

Samsung Wireless LAN

2015. 06

Samsung Electronics

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The background features a light blue gradient with several semi-transparent, overlapping geometric shapes (squares and rectangles) in the top-left and top-right corners, creating a modern, abstract design.

WLAN Solution

Components

Total Solution for the Wireless Business Environment

Access Point



Standard



Security



IoT



Outdoor



Mesh

AP Controller



Enterprise



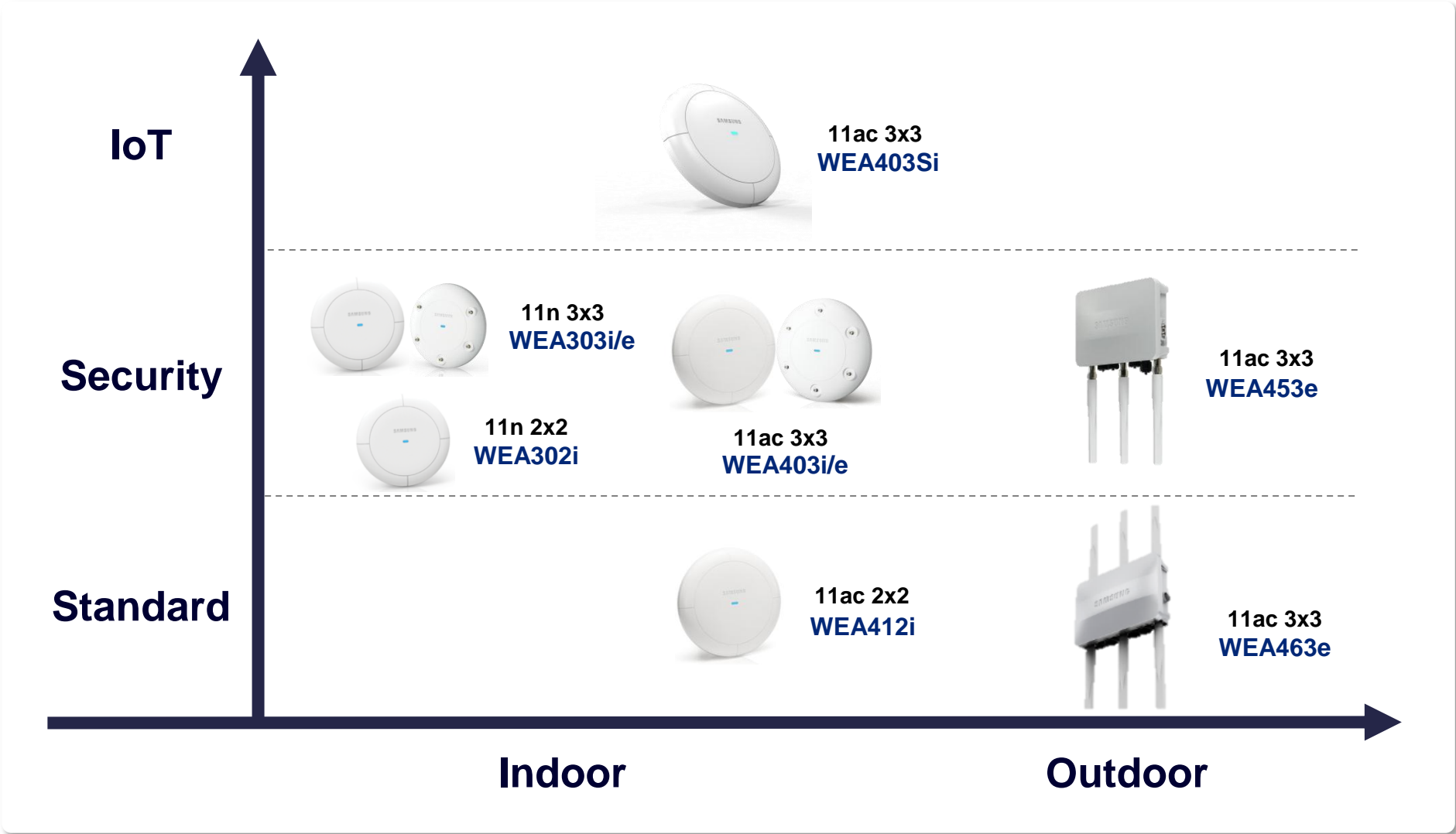
SMB

NMS



WLAN Manager

Access Point Lineup



Access Point - Standard

Attractive & Powerful AP



- ▶ **Enhanced Data Throughput in High-Density**
- ▶ **Concurrent Dual Radio (2.4Ghz/5Ghz)**
- ▶ **Remote AP Support**
- ▶ **Attractive Circular Design**

