireless AP. For WDS Access Point to work, the remote wireless AP must also support WDS function and in some cases only work with the same brand. The function may support token ring and star topology with the spanning tree protocol.



WDS Station

It is similar to the Client Bridge, but it uses WDS method to connect a WDS Access Point.



WDS Bridge

In this mode, two APs are being connected to provide a wireless bridge between two remote LANs. It is mostly used by enterprise to connect two remote office's network together. The bridge mode is connected by using the WDS (Wireless Distributed System) topology.

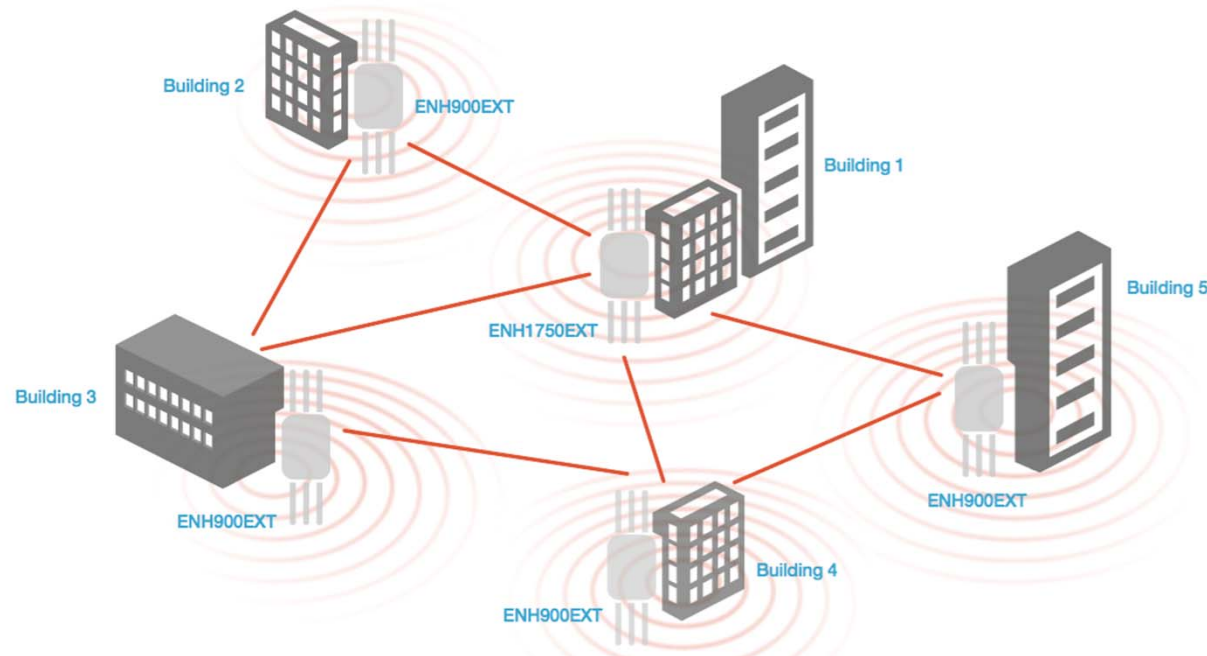


Multi Operation Mode III : MESH

Mesh Mode

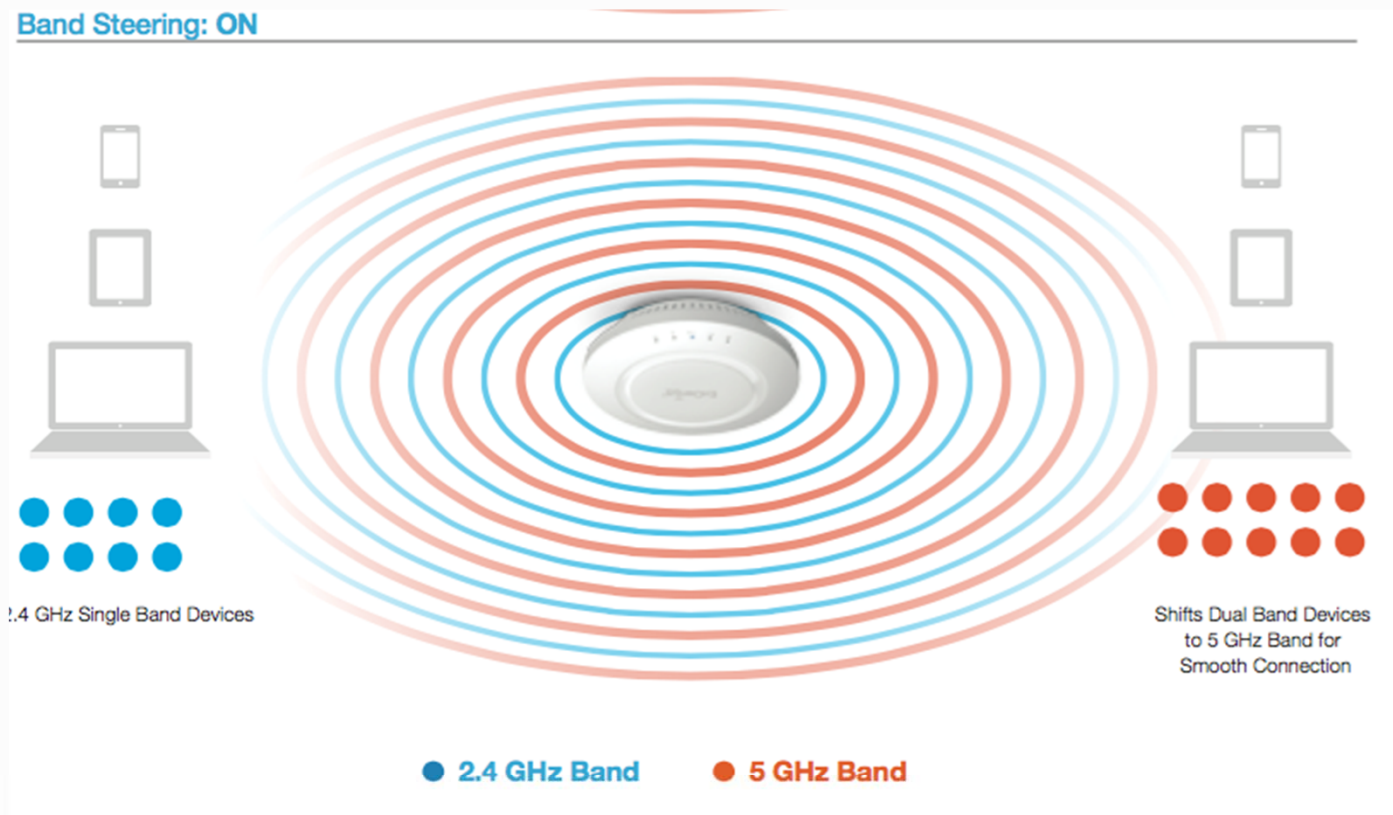
Electron Series Wireless Access Points support mesh networking in the 2.4 GHz frequency band to provide self-organizing, self-healing, redundant and robust connectivity for wireless clients in the network.

In some scenarios activating mesh can help to lower deployment costs when running Ethernet cabling is not practical.



