OWS 2400 Series

Features

Wireless

- High-performance, multi-node and multi-radio mesh architecture.
- Low latency and high throughput across multiple wireless hops.
- Up to six radios per node (upgradeable).
- Full duplex mesh.

System

- All nodes auto-discover and self-configure.
- Self-tuning and self-healing mesh for network optimization.
- User definable QoS with voice, video and data prioritization.
- Up to 16 BSSIDs per radio.
- Multiple SSIDs (per network and per node) and VLAN tagging, with configurable security parameters on a per-SSID basis.
- Session persistence for roaming, path optimization or failover.
- Manager/One® Web interface provides a full suite of intuitive management tools at the network, node, and radio levels.
- Additional remote management options include SNMP, CLI over Telnet or SSH, HTTP/HTTPS, DHCP, and BOOTP.
- Seamless interoperability with the Strix Access/One Network® Indoor Wireless System (IWS) and Edge Wireless System (EWS).

Security

- Supports all industry standard security protocols.
- RADIUS, WPA, EAP-MD5, EAP-TLS, PEAP-TTLS authentication.
- 802.11i with AES, WEP and TKIP encryption.
- MAC address Access Control Lists on a per SSID basis.
- Full VPN support.

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Delivers higher throughput and lower latency across multiple hops

The Access/One Network® OWS is a high performance wireless mesh networking system that delivers on the promise of Networks Without Wires®. With its multi-radio, multi-RF and multi-channel capabilities, the OWS utilizes advanced algorithms to deliver high throughput over multiple hops from the core to the edge of the network. The OWS intelligently self-tunes, self-configures and self-heals to optimize the overall performance and availability.

OWS architecture makes 802.11 a full duplex technology, moving traffic more efficiently through the network and utilizing different RF frequencies and channels for network connectivity and client access. In addition, channels are selected dynamically, making the network more resilient to interference than standard mesh networks. Working closely together, these features deliver higher throughput and lower latency across multiple hops, supporting real time voice, video, and data applications.

> OWS is the most secure mesh networking system available, with the tools to authenticate users, encrypt wireless traffic, and monitor network activity all provided as standard features. Secure private networks can operate in tandem with open public access networks—with data integrity guaranteed.

The OWS scales efficiently, minimizing the number of wired termination points required in the network, which greatly reduces deployment and operating costs.

Extended operating temperature ranges and flexible mounting options make the OWS suitable for all types of deployment scenarios.

All OWS nodes can be centrally managed using the Manager/One® secure Web interface, or the carrier grade SNMP based management tools.

Enhanced features like Virtual/Strix, Priority/One and Rogue/One support deployments of mixed use networks where varying security schemes are implemented based on user type (for example, public safety versus public access), and different levels of priority can be assigned to the various network traffic.

Access/One Network OWS is an ideal solution for WISPs, public safety, and city governments.

Outdoor Wireless System

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StrixSYSTEMS
Networks Without Wires®

Technical Specifications

Wireless

- Wireless Standards: IEEE 802.11a/g
- Frequency Bands:

  802.11a
  - 5.15 - 5.25 GHz, 5.25 - 5.35 GHz
  - 5.470 - 5.725 GHz (capable), 5.725 - 5.850 GHz

  802.11g
  - 2.4 - 2.462 GHz (Americas, FCC)
  - 2.4 - 2.472 GHz (Europe, ETSI)
  - 2.4 - 2.497 GHz (Japan, MKK)
- Data Rates (Mbps):
  - 6, 9, 12, 18, 24, 36, 48, 54 (802.11a/g)
  - 12, 18, 24, 36, 48, 72, 96, 108 (802.11a Turbo mode)
- Wireless Medium:

  802.11a/g – OFDM
- Modulation:

  802.11a – BPSK, QPSK, 16 QAM, 64 QAM
  802.11g – DBPSK, DQPSK, CCK
- Operating Channels:

  802.11a
  - 13 (Americas, FCC) 8 indoor, 5 outdoor
  - 13+ (Europe, ETSI), 13 (Japan, MKK)

