Information

The HiPath Wireless family of Access Points are enterprise-class dual radio 802.11a/b/g capable, providing coverage anywhere that wireless LAN (WLAN) service is required. Unique Plug-and-Play technology dramatically simplifies deployment of the network.
The distribution of responsibilities between the AP and Controller is optimized by using a "Fit AP" model that balances high performance, security and manageability.

HiPath Wireless Access Points

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The HiPath Wireless solution optimizes the processing load between the Access Point and Controller using a "Fit AP" to deliver exceptional performance while remaining easy to manage. HiPath Wireless APs can handle the full processing load for certain applications, providing an unmatched level of flexibility and performance for complex, time-sensitive functions including QoS, encryption, RF management, and rogue AP detection. Global functions like configuration, roaming, security management, and policy control are centralized at the Controller. The result is a WLAN infrastructure that can easily be expanded to support advanced Open Mobile Enterprise Solutions. Furthermore, HiPath Wireless is ideally suited to accommodate new high-performance technologies such as VoWLAN and 802.11n.

Ease of Deployment & Management Control

Deploy WLAN anywhere
The HiPath Wireless AP models are designed to provide optimal RF coverage in almost any environment. The AP2610 uses discrete internal antennas, while the AP2620 features directional external antennas to allow extended coverage and minimal interference in hard-to-reach areas like hallways or behind pillars. Indoor access points can be mounted on walls or ceilings, or kept completely out of sight by mounting them above suspended ceilings (plenum mounted). Wireless Distribution System (WDS) - uses RF to provide network access and bridge traffic back to the wired network making it possible to extend the network to less traditional locations (outdoors), for campus-wide access, without installing additional cable or fiber.

Outdoor Access Point
The Outdoor Access Point AP2650/AP2660 (OAP) allows installations to seamlessly span from office to factory floor to outdoors. Featuring the same capabilities of the 2610 and 2620 models, the OAP is designed to deliver enterprise WLAN coverage in the harshest industrial or outdoor environments. The OAP features an internal or external antenna option, stable and robust housing which withstands extreme temperature ranges, and is dust, dirt, salt water, fog and humidity resistant.

Secure wired network integration
HiPath Wireless APs can authenticate with 802.1x-secured switches whenever they are connected to the wired network. This ensures that all Ethernet connections are only used by authorized devices.

Dual band, multi SSID flexibility
Each AP houses two independently manageable radios, one for 802.11b/g (2.4 GHz band) and one for 802.11a (5 GHz band). Each radio supports up to eight separate SSIDs, each with its own configuration, security and policy settings. As a result, there are sixteen "virtual APs" for every physical unit. This can be used to enable an additional level of security and quality by separating specific types of traffic or groups of users on to different SSIDs. This segmentation is in addition to the Virtual Network Services user management supported by the HiPath Wireless Controller providing unprecedented yet flexible network management.

"Plug & Play" network installation
A HiPath Wireless Access Point will automatically register itself with an available Controller and download its configuration. The AP can immediately provide service to users without having to be manually configured. New AP registration with the Controller is handled securely, ensuring that only authorized APs are recognized.

Central configuration and monitoring
All APs associated with a Controller are individually monitored and managed. When needed, each AP can be separately configured, enabled, or disabled. APs can be managed through the Controller via SNMP, which provides alarms, traps and reporting statistics suitable for network managers. APs also provide consolidated reports for performance management, security logging, and usage data.

Authentication and encryption
HiPath Wireless APs use the most sophisticated technology standards to ensure sufficient security and client compatibility. Based on the 802.11i (WPA 1/2), industry standards for wireless security, implementations provide 802.1x or Pre-Shared Key authentication and AES, TKIP or WEP encryption.

Proactive wireless intrusion detection and prevention
APs scan different RF channels at regular intervals – while also providing network access to users – to identify all wireless nodes within their airspace. This information is then passed on to the HiPath Wireless Controller, where it is consolidated for review by network administrators. Integrating HiPath Wireless Manager HiGuard enhances this process by consolidating AP scan information into compliance reports.

