Samsung

Wireless LAN

Unlimited Connectivity

SAMSUNG

Explore Samsung's pow

Samsung Wireless LAN is an enterprise grade solution, developed from the ground up to address the needs of the new mobile generation. Offering best-in-class performance, ease of installation and network management.

erful WLAN technology.

The latest technology

Samsung's new Wi-Fi solution incorporates relevant components from the latest LTE mobile communications technology, to deliver unparalled performance for no-compromise wireless working.

With a range of high performance WLAN Controllers, Samsung can deliver enterprise grade wireless coverage regardless of the size of organisation.

With the increasing popularity of mobile devices in the enterprise, such as smartphones and tablets, demands on the WLAN are growing more complex due to the number of separate devices competing for service on the move.

The Samsung WLAN solution uses the industry standard IEEE802.11 a, b/g, n and ac whilst incorporating technology adopted from the recent Samsung investment in LTE, to address the specific needs of voice and video without impacting data throughput. Seamless automatic handover when moving between Access Points (APs) removes the burden on devices and risk of disruption, while the application of Crystal HD Voice ensures the best possible speech quality and wireless service regardless of the type or number of devices in use.

The Samsung APs deliver on design as well as performance. Using multi-antenna technology, the typical range is increased by 14% whilst speech quality and data errors are improved by 30%. In addition, the superior power of the APs also affects the devices connected to them, minimising their own power consumption for longer battery life, and increases the number of concurrent users per AP by up to 50% compared with competitive products.

Compact and robust enterprise-class access points

The Samsung WEA300 (n) and WEA400 (ac) series of Access Points guarantee and ensure improvement of service coverage while providing a dedicated security monitoring module.

- **WEA300 series:**
  802.11a, b/g, n dual concurrent radio, diameter of 174mm
  WEA400 series:
  802.11a, b/g, n, ac dual concurrent radio, diameter of 205mm
- Provides an optimised wireless environment for smartphones and tablets by applying automatic handover and transmission control through mobile technology integration.

- Enhanced security via embedded, dedicated RF monitoring module which reduces total investment cost.
- Guarantees coverage and access fairness that exceed the limitations of legacy wireless LANs through multi-antenna and LTE technology.
- Cost effective operation within an existing enterprise network environment by providing support for L3 routing, powerful firewall, 10G interface and redundancy/ survivability options.

- Provides stability and operational convenience with wired/wireless integrated management.
- Quick troubleshooting anytime, anywhere with remote management from your mobile smart device.

Key Benefits

Air Equaliser

Samsung's Traffic Schedule technology ensures a fully optimised Wi-Fi service by allocating equal airtime to multiple devices. This technology guarantees airtime fairness when multiple devices are concurrently connected to an AP. It also delivers seamless service, even in an environment where devices with different traffic demands and capabilities are used. In addition, it can maximise the AP's total throughput by more than 50% when compared with competitors' products, providing the best performance that adapts to the Wi-Fi connection specifications (a, b/g, n, ac) and signal intensity characteristics.

Intelligent Beam Selectable Antenna (IBSA)
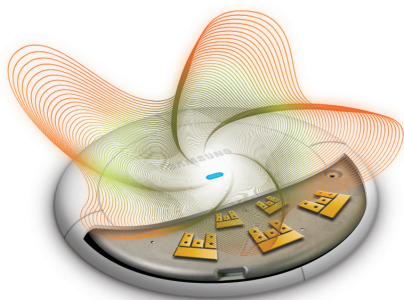
A Samsung 3 x 3 AP contains 14 antennas. Two antennas are used for RF monitoring and the remaining 12 provide an optimised RF pattern selecting a beam for each environment. As a result, dead areas are minimised, service coverage is expanded, and the receiving sensitivity is 2 dB higher than competitors' products. This means that the access point can accurately receive a signal from a mobile device with typically weak transmit power even when it is some distance away.

AirMove*

Samsung AirMove technology applies the handover methodology used within LTE mobile communications to deliver seamless roaming. Timing and choice of access point is determined centrally by the Access Point Controller (APC) which has a full picture of device activity and adjacent AP loading.

*Requires additional elements

Voice Aware Traffic Scheduling (VaTS)

VaTS is a Samsung patented technology, which efficiently sends Voice Frames to multiple devices using mobile communication traffic scheduling technology developed for LTE networks. The result is that increasing the number of concurrent calls will not degrade voice quality, increasing the effective capacity of the network.

Self Organising Network (SON)
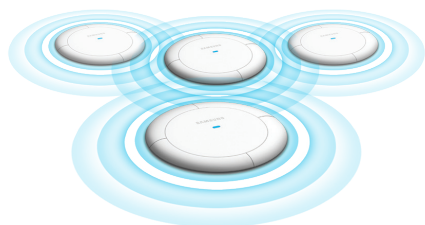
Samsung have enhanced the standard Wi-Fi access point Tx power and channel optimisation technology using techniques developed for the LTE network. This technology automatically optimises the cell configuration and coverage, considering individual device characteristics within the environment. This dramatically shortens the time required for network design, reducing implementation costs, and also delivers a high level of RF quality management when the network is in use.