Access Point - Security

Quick & Precise Security Monitoring AP



- ▶ **Full Time Sensing (Real Time Monitoring)**
- ▶ **Integrated Security Module**
- ▶ **Savings on CAPEX by 30%**
- ▶ **Location Tracking**
- ▶ **RF Spectrum Analysis**

Access Point - IoT

Intelligent & Multi-purpose AP



- ▶ **Integrated BLE, Zigbee Sensor**
- ▶ **Sensor / Device Control & Monitor**
- ▶ **LBS by BLE Beacon**
- ▶ **Connectable to Smart Building Solution**
- ▶ **Dedicated Security Module**

Access Point - Outdoor

Compact & Robust Outdoor AP



- ▶ **Maximum Tx Power (27.7dBm)**
- ▶ **Concurrent Dual Radio (2.4Ghz/5Ghz)**
- ▶ **Perfect Protection (IP66, 67)**
- ▶ **WIPS Sensor AP**
- ▶ **Compact Design (2.6kg)**

Access Point - Mesh

Stable & Strong Mesh AP



- ▶ **Mesh Networking**
- ▶ **Enhanced Tx Power (28.7dBm)**
- ▶ **Dual Radio (2.4Ghz/5Ghz)**
- ▶ **Backhaul RF allow Client access**
- ▶ **Self Healing & Self Optimization**

AP Controller - Enterprise

High Capacity & Feature Rich Platform



- ▶ **Flexible Structure (Centralized/Distributed mode)**
- ▶ **Supports up to 3,000 APs**
- ▶ **Cluster up to 6 Controllers**
- ▶ **Automatic Cell Optimization**
- ▶ **Built in Firewall/Authentication Server**

AP Controller - **SMB**

Optimized Controller to the SMB Environment



- ▶ **Flexible Structure (Centralized/Distributed mode)**
- ▶ **Supports up to 75 APs**
- ▶ **Cluster up to 2 Controllers**
- ▶ **Automatic Cell Optimization**
- ▶ **Built in Firewall/Authentication Server**

NMS Solution

User Friendly Management S/W



- ▶ Integrated Wired & Wireless Management
- ▶ Manage up to 3,000 APs
- ▶ Remote AP Reset Function
- ▶ Remote Monitoring via Mobile Device
- ▶ Customized Reports

