

Centra Gateway Video Distribution Platform

Centra Gateway

VIDEO DISTRIBUTION PLATFORM

Centra Gateway is your comprehensive video streaming network management and monitoring solution for all your video streams. Deployable with Zixi, SRT, RIST, RTMP, HLS and other transport protocols.

Centra Gateway is the core functionality of Sencore's new Centra software platform, namely, the reception, transmission and conversion of internet protocols for optimized distribution of video. Protocols supported will include RIST, SRT, Zixi, and HLS, along with MPEG over IP. With the aim to take advantage of the benefits associated with RIST and SRT protocols in terms of reliability, low latency, packet-drop compensation and forward error correction.

Centra Gateway has the capability to monitor and analyze the entire network which provides insight into every mile of video transport, flagging a significant range of potential error types, as well as providing historical analytics for more strategic assessment of network performance over time. Through monitoring by exception Centra will notify and provide users with a streamlined path to rectification, linking to the correct department, site, engineer or solution required.

Thanks to the latest software and API tools, Centra Gateway is fully scalable to the needs of the broadcaster, at a range of bitrates depending on the appliance model or the capacity of the cloud platform selected. Future iterations of the Centra platform will integrate an increasing number of third-party devices, protocols and services through REST API, acting as a single point of coordination through which broadcasters can access all of the components needed for effective, efficient network management.

IP VIDEO DISTRIBUTION NETWORK

A COMPLETE VIDEO DISTRIBUTION NETWORK OVER PUBLIC INTERNET WITH THE RELIABLE BROADCASTERS EXPECT

Save costs and extend your networks reach using standard internet connections for point to point distribution for small or medium sized networks, or cloud hosted point to multipoint distribution for large networks. Combine Centra Gateway with other Sencore devices such as encoders, transcoders and decoders for a true end to end solution to build your distribution network.



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Input and Output Options

MPEG/IP Receive and Transmit

Receive

Input Type	UDP, RTP and RTP with extension headers Multicast and unicast CBR and VBR streams SMPTE 2022/CoP3 FEC SMPTE 2022-7 hitless switching
Multicast filtering	Filter based on IP address VLAN tagging IDs
Buffer size	1-4000KB or 1-4000ms
Bitrate range	.25-200 Mb/s
Packets/IP frame	1-7 MPEG packets/IP frame
IGMP compatibility	Version 2 and 3

Transmit

Output Format:	UDP and RTP
Bitrate Range:	.25 – 200 Mb/s
Packets/IP Frame:	1-7 MPEG Packets/IP Frame, us configurable

SRT Receive and Transmit

Receive

Protocol and IP Range	UDP, unicast
Negotiation modes	Caller, listener, rendezvous
Latency	20-8000ms, user configurable
Bitrate range	0.25-50 Mb/s per stream
Bandwidth overhead	0-50% of content bitrate
Encryption/Decryption	AES-128, AES-256 10-79 UTF-8 characters
Packets/IP frame	Auto detect, 1-7 MPEG Packets/ IP Frame

Transmit

Protocol and IP Range:	UDP, Unicast
Negotiation Modes:	Caller, Listener, Rendezvous
Latency:	20-8000ms, user configurable
Bandwidth Overhead:	0 – 50% of content bitrate
Bitrate Range:	0.25 – 50 Mbps
Encryption:	AES-128, AES-256 10-79 UTF-8 characters
Packets/IP Frame:	1-7 MPEG Packets/IP Frame, us configurable

Zixi Receive and Transmit

Receive

Protocol and IP Range:	UDP, Unicast
Mode:	Connect or pull mode, to Broadcaster Remote ID for receive from AWS MediaConnect
Latency:	30-10000ms, user configurable
Bitrate Range:	1 – 50 Mb/s
FEC Overhead	0 – 50% of content bitrate
Decryption:	AES-128, AES-192, AES-256 10-79 UTF-8 characters
Packets/IP Frame:	Auto detect

Transmit

Protocol and IP Range:	UDP, Unicast
Mode:	Connect or pull mode, to Broadcaster Remote ID for receive from AWS MediaConnect
Latency:	30-10000ms, user configurable
Bandwidth Overhead:	0 – 50% of content bitrate
Bitrate Range:	0.25 – 50 Mbps
Encryption:	AES-128, AES-256 10-79 UTF-8 characters
Packets/IP Frame:	1-7 MPEG Packets/IP Frame, us configurable

RIST Receive and Transmit

Receive

Profile Mode:	Simple, Main (Full Datagram), Main (Reduced Overhead)
Protocol and IP Range:	RTP, Unicast and Multicast
Mode:	Link Bonding, Hitless Switching
Latency:	1-8000ms, user configurable
Bitrate Range:	1 – 50 Mb/s, per stream
Decryption:	DTLS, PSK 1-32 UTF-8 characters
Packets/IP Frame:	Auto detect

Transmit

Profile Mode	Simple, Main (Full Datagram), Main (Reduced Overhead)
Protocol and IP Range:	RTP, Unicast and Multicast
Mode:	Link Bonding, Hitless Switching
Latency:	1-8000ms, user configurable
Bitrate Range:	1 – 50 Mb/s, per stream
Decryption:	DTLS, PSK 1-32 UTF-8 characters
Packets/IP Frame:	1-7 MPEG Packets/IP Frame

HLS Receive

Receive

Protocol and IP Range:	HTTP, HTTPS, TCP, Unicast
Payload:	Chunked transport stream
Modes:	Pull, Push via WebDAV Push Mode supports up to 200GB or content
Profile Reception	Single profile selection
Bitrate Range:	0.25 – 50 Mbps
Decryption	AES-128 10-79 UTF-8 characters
Packets/IP Frame:	1-7 MPEG Packets/IP Frame