

The Hub of Your Connected World

Enterprise Wi-Fi



Connectivity Redefined

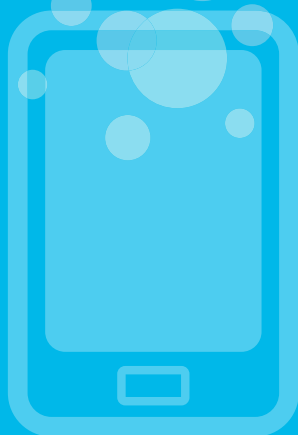
SAMSUNG
WIRELESS ENTERPRISE

NORTH AMERICA VERSION

Samsung Smart Wi-Fi

Experience the most sophisticated enterprise mobility, created by the industry leader in mobile devices.

Discover the ultimate wireless communications, employee productivity and enhanced security. Connectivity redefined to a whole new level.





Samsung Enterprise Wi-Fi not only goes beyond connecting personal devices to a corporate network to accommodate the Bring Your Own Device (BYOD) environment but also pursues efficiency and enhance productivity. This is why you need Samsung Wi-Fi, an enterprise mobility solution that guarantees the wireless environment and optimized mobility that companies want.

Samsung offers enterprise customers of all sizes higher throughput, more capacity and less interference for easy and reliable service and management.

IT managers must support wireless networks in high density environments, pushing the limits of performance of their current infrastructure. Examples of these environments are schools, conference rooms, large venues and lobby areas where hundreds, and sometimes thousands, of people are simultaneously accessing the network on their connected devices. Samsung Wi-Fi is the best wireless solution for these types of environments because of its ability to distribute airtime equally and provide the fastest Wi-Fi connections available today.

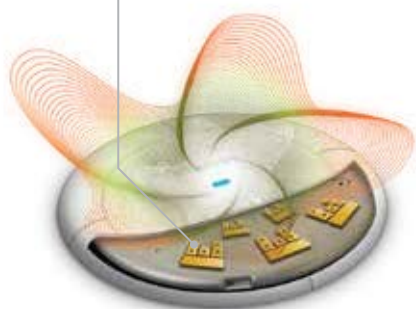
Intelligent Beam Selectable Antenna (IBSA)



Samsung AP has a total of 15 antennas. Three antennas are used for monitoring and the remaining 12 provide optimized RF patterns, selecting a beam for each environment. As a result, dead zones are minimized, service coverage is extended, and the receiving sensitivity is 2 dB higher than competitors. This means that the antenna can accurately receive signals from a mobile device with weak Tx power even from long distances.

WEA 403 (built-in AP) Beam Selectable Antenna

- Number of antennas : six each for 2.4 GHz and 5 GHz, and two for monitoring
- Selectable per environment or user



AirMove*



In legacy Wi-Fi handover, a device scans for other APs and connects to the appropriate AP when the AP signal detected by the device is below a certain threshold. This technology basically requires a long scan time and degrades service quality. Samsung AirMove uses LTE handover technology that allows the AP controller to determine the best timing and target AP for the handover. This way, people enjoy seamless service during voice calls and video, and a greater throughput that is double than what legacy Wi-Fi handover guarantees.