  802.11g
  - 11 (Americas, FCC)
  - 13 (Europe, ETSI), 13 (Japan, MKK)
- Transmit Power (802.11a and 802.11g): 26 dBm
- Transmit and Receive Diversity
- Receiver Sensitivity:

802.11g:	802.11a:
-98 dBm @ 1 Mbps	-93 dBm @ 6 Mbps
-94 dBm @ 5.5 Mbps	-90 dBm @ 12 Mbps
-91 dBm @ 11 Mbps	-84 dBm @ 24 Mbps
-93 dBm @ 6 Mbps	-81 dBm @ 36 Mbps
-91 dBm @ 12 Mbps	-76 dBm @ 48 Mbps
-85 dBm @ 24 Mbps	-74 dBm @ 56 Mbps
-82 dBm @ 36 Mbps	
-77 dBm @ 48 Mbps	
-75 dBm @ 56 Mbps	

- LO (crystal) Frequency Stability:

  +/-20PPM

Electrical

- Power Input: Auto-sensing 120/240 VAC, 50/60 Hz, single and split phase, with ANSI/IEEE C62.41 category C3 integrated surge protection
- AC Power Consumption: 30W typical, 65W maximum
- DC Input: 12/24V, 6A maximum

Protection Circuits

- Electrical Protection: ANSI/IEEE C62.41, UL 1449 2nd edition; 10kA @ 8/20 µs waveform, 36kA per phase; L-L, L-N, L-PE
- Data Protection: EN61000-4-2 Level 4 ESD Immunity
- EN61000-4-5 Level 4 AC Surge Immunity
- EN61000-4-4 Level 4 Elect. Fast Transient Burst Immun.
- EN61000-4-3 EMV Field Immunity

Environmental

- Operating Temperature: -40°C to +55°C
- Storage Temperature: -50°C to +85°C
- Humidity: 10% to 90% non-condensing
- Weather Rating: IP67 weather tight
- Wind Survivability: >165 mph
- Wind Loading (165 mph): <1024 newtons
- Salt/Fog/Rust Resistance: Mil-STD-810F 509.4
- Shock & Vibration: ESTI 300-192-4 spec T41.E
- Class 4M3 and Mil-STD-810
- Transportation: ISTA 2A and Mil-STD-810

Physical

- 12" high x 10" wide x 6" deep (without accessories)
- Weight: 14.5lbs (6.58 Kg)
- NEMA 4X rated for outdoor enclosures
- Wall mount and pole mount brackets included

Security

- Authentication: 802.1x support, including RADIUS client, EAP-MD5, EAP-TLS, and PEAP-TTLS, WPA
- Encryption: IEEE 802.11i with AES and WEP

Remote Management

- Web, CLI and SNMP interfaces
- Supports BOOTP, DHCP, Telnet, SSH, HTTP, HTTPs, and FTP
- SNMP: MIB II, 802.11 MIB, and Strix private MIBs

Approvals

- FCC CFR47 Part 15, Class A; EN 301 489-1/-17 EN 301 328; EN 301 893
- Industry Canada RSS210
- EN60950 cTUVus Listed I.T.E
- UL 579/IEC 60529 IP67, rated for outdoor use
- UL 1449 2nd edition / IEC 60664-1
- VCCI Class A

Optional Accessories

- Adjustable Mounting Bracket
- Street light NEMA photo-electric power taps

Warranty

- One year parts and labor

Ordering Information

OWS 2400-10
110/220 VAC auto-sensing, preconfigured with 1-802.11a and 1-802.11g radio, 2 type N antenna connectors, 1 multi-use power connector, and 1 Ethernet connector.

OWS 2400-20
110/220 VAC auto-sensing, preconfigured with 2-802.11a and 2-802.11g radios, 4 type N antenna connectors, 1 multi-use power connector, and 1 Ethernet connector.

OWS 2400-30
110/220 VAC auto-sensing, preconfigured with 3-802.11a and 3-802.11g radios, 6 type N antenna connectors, 1 multi-use power connector, and 1 Ethernet connector.

Strix SYSTEMS
Networks Without Wires®