

Access/One® Network 5600 Series

Extreme Bandwidth – Low Cost Alternative to Cabled Solutions

Using up to 3x3 antennas¹, multiple spatial streams, and Multiple Input, Multiple Output (MIMO) techniques, wireless mesh infrastructure from Strix Systems provides blistering fast throughput and a cost effective alternative approach to terrestrial-based networks such as Fiber. 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.

Extreme Capacity and Performance

The Access/One® Network (A1N) 5600 outdoor wireless solution with up to 3x3 MIMO provides blistering fast throughput at up to 300 Mbps and built for extreme 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.

Extreme 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 A/G/N solutions that employ a store and forward single radio for backhaul, which results in high latency and 50% or greater degradation of available bandwidth and high latency.

Easier Large Scale Deployments & Network Management

The A1N5600 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 A1N5600 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, overload, 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

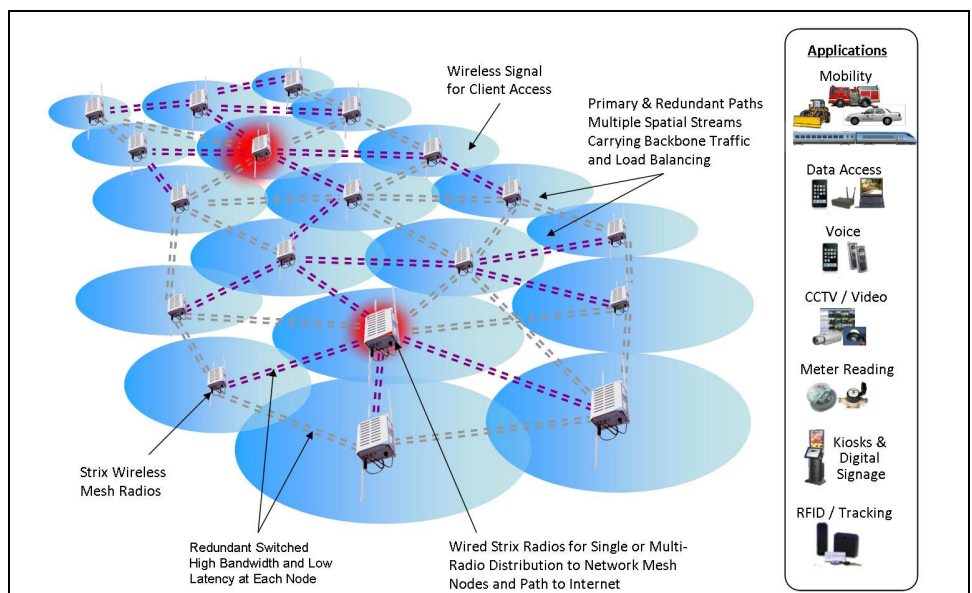
Strix Access/One solutions are capable of supporting high speed vehicular and railway mobile roaming up to 160+ mph. The multi-radio Layer 2 switching architecture and highly tunable mobile parameters enable blistering fast mobile roaming and session persistence when used with the Strix A1N5300 mobile unit. 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 A1N5600 offers the industry's highest level of security available, which includes 256-bit AES encryption, FIPS 140-2 and 197 certifications 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

- ✘ A1N5612 – 1G/A/N/J/4.9
- ✘ A1N5622 – 2G/A/N/J/4.9
- ✘ A1N5632 – 3G/A/N/J/4.9
- ✘ A1N5642 – 4G/A/N/J/4.9
- ✘ A1N5652 – 5G/A/N/J/4.9
- ✘ A1N5662 – 6G/A/N/J/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

- ✘ 802.11e WMM
- ✘ 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
- ✘ Railway Self Provisioning
- ✘ Power Save Packet Queuing
- ✘ Clear Channel Assessment
- ✘ Integrated Performance Test Utility



Wireless Interface

- ✘ Wireless Standards – A/G/N/J/4.9
- ✘ Up to 3x3 MIMO
- ✘ Frequency Bands:
 - 802.11G/N
 - ✘ 2.4 - 2.462 GHz (Americas, FCC)
 - ✘ 2.4 - 2.472 GHz (Europe, ETSI)
 - ✘ 2.4 - 2.497 GHz (Japan, MKK)
 - 802.11A/N
 - ✘ 5.15 - 5.25 GHz
 - ✘ 5.25 - 5.35 GHz
 - ✘ 5.470 - 5.725 GHz
 - ✘ 5.725 - 5.850 GHz
 - 802.11A/J/4.9
 - ✘ 4.94 – 4.99 GHz (USA)
 - ✘ 4.92 – 5.08 GHz (Japan)
- ✘ Receiver Sensitivity Rates (Mbps)
 - ✘ -64 dBm @ Up to 300 Mbps
 - ✘ -76 dBm @ 54 Mbps
 - ✘ -91 dBm @ 11 Mbps
 - ✘ -93 dbm @ 6 Mbps
- ✘ Transmit Power
 - ✘ Up to 27 dBm
 - ✘ Transmit Power Control by 1 dB
- ✘ Modulations
 - ✘ Orthogonal Frequency Division Multiplexing (OFDM)
 - ✘ BPSK, QPSK, 16-QAM, 64-QAM
 - ✘ 802.11b – DSS (BPSK, QPSK, CCK)
- ✘ Supported Channel Widths
 - ✘ 5, 10, 20, and 40 MHz
- ✘ Dynamic Frequency Selection

Network Interface

- ✘ Up to 4 GigE 10/100/1000 Mbps Ethernet ports with weatherproof connectors
- ✘ GigE switched interface backplane
- ✘ IEEE 802.3, 802.3u compliant
- ✘ CSMA/CD 10/100 autosense
- ✘ High Power PoE Input
- ✘ POE Output 802.3af, 802.3at
- ✘ DHCP, DHCP Relay and 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, single and split phase, with ANSI/IEEE C62.41 category C3 integrated surge protection
- ✘ DC Input: 12V – 48 VDC, 6A maximum
- ✘ AC Power Consumption: Avg. 24W

Protection Circuits

- ✘ Electrical Protection: ANSI/IEEE C62.41, UL 1449 2nd edition; 10kA @ 8/20 μs waveform, 36kA per phase; LL, 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: IP68 weather tight
- ✘ Wind Survivability: >165 mph
- ✘ Wind Load (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
- ✘ Weight: 10 lbs
- ✘ NEMA 4X rated, IP68
- ✘ N-Type Female Connectors
- ✘ Weatherproof Power Connector
- ✘ Weatherproof Ethernet Connectors
- ✘ Wall, Pole, and Adjustable mount

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 IP68
- ✘ UL 1449 2nd edition / IEC 60664-1
- ✘ VCCI Class A

Options and Accessories

- ✘ Optional Mounting Brackets
- ✘ Photo Electric Cell Power Tap

Warranty

- ✘ 13 Months Hardware and Software
- ✘ Extended Warranties Available

¹ Multiple Configurations Available

² Transmit power varies by country