*Requires free background app to be installed from App stores



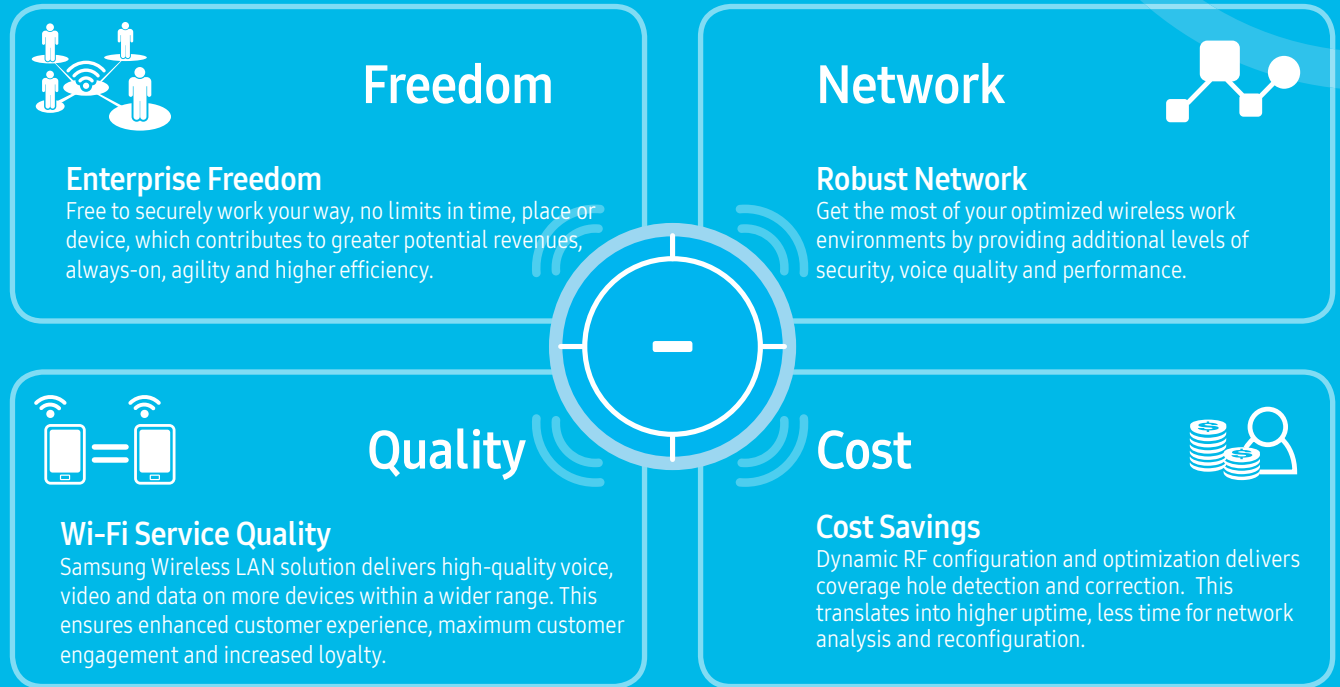
AirEqualizer




Samsung's Traffic Schedule technology ensures the most optimized Wi-Fi service by allocating equal airtime to multiple devices. Ideally suited for environments such as classrooms and lecture halls, this technology guarantees airtime fairness where multiple people need to simultaneously connect to the network. It also allows seamless service even in an environment with multiple devices with different traffic types, without compromising service quality. In addition, it can maximize the AP's total cell throughput by more than 50% over competitor products, providing the best performance that adapts to the Wi-Fi connection specifications (11 a/b/g/n/ac) and signal intensity characteristics.




With Samsung Wi-Fi, businesses and mobile users experience reliable, optimized and secure wireless access, allowing for maximum freedom and productivity throughout the workplace.



Self-Organizing Network (SON)


 By adding LTE technology to the existing Tx power and channel optimization technology through wireless resource management, cell configuration and coverage are automatically optimized to suit specific network requirements. This allows a high level of quality management during operations, dramatically shortening design schedule as well as reducing design cost.

Voice Aware Traffic Scheduling (VaTS)*

 VaTS, a Samsung's patented technology, efficiently sends voice frames to multiple devices using mobile communication traffic scheduling technology. This means that there is no voice quality degradation due to an increase of devices on concurrent calls. This technology enhances the concurrent call capacity and quality of voice service.

*Requires free background app to be installed from App stores

Dedicated Security Monitoring Module

 Samsung Access Points combine the advantages of both overlay and time slice split configurations and implements a dedicated security RF monitoring chip embedded independently of the RF service chip for continuous real-time monitoring of data service. This maximizes the RF sensing performance of the infrastructure and reduces the need for additional security equipment.





