



INFRASTRUCTURE UPDATE

WINTER 2022

PLUS

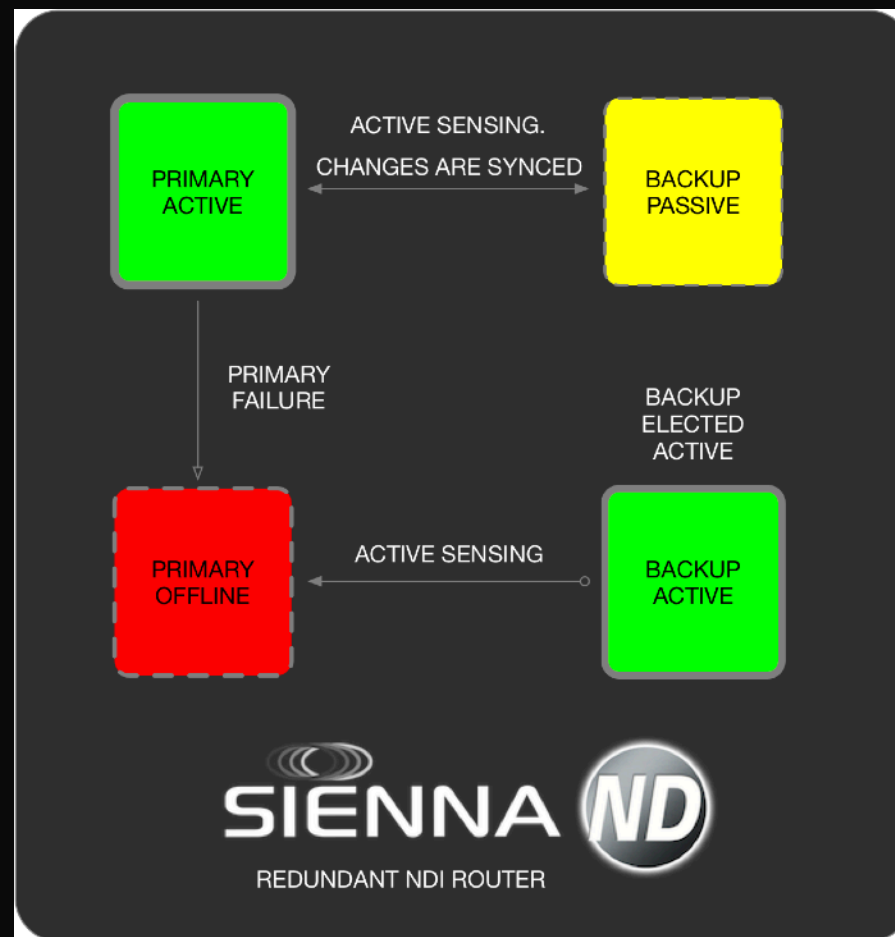
ADVANCED

INGEST CONTROL



Sienna NDI Router

- Improved Scaling, tested beyond 2000x2000
- Full Redundancy Model - auto failover
- Leverages Sienna Virtual NDI Host