Dynamic RF management and load balancing for reliable performance
HiPath Wireless APs work together to deliver interference prevention and load sharing. Each AP is able to intelligently and dynamically adjust its transmit power and channel selection based on user position and information from nearby APs. This process, known as Dynamic RF Management, ensures optimal performance for associated clients. If an AP fails, neighboring APs will increase power to maintain coverage in the affected area, maintaining a consistent high level of performance despite the dynamic and inconsistent nature of RF traffic.

Solutions Enablement Capabilities

End-to-end VoWLAN
HiPath Wireless APs are optimized for the industry's leading VoWLAN devices to ensure peak call quality and reliability. Support for WMM-UAPSD will maximize phone battery life.

QoS for real-time voice & multi-media
Wireless Quality of Service is delivered via the WMM standard for traffic prioritization, which is based on the 802.11e industry standard. Priorities can also be set according to SSID, allowing critical real-time traffic to be assigned to a distinct high-priority queue. Interoperability with prioritization mechanisms on the wired network is also available to ensure end-to-end QoS. Call Access Control ensures that high quality voice traffic is maintained in existing calls before admitting new traffic onto the access point.

AP2610

AP2610


Outdoor AP
AP2650/AP2660

HiPath Wireless Access Point Supported Features

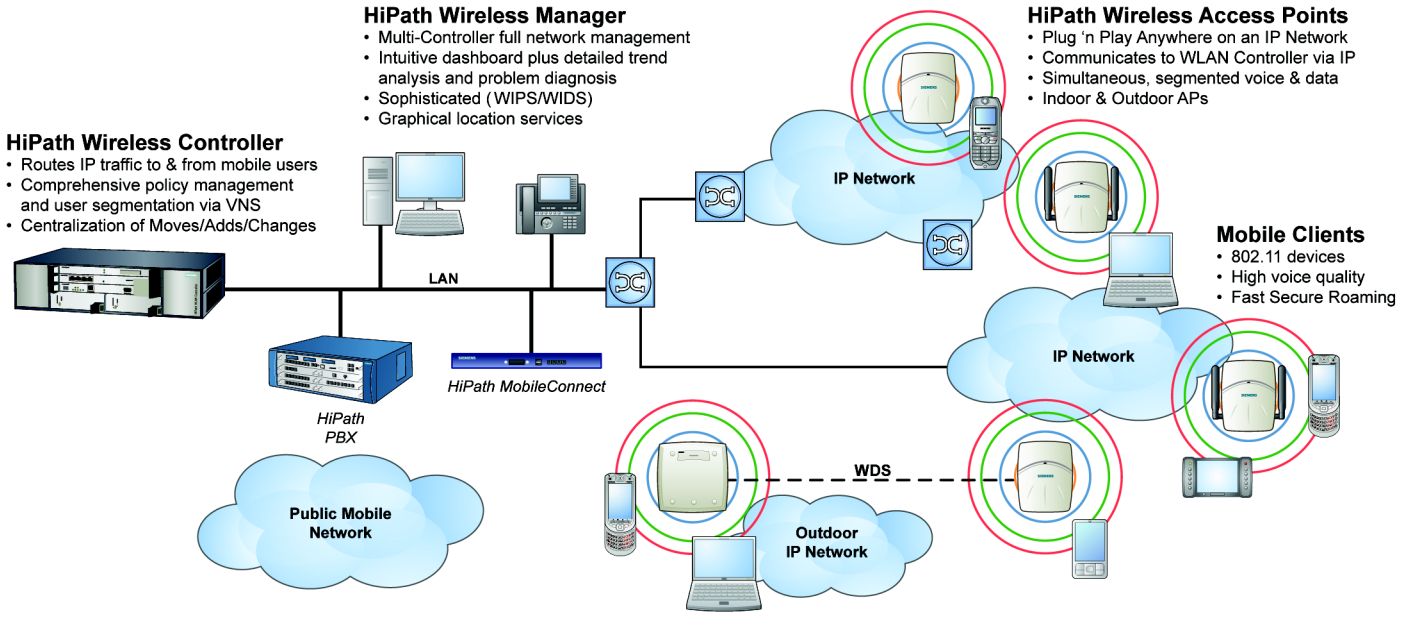
	Feature	Benefit
Management	Plug 'n Play Installation: – Automatic Controller Discovery – Centrally-deployed Configurations and Upgrades – Network-independent	No on-site configuration needed, dramatically reducing deployment time and costs.