WEA 300 Series

Samsung Access Points WEA 300 series are compact and powerful access points with multiple spatial streams 802.11a/b/g/n that deliver data rates of 300/450 Mbps and ensure ultimate coverage, easy management and a secure wireless network.



Specifications

		WEA303i	WEA303e	WEA302i
Features		Dedicated WIPS Module	Dedicated WIPS Module	Dedicated WIPS Module
Wireless	Standard	802.11a/b/g/n	802.11a/b/g/n	802.11a/b/g/n
	# of radio	Dual Concurrent Radio	Dual Concurrent Radio	Dual Concurrent Radio
	Frequency	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz
	Antennas	Internal Type	External Type	Internal Type
	MIMO	3 x 3 MIMO, 3 Spatial Streams	3 x 3 MIMO, 3 Spatial Streams	2 x 2 MIMO, 2 Spatial Streams
	Spectrum Analysis	Yes	Yes	Yes
	PHY Rate	450 Mbps	450 Mbps	300 Mbps
H/W	Network I/F	1 GE (RJ45), 1 Console (RJ45)	1 GE (RJ45), 1 Console (RJ45)	1 GE (RJ45), 1 Console (RJ45)
	PoE	802.3 af/at	802.3 af/at	802.3 af/at
	Environment Class	Indoor	Indoor	Indoor
Dimension	Diameter / Height	174 mm / 34.1 mm	174 mm / 34.1 mm	174 mm / 34.1 mm
	Weight	640 g	650 g	560 g
Security	Standard	802.11i, WPA/WPA2	802.11i, WPA/WPA2	802.11i, WPA/WPA2
	Multi SSID	Maximum 16	Maximum 16	Maximum 16
	# of Multi VLAN over SSID	Maximum 1,024	Maximum 1,024	Maximum 1,024
	Encryption	DTLS	DTLS	DTLS
	Rogue AP Detection / Blocking	Detection	Detection	Detection
QoS	Standard	802.11e	802.11e	802.11e
	WMM	Yes	Yes	Yes
Management	Operation	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS
	Certification	KC, FCC/CE	KC, FCC/CE	KC, FCC/CE



WEA 400 Series

The WEA 400 series of Samsung Access Points supports 802.11ac, the next generation of Wi-Fi, offering higher throughput, more capacity, and less interference, while providing easy and reliable management. The WEA400 series are dual concurrent radio Access Points with each radio capable of running in either 2.4 or 5GHz band.



Specifications

		WEA403i	WEA403e	WEA412i	WEA412h Wall Plate
Features		Dedicated WIPS Module	Dedicated WIPS Module	-	-
Wireless	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
	# of radio	Dual Concurrent Radio	Dual Concurrent Radio	Dual Concurrent Radio	Dual Concurrent Radio
	Frequency	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz
	Antennas	Internal Type	External Type	Internal Type	Internal Type
	MIMO	3 x 3 MIMO, 3 spatial Streams	3 x 3 MIMO, 3 Spatial Streams	2 x 2 MIMO, 2 Spatial Streams	2 x 2 MIMO, 2 Spatial Streams
	Spectrum Analysis	Yes	Yes	Yes (Time Sharing)	-
	PHY Rate	1.3 Gbps	1.3 Gbps	867 Mbps	867 Mbps
H/W	Network I/F	2 GE (RJ45), 1 Console (RJ45)	2 GE (RJ45), 1 Console (RJ45)	2 GE (RJ45), 1 Console (RJ45)	WAN : 1 GE LAN : 4 GE (include 1 PoE output port)
	PoE	802.3 at	802.3 at	802.3 af/at	802.3 af/at
	PoE PSE	-	-	-	48V DC : 15.4W 802.3at PoE : 10W 802.3af PoE : Disabled
	Environment Class	Indoor	Indoor	Indoor	Indoor
Dimension	Diameter / Height	205 mm / 45 mm	205 mm / 45 mm	205 mm / 45 mm	96mm(W) x 144mm(H) x 36mm(D)
	Weight	860 g	870 g	790 g	330 g
Security	Standard	802.11i, WPA/WPA2	802.11i, WPA/WPA2	802.11i, WPA/WPA2	802.11i, WPA/WPA2
	Multi SSID	Maximum 16	Maximum 16	Maximum 16	Maximum 16
	# of Multi VLAN over SSID	Maximum 1,024	Maximum 1,024	Maximum 1,024	Maximum 1,024
	Encryption	DTLS	DTLS	DTLS	DTLS (Control plane)
	Rogue AP Detection / Blocking	Detection	Detection	Detection (Time sharing)	Detection
QoS	Standard	802.11e	802.11e	802.11e	802.11e
	WMM	Yes	Yes	Yes	Yes
Management	Operation	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS
	Certification	KC, FCC/CE	KC, FCC/CE	KC, FCC/CE	KC, FCC/CE (DEC, '16)