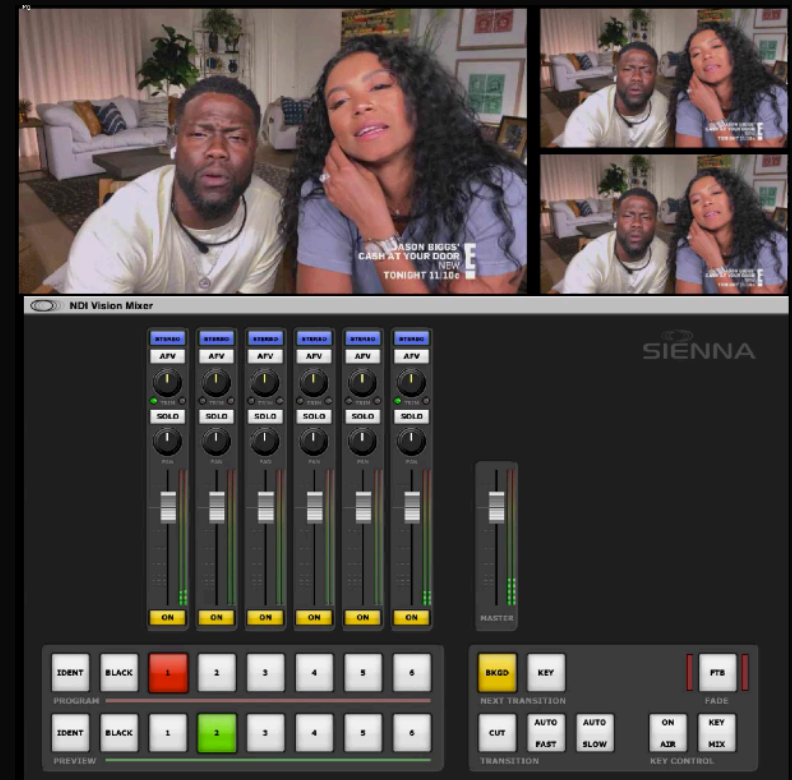
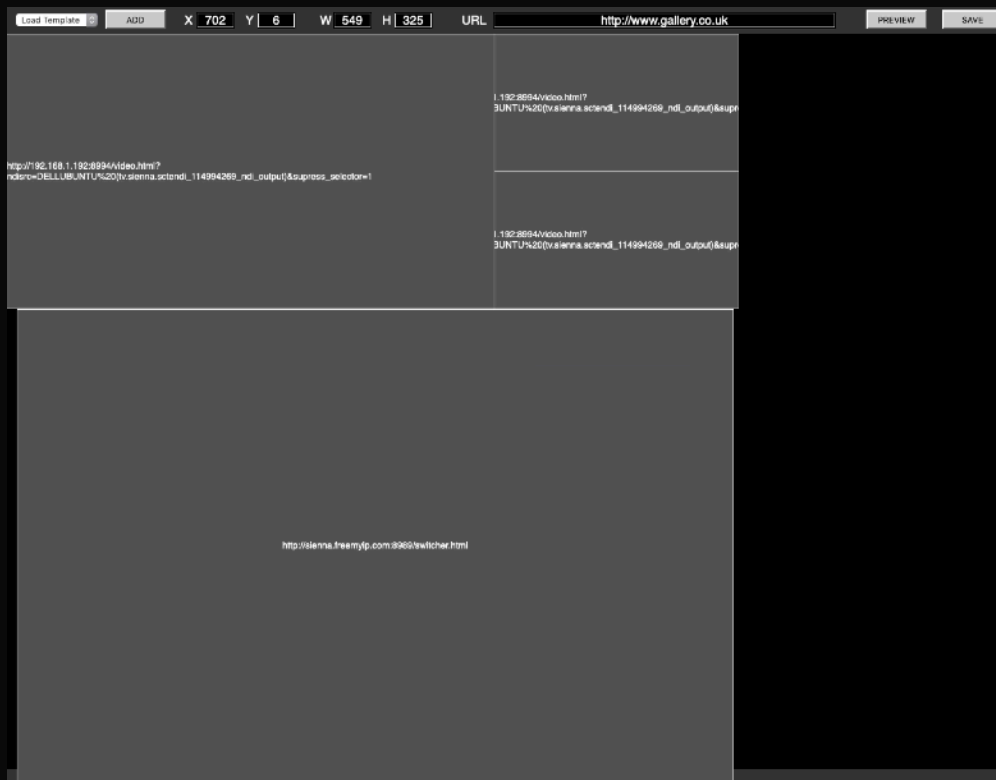




Sienna NDI Processing Engine

PLUS

- Frame Maker
- Flexible Custom GUI Panels
- Include any HTML Content inc. 3rd party





Sienna NDI Processing Engine

- Resource Manager

PLUS

Resources :

Module	Comment	Frame	UID	CPU	RAM	
Weblink		DEFAULT	tv.sienna.weblink_151153824	0.2%	51MB	●
Signal Generator		DEFAULT	tv.sienna.siggen_151153834	27.5%	33MB	●
TS Encoder Pro		DEFAULT	tv.sienna.encpro_151153840	59.3%	1896MB	●
MPEG TS Analyser		DEFAULT	tv.sienna.tsanalyser_151153853			●
TS Analyser Visualiser		DEFAULT	tv.sienna.tsanviz_151153855			●
NDI Access Manager		DEFAULT	tv.sienna.ndiaccess_151154625			●
NDI Analyser ADV		DEFAULT	tv.sienna.analyseradv_151156157	33.6%	36MB	●
Connection Profiler		DEFAULT	tv.sienna.connprof_151156367	1.7%	20MB	●
Connection Visualiser		DEFAULT	tv.sienna.connviz_151156376	37.3%	143MB	●
RTP Over RIST TX		DEFAULT	tv.sienna.ristrptx_151158719			●
RTP Over RIST RX		DEFAULT	tv.sienna.ristrprx_151158725			●
Jitter Scope		DEFAULT	tv.sienna.tscope_151159981	14.9%	57MB	●

- SRT Monitor

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SRT Connection :

Type	Comment	Frame	UID	Port	Status	
SRT Transmit	TIMES SQUARE RETN	srt	tv.sienna.srt_tx_151160832	caller 8500	0:0:0 0 8/6847 (0)	●
SRT Transmit	HOLLYWOOD RETN	srt	tv.sienna.srt_tx_151160835	caller 8501	0:0:0 0 8/6835 (0)	●
SRT Receive	TIMES SQUARE	srt	tv.sienna.srt_rx_151160838	listener 8500	0:0:0 0 8/6698 (0)	●
SRT Receive	HOLLYWOOD	srt	tv.sienna.srt_rx_151160840	listener 8501	0:0:0 0 8/6833 (0)	●
SRT Transmit	CAPITOL RETN	srt	tv.sienna.srt_tx_151160848	caller 8502	0:0:0 0 8/6050 (0)	●
SRT Receive	CAPITOL	srt	tv.sienna.srt_rx_151160850	listener 8502	0:0:0 0 8/4862 (0)	●



