



# ORION<sup>®</sup> 2110 Probe

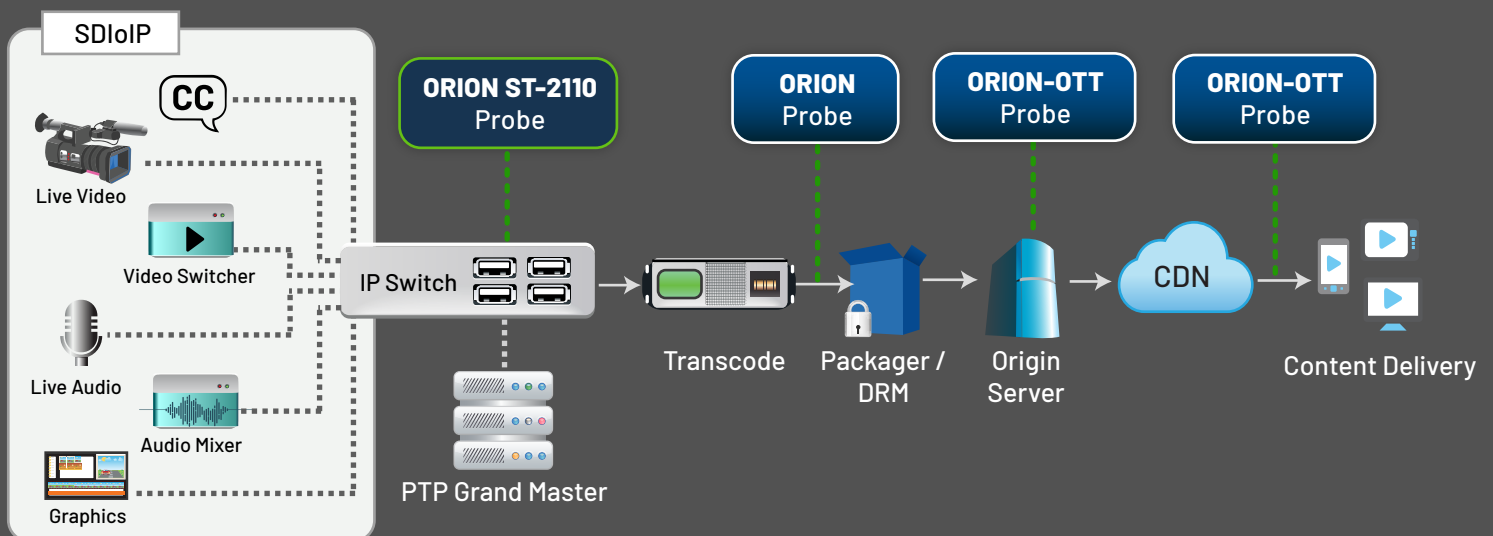
For SDI-over-IP based Media Workflows

The need for seamless interoperability, lower costs with standard IT infrastructure and greater flexibility in transmission of video, especially 4K/8K HDR content, has significantly urged broadcasters to transition from traditional SDI infrastructure to IP based video networks. IP networks offer more agility, stability and flexibility required for building the next-generation video production and distribution facilities.

SMPT E ST-2110 professional media over managed IP networks suite streamlines the shift to video over IP. encapsulating a wide range of protocols - from PTP clocks to high bitrate uncompressed or compressed video transmission over IP, ST-2110 is accompanied with its own set of intricacies and operational challenges.

Interra Systems' ORION 2110 Probe is a powerful solution to deal with the diverse complexities and challenges of the SDIoIP environments. The ORION 2110 Probe offers comprehensive QoS/QoE monitoring of ST-2110 essence streams, including ST-2110 main and redundancy signals and NMOS integration.

## ORION 2110 Probe - for SDI-over-IP based Media Workflows



# SMPTE ST-2110 Suite Standards Support

- **ST-2110-10** - System architecture and synchronization. Synchronization is based on SMPTE 2059
- **ST-2110-20** - Uncompressed video transport, based on SMPTE 2022-6
- **ST-2110-30** - Audio transport, based on AES67
- **ST-2110-31** - Transport of AES3 formatted audio
- **ST-2110-40** - Transport of ancillary data

## Key Features & Benefits

- Detect issues quickly throughout the video workflow
- Monitor ST-2110 essence streams for both QoS and QoE
- Perform metadata monitoring for closed captions, teletext, and timecodes
- Monitor PTP (Precision Time Protocol) messages for all the ethernet network interfaces
- Monitor both primary and secondary streams simultaneously
- Monitor up to 100Gbps bandwidth (each for main and redundancy), on 16 HT core machine using single NIC
- Monitor video, audio, and ANC streams for various checks, such as black frames, freeze frames, blockiness, loudness, level, silence, closed captions, ancillary time code, teletext OP-47 data etc.
- Supports NMOS APIs
- Ensure seamless integration with third-party software using rich set of REST APIs
- Easily deploy on standard IT hardware

Service specific view with both primary and secondary signals

PTP messages

Interface	Greenstream ID	Master ID	Domain ID	Loaded	Time
Time Duration	Sync Count	Frame Slip Count	Delay Request Count	Delay Response Count	Announce Count
00:07:21.971858 - 00:07:22.000000	0	0	0	0	0
00:07:21.971858 - 00:07:22.000000	400 (60.000ms)	200 (60.000ms)	192 (54.29ms)	302 (59.20ms)	100 (60.00ms)
00:07:21.971858 - 00:07:22.000000	608 (60.000ms)	304 (60.000ms)	111 (61.10ms)	411 (61.10ms)	116 (60.00ms)

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