IoT AP

Samsung IoT Access Points provide Giga-speed Wi-Fi access and wireless connectivity to IoT sensors with their integrated low-energy Bluetooth (BLE) and Zigbee chipsets. The IoT Access Point supports location-based services, building energy management, lighting control, temperature management in a wide range of environments.



Major Functions and Benefits

BLE Beacon Hub

- Centralized beacon management unit
- Realtime coverage monitoring (coverage holes & signal strength)
- Beacon analysis supporting user identification, location tracking and rogue beacon detection

Available BLE Beacon without Power Interruption

- BLE beacon as sending location information
- Cost reduction provided: Two services in one product
Location based beacon service and Wi-Fi data service
- Optimization and automation adjust of beacon Tx power

IoT Sensor Gateway

- Real time monitoring & management of IoT sensors and devices
- Price competitive: Wireless sensor connectivity and simultaneous Wi-Fi data service supported (No sensor gateway installation required to support IoT services)
- Built-in BLE for location based services and user identification, sensor control and interaction with ZigBee technology (lighting control, temperature sensor management, etc.)

Specifications

		WEA403Si
Features		Dedicated WIPS Module
Wireless	Standard	802.11a/b/g/n/ac
	Bluetooth Low Energy	GATT (Generic Attribute) profile
	ZigBee	HA (Home Automation) profile
	# of radio	Dual concurrent radio
	Frequency	2.4 GHz, 5 GHz
	Antennas	Internal type
	MIMO	3 x 3 MIMO, 3 Spatial streams
	Spectrum Analysis	Yes
H/W	PHY Rate	1.3 Gbps
	Network I/F	2 GE (RJ45), 1 Console (RJ45)
	PoE	802.3at
Dimension	Environment Class	Indoor
	Diameter / Height	205 mm / 45 mm
	Weight	880 g
Security	Standard	802.11i, WPA/WPA2
	Multi SSID	Maximum 16
	# of Multi VLAN over SSID	Maximum 1,024
	Encryption	DTLS
	Rogue AP Detection / Blocking	Detection
QoS	Standard	802.11e
	WMM	Yes
Management	Operation	Controller-Based Mode, Stand-Alone Mode
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS
	Certification	KC, FCC/CE



802.11ac Wave 2 AP

Samsung 802.11ac Wave 2 AP is a high speed, high performing Access Points for environments where multiple terminals are connected or where large amounts of data such as video streaming are frequently transmitted.