Sienna NDI Processing Engine

- Stickies are back !! **PLUS**

The screenshot displays a 2x2 grid of sticky notes on a grey background. Each note has a dark grey header with the word 'Note' in white. The top-left note has a light green background and contains the text 'Make Notes to Describe Infrastructure'. The top-right note has a light pink background and is currently empty. The bottom-left note has a white background and is also empty. The bottom-right note has a light yellow background and contains the text 'DONT TOUCH THIS' in bold black letters. Below this text is a screenshot of the SRT Receive configuration interface, which includes a toggle switch for 'SRT Receive' (set to 'ON'), a 'Mode' dropdown menu (set to 'listener'), and several input fields for 'Partner/Listen Addr', 'SRT Port' (8500), 'SRT Latency' (125), 'SRT Passphrase', 'SRT Extra Params', and 'Output Stream' (udp://239.192.136.110:5001). The status at the bottom of the configuration window is 'Stats: INITIALISING'.



Sienna NDI Processing Engine

NDI Analysis Tools

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NDI Analyser ADV

NDI Video Input

Overlay Out

Proxy

DropFrame TC

Refresh: medium

Timecode: 11:50:49:16

Timestamp: 16685994496253886

Jitters: 7mSec@49.36 fps

Image Resolution: 1920x540 DualField

Aspect Ratio: 1.78

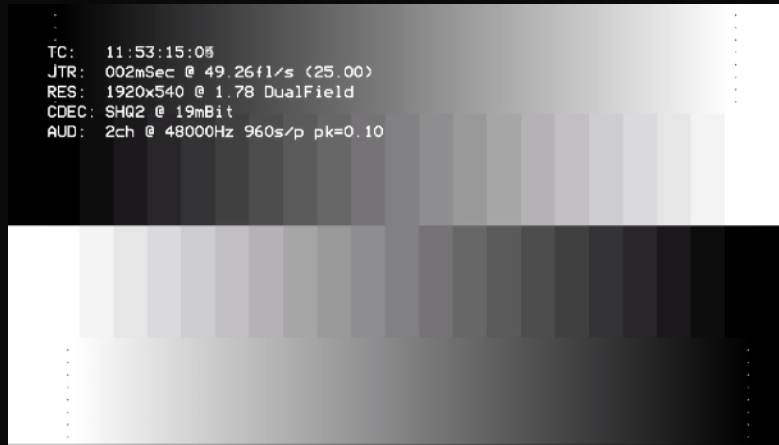
Frame Rate: 25.00fps v=19mBit

Video Format: SHQ2

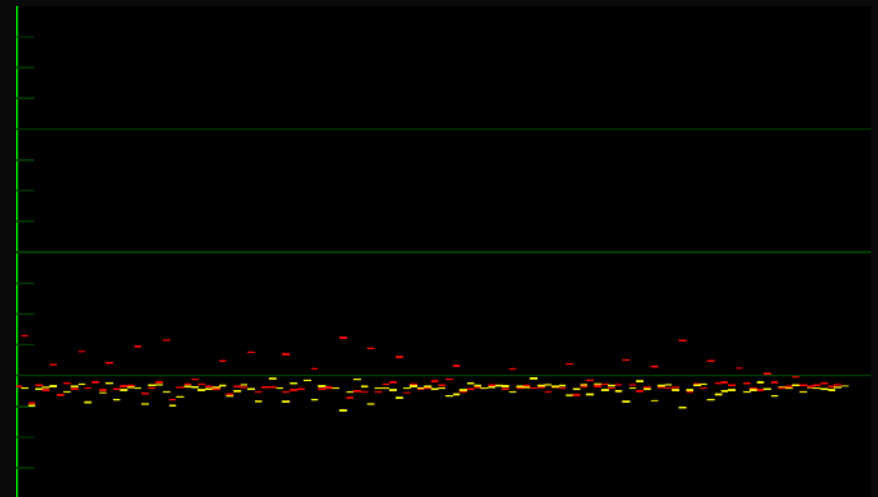
Audio Channels: 2 ch @ 48000 Hz

AudioPeak - PktSize: 0.10 - 960

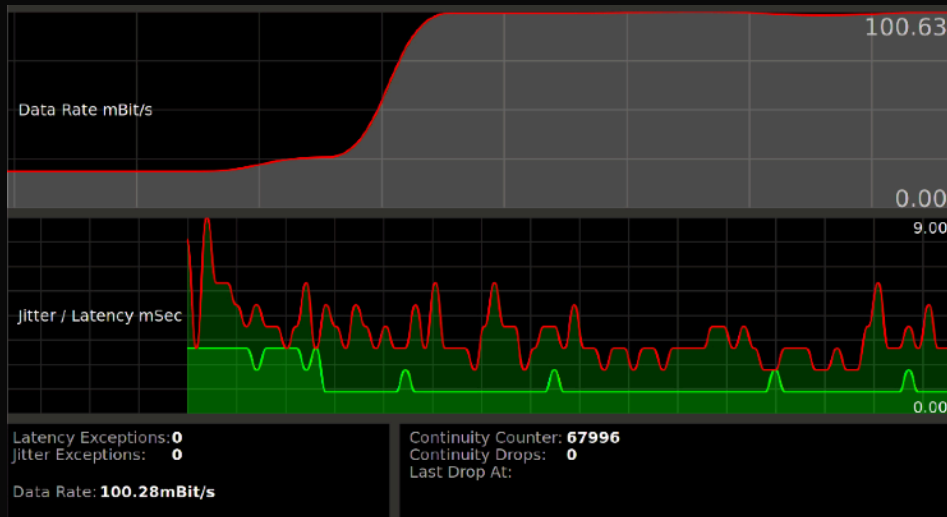
- NDI Analyser ADV w/overlay



- NDI Jitter Scope



- NDI Connection Profiler





Sienna NDI Processing Engine



- NDI Quality Boost

PLUS

NDI Codec:

? Codec Quality %:
200

? Codec Mode :
auto

- New Multiviewers

ADVANCED

Alarm Panel (penalty box)

'Touchscreen' Click to Route 4x4

Composition Manager for Freeform MV



Sienna NDI Processing Engine

Media Transport Updates



- SiennaLink™ 4:2:2 and Interlaced

PLUS



