bluesocket ®

The leader in secure mobility® solutions

BlueSecure™ Access Points

Bluesocket's family of next-generation Access Points are the perfect solution for enterprises looking to deploy secure wireless networks. All BlueSecure Access Points utilize dual-radio 802.11a/b/g standards-based technology which is certified by the Wi-Fi Alliance to ensure inter-operability with your network. Whether you want to add wireless to your office or light up an entire campus, indoors or outdoors, Bluesocket has an Access Point to meet your needs.

BlueSecure Indoor Access Points

BlueSecure™ Access Points are the next-generation, "thin" access point (AP) that works in conjunction with BlueSecure Controllers for enterprise wireless LAN (WLAN) deployments. The BlueSecure Access Point features dual radios supporting 802.11 a/b/g in a plenum-rated housing with fixed omni-directional antennas (Model AP-1500) and optional external antennas (Model AP-1540).

BlueSecure Access Points extend and complement the industry-leading, enterprise-class WLAN security and management capabilities provided by BlueSecure Controllers. While providing industry-standard radio and security functions, role-based policy management and universal authentication functions are offloaded to centralized BlueSecure Controllers, making BlueSecure APs cost-effective and simple to deploy and manage.

A Wi-Fi Certified, Centrally Managed WLAN Solution
BlueSecure Access Points have achieved Wi-Fi certification from the Wi-Fi Alliance, guarantee-ing interoperability with all client devices, and work in conjunction with all BlueSecure Controller models to provide a high performance, centrally managed wireless LAN solution for enterprises. BlueSecure Access Points automatically configure across any L2/L3 network using the Bluesocket® Discovery Protocol. This allows easy upgrades when new features, capabilities or standards emerge, and ensures longer life span without any physical intervention.

High Performance Wireless – Enterprise MIMO
Bluesocket's new BlueSecure Access Point 1700 (BSAP-1700) is the first enterprise-class 802.11a/b/g Wi-Fi certified AP to use MIMO technology. This approach achieves more than 30 percent better range and overall performance, using your existing standard 802.11a/b/g clients, than APs using legacy 802.11 technologies. The BSAP-1700 integrates a sophisticated internal six antenna array— instead of the usual one or two antennas found in most APs—that combines multiple signal paths to create one "super signal," providing significantly better in-building wireless coverage.

BlueSecure Access Point 1500/ 1540 (BSAP-1500/BSAP-1540)

Next generation "thin" Access Points that provide a simple, secure, centrally managed Wireless LAN solution.

NEW

powered by MIMO enterprise

NEW! BlueSecure Access Point 1700 (BSAP-1700)

The first enterprise-class Wi-Fi Certified MIMO Access Point.

WiFi CERTIFIED™

BlueSecure Outdoor Access Point 1600 (BSAP-1600)

BlueSecure Access Point
**1500/1540 (BSAP-1500/
BSAP-1540)**

BlueSecure Access Point
1700 (BSAP-1700)

FEATURES & BENEFITS

⊙ **Enterprise MIMO**
The BSAP-1700 is the first enterprise-class MIMO Access Point, providing over 30% better range and overall performance while working with your existing standard 802.11a/b/g clients.

⊙ **Thin AP Providing 802.11a and 802.11b/g User Access**
Works with BlueSecure Controllers in a centralized WLAN architecture for greater administrator control, and improved system scalability and performance.

⊙ **Simplified Deployments**
Simple "Zero-Config" deployment with configuration provided by BlueSecure Controller:

- Bluesocket Discovery Protocol provides automatic AP discovery over L2 and L3 networks.

- Automatic AP configuration download and firmware upgrades over a secure IP connection.

- Layer 3 tunneling from the AP to the controller means no need to touch your existing wired infrastructure. Just place the access points wherever you need wireless coverage.

- 802.3af Power over Ethernet support.

- Easy-to-install, blends in with ceiling tiles, tamper-proof lock and mounting bracket.