Main Functions and Features

Data transmission capacity improved by 30%

- PHY rates improved compared to the Wave 1 AP (1.3Gbps → 1.7Gbps)
- Channel 160MHz 2 Spatial Stream supported (or 80MHz 4 Spatial Stream)
- 4 MU-MIMO (Possible to transmit data to four users at the same time) high-power design
- Extended coverage with high power of 20 dBm per path

Providing data and security services at the same time

- Exclusive WIPS/monitoring module (WEA504i)

Intelligent Beam Selectable Antenna

- Extended coverage, secured legacy terminal service performance in moderate and weak electric fields (WEA504i)

Specifications

		WEA504i	WEA514i
Features		Dedicated WIPS Module	-
Wireless	Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac
	# of Radio	Dual Concurrent Radio	Dual Concurrent Radio
	Frequency	2.4GHz, 5GHz	2.4GHz, 5GHz
	Antennas	Internal Type	Internal Type
	MIMO	4X4 MIMO, 4 Spatial Streams, 4 Multiuser MIMO	4X4 MIMO, 4 Spatial Streams, 4 Multiuser MIMO
	Spectrum Analysis	Yes	Yes
	PHY Rate	1.7 Gbps	1.7 Gbps
H/W	Network I/F	2 GE (RJ45), 1 Console (RJ45)	2 GE (RJ45), 1 Console (RJ45)
	PoE	802.3at	802.3at
	Environment Class	Indoor	Indoor
Dimension	Diameter / Height	205 mm / 45 mm	205 mm / 45 mm
	Weight	860 g	840 g
Security	Standard	802.11i, WPA/WPA2	802.11i, WPA/WPA2
	Multi SSID	Maximum 16	Maximum 16
	# of Multi VLAN Over SSID	Maximum 1,024	Maximum 1,024
	Rogue AP Detection / Blocking	Detection / Blocking	Detection (Time sharing)
QoS	Standard	802.11e	802.11e
	WMM	Yes	Yes
Management	Operation	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS
	Certification	KC, FCC/CE	KC, FCC/CE



Outdoor AP

The Samsung Outdoor AP is IP66 and IP67 certified and or guaranteeing the highest levels of certification in the electrical equipment enclosure protection standard (IES-529 Standard). More than completely dustproof, It provides stable performance in frequently changing climates. The Samsung Outdoor AP weighs only 2.8 kg and is light enough to hold in one hand, allowing easy installation. WEA463e can be used to build an efficient wireless Mesh network optimized path by mounting the original Mesh Protocol Samsung Electronics.



Specifications

		WEA453e	WEA463e
Features		Dedicated WIPS module	Mesh Network
Wireless	Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac
	# of radio	Dual concurrent radio	Dual concurrent radio
	Frequency	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz
	RF Connectors	3	6
	Antenna	Dual band	Single band
	Tx Power / Path	23 dBm	24 dBm
	Max Tx Power	28 dBm	29 dBm
	MIMO	3 x 3 MIMO, 3 Spatial streams	3 x 3 MIMO, 3 Spatial streams
	Spectrum Analysis	Yes (Time Sharing)	Yes (Time Sharing)
	PHY Rate	1.3 Gbps	1.3 Gbps
H/W	Network I/F	2 GE (RJ45), 1 Console (RJ45)	2 GE (RJ45), 1 Console (RJ45)
	PoE	802.3at	802.3at
	Environment Class	Outdoor, IP66, IP67	Outdoor, IP66, IP67
	RSSI LED	-	Yes
Dimension	Diameter / Height	267 mm / 184 mm / 57.5 mm	267 mm / 184 mm / 57.5 mm
	Weight	2.6 kg	2.8 kg
Security	Standard	802.11i, WPA/WPA2	802.11i, WPA/WPA2
	Multi SSID	Maximum 16	Maximum 16
	# of Multi VLAN over SSID	Maximum 1,024	Maximum 1,024
	Encryption	DTLS	DTLS
	Rogue AP Detection / Blocking	Detection (Time sharing)	Detection (Time sharing)
QoS	Standard	802.11e	802.11e
	WMM	Yes	Yes
Management	Operation	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS
	Certification	KC, FCC/CE	KC, FCC/CE

Centralized WLAN Controller

WEC8500/WEC8050

Samsung's WLAN Controllers WEC8500 and WEC8050 are specially designed with small to medium sized businesses in mind, as well as, for mission-critical wireless networking in mid-sized to large enterprises.