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Key Features

Key Features - AirEqualizer

Increased Data Throughput

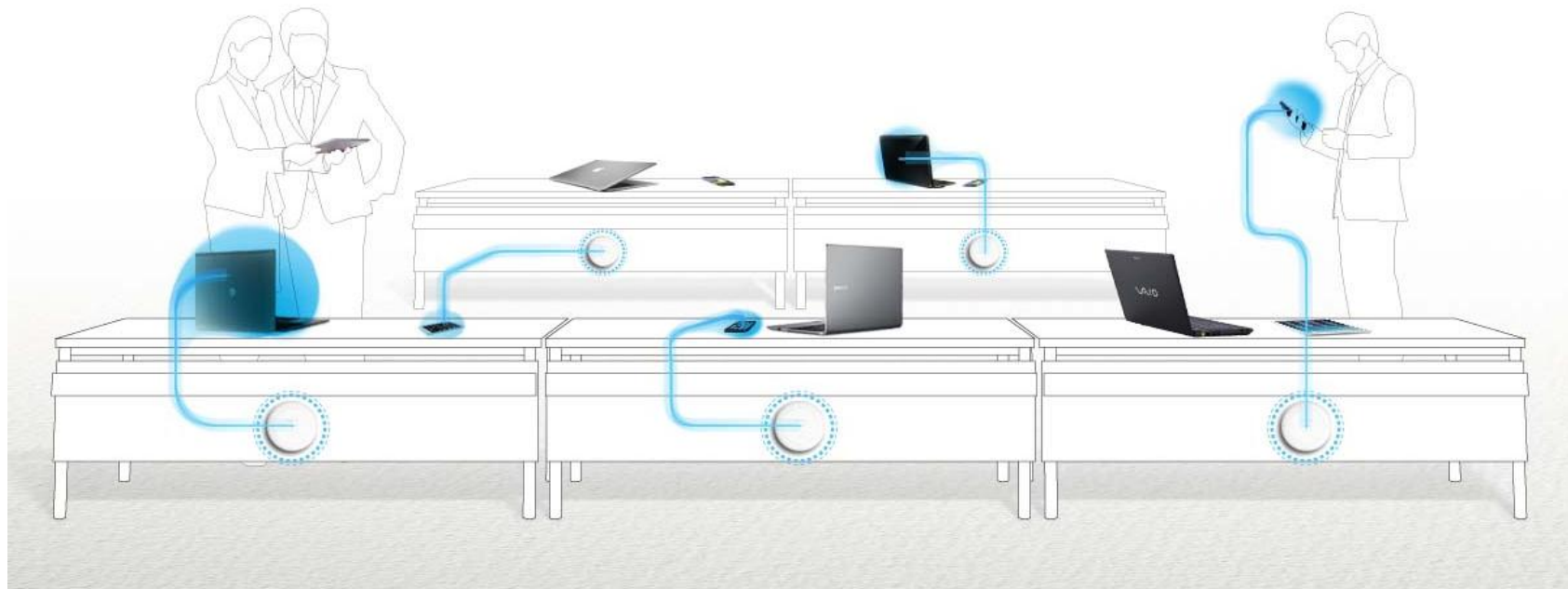
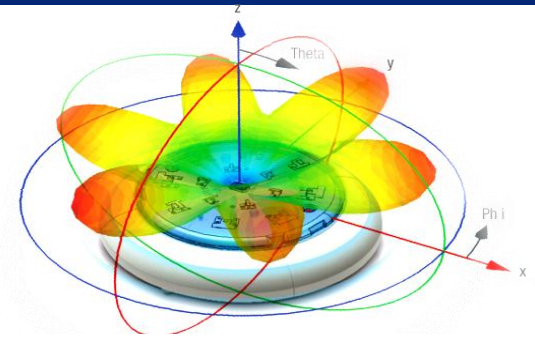
- ▶ Provides optimum wireless service by allocating equal airtime to each device



Key Features - Smart Antenna

Minimized Coverage Holes, Extend Service Coverage

- ▶ **Optimal RF pattern using multiple physical antennas to minimize shadow areas**



Key Features - Voice Optimization

Increases Concurrent Call Capacity by 50%

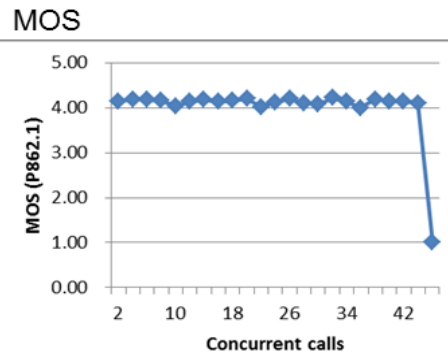
- ▶ Transfer of voice frames to multiple devices efficiently by using scheduling technology