Wireless Intrusion Prevention (WIPS)**
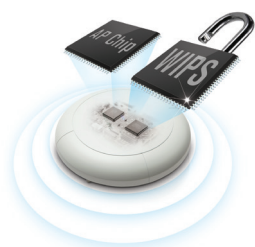
The importance of security in the enterprise communication environment cannot be over emphasised. The Samsung APs have a dedicated security RF monitoring chip embedded, which is separate to the Wi-Fi service RF chip, to enable continuous real-time monitoring of the local RF environment. This maximises the RF sensing performance without impacting on Wi-Fi data throughput as there is no need to utilise a Wi-Fi data time slot, or any increase to the system cost by adding additional monitor APs.

**Available in 2014

WLAN Manager

Wired/Wireless Integrated Management

The Samsung WLAN Manager supports the management of the Samsung L2 switch that the AP is connected to, as well as AP and APC. This provides an efficient wireless infrastructure management tool by incorporating the Samsung L2 switch management function, including the AP connection port control for AP failure or remote AP reboot through its integrated user interface. In addition, the remote management function enables administrators to rapidly respond to issues using the smartphone fault monitoring and fault notification app.

Remote Management Using Smartphones

With this tool, you can use your smartphone to remotely control the wireless network anytime, anywhere and quickly respond to any issues with easy and clear identification of Critical/Major/Minor alarm status. If a fault occurs, the related information and a linkable URL are sent to a specified device via SMS, the recipient can then check the status and troubleshoot in real time.

WLAN Manager WEM

Main page | Login page | Dashboard

Operating Systems (Customer-Supplied Server)	Linux (Red Hat Enterprise ES 5.5)

Minimum Server Requirements	• Low-end server : ~ 150 Devices (APs, APCs, Switches)
	  - Intel® Xeon® E3-1220 3.10 GHz, 8 GB RAM, 200 GB HDD
	• Mid-range server : ~ 1500 Devices (APs, APCs, Switches)
	  - Intel® Xeon® E5-2440 2.40 GHz, 16 GB RAM, 400 GB HDD
	• High-end server : ~ 3000 Devices (APs, APCs, Switches)
	  - Intel® Xeon® E5-2640 2.50 GHz, 32 GB RAM, 600 GB HDD

Minimum Station Requirements	CPU : 3.0 GHz (Pentium Core2 duo processor) OS : Internet Explorer 7.0, FireFox 3.5, Chrome JRE : 1.6.0_20
Management and Security	SNMP v1, v2c, v3 / PNG, JPEG import file types supported
Managed Devices	Samsung WEC8050 series and WEC 8500 series Wireless Enterprise Controllers Samsung WEA300 series and WEA400 series Access Points Samsung iES4200 series Switches
Database	MySQL 5.5

WLAN Controllers

Enterprise WLAN Controller WEC8500

The Samsung Access Point Controller WEC8500 is specially designed for mission-critical wireless networking in mid-sized to large enterprises. By applying LTE technology, this high-performing controller is able to simultaneously manage up to 500 access points*, 10,000 client devices* with 20Gbps data plane, offering a fast and reliable network.

SMB WLAN Controller WEC8050

Designed with small to medium sized businesses in mind, the Samsung Access Point Controller WEC8050 has the same enterprise, cutting-edge functionality as the WEC8500 model and can manage up to 75 access points and 1,500 clients simultaneously.

CONTROLLER		WEC8500	WEC8050
Scalability	Maximum #of AF's	500	75
	#of Client	10,000	1,500
H/W	Network I/F	2 x 10GE, 8 x GE,1 Console	4 x 1GE,1 Console
	USB	1	-
	Redundant Power	Yes (Optional)	-
	Form Factor	1RU	1RU
Network	Routing	Yes	
	VLANS	1024	128
	DHCP	Server, Relay, Proxy	
	QoS	Shaping, Policing, 802.1p, Voice Quality Monitoring	
	System Redundancy	Active Active/Active Standby	Active Active
	Clustering	12 (6 Active, 6 Standby)	2
Security	Firewall	Yes (Licence Required)	
	Authentication	802.1 x	
	MAC Filtering, ACL	Yes	
	Encryption	DTLS	
	AAA	Radius Server	
RF Manager	RRM	Power, Channel, Coverage hole	
	RF Spectrum Analysis	Yes	
Handover	L2	Inter/Intra Controller	
	L3	Inter/Intra Controller	
Management	CLI	Yes	
	GUI	Yes	
	SNMP	Yes	
	Syslog	Yes	

* The number of supported access points and client devices scales up in future software releases

Access Points

11ac Access Points WEA400 Series

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

		WEA412i	WEA403i	WEA403e
Wireless	Standard	802.11a/b/g/n/ac		
	# of Radio	Dual Concurrent Radio		
	Frequency	2.4 GHz, 5 GHz		
	Antennas	Internal Type		External Type
	MIMO	2 X 2 MIMO, 2 Spatial Streams	3 X 3 MIMO, 3 Spatial Streams	3 X 3 MIMO, 3 Spatial Streams
	PHY rate	867 Mbps	1.3 Gbps	
H/W	Network I/F	2 GE (RJ45), 1 Console (RJ45)		
	PoE	802.3af/802.3at	802.3at	
	Environment Class	Indoor		
Dimension	Diameter/Height	205 mm / 45 mm		
	Weight	820 g	920 g	
Security	Standard	802.11i, WPA/WPA2		
	Multi SSID	Maximum 16		
	# of Multi VLAN over SSID	Maximum 1,024		
	Encryption	DTLS		
QoS	Standard	802.11e		
	VMM	Yes		
Management	Operation	Controller Based		
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS		
	KC	Yes		

11n Access Points – WEA300 Series

The Samsung Access Points WEA300 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 secure wireless network.

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

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