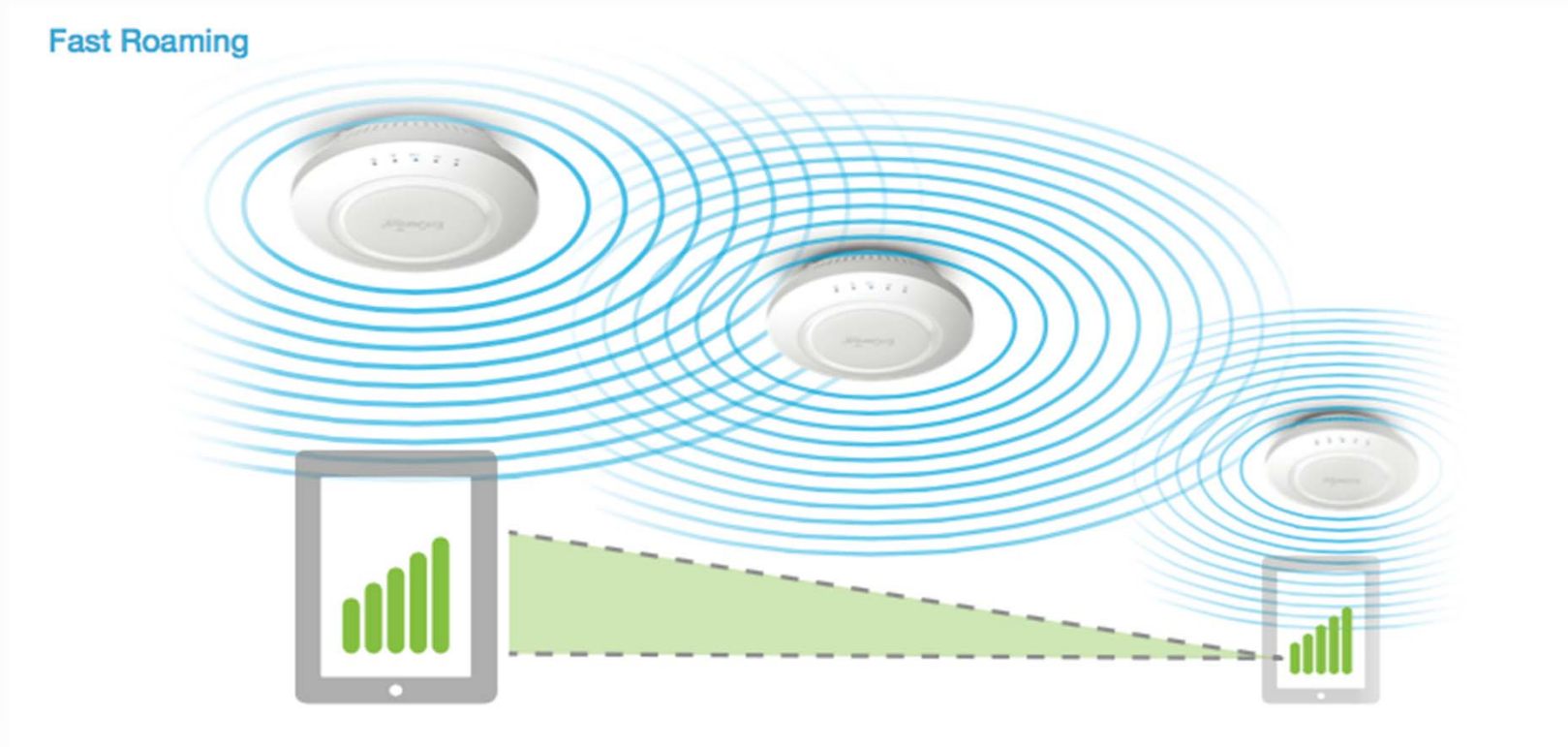
EnGenius Band Steering

Balancing client to cleaner 5GHz spectrum



Fast Roaming

Smooth experience while client handover



Pro AP : ECB Series

Compare ECB Series



	ECB1750	ECB600	ECB350	ECB300
Frequency	802.11 a/b/g/n/ac	802.11 a/b/g/n	802.11 b/g/n	802.11 b/g/n
Maximum Data Speed	450+1300 Mbps	300+300 Mbps	300 Mbps	300 Mbps
LAN Interface	10/100/1000	10/100/1000	10/100/1000	10/100
Encryption	WPA2 WPA WEP	WPA2 WPA WEP	WPA2 WPA WEP	WPA2 WPA WEP
SDRAM	128 MB	64 MB	32 MB	32 MB
Flash	16 MB	16 MB	8 MB	4 MB
RF Power (dBm)	2.4 GHz: 29 dBm 5 GHz: 29 dBm	2.4 GHz: 29 dBm 5 GHz: 26 dBm	29 dBm	29 dBm
Antenna	6x 5 dBi Omni RP-SMA Female	4x 5 dBi Omni RP-SMA Female	2x 5 dBi Omni RP-SMA Female	2x 5 dBi Omni RP-SMA Female
Transmit Power (mW)	800 mW/400 mW	800 mW/400 mW	800 mW	800mW
Operation Modes	Access Point Client Bridge WDS AP WDS Station WDS Bridge	Access Point Client Bridge WDS AP WDS Station Universal Repeater	Access Point Client Bridge AP Router WDS AP Universal Repeater	Access Point Client Bridge AP Router WDS AP Universal Repeater
Number of SSID	16 (8 per radio)	16 (8 per radio)	8	4
802.1q zVLAN	●	●	●	●
QoS	●	●	●	●
AP Management Software (EZC)	●	●	●	●
DC Power	●	●	●	●
Power Over Ethernet (PoE)	802.3at	802.3at/af	802.3af	802.3af
User Support	Up to 50	Up to 50	Up to 32	Up to 32

Pro AP : EAP Series

Compare EAP Series



	EAP1750H	EAP900H	EAP600	EAP350	EAP300
Frequency	802.11 a/b/g/n/ac	802.11 a/b/g/n	802.11 a/b/g/n	802.11 b/g/n	802.11 b/g/n
Maximum Data Speed	450 + 1300 Mbps	450 + 450 Mbps	300 + 300 Mbps	300 Mbps	300 Mbps
LAN Interface	10/100/1000	10/100/1000	10/100/1000	10/100/1000	10/100
Encryption	WPA2 WPA WEP	WPA2 WPA WEP	WPA2 WPA WEP	WPA2 WPA WEP	WPA2 WPA WEP
SDRAM	128 MB	128 MB	64 MB	32 MB	32 MB
Flash	16 MB	16 MB	16 MB	4 MB	4 MB
RF Power (dBm)	2.4 GHz: 28 dBm 5 GHz: 28 dBm	2.4 GHz: 28 dBm 5 GHz: 28 dBm	2.4 GHz: 29 dBm 5 GHz: 26 dBm	29 dBm	29 dBm
Receive Sensitivity	≤ -94 dBm	≤ -94 dBm	≤ -94 dBm	≤ -94 dBm	≤ -92 dBm
Antenna	6x 5 dBi Sectorized 3D	6x 5 dBi Sectorized 3D	4x 5 dBi Omni Embedded	2x 5 dBi Omni Embedded	2x 5 dBi Omni Embedded
Transmit Power (mW)	630 mW/630 mW	630 mW/630 mW	800 mW/400 mW	800 mW	800 mW
Operation Modes	Access Point WDS AP WDS Bridge	Access Point WDS AP WDS Bridge	Access Point WDS AP WDS Bridge Repeater	Access Point WDS AP WDS Bridge Repeater	Access Point WDS AP WDS Bridge Repeater
Number of SSID	16 (8 per radio)	16 (8 per radio)	16 (8 per radio)	8	4
802.1q vLAN	●	●	●	●	●
QoS	●	●	●	●	●
AP Management Software (EZC)	●	●	●	●	●
DC Power	●	●	●	●	●
Power Over Ethernet (PoE)	802.3at	802.3at	802.3at/af	802.3af	802.3af
User Support	Up to 50 on each radio	Up to 50 on each radio	Up to 50 on each radio	Up to 50	Up to 32

Pro AP : ENS Series

Compare ENS Series



	ENS1750	ENS1200	ENS500EXT	ENS500	ENS202EXT	ENS202
Wi-Fi Standard	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac	802.11 a/n	802.11 a/n	802.11 b/g/n	802.11 b/g/n
RAM	64MB	64MB	32MB	32MB	32MB	32MB
Flash	16MB	16MB	16MB	16MB	16MB	16MB
Frequency Band	2.4 GHz & 5GHz	2.4 GHz & 5GHz	5GHz	5 GHz	2.4 GHz	2.4 GHz
Maximum Advertised Speed	2.4 GHz: 450Mbps 5 GHz: 1300Mbps	2.4 GHz: 300Mbps 5 GHz: 866Mbps	300Mbps	300Mbps	300Mbps	300Mbps
RF Power (dBm)	2.4 GHz: 29 dBm 2.4 GHz: 28 dBm	27 dBm	26 dBm	26 dBm	26 dBm	26 dBm
RF Power (mW)	800mW	500mW	400mW	400mW	400mW	400mW
Operation Modes	Access Point Client Bridge WDS Bridge/AP/Station	Access Point Client Bridge WDS Bridge/AP/Station	Access Point Client Bridge WDS Bridge/AP/Station Client Router	Access Point Client Bridge WDS Bridge/AP/Station Client Router	Access Point Client Bridge WDS Bridge/AP/Station Client Router	Access Point Client Bridge WDS Bridge/AP/Station Client Router
LAN Interface	10/100/1000 x2	10/100/1000 x2	10/100 x2	10/100 x2	10/100 x2	10/100 x2
Antenna	Built-in 5 dBi Directional	Built-in 5 dBi Directional	2x External 5 dBi Omni Directional	Built-in 10 dBi Directional	2x External 5 dBi Omni directional	Built-in 8dBi Directional
Antenna Connector Type	N/A	N/A	SMA	N/A	SMA	N/A
Encryption	WEP/WPA/WPA2	WEP/WPA/WPA2	WEP/WPA/WPA2	WEP/WPA/WPA2	WEP/WPA/WPA2	WEP/WPA/WPA2
PoE power	48v	48v	24v	24v	24v	24v
IP rating	65	65	65	65	65	65
Primary application	point 2 multipoints	point 2 multipoints	point 2 multipoints	building 2 building	point 2 multipoints	building 2 building
Secondary application	5GHz single radio bridge	5GHz single radio bridge	5GHz single radio bridge	high speed mid-long range P2P network	2.4GHz N300 radio bridge	high-speed CPE device
Specialty application	Highly interferred 2.4GHz wireless traffic	Highly interferred 2.4GHz wireless traffic	Highly interferred 2.4GHz wireless traffic	Outdoor IP cam AP in congested 2.4GHz area	small base station replacement	Outdoor video IP cam wireless client

Pro AP : EnStation Series

Compare EnStation Series



	EnStation 2	EnStation 5
Standards	802.11b/g/n	802.11a/n
Frequency	2.4 GHz	5 GHz
Data Rates	Up to 300 Mbps	Up to 300 Mbps
Radio Chains/Streams	2 x 2:2	2 x 2:2
RF Output Power	26 dBm	26 dBm
Ingress Protection Rating	55	55
Fast Ethernet (10/100 Mbps)	●	●
Secondary Gigabit port	●	●
Integrated Antennas	13 dBi	19 dBi