Samsung



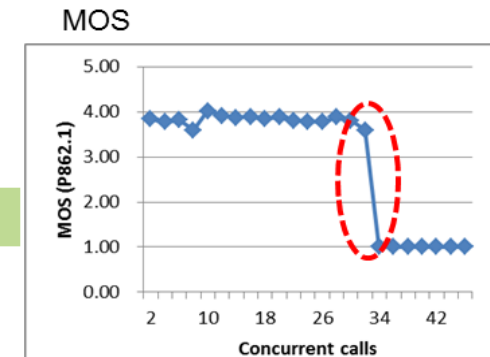
Traffic Scheduling



Competitor



No Traffic Scheduling

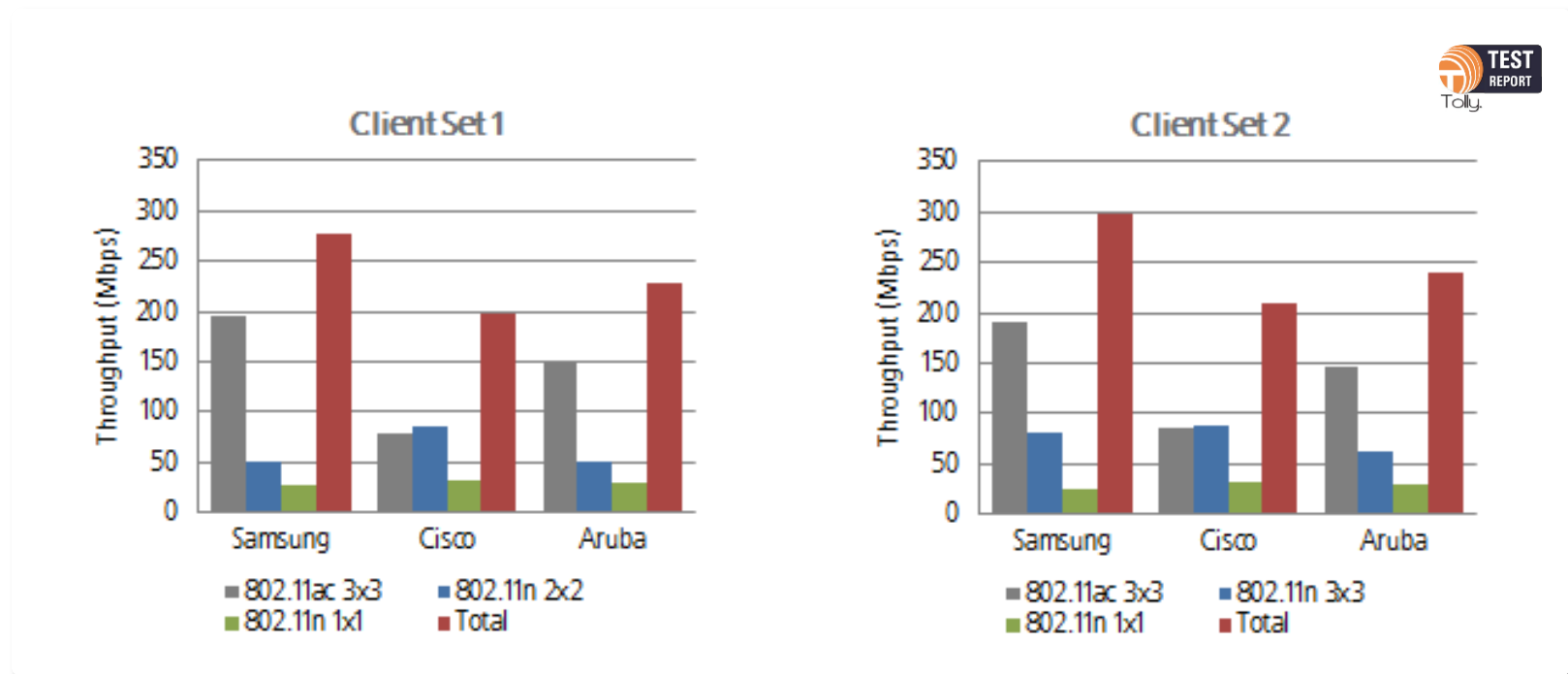


Test Report

Tolly Report (1)