- AWS CDI Input Output Support
inc. integration with JPEGXS

ADVANCED



- SMPTE 2110 Input Support
2110-20/30/40
NMOS Server Integration

ADVANCED



- Native NDI® over SRT
truly reliable NDI over WAN
with Soft Start

ADVANCED



- RTP 64ch Audio over RIST
For integration with SSL and WAN

ADVANCED

- 2022-7 RTP Dual Stream



Sienna NDI Processing Engine

ADVANCED

- Non Standard Aspect Support

The graphic features the Sienna NDI logo at the top left, followed by the text "Vertical and Square Video Support". Below this text are six social media icons: Facebook, Instagram, Twitter, YouTube, TikTok, and LinkedIn. To the right of the text are two smartphone screens. The left screen shows a square video frame with a silhouette of a person and the text "SIENNA 1080 x 1080". The right screen shows a vertical video frame with a silhouette of a person and the text "SIENNA 1080 x 1920".



Sienna NDI Processing Engine

ADVANCED

- NDI Matrix Controller - freeform multiplexing

The screenshot shows a web-based interface for the Sienna NDI Matrix Controller. The browser address bar displays '192.168.1.110:8975/matrix.html'. The interface features a grid for routing 4 NDI outputs to 8 channels (VIDEO, CH 1-8). The routing is as follows:

NDI Output	NDI Input 1	VIDEO	CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8	NDI Input 2	NDI Input 3	VIDEO	CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8	NDI Input 4	
NDI Output 1	-	✓	✓	✓							+	-											+
NDI Output 2	+										+	+											+
NDI Output 3	-										+	-	✓										+
NDI Output 4	+		✓								+	+		✓	✓	✓							+

Familiar Operation Ideology



Sienna NDI Processing Engine

SRT / Transport Stream Enhancements



* With Supported Devices

- Embedded Timecode* **PLUS**
- Improved source failure recovery **PLUS**
- Tx Multiple audio PIDS **PLUS**

* With Supported Devices

- Interlaced H.265* **ADVANCED**
- Rx Multiple audio PIDS **ADVANCED**
- SCTE35, KLV, ID3 <-> NDI **ADVANCED**
- Native TS Processors ProcAmp, DSK **ADVANCED**

