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.
- 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/ 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 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 ....................................... 2110-10/20/21/30/3140
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 HRTP
HLS/MPEG-DASH/MSS ………………………. OTT formats
RTMP ......................................................... PUSH & PULL
SMPTE-2022-6/7……………………………... RTP over UDP
ST-2110 ……………………………………….. RTP over UDP

### Subtitling Analysis
DVB subtitles ……………………………….. Overlay display
ID3 subtitles ……………………………….. Overlay display
CC errors …………………………………….. Separate rules
Closed Caption ……………………………. CEA-708, CEA-608
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

**WWW.TAGVS.COM**