Client Throughput in Heterogeneous Environment

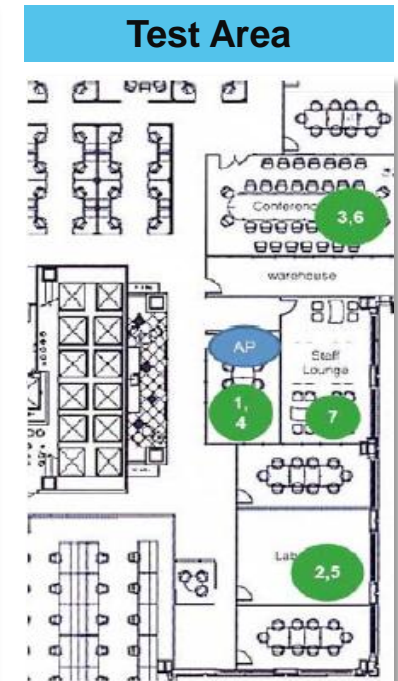
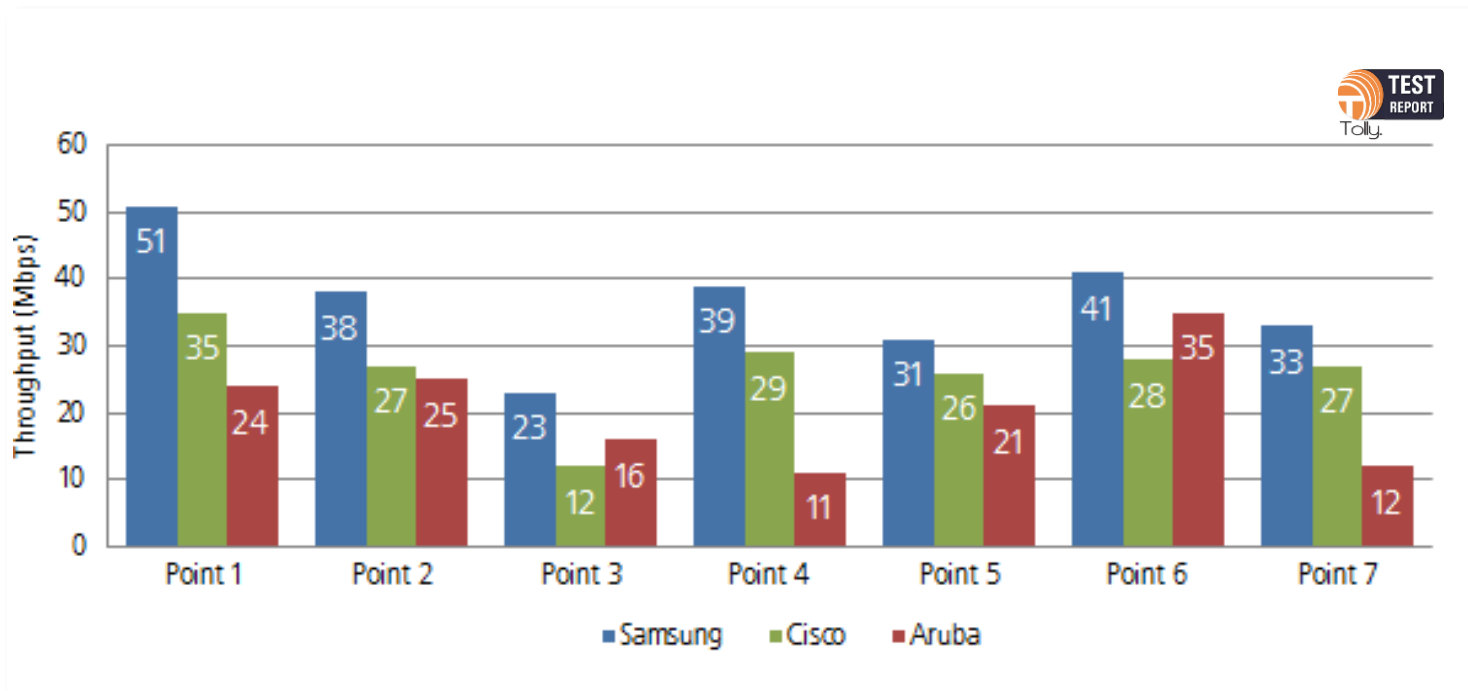
- ▶ **Samsung WLAN outperformed the competing solution in total throughput in all tests with 'AirEqualizer' technology**



Tolly Report (2)