	Secure Remote Management	APs can be easily configured and monitored from a central location with less personnel.
	Up to 16 SSIDs (8 per radio)	Segment networks based on distinct user access, performance, and security needs.
Security	Security via WEP, WPA, (TKIP), WPA2, (AES), 802.11i, 802.1x	Latest authentication and encryption standards ensure that user data is safe.
	VPN Support: IPSec, PPTP, L2TP	VPN interoperability provides added security.
	Rogue AP Detection	APs participate in the detection and prevention of unauthorized APs or ad hoc networks.
Performance	Intelligent Fit AP	Encryption, filtering, QoS, and RF management done by the AP, resulting in high performance and resilience if the rest of the network fails.
	Client Load Balancing and Failover	Client load balancing and failover - ensures APs run optimally; load balancing protects the AP from over-use, failover keeps the AP operating in the event of a controller failure.
	Dynamic RF Management (DRM)	APs intelligently discover network gaps, and can increase transmit power to maintain coverage.
	802.11a/b/g WLAN Connectivity	Greater user interoperability and performance.
Voice	Quality of Service (WMM, 802.11e)	Optimal performance for media and voice applications.
	Fast, Secure Roaming and Handover (pre authentication, OKC)	Voice session integrity is preserved in a secure manner, even when users move across APs.
Capacity	Simultaneous Voice Calls: 12 (802.11b, G.711, R>80)	APs meet the quality and capacity demands of today's VoIP applications.
	Simultaneous Users: 127 per radio	Managers can stretch their investment further.

