Access/One® Network 5700 Series

Non-Final Draft

Extreme Bandwidth – Low Cost Alternative to Cabled Solutions

Using up to 3x3 antennas[1], 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) 5700 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.

New Generation Wireless Video Surveillance

Integrated Wireless Video Surveillance (IWVS) enables new generation of broadband wireless video surveillance. IWVS allows rapid deployment of video surveillance system. It is a completely integrated housing for the surveillance camera and Strix wireless radios deployable as a mesh or as a redundant point to multi-point or point to point solution. The solution is compatible with 99% of all PTZ cameras on the market.
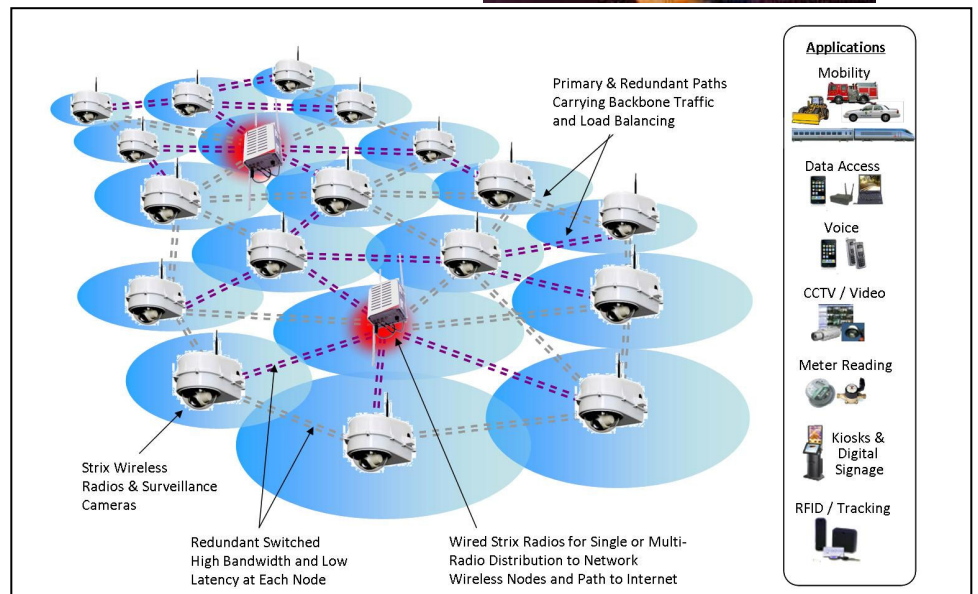
Failover & Reliability

The A1N5700 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.

Security & Optimization

The A1N5700 offers the industry's highest level of security available, which includes 256-bit AES encryption and also offers enhanced optimization parameters: QoS traffic provisioning, multicast traffic efficiency handling.

All-In-One Integrated Enclosure

Supports Industry Leading IP-Enabled Pan-Tilt-Zoom (PTZ) Cameras. Thermoplastic alloy construction makes IWVS vandal-tough and UV resistant. The weatherized enclosure is IP67 and NEMA4X certified. The IWVS comes with multiple power, antenna and mounting options. Available in variety of configuration, including: COOLDOME™, RING OF FIRE, TORNADO. Integrated with thermo-electric solid state cooling that automatically maintains temperature without air exchange into the sealed housing and controls humidity.

Primary & Redundant Paths Carrying Backbone Traffic and Load Balancing

Strix Wireless Radios & Surveillance Cameras

Redundant Switched High Bandwidth and Low Latency at Each Node

Wired Strix Radios for Single or Multi-Radio Distribution to Network Wireless Nodes and Path to Internet

Applications

Mobility

Data Access

Voice

CCTV / Video

Meter Reading

Kiosks & Digital Signage

RFID / Tracking

Technical Specifications

Models
- A1N5722 – 2G/A/N/J/4.9
- A1N5732 – 3G/A/N/J/4.9

[1] Future Models Available

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, 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
- VLAN, TOS Bit, IP Protocol, UDP/TCP Ports

Software Features
- 16 BSSIDs per radio
- 250 VLANs per radio, Up to 4096
- 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[1]
- 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)
  - -68 dBm HT40 @ Up to 300 Mbps
  - -68 dBm HT20 @ Up to 150 Mbps
  - -74 dBm @ 54 Mbps
  - -91 dBm @ 11 Mbps
  - -93 dbm @ 6 Mbps
- Transmit Power
  - Up to 26 dBm[2]
  - Transmit Power Control
- Modulations
  - 802.11a: 16- QAM, 64- QAM, QPSK, BPSK
  - 802.11b: CCK, DQPSK, DBPSK
  - 802.11g: 16-QAM, 64-QAM, QPSK, BPSK
  - 802.11n: 16-QAM, 64-QAM, QPSK, BPSK
- Supported Channel Widths
  - 5[1], 10[1], 20, and 40 MHz
- Dynamic Frequency Selection

Network Interfaces
- GigE 10/100/1000 Mbps Ethernet port; Copper and Fiber[1]
- GigE switched backplane
- IEEE 802.3, 802.3u compliant
- CSMA/CD 10/100 autosense
- DHCP, DHCP Relay and Static IP

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

Electrical
- AC Input: Auto-sensing 100-240 VAC, 50/60 Hz,
- DC Input: 12V – 48 VDC
- AC Power Consumption: 18W - 30 W[2]

Environmental
- Operating Temperature: -40°C to +68°C[2]
- Storage Temperature: -50°C to +85°C
- Humidity: 10% to 90% non-condensing
- Weather Rating: IP67 weather tight
- Wind Survivability: >165 mph
- Wind Load (165 mph): <1024 newtons

Physical
- Dimensions: 14.9in X 11.7in X 13.2in
- Weight: 5 lbs (without camera)
- NEMA 4X rated, IP67
- N-Type Female Connectors
- Weatherproof Power Connector
- Wall and Pole Mount

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