Performance for Various Location

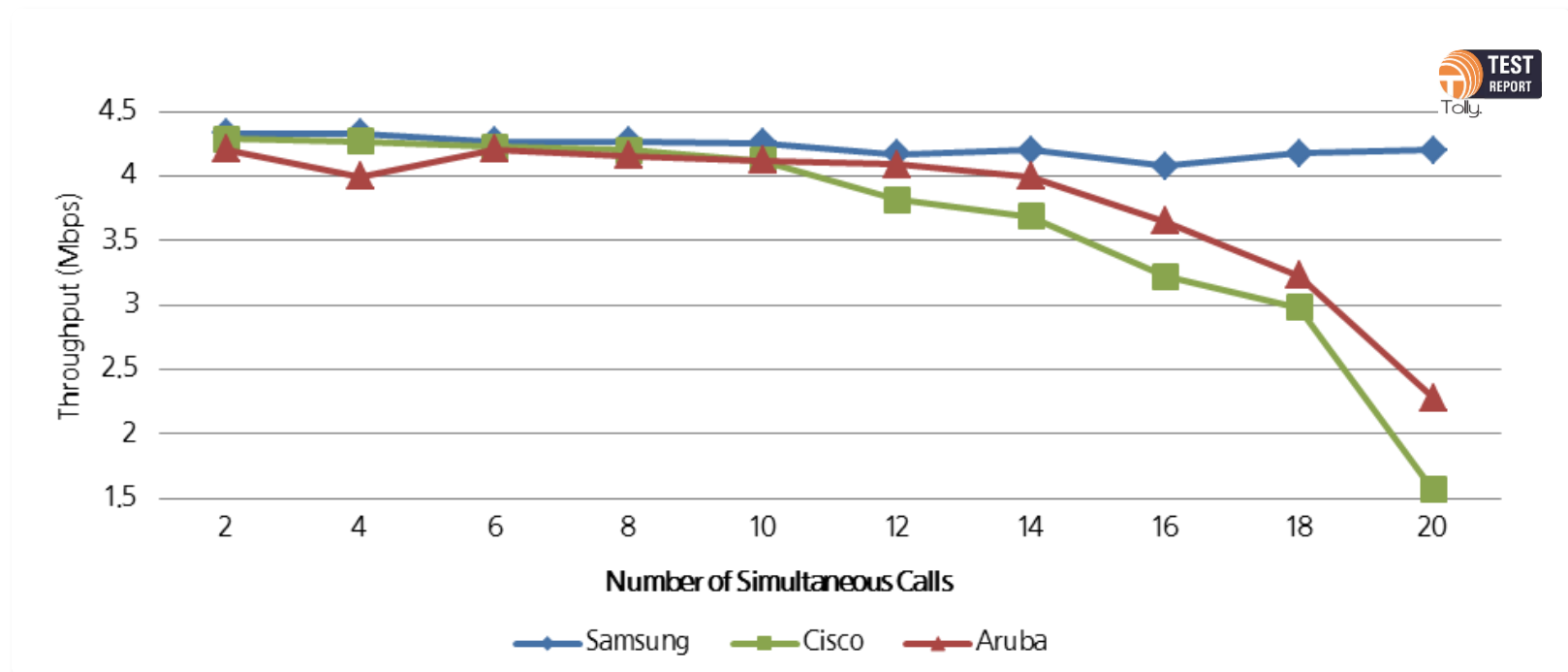
- ▶ **'Smart Antenna'** provide robust service to all the clients in environment obstacle and multipath



Tolly Report (3)

Voice Quality vs. Total Number of Calls

- ▶ **'Voice Optimization' guarantee voice quality while still being able to support other data traffic in the network**



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References

References (1)

Education



**Seoul City
Education Office (KOR)**



**Birmingham Met
College (UK)**

Hospitality



Shilla Stay (KOR)



**The Keating Hotel
(CA, US)**

Convention Center



**ITU Plenipotentiary
Conference (KOR)**



**I-X Center
(OH, US)**

Retail



Lotte Mall (KOR)



Young's Pub (UK)

References (2)

Enterprise



SK Telecom (KOR)



**Samsung Electronics
Mobile, Semiconductor (KOR)**

Finance



**Kyobo Life
Insurance (KOR)**

Public



**Gangwon Provincial
Office (KOR)**

Healthcare



**Samsung Medical
Examination Center (KOR)**



**Small Steps
Day Care Center (NED)**

Distribution



**IGUS Warehouse
(NY, US)**

Stadium



**Long Beach State
Stadium (CA, US)**

Thank You



The top corners of the slide feature decorative geometric shapes. On the left, there are several overlapping squares and rectangles in various shades of light blue and white. On the right, there are similar shapes, including a square with a horizontal line extending to the right and another square with a horizontal line extending to the left.