The Foundation for Mobility

Fixed Mobile Convenience is central to Siemens' Open Communications strategy, enabling enterprises to communicate and collaborate with any device on any network, in any IT environment. Siemens' secure, scalable, and centrally managed Enterprise-wide Foundation for Mobility portfolio enables Fixed Mobile Convenience and eases the deployment of Open Mobile Enterprise Solutions.

HiPath Wireless is the leading enterprise WLAN for deploying secure, optimized voice and data solutions. HiPath MobileConnect is the industry's most comprehensive extension of enterprise communications into the mobile network. Few can match Siemens' unique array of products and industry expertise to drive mobility throughout the enterprise – and beyond.

HiPath Wireless Portfolio



HiPath Wireless Access Point Specifications

	AP2610/AP2620	Outdoor AP (OAP) AP2650/AP2660
Data rates	● 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps ● 802.11b: 1, 2, 5.5, 11 Mbps ● 802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps	
Frequency bands	802.11a: ● 5.15 to 5.25 GHz (FCC / IC / ETSI) ● 5.25 to 5.35 GHz (FCC / IC / ETSI) ● 5.47 to 5.725 GHz (ETSI) ● 5.725 to 5.825 GHz (FCC / IC) 802.11b/g: ● 2.400 to 2.4835 GHz (FCC / IC / ETSI)	802.11a: ● 5.15 to 5.25 (FCC / IC / ETSI) ● 5.25 to 5.35 GHz (ETSI) ● 5.47 to 5.725 GHz (ETSI) ● 5.725 to 5.825 GHz (FCC / IC) 802.11b/g ● 2.400 to 2.4835 GHz (FCC / IC / ETSI)
Dynamic channel control	DFS & TPC support (ETSI)	
Wireless modulation	● 802.11a: OFDM ● 802.11b: DSSS ● 802.11g: DSSS and OFDM	
Antennas	**Integrated Antenna (AP2610 only)** 2.4 / 5.0 GHz - 4 dBi Gain **External Antenna (AP2620 only)** 2.4 GHz / 5.0 GHz - 4 / 5 dBi Gain Customers can purchase approved directional and omni-directional antennas with a selection of antenna gain.	**Integrated Antenna** 3dBi@2,4 GHz, 4dBi@5 GHz **External Antenna** Various high gain directional and omni-directional antennas are approved.
Interface & indicators	Auto-sensing 10/100bT Ethernet interface. LED indicating AP status and connectivity	
Receive sensitivity (typical)	● 802.11a: 6 Mbps/-89 dBm, 36 Mbps/-78 dBm, 48 Mbps/-73 dBm, 54 Mbps/-70 dBm ● 802.11b: 1 Mbps/-91 dBm, 2 Mbps/-90 dBm, 5.5 Mbps/-89 dBm, 11 Mbps/-87 dBm ● 802.11g: 6 Mbps/-89 dBm, 36 Mbps/-79 dBm, 48 Mbps/-74 dBm, 54 Mbps/-72 dBm	
Power	● 802.3af Power over Ethernet, Class 0 (12.95 Watts Max) ● Typical Power: 9.75 Watts DC Power ● Voltage: +6 V DC ● Current: 1700 mA max. at +6 V DC	● 802.3af Power over Ethernet – 12.9W ● 48V DC – 15W ● 110-230V AC -15W
Available transmit power	● 802.11a: – 5.15 to 5.25 GHz: 17 dBm (FCC/IC), 18 dBm (ETSI); 5.25 to 5.35 GHz: 18 dBm (FCC/IC/ETSI) – 5.470 to 5.725 GHz: 18 dBm (ETSI); – 5.725 to 5.850 GHz: 15 dBm (FCC / IC) ● 802.11b/g: 18 dBm (FCC / IC),15 dBm (ETSI); Transmit (selectable per radio): – 100%, 50%, 25%, 12.5%, 6.25%	
Compliance/standards	Ethernet IEEE 802.3 / 802.3u / 802.3af; Wireless IEEE 802.11a/b/g; WPA, WPAv2, WMM	
Safety	UL / IEC / EN 60950 ; CAN/CSA 22.2 # 60950-1-03 UL 2043 Plenum Rating	EN 60950
EMC & Radio	FCC CFR 47 Part 15, Class B ICES-003 Class B; FCC Subpart C 15.247; FCC Subpart E 15.407; RSS-210; EN 301 893 V1.2.3; EN 300 328 V1.6.1; EN 301 489 1 & 17; EN / UL 60601-1-2; EN 50385 EN 55011 (CISPR 11) Class B Group 1ISM	EN 301 489-1 V1.6.1; EN 301 489-17 V1.2.1; EN 300 328 V1.6.1; EN 301 893 V1.3.1; EN 50385; 1999/519/EC; FCC CFR 47 Part 15, Class B
Dimensions & weight	40 mm x 115 mm x 175 mm (1.5" x 4.5" x 7") AP2610 weight: 272 g (9.6 oz) AP2620 weight: 363 g (12.8 oz)	(W x H x D) 251 mm x 251 mm x 72 mm Without PS adaptor: 2241g With AC PS adaptor: 2433g
Environmental	● Operating Temp: 5°C to 40°C (41°F - 104°F) ● Storage Temp: -40°C to 85°C (-40°F - 185°F) ● Humidity (Non-Condensing): 10 to 95%	● Operating Temp: -40°C to 70°C ● Storage Temp: -40°C to 85°C ● Protection – IP65, NEMA 4x ● Humidity 95%, MTBF – 61 years

For more detailed and up-to-date specifications, please visit http://www.siemens.com/enterprise

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Reference No.: A31002-W1050-D101-2-7629
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