13dBi

EnStation2

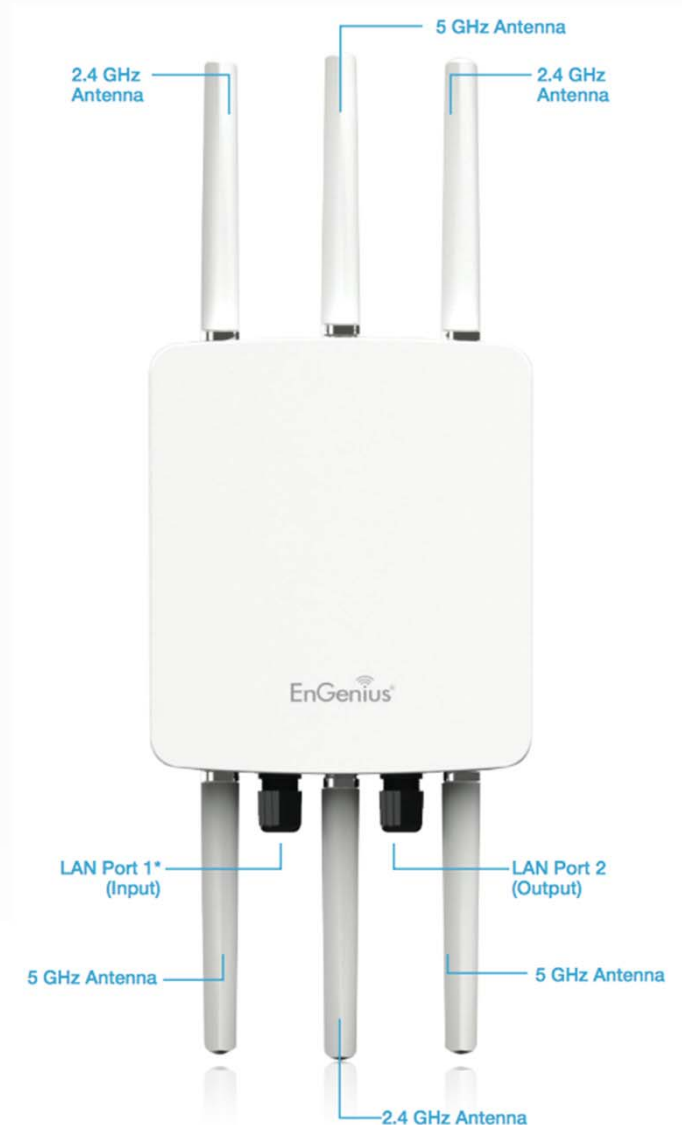
19dBi

EnStation5

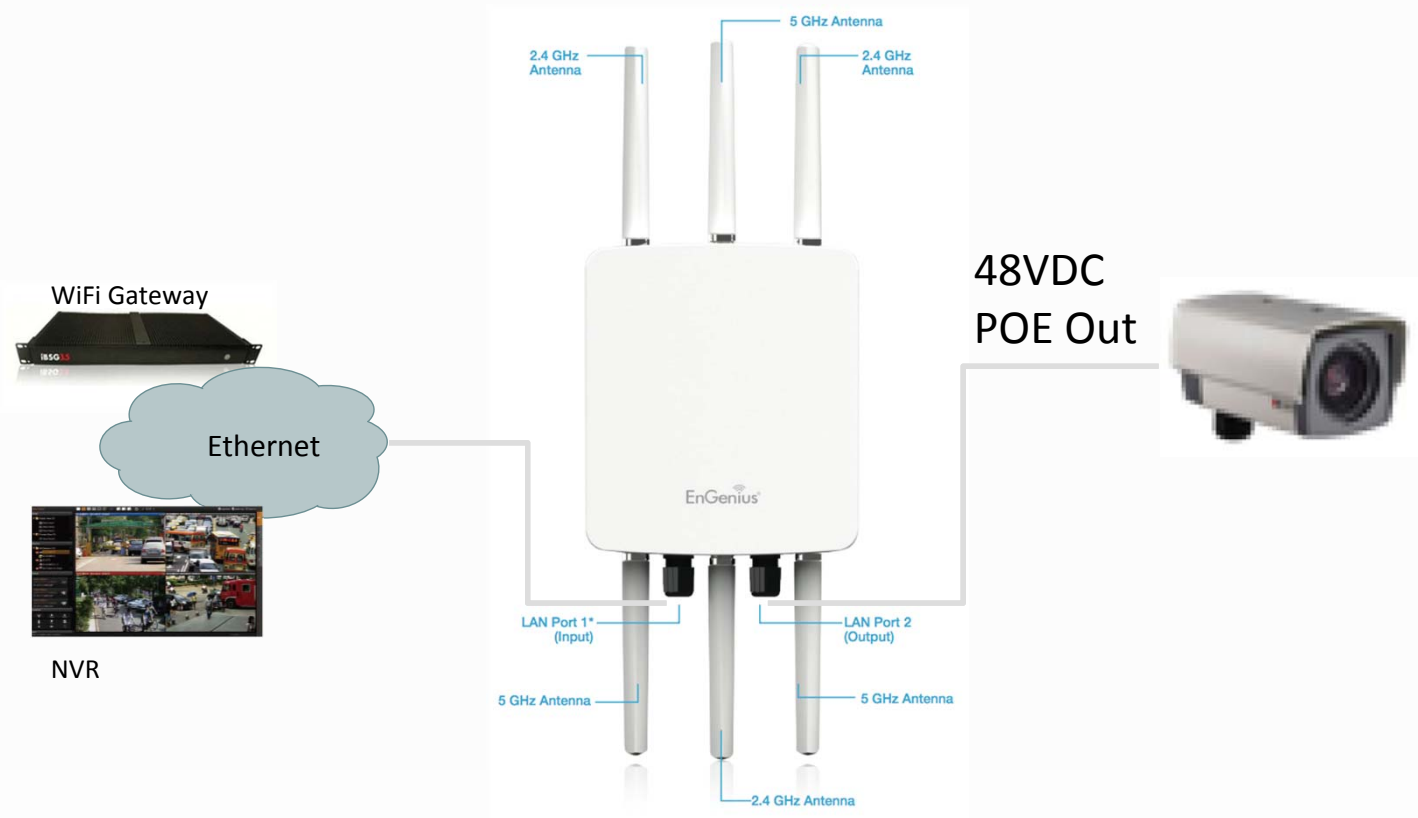
Pro AP : ENH Series

Compare ENH Series

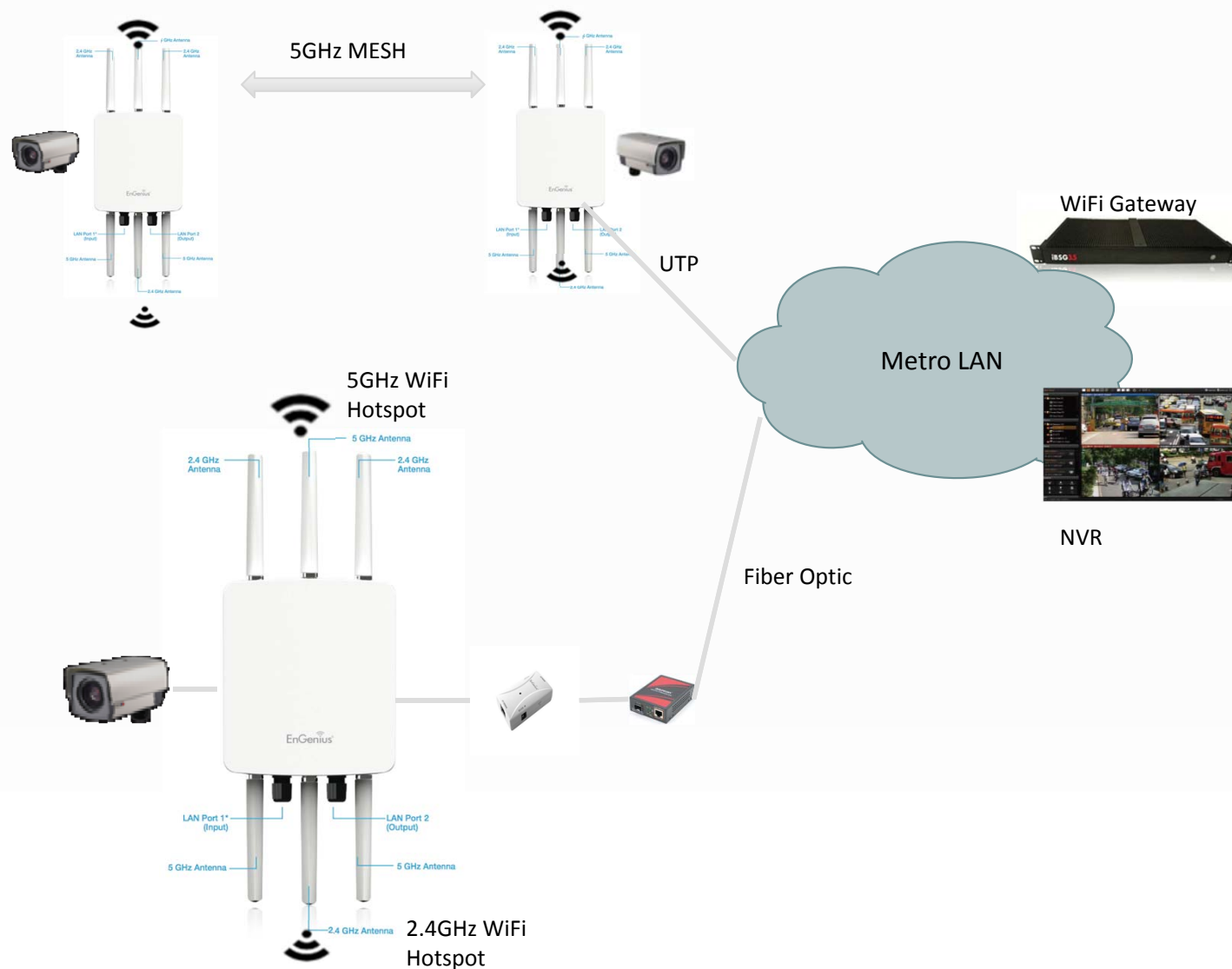
				
	ENH1750EXT	ENH900EXT	ENH710EXT	ENH220EXT
Frequency	802.11a/b/g/n/ac	802.11a/b/g/n	802.11a/b/g/n	802.11 b/g/n
Speed	2.4 GHz: 450 Mbps 5 GHz: 1300 Mbps	2.4 GHz: 450 Mbps 5 GHz: 450 Mbps	2.4 GHz: 300 Mbps 5 GHz: 300 Mbps	300 Mbps
LAN	10/100/1000 x 2	10/100/1000 x 2	10/100/1000 x 2	10/100/1000 x 2
RAM	256 MB	256 MB	128 MB	128 MB
Flash	16 MB	16 MB	16 MB	16 MB
Encryption	WPA2 / WPA / WEP	WPA2 / WPA / WEP	WPA2 / WPA / WEP	WPA2 / WPA / WEP
Mx. Tx power	29 dBm on 2.4 GHz 29 dBm on 5 GHz	29 dBm on 2.4 GHz 29 dBm on 5 GHz	27 dBm on 2.4 GHz 27 dBm on 5 GHz	28 dBm
RF output (mW)	Radio 1: 800 mW Radio 2: 800 mW	Radio 1: 800 mW Radio 2: 800 mW	Radio 1: 500 mW Radio 2: 500 mW	630 mW
External Antenna	5 dBi 2.4 GHz Omni x 3 7 dBi 5 GHz Omni x 3	5 dBi 2.4 GHz Omni x 3 7 dBi 5 GHz Omni x 3	5 dBi 2.4 GHz Omni x 2 7 dBi 5 GHz Omni x 2	5 dBi 2.4 GHz Omni x 2
Dual Radio	●	●	●	●
Operation Modes	Access Point WDS AP&STA WDS Bridge Mesh	Access Point WDS AP&STA WDS Bridge Mesh	Access Point WDS AP&STA WDS Bridge Mesh	Access Point WDS AP&STA WDS Bridge Mesh
Band Steering	●	●	●	
Fast Roaming	●	●	●	●
Weather Proof	IP68	IP68	IP68	IP68
Ethernet Surge Arrestor	●	●		
PoE Injector kit	●	●	●	●
802.3at	●	●	●	●



ENH-900H/1750H



WiFi City + CCTV Solution



EZ CONTROLLER

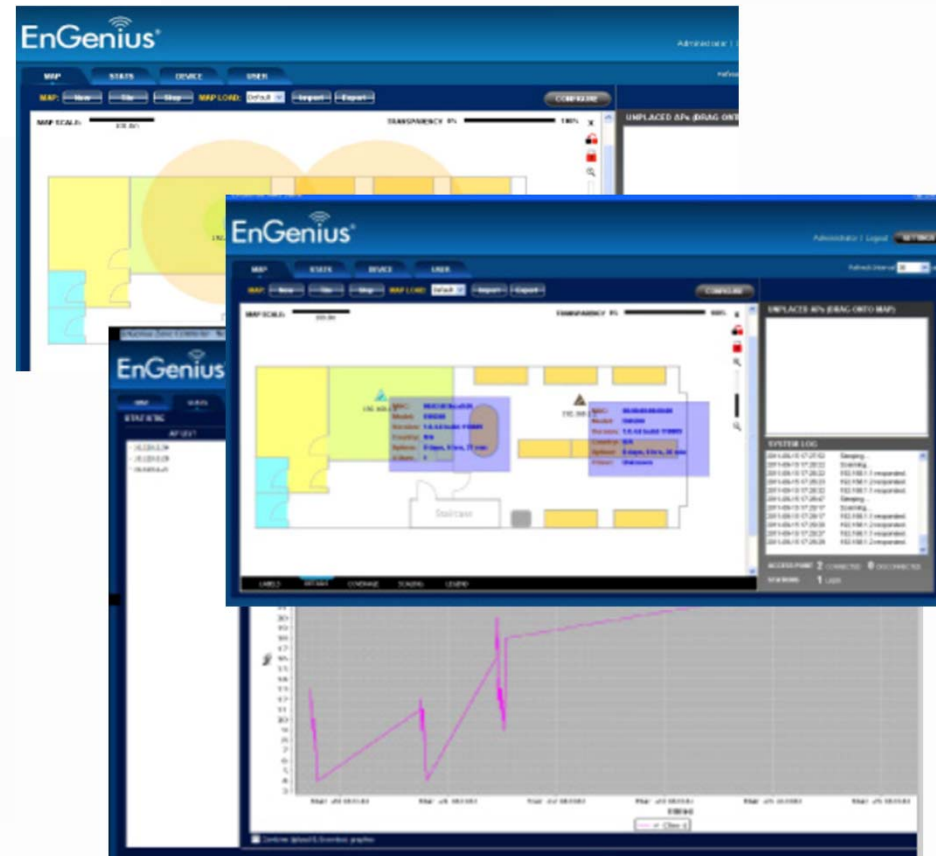
- Windows Install
- Mac Install
- Linux Install

Free WLAN Management Software!

