Access/One®
Indoor Wireless System

High Bandwidth – Low Cost Alternative to Cabled Solutions

Using multi-radio, multi-frequency wireless mesh infrastructure from Strix Systems provides higher throughput and a cost effective alternative approach to terrestrial-based wired networks. No matter what type of customer or vertical market, Strix can exponentially reduce CapEx and OpEx, which is critical to today's growing demands for network connectivity, retrofit or new expansion, and migration to new applications for enhanced services and efficiencies.

Higher Capacity and Performance

The Access/One® Indoor Wireless System (IWS) provides high throughput over multiple hops and is built for capacity. It supports multiple radio frequencies (2.4 GHz, 4.9 GHz, 5 GHz) concurrently from each unit and is uniquely designed for simultaneous support of multiple applications, VLAN segmented networks, real-time and low latency voice, and high resolution video applications and services.

Layer 2 Switching Architecture

Strix's foundational architecture from its inception has clearly distinct advantages over other wireless solutions. It is a true dedicated multi-radio Layer 2 switching wireless mesh backbone providing near full duplex RX and TX and it also combines multiple dedicated radios for client access all simultaneously from each unit. This provides exponentially greater sustainable throughput and lower latency over multiple hops compared to other mesh solutions that employ a store and forward single radio for backhaul, which results in high latency and 50% or greater degradation of available bandwidth.

Easier Large Scale Deployments & Network Management

The Access/One IWS automatically self forms, self configures and self heals forming an instantaneous and highly redundant wireless mesh network infrastructure and helps lower deployment and operational expenditures. Its proven multi-radio and Layer 2 switching architecture enables unlimited scalability and rapid deployment of thousands of mesh nodes. Centralized provisioning and monitoring allow instant availability.

Failover & Reliability

The Access/One IWS enables network communication with each other and performs intelligent tasks and analysis, ensuring that the network's performance is always at its peak. But if problems do arise, the system has the intelligent ability to "tune" and "heal" itself instead of breaking down. There's no single point of failure. Each unit is fully aware of its neighbor and, in the event of an adjacent unit's failure, over-load, or network cable cut of a wire terminated unit, it will redirect traffic. Customers can now benefit from a wireless system that satisfies network-wide reliability.

High Speed Mobility

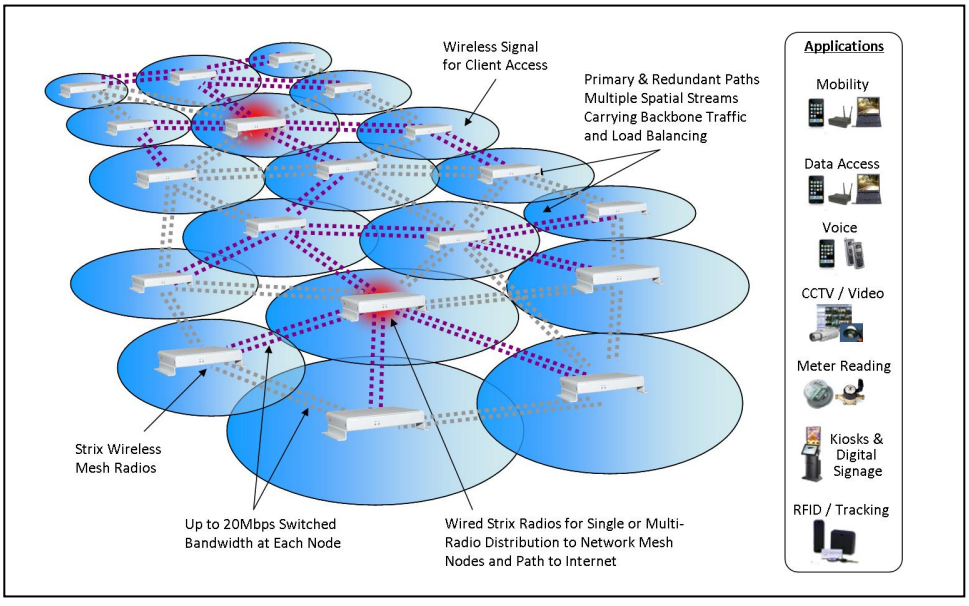
Strix Access/One IWS solutions are capable of supporting high speed vehicular and railway mobile roaming up to 160+ mph. The multi-radio Layer 2 switching architecture and highly tunable mobile parameters enable fast mobile roaming and session persistence. Any 802.11 compliant device is supported allowing roaming between multiple network technologies (e.g. 2.4 GHz, 4.9 GHz public safety, CDMA, 3G, EVDO, etc.).

Security & Optimization

The Access/One IWS offers the industry's highest level of security authentication and encryption available and mesh-wide Layer 2 traffic isolation. It also offers enhanced optimization parameters: QoS traffic provisioning, multicast traffic efficiency handling, weak client handling, mobility roaming, power save queuing, antenna alignment, and throughput testing.

