



The TAG solution provides a complete probing and monitoring application tool for all the transmission layers starting from the 2110/2022-6 uncompressed; MPEG-TS compressed; and OTT streams all the way down to the encoded video content and its quality. The solution provides the operator with a strong tool for error detection and alerting.

FEATURES

- High density solution; concurrent monitoring of up to 300 services per server in both Full and Light Mode for Compressed sources (Adaptive Monitoring).
- Ability to mix variety of Uncompressed, Compressed and OTT sources: SMPTE-2022-6;7/ST-2110/ HEVC /H.264 /MPEG-2 /JEPG2000 TR-01/ HLS/ MPEG-DASH/ MSS/CMAF/Zixi UHD/HD/SD/RADIO/DATA
- Simultaneous, real-time analysis of all sources on all channels
- Three levels of monitoring: transport level monitoring based on ETR-101-290 compliance, Video/Audio baseband content level monitoring, and template-based monitoring for detection of configuration changes in the monitored stream.
- Transport layer monitoring: ETR-101-290 priority 1-3, ATSC A/78A; Channel Statistics; Video content monitoring: freeze frame, black frame; Audio content monitoring: audio levels, audio Silence; Subtitles content monitoring: display and validity
- Subtitling analysis of DVB Subtitles, ID3 and 708/608/OP-47 closed captioned
- Unique alarm trigger settings for individual channels or groups of channels
- Unique alarm trigger settings for individual channels or groups of channels
- Event notification by SNMP, Syslog, Email and Mosaic overlay
- Source recording for compressed streams, triggered by any of the event detection rules

SPECIFICATIONS

Supported Video/Audio Uncompressed Formats

ST-2110 2110-10/20/21/30/31/40
 ST-2022-6 SDI over IP
 ST-2022-7..... Redundancy for Uncompressed & MPEG-TS

Supported Video Compression Formats

MPEG-2 Video up to MP@5.1
 H.264 Video up to Hi@4.1
 HEVC Video up to MP@5.1
 JPEG2000 TR-01..... up to 200mbps
 Color Space YUV420, YUV422, YUV422-10bit

Audio Layer Analysis

Audio codec MPEG2 / AAC / HE-AAC / A-52 / AES67
 Audio channel mode 1 / 1+1 / 2 / 5.1
 Loudness monitoring... EBU-R-128/ITU-1770-3/ATSC A/85
 Silence detection Mono, stereo, dual mono, surround
 Clipping detection User adjustable threshold

Video Layer Analysis

Video codec ... MPEG2 / H.264 / HEVC / UNCOMPRESSED
 HDR HDR10, HLG,PQ
 Video encoding Level and profile
 Video resolution 480i, 576i, 1080i, 1080p, UHD
 Video aspect ratio 4:3 / 16:9
 Video frame rate 25 / 29.97 / 30 / 50 / 59.94 / 60
 Video content Black / Freeze / Black with logo
 Video quality Blocking detection

Signaling Analysis

SCTE-35/104..... XML & Binary

Transport Protocols

Multicast & Unicast..... TS over UDP
 TS over RTP, TS over HRTMP
 HLS/MPEG-DASH/MSS/CMAF..... OTT formats
 RTMP PUSH & PULL
 SMPTE-2022-6/7..... RTP over UDP
 ST-2110 RTP over UDP
 Zixiclient mode at the Input & Output

Subtitling Analysis

DVB & ID3 subtitles Overlay display
 CC errors Separate rules
 Closed Caption CEA-708, CEA-608, OP-47
 Multi language support Support for up to 8 PIDs

Notifications

SNMP Configurable SNMP TRAPS
SYS LOG Configurable sys-log notifications
SMTP Email notifications
Overlay Overlay error display on the mosaic
Centralized Error Display Group error channels
to a single display

DVB Transport Layer Analysis

ETR, First priority TS sync loss
Sync byte error
PAT error
Continuity count error
PMT error
PID error
ETR, Second priority Transport error
CRC error
PCR repetition error
PCR discontinuity
PCR accuracy error
PTS error
CAT error
ETR, Third priority NIT actual/other error
SDT actual/other error
EIT actual/other error
RST/TDT Error
Table analysis TS PSI, TS DVB_SI

Scrambling Analysis

Scrambling verification
Crypto period measurement
ECM/EMM existence tests
ECM Private data change notification
DVB Simulcrypt AES-ECB descrambling
HLS AES descrambling

Channel Statistics

Service structure tree-view (per PID)
Display of each PID's bitrate
Display of service bitrate
Display of service properties
Graphical display of audio loudness and True-peak

Hardware Requirements

Operates on standard off the shelf hardware
Intel CPU based platforms
No software installation required