A/V ALERTS / MOSAIC/ TS ANALYSIS

REAL TIME A/V ALERTS, MULTIVIEWER, BROADCAST QOE
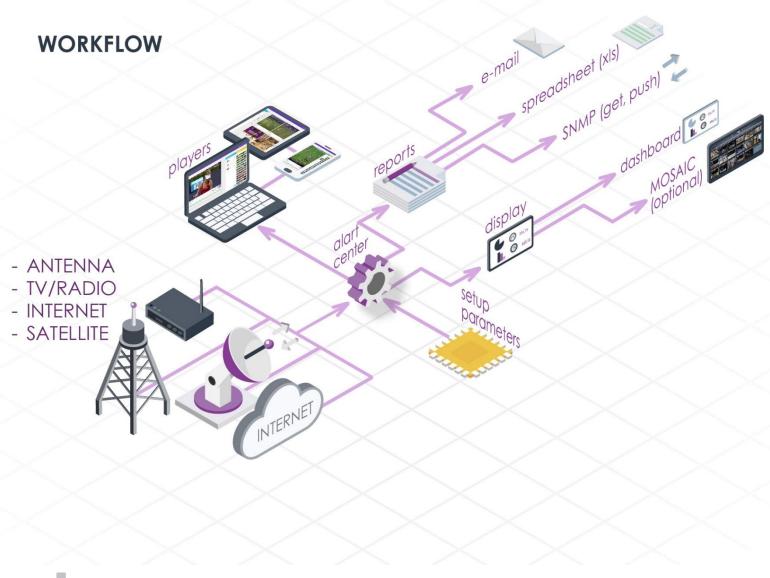
MONITOR TV, INTERNET AND RADIO
MULTIVIEWER ANY INPUT, ANY LAYOUT
TS ANALYSIS REPORTS
ALERTS VIDEO/AUDIO ISSUES, CLOSED CAPTION, LOUDNESS, SCTE, NAVE
REPORT VIA E-MAIL, SNMP, DASHBOARD

WORKFLOW

Alert-Center/Mosaic is constantly monitoring the incoming video/audio inputs in real time, evaluating their technical values againt a set of rules and user defined variables. Any exception is reported via multiple methods, including e-mail, SNMP, multi wall dashboard or log file.

WORKFLOW

- ANTENNA
- TV/RADIO
- INTERNET
- SATELLITE

players

alart center

reports

e-mail

spreadsheet (xls)

SNMP (get, push)

dashboard

display

MOSAIC (optional)

setup parameters

INTERNET

ACTUS

INPUTS AND FORMATS

ANY MIX OF INPUTS

Alert-Center/Mosaic accepts any type of feed, whether it is IP, digital, or analog and any combination. There is an ability to display alerts from various phases of production, including SDI or ASI feeds coming from the automation, IP feeds from the transmission, DVB-S or DVB-T feeds coming from off-air capture and HDMI or analog feeds coming from Set Top Boxes. Any TV service encoded by the Actus recorders is accepted. This includes MPEG2/AVC/HEVC Video, MPEG, AAC and AC3.

DETECTION ENGINE

SMART LOGIC

By design, Alert-Center simulates the point of view of the TV viewer or radio listener at home. As such, minor technical glitches, signal errors, or minor pixilation are ignored. Only serious outage in video and/or in audio, that are likely to cause discomfort to the viewers are reported

AUDIO/VIDEO ISSUES

Detection of audio and video issues such as frozen image, low audio, no audio or blue screen

LOUDNESS VIOLATION

By using the (optional) Loudness Module, the system can detect a segment (program, or part of program) that has an average loudness level ("I") higher or lower than the allowed ("target") value

MISSING CAPTIONS

The (optional) CCC Module, will detect any segment where Closed Captions, or Sub Titles are missing, or misplaced time wise

TR 290 TS MONITORING

The (optional) TR290 module will detect anomalies in a Transport Stream, including missing PID, based on ETR-101-290-1

MISSING SIGNALS

The (optional) SIGNALS module, that detects triggers, signals and cues in the feed (including SCTE35, SCTE104, NAVE) will trigger an alert if "expected" signals are not present in the feed for more than a given time period
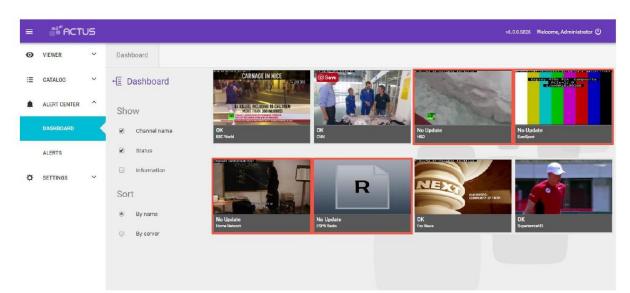
OUTPUT AND REPORTS

DASHBOARD

The system comes with a built-in dashboard, web based, accessible from any user's workstation, displaying both the image and the status of each channel

MOSAIC/MULTIVIEWER

Actus proposes an efficient and cost effective Mosaic system, catering to the requirements of Broadcasters, Public authorities and Media monitoring organizations.