By applying LTE technology, these high-performing, 802.11ac-ready controllers are optimized to ensure that users benefit from the most reliable connectivity.

Major Functions and Benefits

Optimized Integration of Mobile Devices in the Enterprise

- The system self-optimizes to suit other APs, users and the environment.
- Less detailed RF planning needed : large throughput increase : resulting in higher efficiencies and better user experience.
- Improved continuous coverage : less 'black spots' and interference (Seamless handover)*

Powerful and Efficient Network

- Built-in authentication server, stateful firewall, and L3 routing function.
- Scalable capacity through clustering.
- Greater potential revenues, always-on (connected) and higher efficiencies (e.g. less employee downtime).
- Higher uptime, less time for network analyzing and reconfiguration leads to low total cost of ownership (TCO) vs. the competition.

* Supports all Galaxy series

WEC8500/WEC8050

WEC8500

- Enterprise WLAN controller optimized for large-scale organizations, headquarters, and branches.
- Capable of accommodating up to 3,000 APs when clustering in centralized processing mode (for single configuration: up to 1000 APs).
- Capable of accommodating up to 3,000 APs with one controller in a distributed processing mode.
- System stability secured by power redundancy.
- Two 10GE ports and eight GE ports.
- Built-in authentication server capable of accommodating up to 2,048 users.



WEC8050

- Special WLAN controller optimized for small-to-medium-scale organizations, branches as well as remote offices.
- Capable of accommodating up to 200 APs when clustering in centralized processing mode (for single configuration : up to 75 APs).
- Built-in authentication server capable of accommodating up to 512 users.
- Built-in stateful firewall.





Specifications

		WEC8500	WEC8050
Scalability	Maximum # of APs (Central Processing Method)	1,000	75
	Maximum # of APs (Clustering Structure)	3,000 (Up to 6)	150 (Up to 2)
	Maximum # of APs (Distributed Processing Method)	3,000	200
	# of Clients	20,000	1,500
H/W	Network I/F	2 10GE, 8 GE, 1 Console, 1 Management	4 GE, 1 Console
	USB	1	-
	System Redundancy	System redundancy	System redundancy
	Redundant Power	Yes (Optional)	-
Network	Routing	Yes	Yes
	VLANs	1,024	128
	DHCP	Server, Relay, Proxy	Server, Relay, Proxy
	QoS	Shaping, Policing, 802.1p, Voice quality monitoring	Shaping, Policing, 802.1p, Voice quality monitoring
Security	Firewall	Yes (License required)	Yes (License required)
	Authentication	802.1x	802.1x
	MAC Filtering, ACL	Yes	Yes
	Encryption (APC-AP)	DTLS	DTLS
	AAA	Radius Server	Radius Server
RF Manager	RM	Power, Channel, Coverage hole	Power, Channel, Coverage hole
	RF Spectrum Analysis	Yes	Yes
Management	CLI	Yes	Yes
	GUI	Yes	Yes
	SNMP	Yes	Yes
	Syslog	Yes	Yes



Wireless Enterprise Manager

Samsung's Wireless Enterprise Manager (WEM) provides operational convenience by enabling system administrators to monitor failure situations anywhere, at any time and quickly resolve them via integrated wire/wireless remote management using their smartphones.



Major Functions and Benefits

Integrated wire/wireless management

- Supports access switch management in addition to Access Point and WLAN controller management.
- Capable of managing general switches that provide standard management information base (MIB), as well as Samsung's own L2 switches.

Intuitive and user-friendly UI

- Supports dashboard and menu structure, to clearly view device status and network status.
- Provides a simple and clean layout to enable full attention to data.
- Alerts administrators by marking important data in primary colors.
- Intuitive icons that facilitate easy understanding of features.

