Soliton®

Live Streaming Management and Decoding – Cloud and On Prem

Soliton provides a range of miniature H.265/HEVC encoders and Smartphone apps for Live Outside Broadcast. Used by many news gathering teams, sports production companies and other live events, they provide reliable, low latency live video streaming direct from the camera over multiple 4G, WiFi and /or satellite connections.

Typically, the units or apps live stream to a broadcast centre or MCR room where a receiving platform is required to convert to either an IP video stream (RTMP/RTSP/NDI) or to HD-SDI.

Solution

Soliton has 2 solutions for the receiving end:

- **STC HD-View** – An on-premise software solution that operates on Win 7/10 (1 - 4 channels)
- **Zao Media Gateway** – A cloud-based solution for on-the-cloud or on-premise (1 - 12 channels)

STC HD-View

HD-View is easily installed on a commodity Windows platform at the receiving destination.

STC HD-View

| ZAO | ZAO-S | ML CAM |

IP ADRESS

RTMP, RTSP or NDI [®]

VIDEO + AUDIO

3G / 4G / WIFI / LAN / SATELLITE

HD-View

7 / 10

4 x HD - SD 1

Field Unit
(Transmitter)

Destination
(Broadcast Content Command HQ)

HD-View Specifications

Input via IP: 1 channel or 4 channel applications from mixture of STC devices

Output(s): HD-SDI (baseband), RTMP, RTSP, NDI (NewTek Tricaster) (RTxP streams are H.264) including parentheses.

HD-View Server Requirement:
Win 7 Pro/Win 10 Pro Platform
Min 16GB RAM
CPU Intel Xeon 3.70GHz, 4Core+*
Soundcard for talkback
DeckLink BM Quad & Quad 2 Card
(Driver Blackmagic Design Desktop Video 10.9.3)

* Tested with HP Z440/640 Workstation

Required: Global Facing IP Address when using 1Ch or 4Ch HD-View software
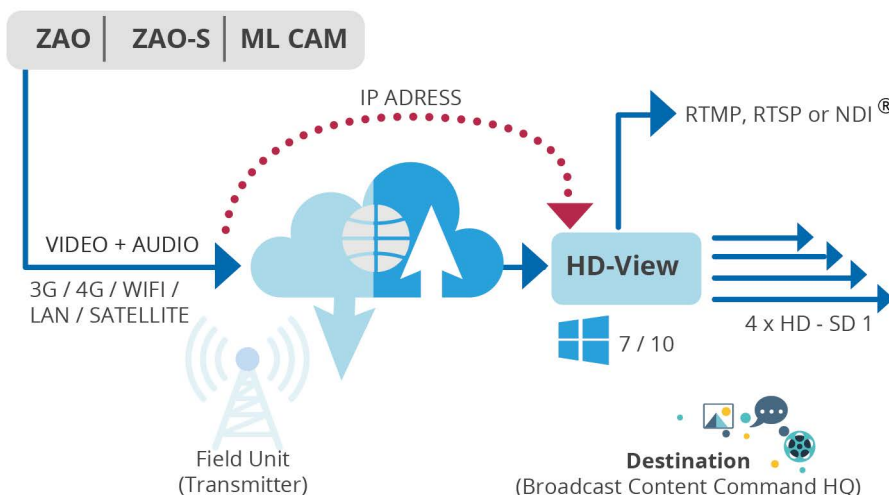
Firewall ports to be opened:
UDP Ports 31114 (outbound),
Ports 31114 to 31118 (inbound).

Remote Management Features:
Latency - 240ms to 30sec
Bit Rate - 0 -10Mb/sec
Framerate - 1-50i with Hi-Q option
Resolution – Full, Half, Quarter
Audio settings – 8000Hz to 48000Hz
Select Audio source and audio band
Encryption Option - AES256
Ability to turn on/off external dongles
3 Programmable Pre-set Options
Individual talkback audio for each unit.

From the incoming live streams of the STC products, it can be used to:

• Create a fully Genlock HD-SDI video and audio signal output (via a BlackMagic® Deck Link Quad2 Card)
• Create an IP stream output (RTMP, RTSP or NDI®)
• Manage the Smart telecaster products remotely
• Provide a return audio to the Smart telecaster products
• Record a local file
• Transmit/ receive serial signal (RS-232 & RS-422) from/ to the Zao/ Zao-S.

HD-View is available in 2 different versions – 1 channel (1 device streaming) or 4 channels (up to 4 devices streaming simultaneously).

The system can optionally record a local incoming stream as a TAF file (high quality granular media file). This can be played out through the decoder to create an SDI or RTMP stream. It does not create a lower quality MPEG file and so keeps the quality and resolution on play out as if it is original. TAF files can be used in conjunction with Store & Forward (Rec & Go)** .

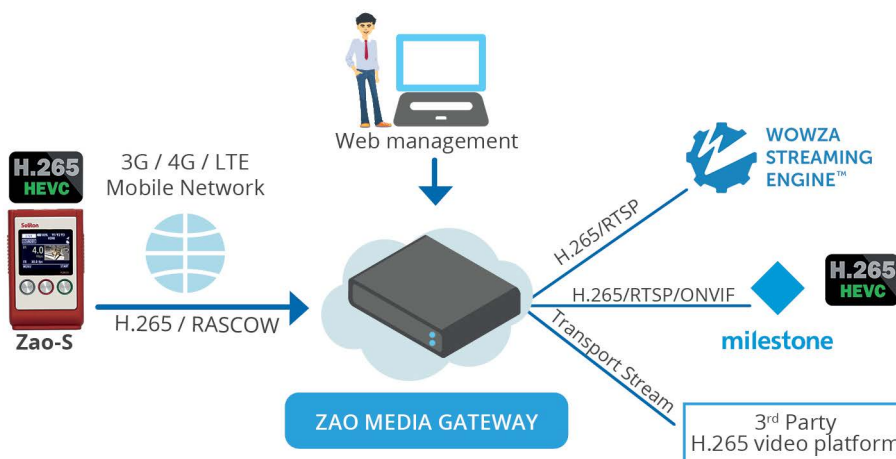*** records to a maximum of 4GB file sizes*

Monitoring:
Network strength on each network
Status and error messages
Log downloads.

Cloud Based Monitoring:
Soliton offers a cloud base management platform for managing the Zao units in the field.

ZAO MEDIA GATEWAY

The Zao Media Gateway is a cloud-based solution that can be utilised instead of HD-View to decode the field based Smart telecaster products. It creates an H.265/ RTSP or H.265/RTSP/ONVIF live stream that can be used to feed other remote or cloud based compatible IP based products such as Video Management Solutions, a CDN such as Wowza, or can be used to stream directly to social media platforms such as Facebook or YouTube.

Zao Media Gateway Specifications

• Number of channels: 12 per server
• Browser based configuration – sign-on by user account
• Proven Interfaces for the destination: Wowza, Milestone Xprotect, and 3rd party H.265 video platform

It can be available as a service (subscription based), hosted on the cloud or it can used on-premise in its own private cloud environment as a SaaS offering.

Cloud Based Monitoring:
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