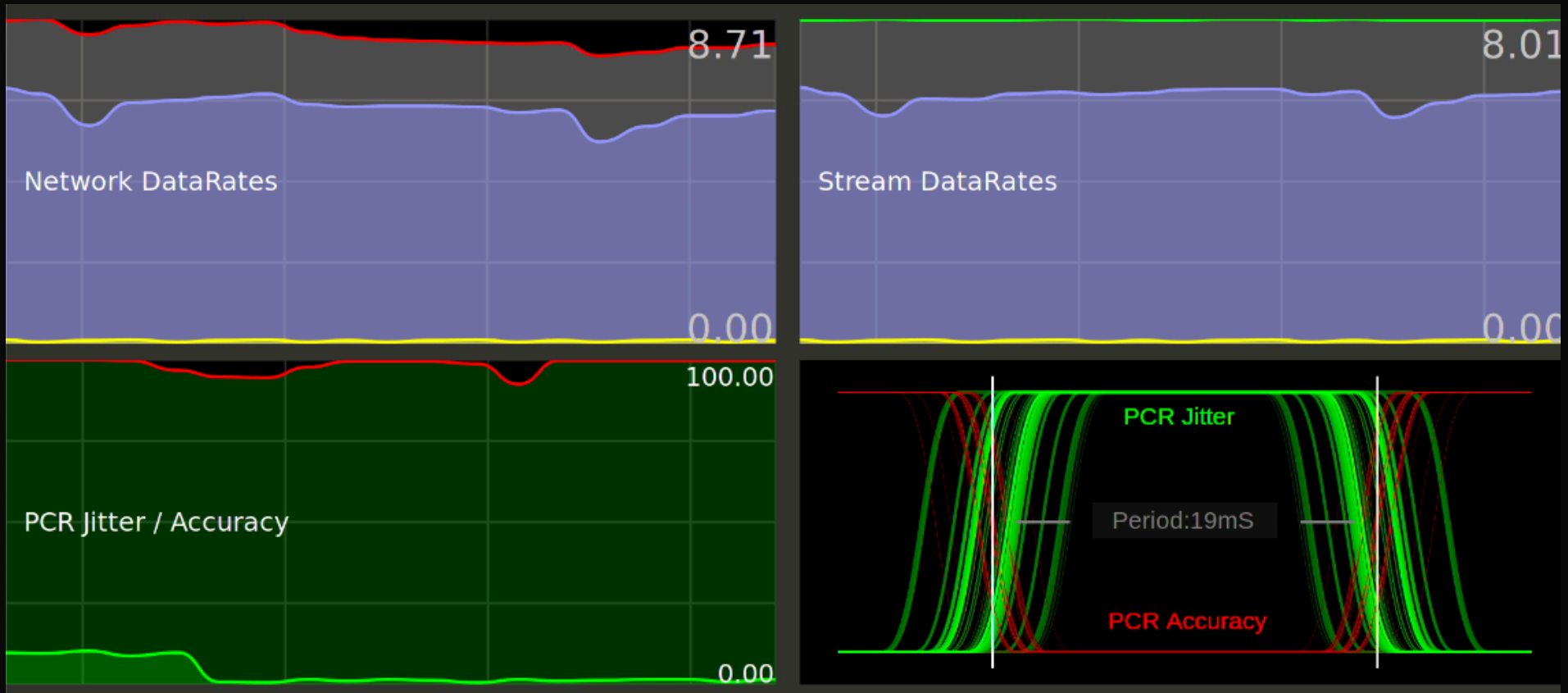
- Unique Visual Transport Stream Analyser **ADVANCED**
- Unique NDI® Inferred Routing™ for Transport Streams **ADVANCED**



Sienna NDI Processing Engine

ADVANCED

- Visual Transport Stream Analyser



Service Provider: **SIENNA**
Service Description: **Service01**
PCR: **00:02:32:119** Period: **19mS** Δ : **1.18%**
Data Rate: **8.03mBit/s** Dup.Pkts: **0**

PID:3002 CC Err: 0 - H.264 video:71314 pkt - 6.20mBit/s
PID:3003 CC Err: 0 - ADTS AAC audio:832 pkt - 81.11kBit/s

