INTRAPLEX® ASCENT MEDIA GATEWAY

High-Performance IP STL System for Video and Audio Distribution

Built on the proven, award-winning Intraplex® IP Link codec technology, GatesAir's **Intraplex Ascent Media Gateway** platform supports reliable and secure Cloud-enabled distribution of TV and radio programming with high-end features.

Intraplex® Ascent Media Gateway Product Features

The Ascent Media Gateway is ideal for applications that require real-time distribution of UDP-based media over IP-based WANs or Microwave. This includes video programs for TV broadcast, and distribution of audio or FM/MPX signals to a large number of radio transmitter sites. This high-density solution reduces cost and provides a path for convergence of IT and broadcast infrastructure.

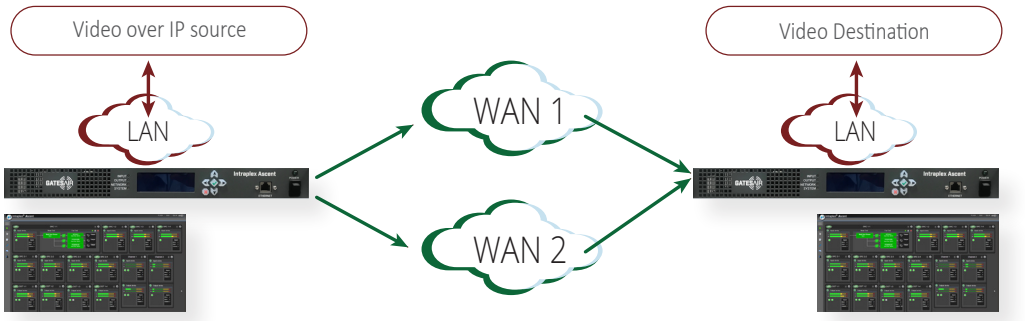
- The system supports any constant rate UDP over IP media. Tested with ATSC1 and ATSC3 for video, and AES3 and FM/MPX signals for audio.
- Supports point-to-point and point-to-multipoint with content replication at the receiver to feed up to 3 local destinations
- Protocol Encapsulation: Real-time Transport Protocol (RTP); Secure Reliable Transport (SRT)
- Streams: Multicast, unicast, and multi-unicast
- Capacity
  - Supports up to 50 Mbps of source rate per stream
  - Total capacity of 250 Mbps per server
  - Number of streams per server: scalable up to 100 with the limitation of maximum capacity
- Server Specification
  - Intel i7, 4-core, 8 GB memory, 32 GB SSD
  - 3 Network Ports
  - OS: Ubuntu version 16.04
  - Available with single or dual power supplies
- Management
  - HTTP and HTTPs
  - Built-in access control (Firewalling) on each network port for security
- Web and SNMP for management
- Multiple web account types to restrict access
- Network reliability
  - Dynamic Stream Splicing with network and time diversity for "hitless" packet loss protection
  - Programmable RTP-level Forward Error Correction (FEC)
  - Secure Reliable Transport (SRT): new protocol provides automatic packet retransmission method
- IP Security
  - Access control per interface
  - Encryption of streams with AES 128/256

The Ascent platform continues the Intraplex tradition of reliable distribution with the Media Gateway over IP application. The platform provides a scalable, cloud-enabled solution for the distribution of video and audio signals with enhanced reliability and security with SRT (Secure Reliable Transport) protocol and Intraplex StreamSplicing®.

SRT is an open-source protocol that provides low-latency, reliable and secure streaming of video and audio data. The added capability of StreamSplicing over SRT provides enhanced reliability and security over multiple diverse networks. For uni-directional unicast network (i.e. STL Microwave), the reliability is accomplished using SMPTE-2022-2 and SMPTE 2022-7 "hitless" packet protection using FEC and a dual-WAN-networks scheme.

When using SRT on full-duplex links, the packet loss protection is provided using a built-in, real-time re-transmission scheme, added via Intraplex StreamSplicing technology with diverse WAN links. The security of the content is handled by the built-in AES-128/256 payload encryption.

Ascent is built on Commercial-Off-The-Shelf (COTS) x86 architecture to leverage the scalability and cost of the technology. It is available as a 1RU (single PSU) or 2RU (dual PSU, FANs) branded hardware server and as a software-only option.



Intraplex Ascent Media Gateway

Specifications

Specifications and designs are subject to change without notice

Overview	
Streaming	- Up to 100 streams per system - Point-to-Multipoint, with capability to feed 3 local destinations at the receiving end - Source UDP stream up to 50 Mbps. Supports multiple sources per server for distribution of multiple programs - Total capacity: 250 Mbps
Reliability	- StreamSplicing - SRT (automatic re-transmission of lost packets) with or without Stream Splicing
Security	Stream: Encrypted SRT (AES-128/256) Access Control: User-settable firewall setting per interface
Management	Web: HTTP/HTTPS with multiple level of users SNMP: SNMPv2C/SNMPv3
Network Interfaces	3 x 10/100/1000Mbps Ethernet (RJ-45)
Mechanical and Environmental for Branded Servers	
Dimensions (H X W X D)	1RU: 1.75 x 19 x 18.1 in. (4.45 x 48.3 x 46.0 cm) 2RU: 3.5 x 19 x 18.1 in. (8.9 x 48.3 x 46.0 cm)
EIA Rack Mountable Weight	1RU: 5 lbs (2.27 kg) typical 2RU: 7 lbs (3.18 kg) typical
Power Supply	Main/Dual AC (2RU): AC 100-240 VAC, 50/60 Hz
Humidity	10% to 90% non-condensing
Operating Temperature	50° to 122° F (10° to 50° C)