Monitor | Provision | Optimize

Easy-to-use User Interface

- > Optimize network performance
- > See real-time wireless coverage
- > Sequential firmware upgrades to deployed APs/Bridges
- > Import and archive floor-plan maps for radio coverage plotting
- > Real-time AP statistics



EnGenius Switch

Smart Switch Series



	EGS2108P	EGS2110P	EGS5110P
10/100/1000 Ports	8	8	8
SFP	0	2 (additional)	2 (additional)
Power Type	External	External	Internal
PoE Standard (IEEE802.3at/af)	802.3af	802.3af	802.3at/af
PoE Capable Ports	port 1-4	port 1-8	port 1-8
Power Budget	61.6w	61.6w	130w
Chassis	Desktop	Desktop	Rackmount (1U, 13 inch)

Reset Button
Loopback Detection
IGMP Snooping (Supports v1, v2)
Port Mirroring
Port Trunking
Bandwidth Control
Storm Control (Broadcast / Multicast / Unknown Unicast)
802.1Q VLAN
Port-based VLAN

CoS based on 802.1p priority
CoS based on physical port
Power Class Configuration
Power feeding with priority
User defined power limit
Web-based support
Web UI supports non-IE browser (Chrome, Firefox, Safari)
PoE Injector kit
Cable Diagnostic

EnGenius Switch II

Managed Switch Series



	EGS5212FP	EGS7228P	EGS7228FP	EGS7252FP
10/100/1000 Ports	8	24	24	48
SFP	0	4 (additional)	4 (additional)	4 (additional)
RJ45 Console	1	1	1	1
Glgabit Uplink Port	2	0	0	0
Power Type	Internal	Internal	Internal	Internal
PoE Standard (IEEE802.3at/af)	802.3at/af	802.3at/af	802.3at/af	802.3at/af
PoE Capable Ports	port 1-8	port 1-24	port 1-24	port 1-48

L2 Features

802.1D Spanning Tree (STP)
 802.1s Multiple Spanning Tree (MSTP)
 802.1w Rapid Spanning Tree (RSTP)
 MLD Snooping
 IGMP Snooping v1/v2/v3
 802.3ad Link Aggregation
 Port Mirroring
 Port Trunking
 LLDP
 MAC Address Table
 Bandwidth Control

VLAN Features

802.1Q VLAN
 Management VLAN ID
 Port-based VLAN
 Voice VLAN

CoS Features

CoS based on DSCP
 CoS based on 802.1p Priority
 CoS based on Physical Port

PoE Management

Power Class Configuration
 Power Feeding with Priority
 User Defined Power Limit

Security

802.1X Port Based Access Control
 Guest VLAN
 RADIUS Authentication
 SSH / Telnet / Http(s)
 Port Security
 Storm Control
 (Broadcast/Multicast)
 DoS Attack Prevention
 BPDU Attack Prevention
 MAC, IPv4, IPv6 ACL

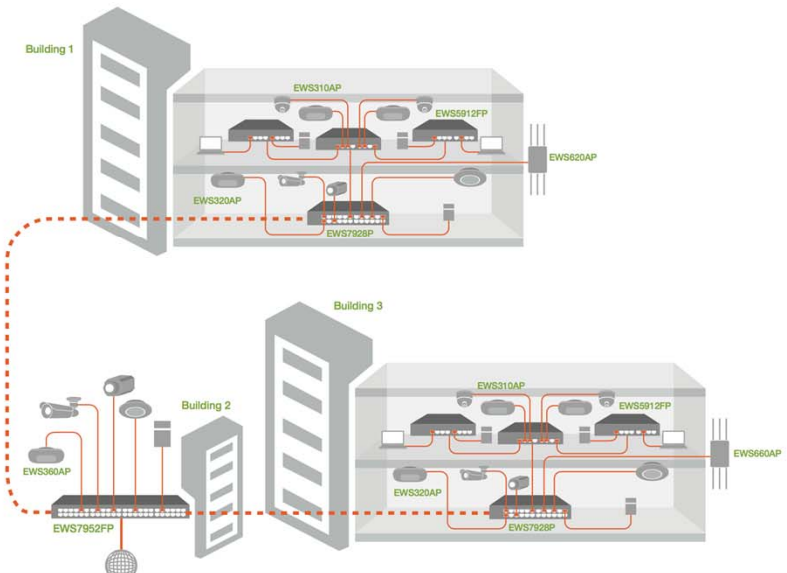
Management

User Management
 Dual Image
 Web-based Support
 SNMP v1/v2c/v3
 TFTP Upgrade
 Command Line Interface (CLI)
 SNMP
 Web UI, Supports Non IE Browser
 RMONv1 (Supports 4 Groups)
 SYSLOG
 Cable Diagnostics
 MIB Support

EnGenius EWS WLAN Management Switch/AP



Automatic AP Discovery and Provisioning



Auto AP Discovery and Provisioning

users can choose to view device information page.

4 MANAGED 4 ACTIVE 0 OFFLINE 1 Under Approval

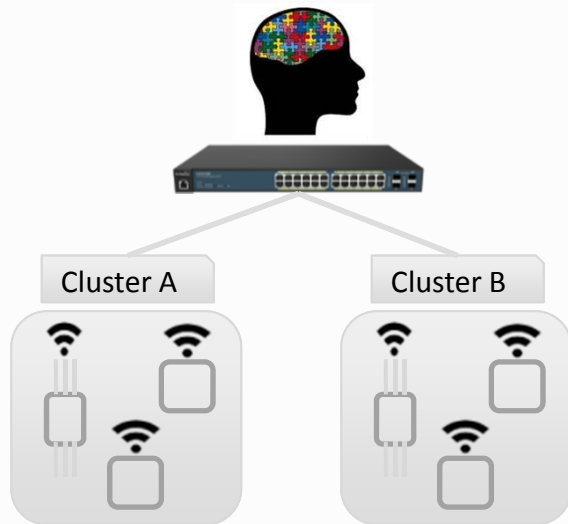
Device Name	IP Address
EWS310AP	192.168.10.127
EWS310AP	192.168.10.122
EWS310AP	192.168.10.123
EWS310AP	192.168.10.163

00:02:6F:D7:AC:44

Previous Next

Shorten the project implementation life-cycle, Save 50% of installation time

Cluster Management



Access Point Cluster Management

Controller | Switch

- Device Management
 - Summary
 - Access Points
 - Active Clients
 - AP Clusters
- Visual Monitoring
- Statistics
- Maintenance

Cluster Setting

General Settings

Name: (1~32 characters)

Description: (0~255 characters)

Managed APs
EWS310AP (00:06:2F:E8:BA:2E)

Cluster Member
EWS310AP (00:02:6F:ED:5B:8E)
EWS310AP (88:DC:96:0C:95:98)

Member Setting:

☒ Show MAC

Administrator Username: (1~12 characters)

New Password: (1~12 characters)

Verify Password:

Radio Settings

WLAN Settings - 2.4GHz

WLAN Settings - 5GHz

Advanced Settings

RF Management



Centralized RF Management

Access Point Radio Frequency Management

Controller | Switch

Device Management

- Summary
- Access Points
- Active Clients
- AP Clusters
- Visual Monitoring
- Statistics
- Maintenance

Wireless Settings

General Settings

Wireless Radio Settings

Country: Please select a country code.

	2.4GHz	5GHz
Wireless Mode:	802.11 b/g/n Mixed	802.11 a/n Mixed
Channel HT Mode:	20/40MHz	40MHz
Extension Channel:	Upper Channel	Upper Channel
Channel:	Auto	Auto
Transmit Power:	Auto	Auto
Client Limits:	127 (1~127, 0 means no limit)	127 (1~127, 0 means no limit)
Data Rate:	Auto	Auto
RTS/CTS Threshold:	2346 (1~2346)	2346 (1~2346)
Aggregation:	☒ Enable ☐ Disable	☒ Enable ☐ Disable
	32 Frames (1~32)	32 Frames (1~32)
	50000 Bytes(Max) (2304~65535)	50000 Bytes(Max) (2304~65535)

WLAN Settings - 2.4GHz

WLAN Settings - 5GHz

Advanced Settings

SSID Management

Establishing separate SSIDs

Each Dual Band Neutron Series Access Point is capable of providing 8 separate SSIDs per frequency band and (16 total) each SSID can be tagged to an established VLAN on the network.

The screenshot displays the EnGenius web interface for wireless settings. On the left, a sidebar menu includes 'Controller | Switch', 'Device Management', 'Summary', 'Access Points', 'Active Clients', 'AP Clusters', 'Visual Monitoring', 'Statistics', and 'Maintenance'. The main panel is titled 'Wireless Settings' and contains sections for 'General Settings', 'Wireless Radio Settings', 'WLAN Settings - 2.4GHz', 'WLAN Settings - 5GHz', and 'Advanced Settings'. The 'WLAN Settings - 2.4GHz' section features a table with 8 rows, each representing a different SSID configuration. An 'SSID Config' pop-up window is overlaid on the right, showing fields for 'Basic Setting' (Enable SSID, SSID name, Hidden SSID, Client Isolation, VLAN Isolation, VLAN ID), 'Traffic Shaping' (Enable Traffic Shaping, Download Limit, Upload Limit), 'Fast Roaming' (Enable Fast Roaming), and 'Security' (None, No Authentication).