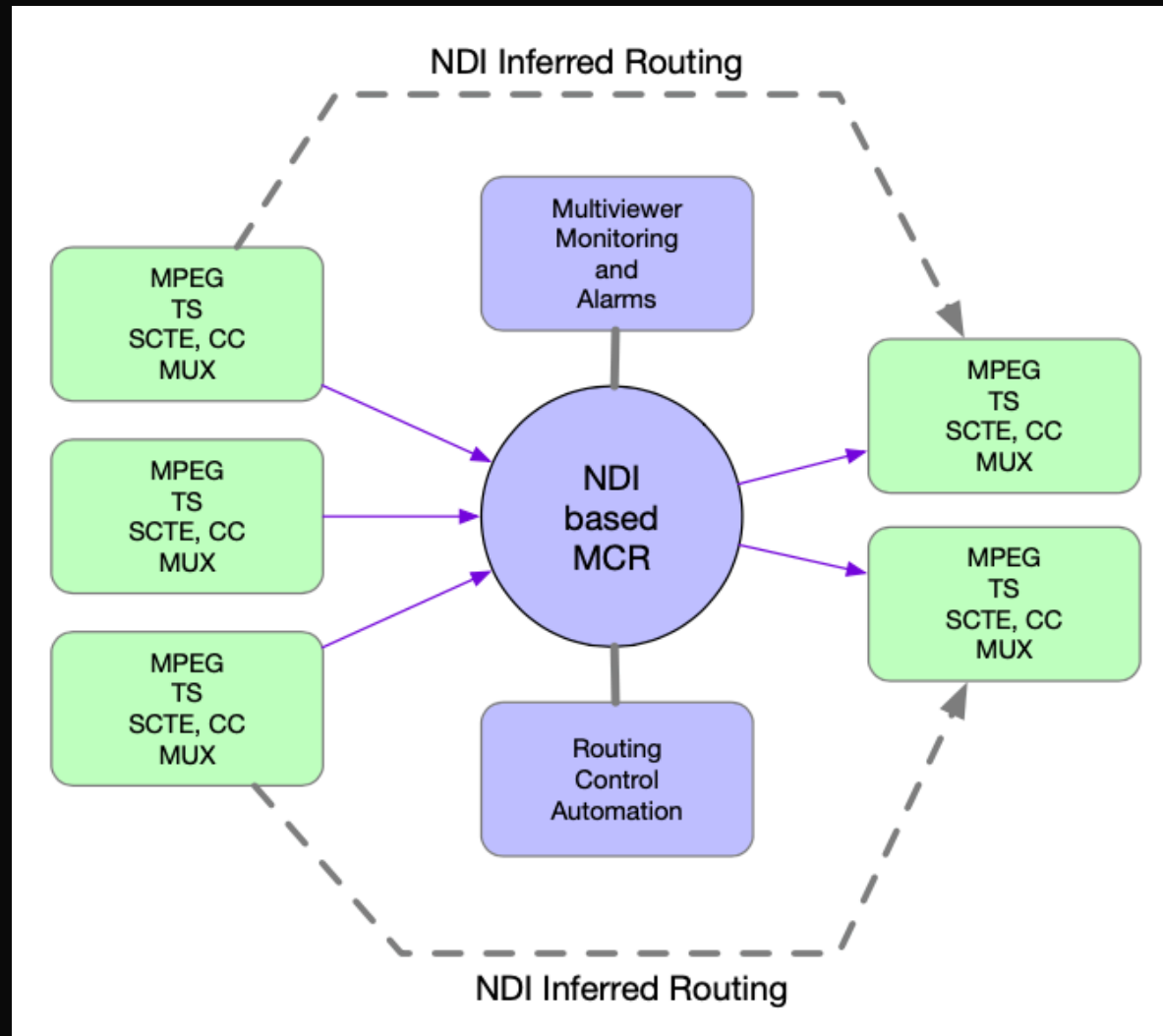
- Essential for diagnosing SRT TS Issues