Appendix 1

Specification

Indoor AP



	WEA302i	WEA303i/ WEA303e	WEA412i	WEA403i/ WEA403e	WEA403Si
Antenna	2x2 MIMO	3X3 MIMO	2x2 MIMO	3X3 MIMO	
Antenna Type	Internal	Internal/ External	Internal	Internal/ External	Internal
# of Antennas	10	14	4	15	15
Standard	802.11a/b/g/n		802.11a/b/g/n/ac		
PoE	802.3af			802.3at	
Frequency	2.4G, 5GHz Concurrent support				
Security	802.11i, WPA/WPA2		802.11i, WPA/WPA2, WMM, WMM-PS		

Outdoor AP



	WEA453e	WEA463e
Mesh Tech.	2-hop WDS	Mesh
# of Antennas	3	6
Redundancy	N/A	Path Optimization, Self Recovery
Scalability	N/A	Support (Auto Configuration)
Antenna	3X3 MIMO	
Antenna Type	External	
PoE	802.3at	
Standard	802.11a/b/g/n/ac	
Environment Class	IP66, IP67	
Frequency	2.4G, 5GHz Concurrent support	2.4G, 5GHz support
Security	802.11i, WPA, WPA2	802.11i, WPA, WPA2, EAP, 802.1x



	WEC8500	WEC8050
Capacity	Central Switching : 1,000 APs Local Switching : 3,000 APs	Central Switching : 75 APs Local Switching : 200 APs
Network Interface	10GE 2ports, GE 8ports, Console 1port	10/100/1000MbpsE 4ports, Console 1port
Redundancy	System redundancy/ Power redundancy	System redundancy
Handover	L2/L3 handover support (Inter/Intra Controller)	
QoS	Shaping, Policing, 802.1p, Voice Quality Monitoring	
Security	Built-in Firewall, Radius server	
Management	Web based GUI, CLI, SNMP, Syslog	



	WEM
Capacity	Max 6 APC/ 3,000 AP support
OS	Linux
Management	General/ Security, Failure/Performance/Static management
Redundancy	System redundancy
Security	Rogue AP detection, prevention and Monitoring
Location	Location Tracking Monitoring support (RSSI based)






Appendix 2

Ethernet Switch

Ethernet Switch Specification



	iES4028GP	iES4028XP	iES4024GD
Image			
Category	L2 PoE (for 802.11n AP)	L2 PoE (for 802.11ac AP)	L3 (Distribution)
Ports	<ul style="list-style-type: none"> - 24 10/100/1000 Base TX ports - 4 Gigabit combo ports or 2 Gigabit combo ports + 2 10G ports (Option) - 1 Management port - 1 Console port 	<ul style="list-style-type: none"> - 24 10/100/1000 Base TX ports - 4 Gigabit combo ports or 2 Gigabit combo ports + 2 10G ports (Default) - 1 Management port - 1 Console port 	<ul style="list-style-type: none"> - 24 Gigabit combo ports (24 ports 100 Base-FX/ 1000 Base-X SFP, 24 ports 10/100/1000 Base-TX) - 1 Management port - 2 Console ports
Switching Capacities	92 Gbps		48 Gbps
Mac Address	16K MAC address entries		32K MAC address entries
AC Input	100 to 240 V, 50-60 Hz		
Power Consumption	System MAX 80W, PoE MAX 370W		System MAX 80W
Power-over-Ethernet	<ul style="list-style-type: none"> - 802.3af, 802.3at - Class 1,2,3 (24ports) - Class 4 (12ports) 	<ul style="list-style-type: none"> - 802.3af, 802.3at - Class 1,2,3,4 (24ports) 	N/A