ID	Status	SSID	Security	Encryption	Hidden SSID	Client Isolation	VLAN Isolation	VLAN ID
1	Enable	EnGeniusE8BA1D_1-2.4GHz	None	None	No	No	No	1
2	Disabled	EnGeniusE8BA1D_2-2.4GHz	None	None	No	No	No	2
3	Disabled	EnGeniusE8BA1D_3-2.4GHz	None	None	No	No	No	3
4	Disabled	EnGeniusE8BA1D_4-2.4GHz	None	None	No	No	No	4
5	Disabled	EnGeniusE8BA1D_5-2.4GHz	None	None	No	No	No	5
6	Disabled	EnGeniusE8BA1D_6-2.4GHz	None	None	No	No	No	6
7	Disabled	EnGeniusE8BA1D_7-2.4GHz	None	None	No	No	No	7
8	Disabled	EnGeniusE8BA1D_8-2.4GHz	None	None	No	No	No	8

SSID Config

Basic Setting

Enable SSID: ☒ Enable ☐ Disable

SSID: (1-32 characters)

Hidden SSID: ☐ Enable ☒ Disable

Client Isolation: ☐ Enable ☒ Disable

VLAN Isolation: ☐ Enable ☒ Disable

VLAN ID: (1-4094)

Traffic Shaping

Enable Traffic Shaping: ☐ Enable ☒ Disable

Download Limit: Mbps (1-999)

Upload Limit: Mbps (1-999)

Fast Roaming

(only with WPA2 or WPA-Mixed Enterprise security)

Enable Fast Roaming: ☐ Enable ☒ Disable

Security

☒ None

No Authentication

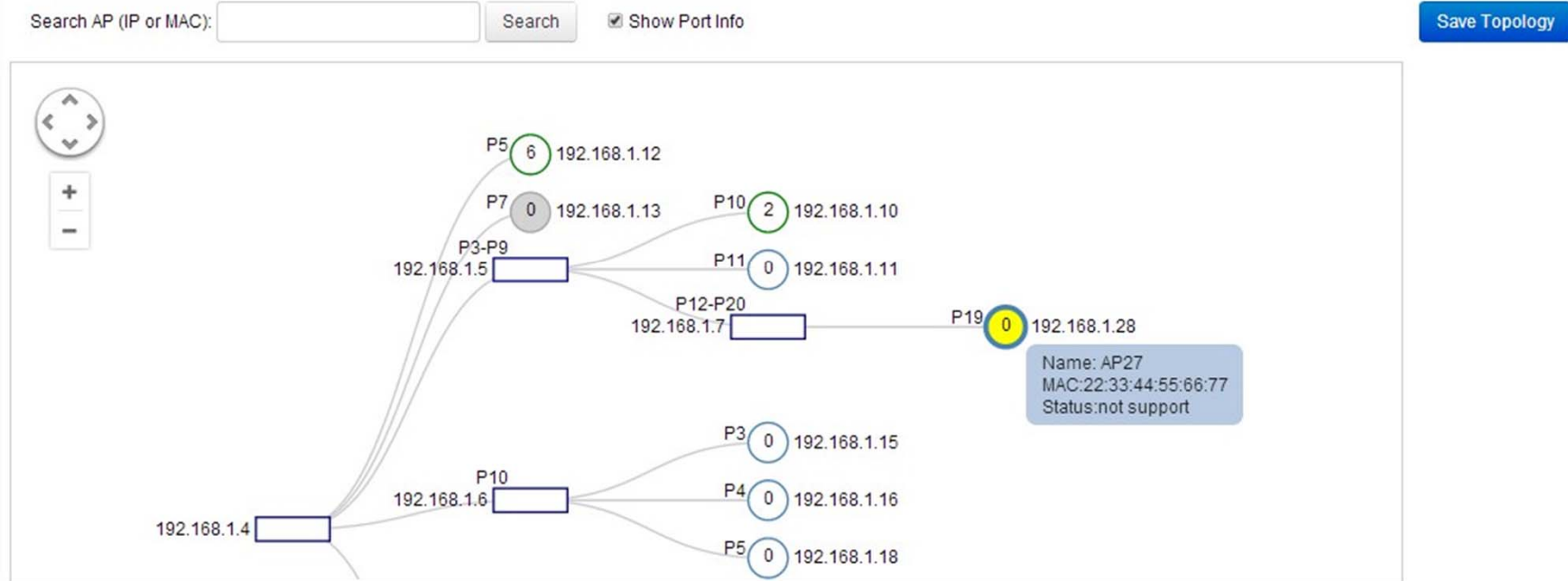
VLAN

Multiple SSID-to-VLAN tagging

Centralized RF Management

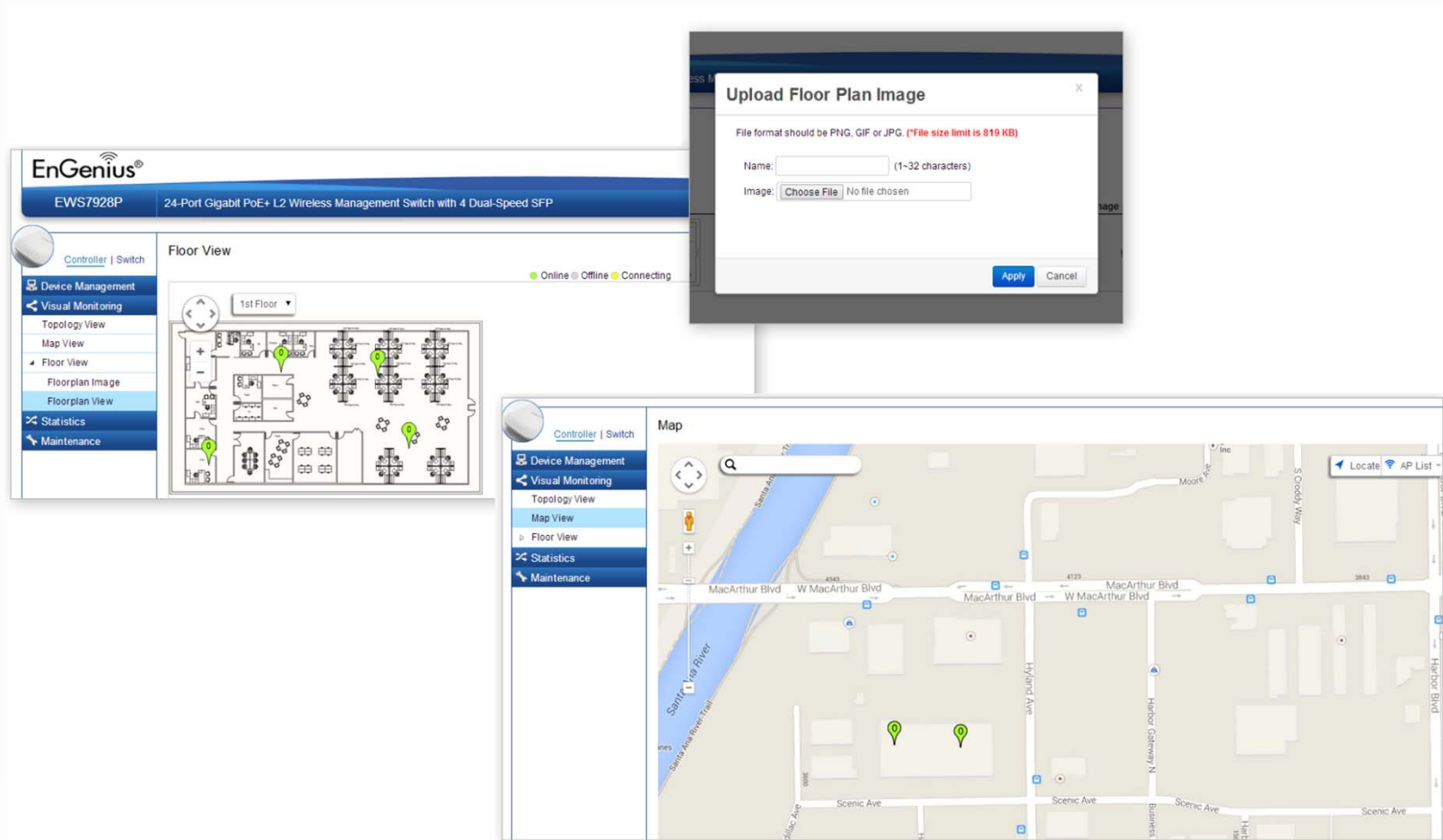
Monitoring : Real-time network topology

Device Tree View

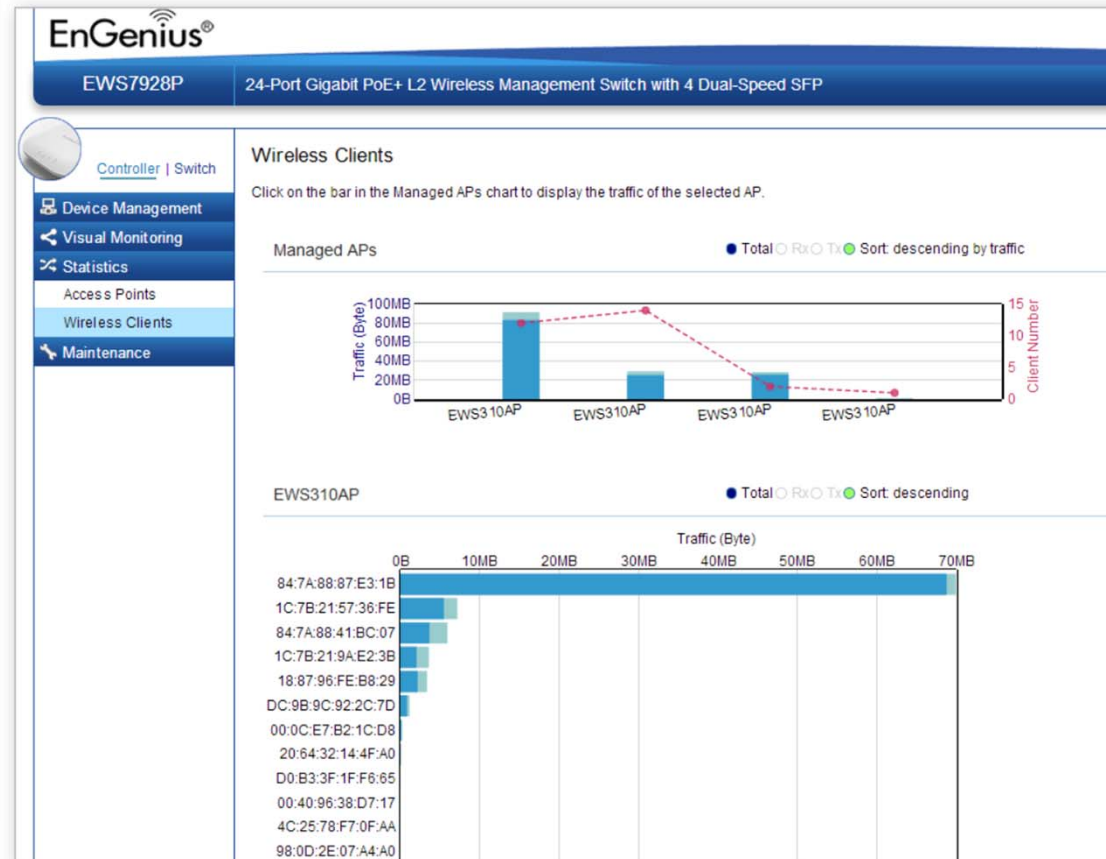


Centralized RF Management

Monitoring : Map/Floor Plan View



Monitoring : Real-time AP Stat View



Automatic Firmware Update

Wireless AP Firmware Upgrade

Total 5 device(s) are available for firmware upgrade. 2 device(s) are under upgrading.

Current firmware image information:

Model	Firmware Version	File Name	Image Size(Byte)	Upload Time
c800	v2.0.0-C0.2	C800-v2.0.0-C0.2.img	5681156	2013-08-20 16:27:33

Upload Wireless AP firmware image file to controller:

(* Firmware image upload is unavailable temporarily when there are devices under upgrading.)