⊙ **DynamicRF™**
Automatic channel and power adjustment to avoid noise, interference, coverage holes and AP failures while providing load balancing and fast roaming.

⊙ **RF IDS**
Built-in RF IDS means your WLAN is protected from Rogue APs and wireless attackers.

⊙ **Voice Over WLAN**
BlueSecure Access Points support the Wi-Fi alliance WMM (802.11e) standard for prioritization of voice and video over wireless networks. This allows administrators to deploy voice, video and data traffic over a single WLAN infrastructure.

Zero Touch, Plug-and-Play Deployment

BlueSecure Access Points are completely plug-and-play, requiring no manual configuration. The Access Points can be directly attached to any existing Ethernet switch or IP router, and across any subnet boundary. Once connected, BlueSecure Access Points "auto-configure" by associating with a BlueSecure Controller. The BlueSecure Controller automatically configures each BlueSecure Access Point based on the policies and configuration set by the administrator. All Secure Mobility® roaming features are handled centrally within the BlueSecure Controller. Network administrators can configure and manage multiple WLAN Access Point deployments from a central location using Bluesocket's BlueView™ Management System.

Unmatched Security

Bluesocket delivers one of the most robust suites of standards-based security on the market today on all of its enterprise-class BlueSecure Access Points and Controllers. AP-specific security features include basic Wireless Equivalent Privacy (WEP) RC4 40/64-bit, 128-bit and 152-bit shared-key encryption. Bluesocket strengthens this basic security mechanism with additional security features, including local MAC authentication, 802.1x port-based authentication, Temporal Key Integrity Protocol (TKIP), Wireless Protected Access (WPA), and 802.11i (WPA v2) with multiple Extensible Authentication Protocol (EAP) methods for user authentication such as PEAP, FAST, TTLS and TLS. Your wireless link receives the highest available protection with Advanced Encryption Service (AES)-encryption built into the Bluesocket hardware.
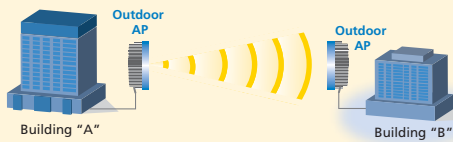
Several other "clientless" authentication and privacy methods are supported using BlueSecure Controllers for ease-of-use and transparency, without compromising the level of security deployed.
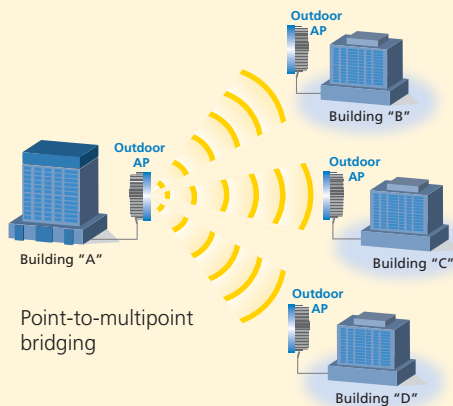
DynamicRF™

Bluesocket's DynamicRF technology automatically adjusts the AP based on the wireless environment to ensure optimal performance. DynamicRF constantly monitors the RF spectrum for RF noise, interference, coverage holes, and optimizes power and channel settings to maintain availability under all conditions. Should an access point fail or be removed from service, Bluesocket APs utilize a self-healing algorithm to increase transmit power in the surrounding APs, compensating for the gap in RF coverage. Additionally, BlueSecure Access Points provide client load balancing and fast roaming (802.11i key caching) to ensure the WLAN will support low latency applications such as VoIP.
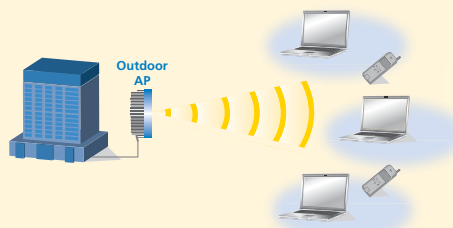
RF IDS