Applications

Fixed and mobile, video surveillance, VoIP, mobile, SCADA, AMR, Smart Grid, traffic control, intelligent transport, Wi-Fi access, rural broadband, telemetry, etc.



Technical Specifications

Models

- IWS – 2 x A/G/J/H/4.9
- IWS – 3 x A/G/J/H/4.9

Mesh Protocol

- Strix Dynamic Mesh Architecture™
- Scalable Mesh Fast Re-Route™
- High Performance Modular Architecture™

Security & Encryption

- Authentication
  - 802.1x support, RADIUS – Up to 2 RADIUS servers per BSSID
  - RADIUS Client Functionality
  - EAP-MD5, TLS, TTLS, PEAP
  - WPA, WPA2, PSK
  - Access Control Lists
  - Strix Access/One
- Encryption:
  - Backhaul: AES CCM
  - Client: AES, TKIP and WEP
  - 64, 128, 152, 256 bit
  - Password Encryption
- Trusted Inventory Authentication
- Trusted IP Management Access
- RADIUS Management User Accounts
- Mesh-wide Layer 2 Traffic Isolation
- Rogue Device Detection
- SSID Suppression

Traffic Prioritization & QoS

- Class of Service 802.1p
- 802.1q VLAN Queuing
- DiffServ

Software Features

- 16 BSSIDs per radio
- 250 VLANs per radio, Up to 4096 tags
- Single or Multi-VLANs per BSSID
- Multi-Radios for dedicated mesh backhaul and client access
- Load Balancing and Auto Failover
- Session-Persistent Mobility
- Location Based Services
- Multicast Efficiency Handling
- Dynamic Auto Channel Select
- Weak Client Trigger Handling
- Power Save Packet Queuing
- Clear Channel Assessment
- Integrated Performance Test Utility

Wireless Interface

- Wireless Standards – A/G/J/H/4.9
- Frequency Bands:

  802.11A/H
  - 5.15 - 5.25 GHz
  - 5.25 - 5.35 GHz
  - 5.470 - 5.725 GHz
  - 5.725 - 5.850 GHz

  802.11A/4.9/J
  - 4.94 – 4.99 GHz (USA)
  - 4.92 – 5.08 GHz (Japan)

  802.11G
  - 2.4 - 2.462 GHz (Americas, FCC)
  - 2.4 - 2.472 GHz (Europe, ETSI)
  - 2.4 - 2.497 GHz (Japan, MKK)
- Receiver Sensitivity Rates (Mbps)
  - -74 dBm @ 54 Mbps
  - -91 dBm @ 11 Mbps
- Transmit Power
  - Up to 23 dBm, 200mW[2]
  - Transmit Power Control
- Modulations
  - Orthogonal Frequency Division Multiplexing (OFDM)
  - (BPSK, QPSK, 16-QAM, 64-QAM)
  - 802.11b – DSS (BPSK, QPSK, CCK)
- Dynamic Frequency Selection
- Strix products have been WiFi certified

Network Interface

- One 10/100 Mbps Ethernet port with weatherproof connectors, LED activity indicator
- 100 Mbps switched interface backplane
- IEEE 802.3, 802.3u compliant
- CSMA/CD 10/100 autosense
- High Power PoE Input
- DHCP, DHCP Relay, Static IP

Management Software

- Centralized Provisioning and Monitoring
- Topology and Mapping
- Inventory Management
- HTTP/HTTPS – WEB GUI configuration
- Telnet/SSH – CLI Interface
- Device Discovery and Auto Backhaul
- Remote Management
- SNMP – 802.11 and Strix MIBs
- Syslog

Electrical

- AC Input: Auto-sensing 100-240 VAC, 50/60 Hz
- DC Input: 15V, 2.5 Amp
- High Power PoE Input, up to 48 VDC
- AC Power Consumption: Up to 20W

Environmental

- Operating Temperature: 0°C to +40°C
- Storage Temperature: -20°C to 70°C
- Humidity: 95% Non-condensing

Physical

- Weight: 700g
- Dimension: 158.75mm x 127mm x 50.8mm
- Operating Temperature: 0°C to 40°C
- Storage Temperature: -20°C to 70°C
- Humidity: 95% Non-condensing
- Connectors: 3 antenna, 1 power, 1 Ethernet (RJ-45)
- Ethernet port LEDs (link, status, activity)
- System LEDs (power, status)
- Reset button
- Plenum-rated UL2043

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

Options and Accessories

- Ceiling-Mount, Wall-Mount, Desktop, Atop Standard Office Cubicles, and Above Ceiling Tiles (w/external antennas)

Warranty

- 13 Months Hardware and Software
- Extended Warranties Available

[1] Multiple Configurations Available
[2] Transmit power varies by country

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