WEM

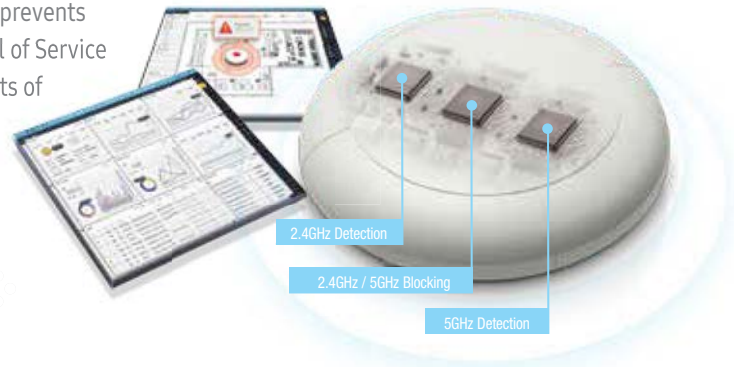
Specifications

		WEM
Scalability	Maximum # of Network Elements (AP, APC, Switch)	3,000
	OS	Linux
	Form Factor	Server software
Security	Rogue AP Detection / Interception Monitoring	Yes
Location	Location Tracking Monitoring	Yes
Management	General	High availability, Monitoring, Status / Statistics, Database, Self diagnostics
	Fault	Alarm history, Alarm statistics, Alarm monitoring
	Configuration	APC configuration, AP configuration
	Performance	Status monitoring, Statistics
	Security	User ID / Password management, IP access control
	QoS	Voice quality monitoring
	Reporting	Network Status, Performance, Device, Station etc, File (Excel, PDF) save, Print



Wireless Enterprise Security

Samsung Wireless Enterprise Security (WES) is an embedded system for continuous real-time monitoring of wireless services and optimization of the infrastructure's RF sensing performance. It effectively prevents a wide array of wireless threats such as rogue APs and Denial of Service (Dos) attacks, among others. Samsung's WES solution consists of embedded sensors and a WIPS server. Samsung's built-in WIPS sensors in the AP provide low total cost of ownership (TCO), high-resolution monitoring, and optimized blocking.



Major Functions and Benefits

Integrated AP / WIPS sensors through a dedicated WIPS module

- Wi-Fi service performance is hardly affected because of the separate built-in WIPS module.
- An increase in the number of working sensors enhances detection performance and enables accurate location information.
- Detection and blocking is performed immediately after a scan by executing the detection / blocking algorithm in the AP sensor.

Key Detection / Blocking Functions

- Detection / Blocking of rogue APs
- Detection / Blocking of ad-hoc devices
- Detection of RF interference sources
- Detection / Blocking of smartphone tethering
- Detection of MAC spoofing APs / Stations
- Detection of DoS attacks
- Detection of threats from air attack tools

Quick Responses to Demands

- Provide a variety of user information (Device type, model name, user name, personnel Information, etc.)
- Security policy period setting function
- Block message distinguishing function (Distinguishes whether the block has occurred by WIPS blocking or by the user.)

WIPS Sensor

	802.11n	802.11ac Wave 1	802.11ac Wave 2
Model	WEA302i, 303i, 303e	WEA403i, 403e, 403Si	WEA504i

* For the WEA453e model, two modules are used.

WIPS Sensor

	WES-Express	WES-Enterprise	WES-Ultimate
No. of supported sensors	200	500 (1,000**)	(3,000**)
Redundancy	Power / Server Redundancy	Power / Server Redundancy	Power / Server Redundancy

* The number in the parentheses will be supported in the second half of 2016.

SAMSUNG

WIRELESS ENTERPRISE

SAMSUNG

SAMSUNG ELECTRONICS Co.,Ltd.

HQ : 129, Samsung-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do 443-742, Korea
c.ildefonso@samsung.com

USA: 1301 E.Lookout Drive, Richardson, TX 75082
E-mail : we.info@samsung.com

UK : Samsung House, 1000 Hillswood Drive, Chertsey,
Surrey, KT16 0PS
E-mail : sales@samsungnw.com