Device List

☐	Status	Model	Name	MAC Address	IP Address	Firmware Version
☐	Run	c800	AP3	39:0A:DA:20:EB:B8	192.168.1.12	1 build-130724 (5b390e5d)
☐	Run	c800	AP5	CD:EF:97:98:17:D2	192.168.1.15	1 build-130724 (5b390e5d)
☐	Run	c800	AP12	AB:EF:88:98:17:D2	192.168.1.15	1 build-130724 (5b390e5d)

Device under Upgrading

Status	Model	Name	MAC Address	IP Address	Current Version
Burning Firmware	c800	AP2	AD:8F:D5:D7:09:13	192.168.1.11	1 build-130724 (5b390e5d)
Burning Firmware	c800	AP8	23:2D:9D:E7:18:68	192.168.1.16	1 build-130724 (5b390e5d)

EnGenius EWS AP



EWS860AP
Wireless N450+AC1300
Managed Dual Band Outdoor AP; IP68



EWS660AP
Wireless N450+AC1300
Managed Dual Band Outdoor AP; IP55



EWS360AP
Wireless N450+AC1300
Managed Dual Band Indoor AP



EWS320AP
Wireless N450+N450
Managed Dual Band Indoor AP



EWS310AP
Wireless N300+N300
Managed Dual Band Indoor AP



EWS210AP
Wireless N300
Managed Indoor AP

EnGenius EWS AP Key Features

Common Key Features

Managed AP Mode Features

- Access Point Mode / Mesh AP Mode* (with Controller Interface)
- Sectorized 3D Antenna (select models)
- Dynamic Channel Optimization
- Guest Network
- Band Steering
- Fast Handover
- Fast Roaming
- Supports connectivity of up to 100+ users**
- WEP, WPA-PSK, WPA2-PSK, WPA-PSK Mixed, WPA-Enterprise, WPA2- Enterprise, WPA-Mixed Enterprise
- 16 SSIDs (8 SSIDS per frequency band)
- Wireless Traffic Shaping
- 802.1q VLAN
- QoS
- IPv6
- Spanning Tree Protocol (STP)
- SSID to VLAN Mapping
- SNMP
- CLI/SSH/Https
- VLAN Isolation
- Client Isolation
- Ping Test/Traceroute Test/Speed Test

Other Features for Stand-alone Mode

- Email Alert
- WiFi Scheduler
- Auto Reboot
- Date and Time Settings
- LED Control
- SYSLOG
- SNMP v1/v2c/v3
- Wireless MAC Filter
- AP Detection

EnGenius EWS Switch



EWS5912FP

Manage Up to 20 APs
8 Gigabit Ports (All PoE)
2 Gigabit SFP Slots
2 Gigabit Uplink Ports
1 RJ45 Console Port
IEEE802.3at/af
PoE Capable Ports: Up to 30 Watts per Port
PoE Budget: 130W
256 MB SDRAM
32 MB Flash
Reset Button



EWS7928P

Manage Up to 50 APs
24 Gigabit Ports (All PoE)
4 Gigabit SFP Slots
1 RJ45 Console Port
IEEE802.3at/af
PoE Capable Ports: Up to 30 Watts per Port
PoE Budget: 185W
256 MB SDRAM
32 MB Flash
Reset Button



EWS7952FP

Manage Up to 50 APs
48 Gigabit Ports (All PoE)
4 Gigabit SFP Slots
1 RJ45 Console Port
IEEE802.3at/af
PoE Capable Ports: Up to 30 Watts per Port
PoE Budget: 740W
256 MB SDRAM
32 MB Flash
Reset Button



Remote Monitoring and Management*

For effective centralized management of multiple Neutron Series Wireless Management Switches, Neutron Navigator, the browser-based PC utility provides required information of all devices at a glance. From the dashboard of Neutron Navigator, IT managers can monitor the status of each and every Neutron Series Access Points lined to Wireless Management Switch and easily navigate to any device with a simple click to proceed for further configuration.

For the sake of performing the most essential management remotely, Neutron Mobile app is available to download on App Store for iPhone®, iPad® users and Google play for Android™-based users; IT managers can monitor the real time status, reboot Neutron Series Access Points allowing quick network troubleshooting at anytime from anywhere with without carrying a bulky laptop.

Apps available from:



nvk

N.V.K.INTER CO., LTD.

@nvkwireless

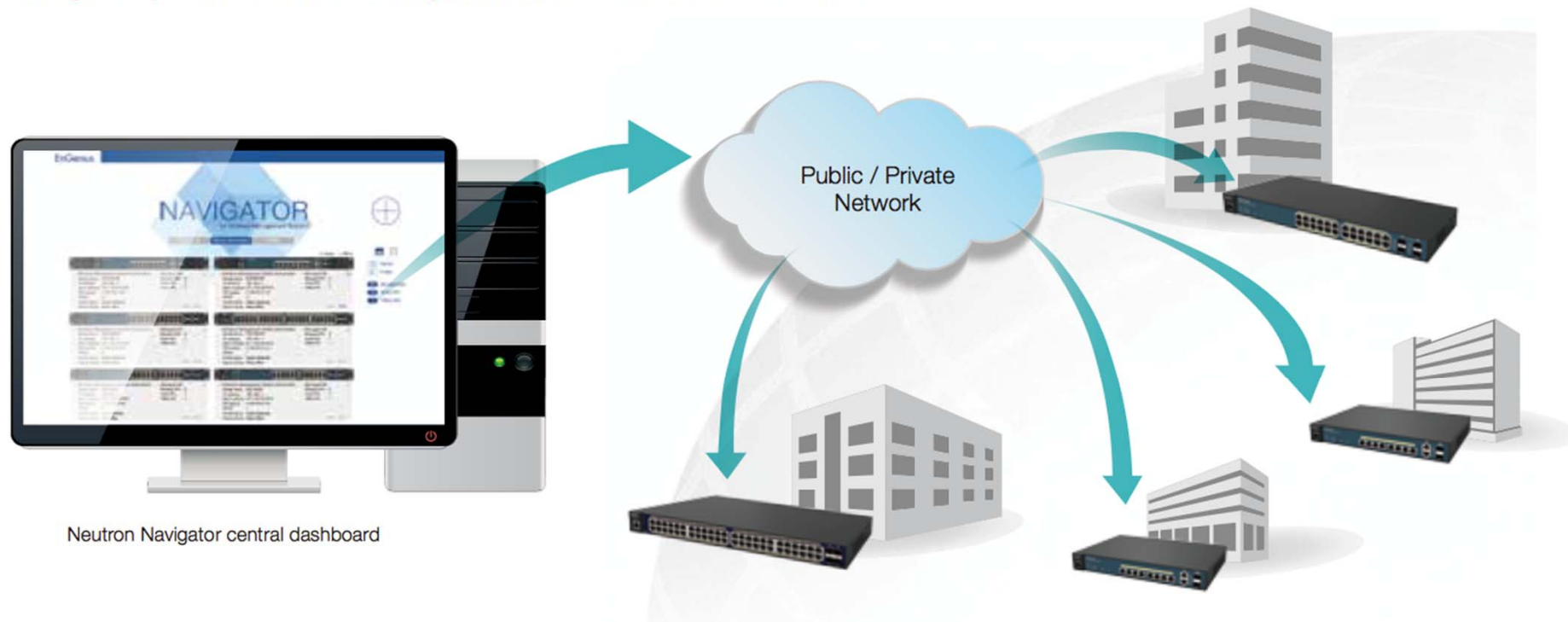
facebook.com/nvkinter

www.nvk.co.th

Multi-Site Management

Neutron Navigator

Manage multiple Neutron Wireless Management Switches from a central dashboard



NVK WiFi Hotspot Solution

Managed, Legally, Future-Proof



N.V.K.INTER CO., LTD.

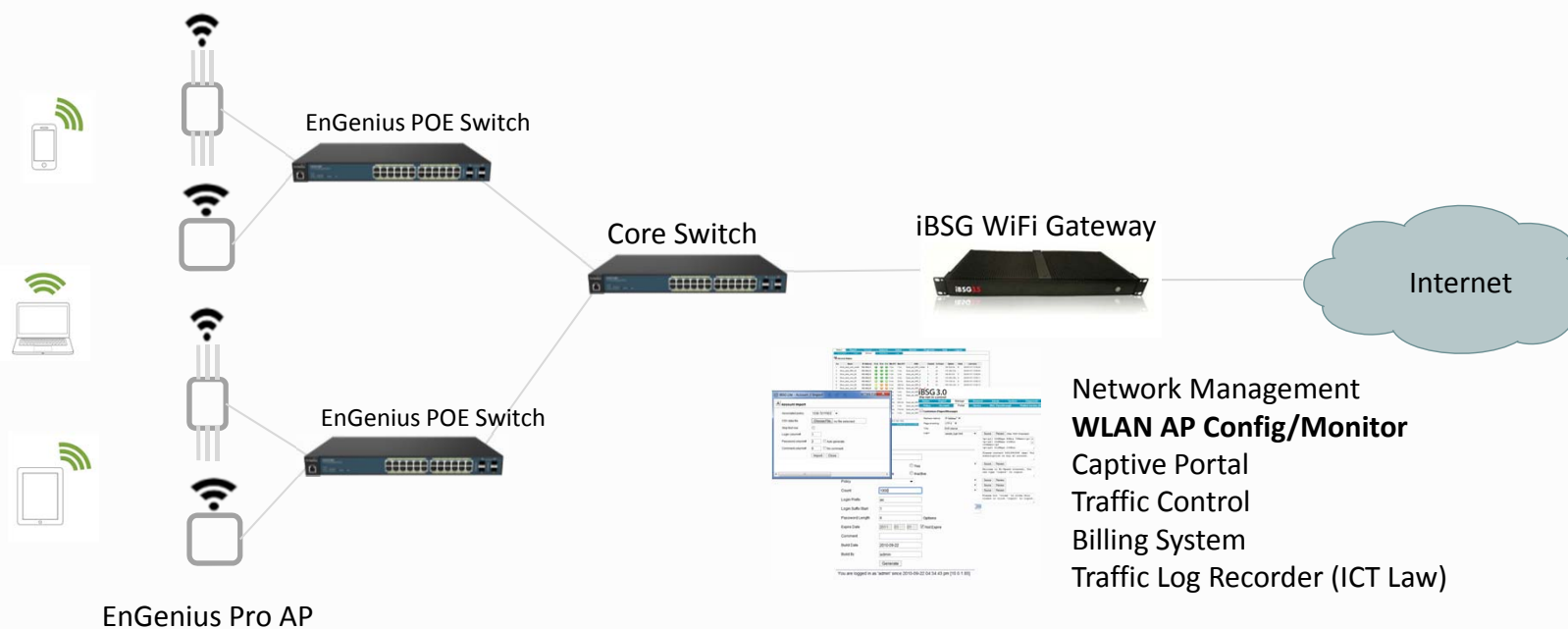
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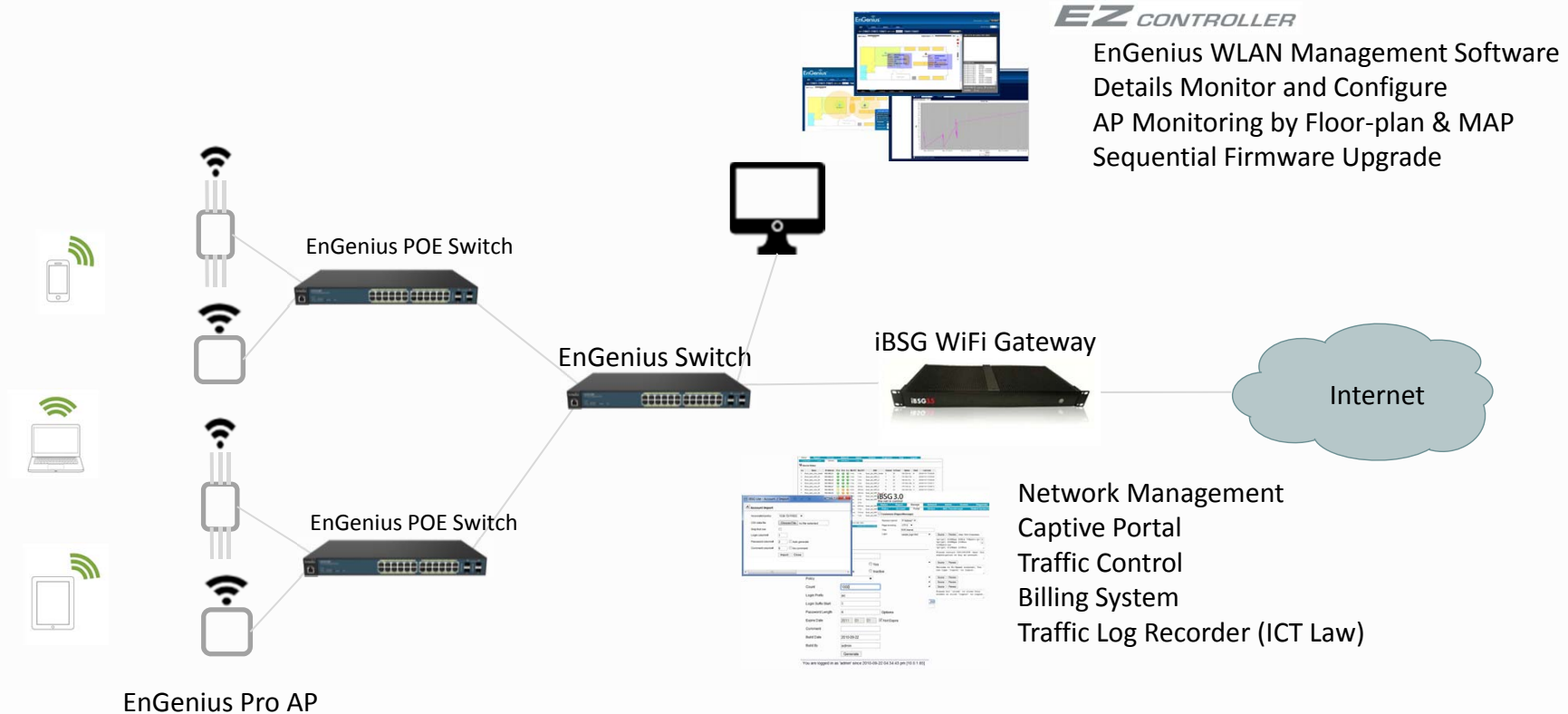
NVK WiFi Solution I