Sienna NDI Processing Engine

ADVANCED

- NDI® Inferred Routing™ for TS Streams



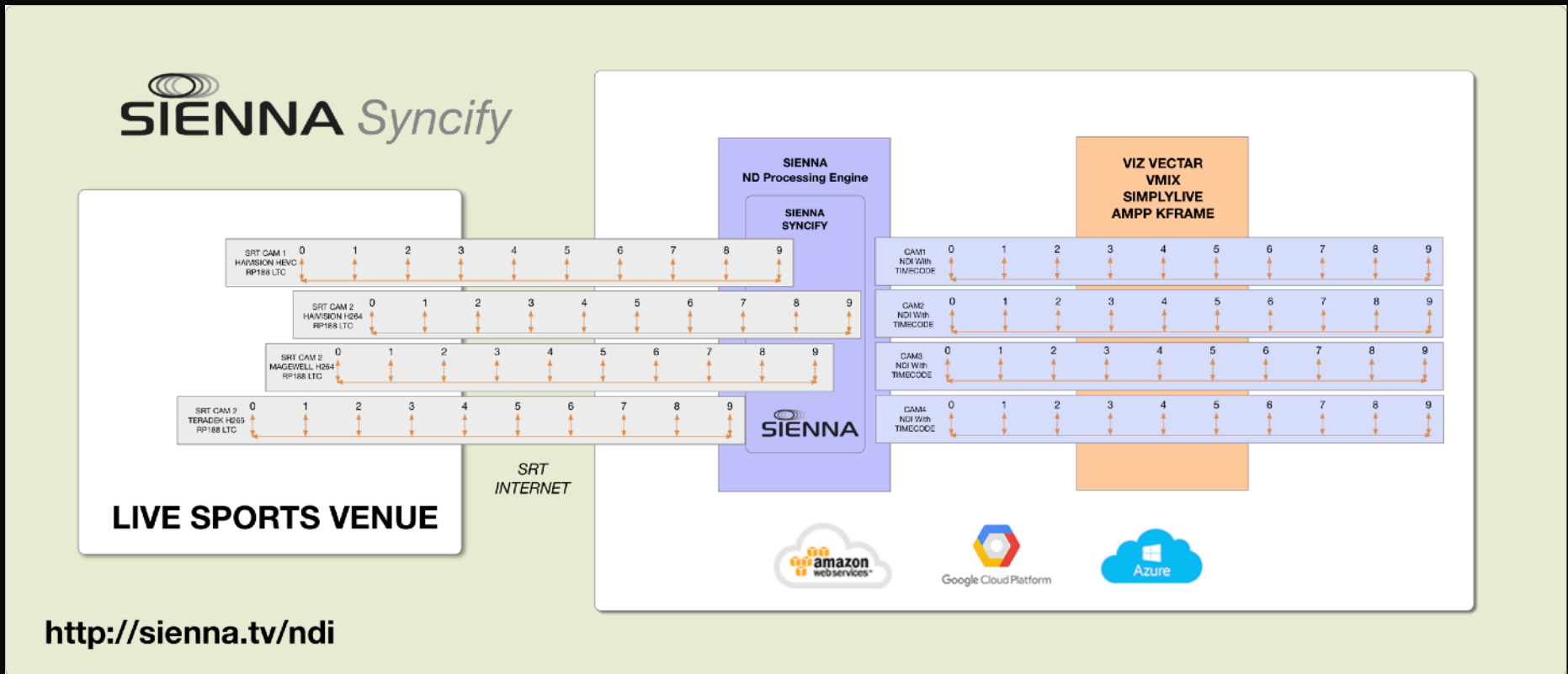
- Preserves all PIDs and Metadata



Sienna NDI Processing Engine

ADVANCED

- Syncify™ Unique NDI Time Alignment System



- Essential for multicam remote SRT Production



Sienna NDI Processing Engine



PLUS

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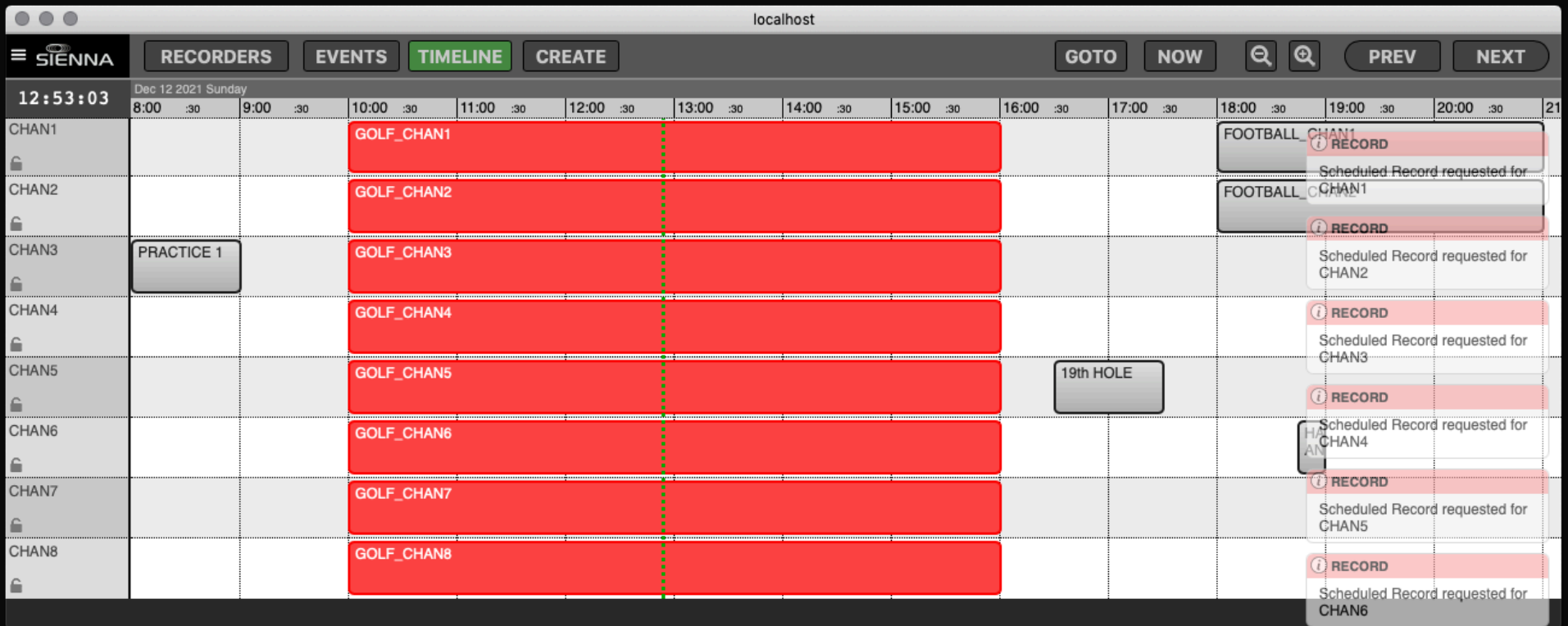
- Comprehensive Choice of Recorders
 - DNxHD
 - XDCam HD
 - ProRes. 4:2:2 and 4:4:4:4
 - AVCi
 - WAVE Audio
 - Transport Stream Native
 - NDI Stream Native
 - Mjoll Mimir Recorder
 - Compliance Recorder