Mosaic is a software module, running on any client workstation, capable of displaying a large number of TV signals, with near low latency, including errors detection and alerts, audio VU meters, clocks and images into any large wall monitor screen. Its low budget and its ability to use existing sources from Actus encoders make it a perfect solution for content monitoring rooms. Actus Mosaic can display any of the channels recorded by the Actus. This means that regardless of the input type, Analog, IPTS, ASI, SDI, DVB or other, all channels can be displayed side by side. The display is driven either by a PC client, similar to any other PC client running the Actus Web browser, or by the Actus recording servers.

- Configurable to any number of channels, any size, any shape
- Any mix of video inputs,
- Does not require additional servers or cards,
- Technical alerts in real time,

- TS analysis included

ACTUS MOSAIC ™ WALL [OPTIONAL]

is easily configurable to any number of channels, any size, any shape, and any mix of Live feeds, Replay, or Technical alerts in real-time

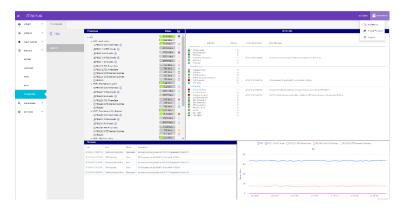| CENTRALIZED LOGS	The alerts are logged in log files, allowing the technical managers to review all the alerts in one go
SNMP	The detection of a technical issue can trigger an alert at the site's central SNMP server
E-MAILS	Any anomaly detected can be sent via e-mail
TS MONITORING AND ANALYSER	Deep inspection and analysis of transport stream Track/Analyze MPEG sections and table, such as PAT, PMT, NIT, SDT etc… TR101-290: Monitor/Analyze TR101 290 priority 1, 2 and 3 events Monitor transport stream through a rich HTML5 web interface Display TR 101 events on multi viewer
UNLIMITED DISPLAYS/LAYOUTS	Unlimited number of display monitors (one screen per PC) Possibility to design an unlimited number of Layouts.

MIXING FEEDS

The Mosaic accepts any TV service encoded by the Actus recorders. This includes MPEG2/AVC/HEVC Video, MPEG, AAC and AC.3 Audio, Teletext and DVB-Subtitles

TS ANALYSIS

- Deep inspection and analysis of transport stream
- TS stucture
- Error messages
- Track/Analyze MPEG sections and table, such as PAT, PMT, NIT, SDT etc…
- TR101-290: Monitor/Analyze TR101 290 priority 1, 2 and 3 events
- Monitor transport stream through a rich HTML5 web interface
- Display TR 101 events on multi viewer

OTHER ADVANTAGES

COST SAVINGS

No need to duplicate capture cards if they exist inside Actus recorders. All encoded feeds are available for analysis and display on the Alert-Center

SCALABILITY

There are additional [optional] alerts that can be added on demand, based on the customer's request. The solution is software only and would not require any hardware changes
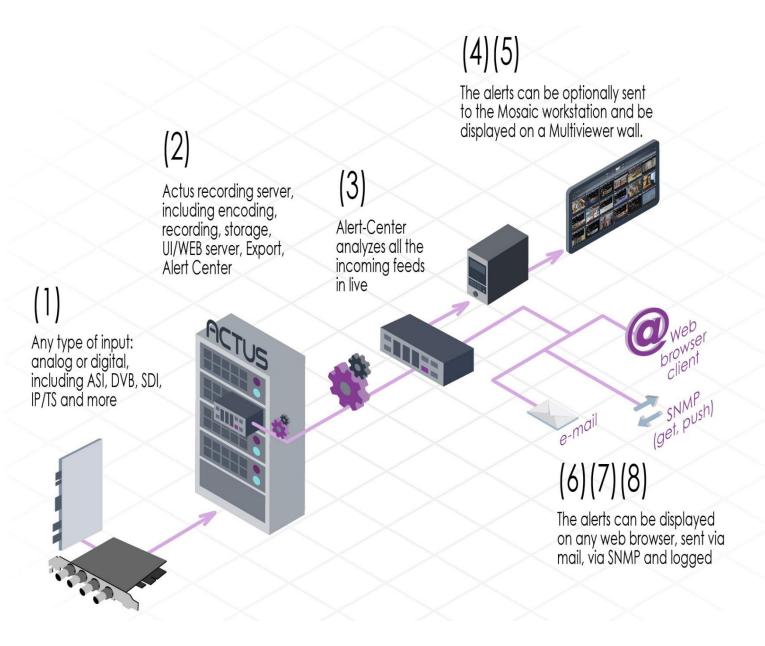
FLEXIBILITY