Built-in RF IDS allows Bluesocket Access Points to find and contain Rogue APs that threaten the security of your network. By scanning the airwaves, BlueSecure APs can also detect and alarm on rogue clients, ad-hoc networks and a host of WLAN DoS and spoofing attacks to extend your visibility into the RF spectrum.
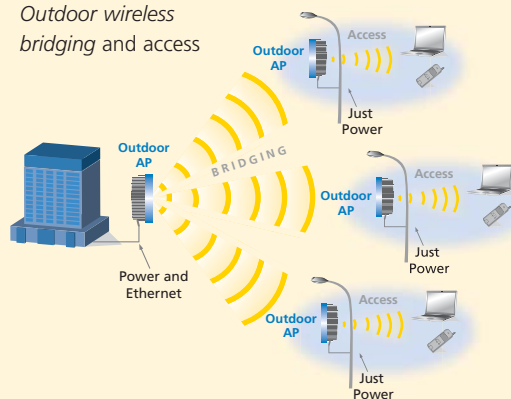
Building "A"

Outdoor AP

Outdoor AP

Building "B"

Point-to-point bridging

Outdoor AP

Building "B"

Outdoor AP

Building "A"

Outdoor AP

Building "C"

Point-to-multipoint bridging

Outdoor AP

Building "D"

Outdoor AP

Outdoor wireless bridging and access

Outdoor AP

Access

Just Power

Outdoor AP

BRIDGING

Access

Outdoor AP

Just Power

Power and Ethernet

Access

Outdoor AP

Just Power

BlueSecure Outdoor Access Point

The Bluesocket outdoor wireless bridge/AP utilizes 802.11a to support a point-to-point or point-to-multipoint building-to-building bridge function, while simultaneously using 802.11b/g to support wireless connection for outdoor user access. The outdoor AP is designed with a rugged weatherproof housing, a durable mounting bracket, includes weatherproof Ethernet and console cables, and a PoE power inserter.

Building to Building Bridging

Forget the expensive cables or private lines and link multiple buildings together using industry-standard 802.11 Wi-Fi. The BSAP-1600 uses AES encryption to protect your data as it passes over the air and with Bluesocket's advanced antenna technology, buildings can be up to 12 miles (20km) apart.

Outdoor Wireless Access

The BSAP-1600 can also be used to extend your organization's Wi-Fi network to outdoor locations for user access. Outdoor Wi-Fi networks can be as simple as connecting users in a common outdoor area or as expansive as bridging the outdoor network to cover a large-scale area, such as a hospital, college, or enterprise campus. The BSAP-1600 can act as both a mobile user Access Point and a wireless bridge to backhaul the traffic back to your Ethernet wired networks.

BlueSecure Outdoor
Access Point **1600**

FEATURES & BENEFITS

- **Robust Outdoor Housing** – designed for harsh outdoor environments, with a broad operating temperature range, die-cast watertight housing, and built-in lightning protection.

- **Connect Networks in Different Buildings** when used in conjunction with high-gain outdoor antennas, providing up to a 20km range.

- **Connect Users Outdoors** – with standard 802.11 access and wireless backhaul, extend your network outside.

- **Easy Installation** with included PoE adapter, outdoor mounting kit and weatherproof Ethernet and console cables.

- **Embedded Thermostat and Heater** for expanded operational temperature range.

- **Manageable** through SNMP, WEB GUI, or the BlueView Management System (BVMS).