EnGenius Professional AP and iBSG



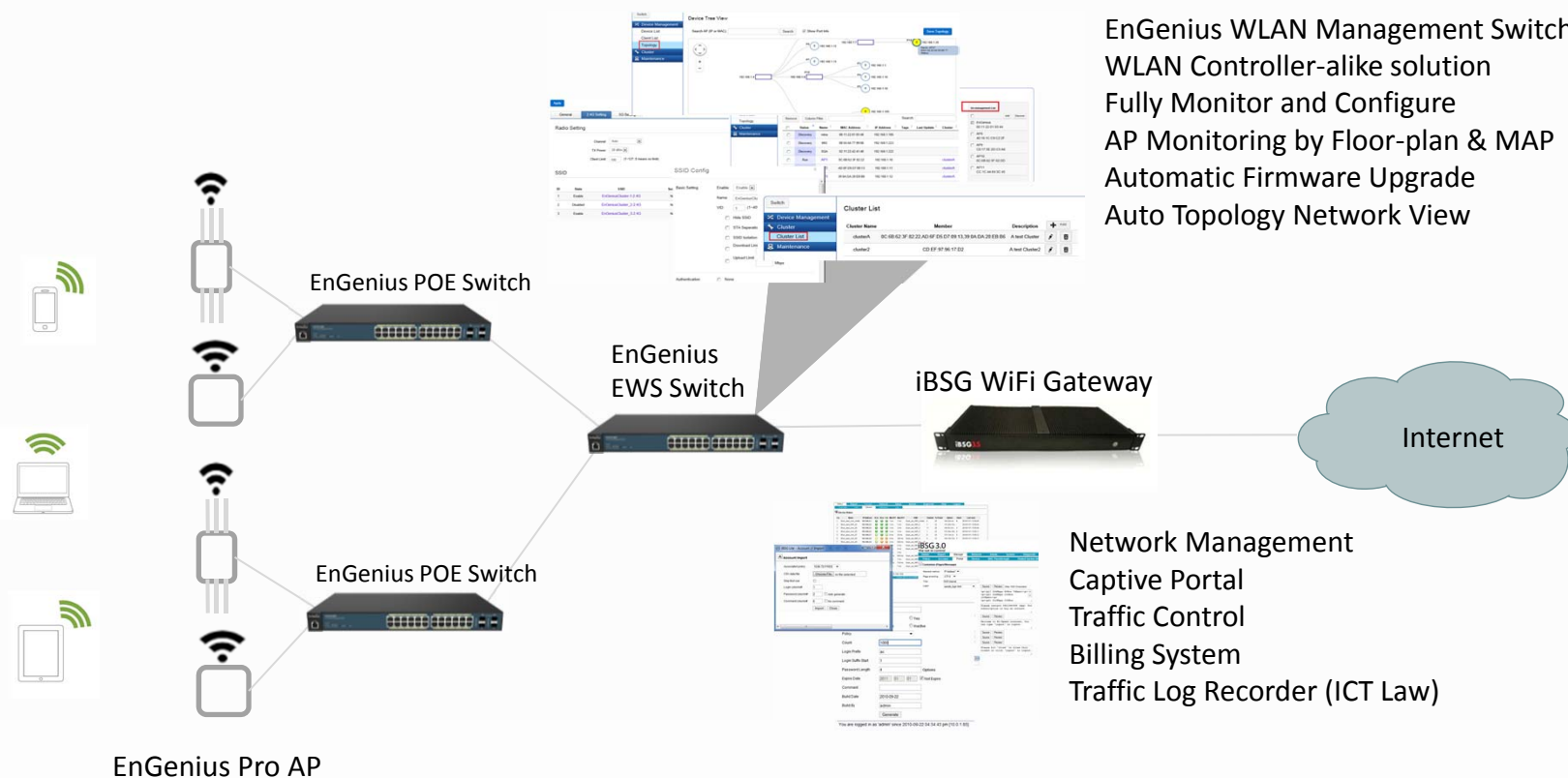
NVK WiFi Solution II

EnGenius Professional AP, EZ Controller and iBSG



NVK WiFi Solution III

EnGenius EWS AP + EWS Switch and iBSG



EnGenius WLAN Management Switch
WLAN Controller-alike solution
Fully Monitor and Configure
AP Monitoring by Floor-plan & MAP
Automatic Firmware Upgrade
Auto Topology Network View

Network Management
Captive Portal
Traffic Control
Billing System
Traffic Log Recorder (ICT Law)

Cloud-based iBSG

The Next generation WiFi Hotspot Solution



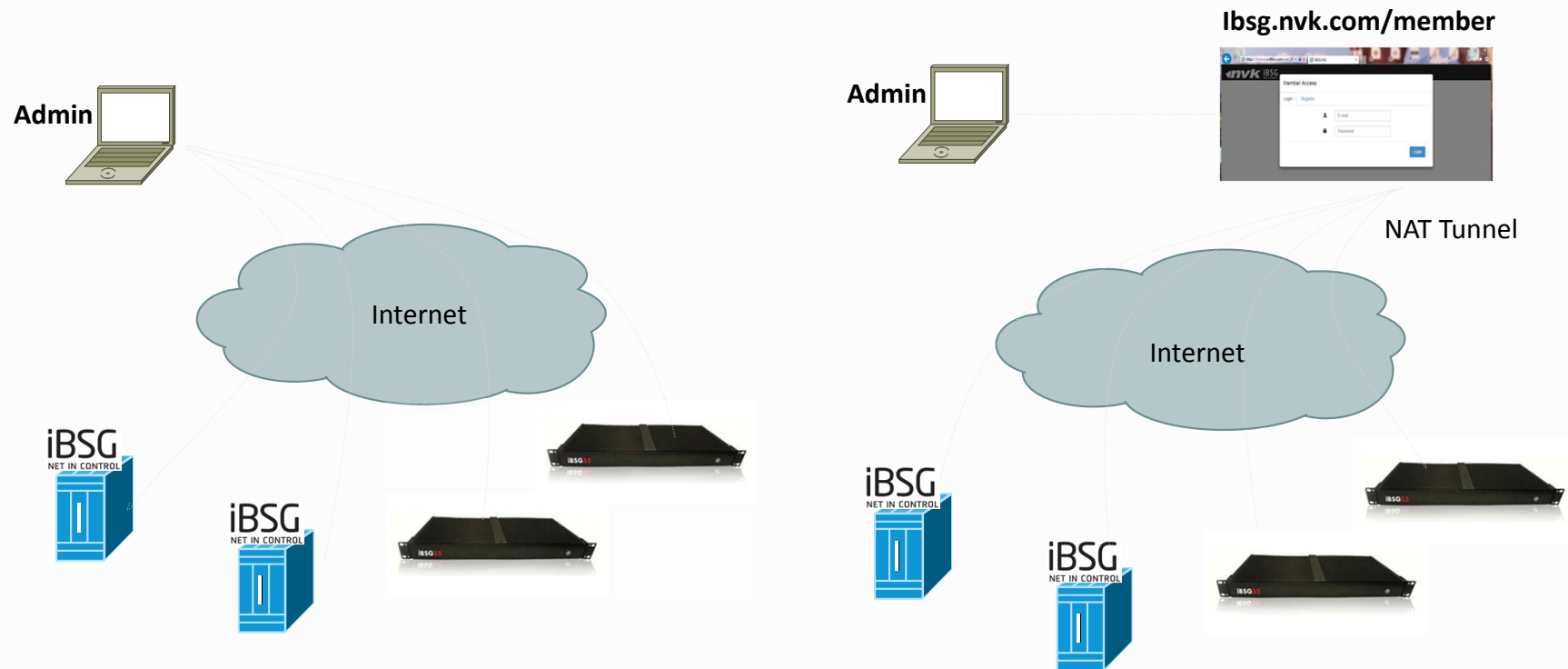
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Old VS New Cloud Management

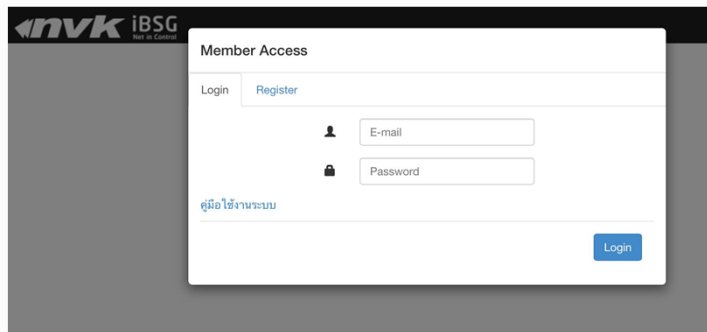


iBSG Centralized Monitor, Manage with License Management in one place!