Alert-Center is designed with a number of parameters that allow each of our customers to adapt to their specific requirements. For example, some customers may require a higher (less sensitive) threshold, while others may prefer a shorter latency (time before an Alert is issued)

ARCHITECTURE

(4)(5)

The alerts can be optionally sent to the Mosaic workstation and be displayed on a Multiviewer wall.

(2)

Actus recording server, including encoding, recording, storage, UI/WEB server, Export, Alert Center

(3)

Alert-Center analyzes all the incoming feeds in live

(1)

Any type of input: analog or digital, including ASI, DVB, SDI, IP/TS and more

@ web browser client

e-mail

SNMP (get, push)

(6)(7)(8)

The alerts can be displayed on any web browser, sent via mail, via SNMP and logged

SPECIFICATIONS

	Feature	Alert Center
Inputs	Digital Inputs (ASI, IP, DVB, SDI, etc.)	✔
	Analog inputs	✔
	Typical Latency (Live to Display)	<5 sec.
	MPEG-2 /AVC(H.264) /HEVC(H.265) video	✔
	MPEG/AAC /AC.3 audio	✔
	Inputs supported	HD/SD SDI, ASI, DVB-C, DVB-T/T2, DVB-S/S2, DVB-H, HDMI, ATSC, IP, Unicast, Multicast, Live OTT Streaming (RTSP /RTMP /RTP /HLS /Smooth Streaming), Newtek NDI (Network Device Interface)
Detections	Freeze detection	✔
	Black detection	✔
	Silence detection	✔
	Input lost detection	✔

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Detections		
	PID-lost detection	Option
	Service-Lost detection	Option
	Loudness Violation	Option
	Missing secondary audio-track	Option
	Missing Closed-Captions	Option
	Missing DVB-subtitles	Option
Display	Max. channels per [optional] Mosaic	36
	Max. channels per Dashboard	48
	Multiple clients	✔
	Unified Pool of Channels	✔
	Layout Manager	✔
	Visual signaling	✔
	Audio alerts	Option
	Listening to one Channel	Option

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Display		
	SNMP traps	✔
	Mail alerts	✔
	Web enabled	✔
	Labeling of channels.	✔
	Outputs supported	It is possible to support 1 display monitor per Web client, and support either VGA, XVGA, HDMI, and/or DVI. Any monitor (screen) size is supported.

Ver. 180313

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FORMATS

Input Source	· IP Transport Stream, Analog, Digital (SDI), ASI · HDMI, ATSC, QAM, ISDBTb, HLS, RTMP, UDP, · DVB-T/T2, ASI, DVB-S/S2, DVB-C/C2 · SD, HD, UHD
Input Bitrates	· Video: 256 Kbps – 20 Mbps · Audio: 64 Kbps – 1024 Kbps
Input Frame-sizes	· QCIF (176 x 144) – UHD (4K)
Export Video Formats / Codecs	· MPEG4 - H.264 | VP8 · MPEG2-TS - MPEG2 | MPEG1 | H.264 · 3GP - H.264 | VP8 | H.263 | MPEG4 · MOV - H.264 · WMV - VC1 | WMV v8 | WMV v9 · MPEG2 - MPEG2 · AVI - DivX | Xvid | MPEG4 | H.264 · FLV · SWF · SVCD · VCD · DivX DVD · DVD Any other format can be added upon request
Export Audio Formats / Codecs	· AAC · MMF · M4A · MPEG2 · AMR · OGG · FLAC · WAV · MP3 · WMA
Export Broadcast Quality formats	· XDCAM HD422 files in .mov or .mxf · AVID DNxHD files in .mov · XDCAM IMX/D-10 files in .mov or .mxf · ProRes 422 or 4444 files in .mov
Cue Tones / Triggers	· Extracts SCTE-35, SCTE-104

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