Specifications	BSAP-1500	BSAP-1540	BSAP-1700	BSAP-1600
Dual Radios Supporting	IEEE 802.11 a/b/g	IEEE 802.11 a/b/g	IEEE 802.11 a/b/g	IEEE 802.11 a/b/g
Wi-Fi Certified	Wi-Fi certified	Wi-Fi certified	Wi-Fi certified	Wi-Fi certified
POE	802.3af-compliant Power over Ethernet support	802.3af-compliant Power over Ethernet support	802.3af-compliant Power over Ethernet support	Outdoor specialized Power over Ethernet support
Antennas	Two fixed antennas with 180 degree rotation	Two fixed antennas and 802.11a and 802.11b/g external antenna connectors (reverse SMA)	Utilizes 6 internal MIMO 802.11a and 802.11b/g antennas	External antennas only
Security	WEP, WPA (w/TKIP), WPAv2 (802.11i w/built-in hardware AES), SSID-to-VLAN mapping (up to 16), MAC ACL List (local and via RADIUS), 802.1x support (for EAP MD5, TLS, TTLS, FAST, PEAP), and Peer-to-Peer client blocking	WEP, WPA (w/TKIP), WPAv2 (802.11i w/built-in hardware AES), SSID-to-VLAN mapping (up to 16), MAC ACL List (local and via RADIUS), 802.1x support (for EAP MD5, TLS, TTLS, FAST, PEAP), and Peer-to-Peer client blocking	WEP, WPA (w/TKIP), WPAv2 (802.11i w/built-in hardware AES), SSID-to-VLAN mapping (up to 16), MAC ACL List (local and via RADIUS), 802.1x support (for EAP MD5, TLS, TTLS, FAST, PEAP), and Peer-to-Peer client blocking	Bridge mode: WEP, WPAv2 w/AES. AP Mode: WEP, 802.1x/RADIUS, WPA/RADIUS, WPA-PSK, WPAv2 w/AES. SSID-to-VLAN mapping (up to 8), MAC ACL List
Voice QoS	WMM (802.11e)	WMM (802.11e)	WMM (802.11e)	WMM (802.11e)
Operating Temperature	32° to 131° F (0° to 55° C)	32° to 131° F (0° to 55° C)	32° to 131° F (0° to 55° C)	-40° to 149° F (-40°C to 65°C)
Humidity	Maximum 95% Non-Condensing	Maximum 95% Non-Condensing	Maximum 95% Non-Condensing	Maximum 95% Non-Condensing
Other Environment	Plenum	Plenum	Plenum	Transportation Environment ETS 300 019-2-2 Class 2.3 Pubic Transportation Storage Environment Shock: IEC 68-2-29 Drop IEC 68-2-32 Wind (Operational) 90 MPH; Wind (Survival) 125 MPH
Electrical/Safety Compliance	UL 60950, CSA 22.2, IEC 60950, EN 60950, TUV-GS Mark, UL 2043 (Plenum Rating)	UL 60950, CSA 22.2, IEC 60950, EN 60950, TUV-GS Mark, UL 2043 (Plenum Rating)	UL 60950, CSA 22.2, IEC 60950, EN 60950, TUV-GS Mark, UL 2043 (Plenum Rating)	UL 60950, CSA 22.2, IEC 60950, EN 60950, TUV-GS Mark
EMI & Susceptibility	FCC Class B Part 15, ICES-003, EN301.489-1, EN301.489-17, EN55022, EN55024	FCC Class B Part 15, ICES-003, EN301.489-1, EN301.489-17, EN55022, EN55024	FCC Class B Part 15, ICES-003, EN301.489-1, EN301.489-17, EN55022, EN55024	FCC Class B Part 15, ICES-003, EN301.489-1, EN301.489-17, EN55022, EN55024
Radios	FCC Part 15.247, RSS-210, EN 300.328, EN 301.893	FCC Part 15.247, RSS-210, EN 300.328, EN 301.893	FCC Part 15.247, RSS-210, EN 300.328, EN 301.893	ETSI 300 328 (11b/g), 301 893 (11a Full range), 301 489 (DC power) FCC Part 15C 15.247/15.207 (11b/g), Part 15E 15.407 (11a Full range) Wi-Fi, DGT, TELEC, RSS210(Canada) C-Tick
Dimensions	Length: 9", Width: 6", Height: 1.5". Weighs under 2 pounds.	Length: 9", Width: 6", Height: 1.5". Weighs under 2 pounds.	Length: 9", Width: 9", Height: 2". Weighs under 2 pounds.	Length: 7.68", Width: 7.48", Height: 2.91", Weight: 3.4 pounds

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