Visit... <https://ibsg.nvk.com/member>

New iBSG Portal

<http://ibsg.nvk.co.th>



Member Access

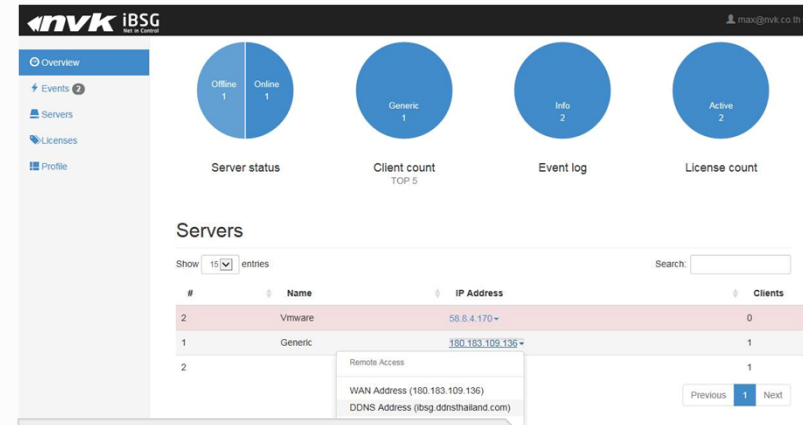
Login Register

E-mail

Password

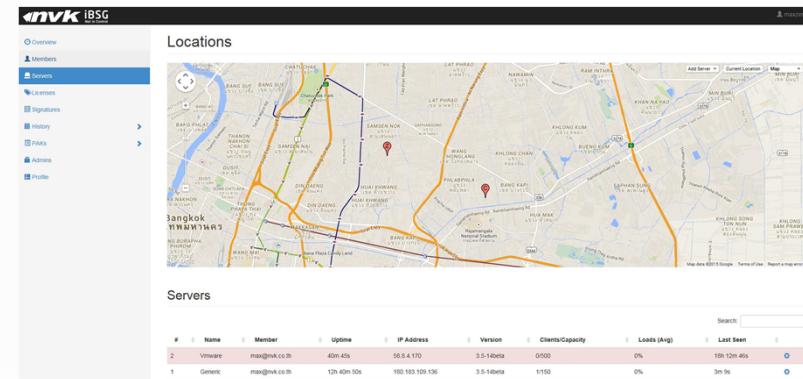
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Login



Centralized Monitoring

License Management



Map-view Monitoring



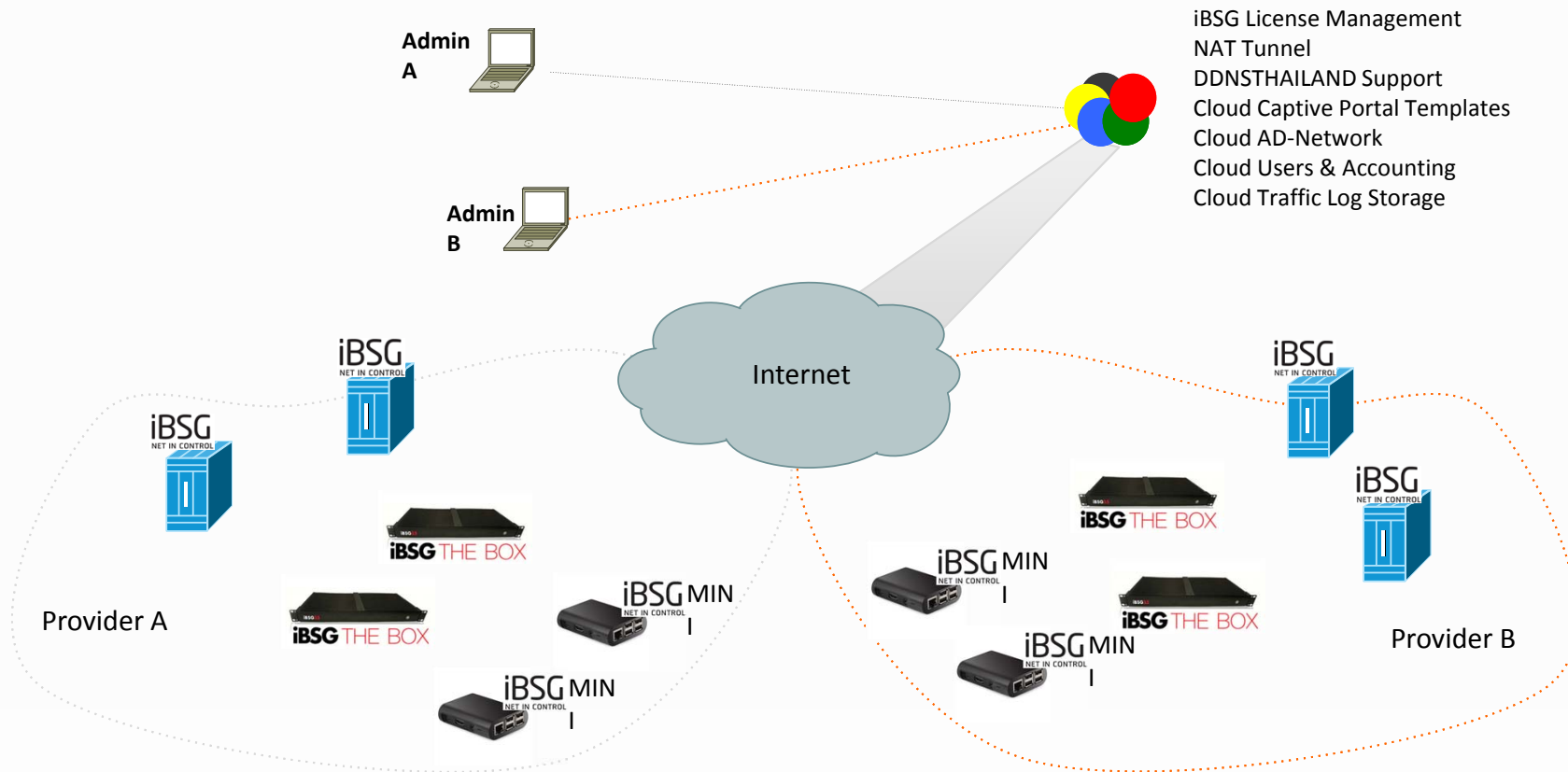
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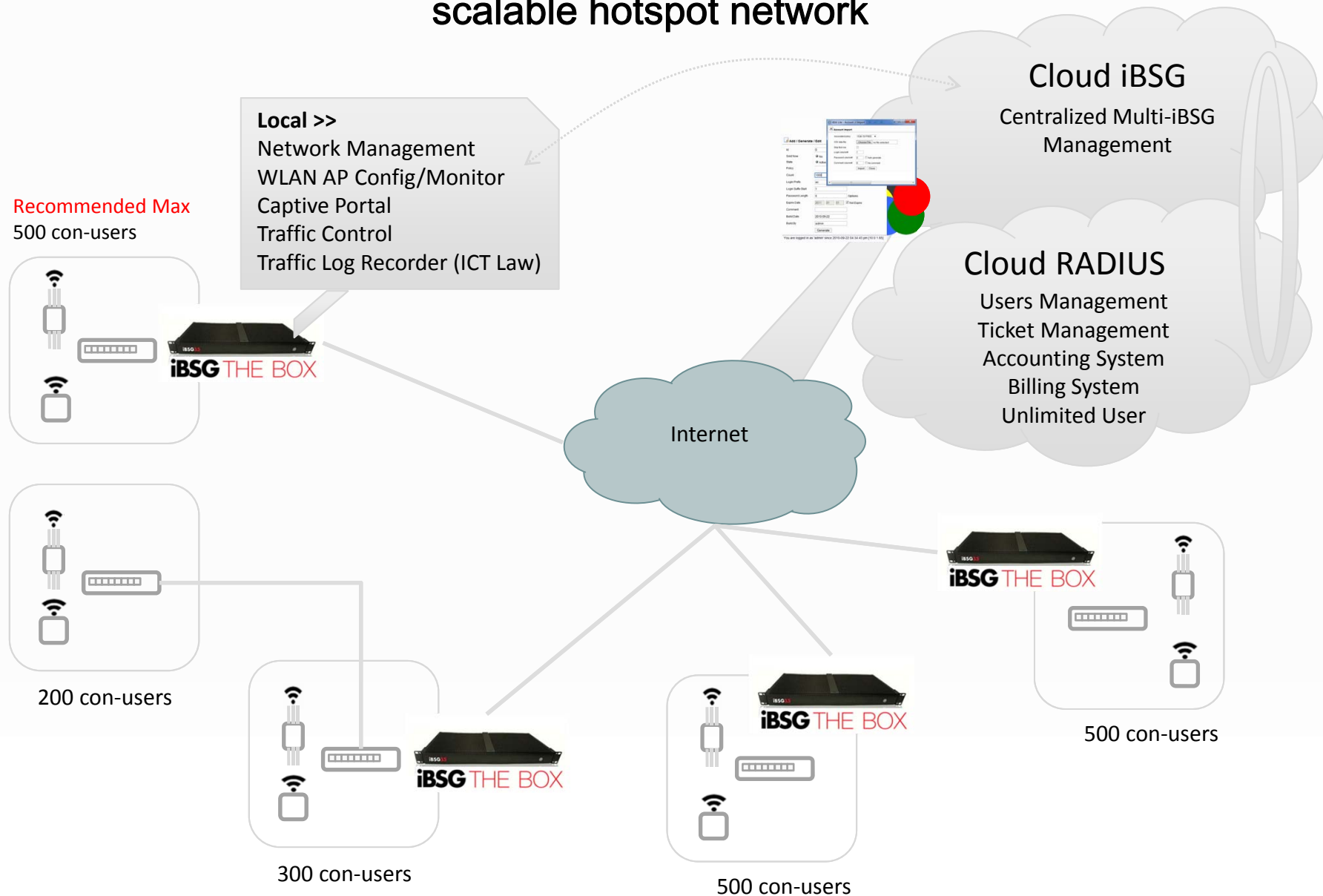
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Cloud-based iBSG Solution Roadmap



Multi-iBSG + Cloud RADIUS

scalable hotspot network





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