Sienna NDI Processing Engine

INGEST
CONTROL
OPTION

- Scheduled Ingest Control
- Calendar View
- Supports All Recorder Modules

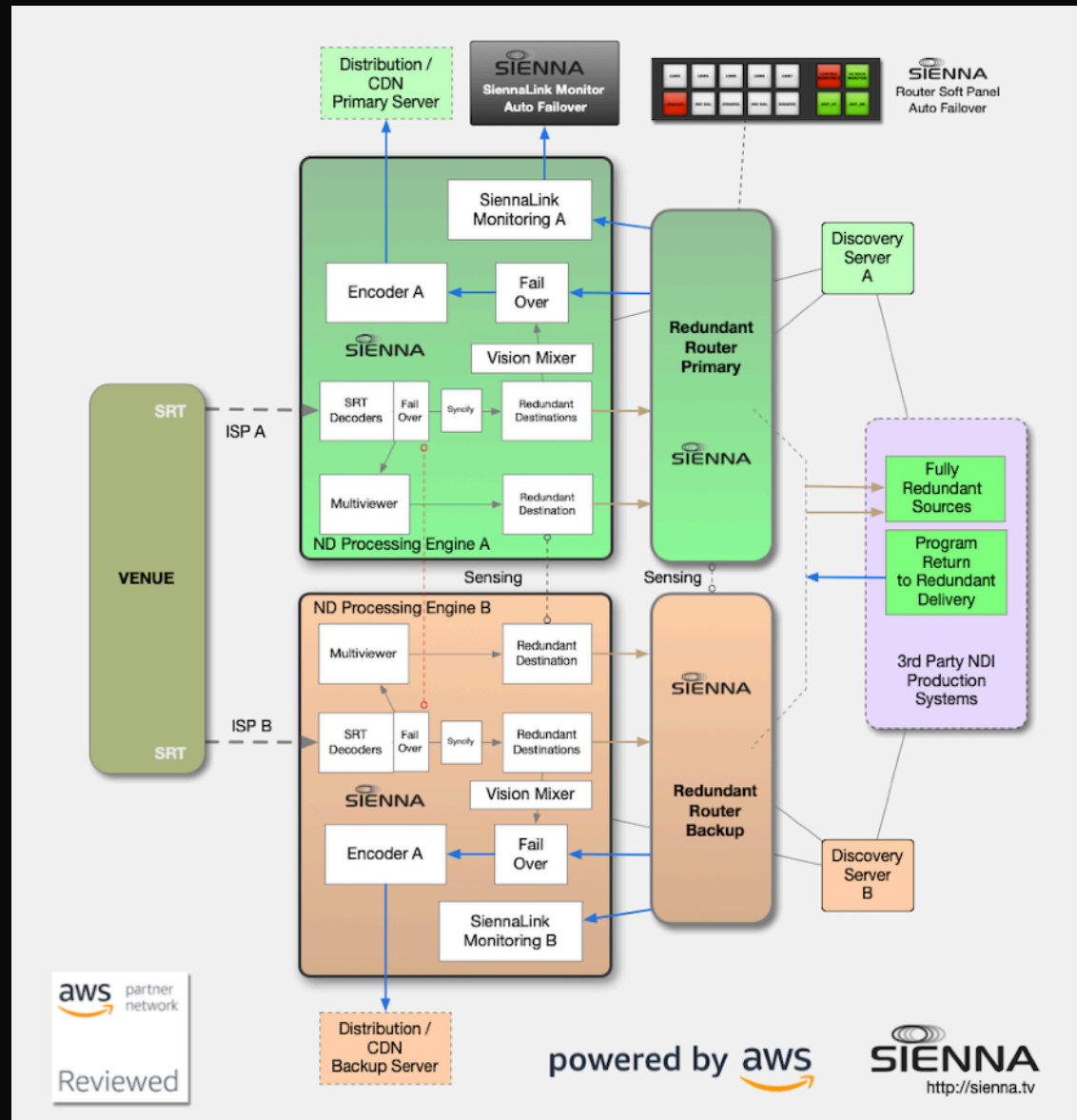
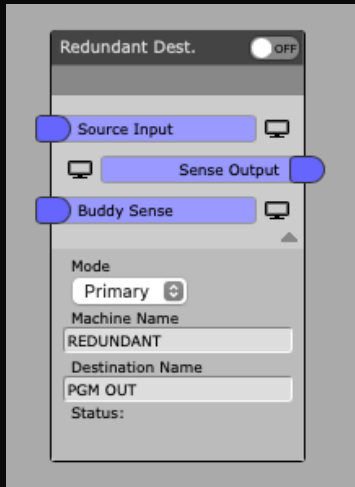




Sienna NDI Processing Engine

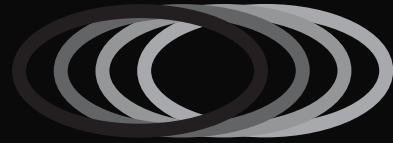
ADVANCED

- Redundancy Modules, auto failover



A Few Sienna NDI Infrastructure Customers





SIENNA

<http://sienna.tv/ndi>