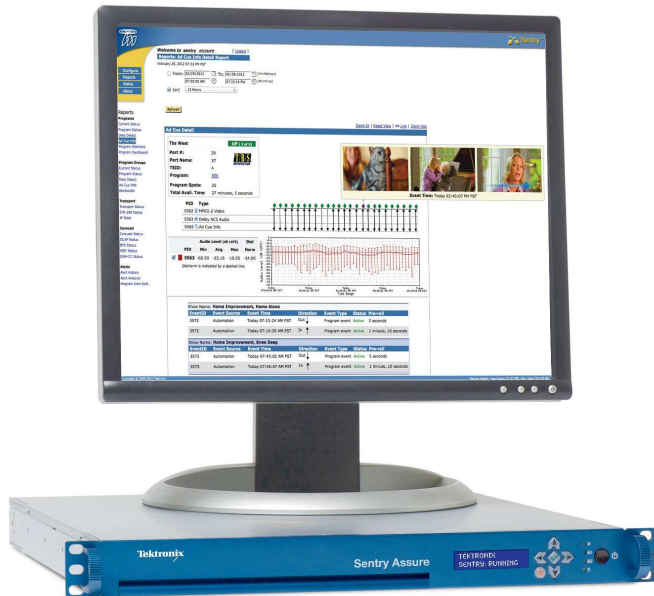


Video Quality Monitors

Sentry Assure • VNM-ASR Data Sheet



Features & Benefits

- Digital Program Insertion Validation
- CALM Compliance Monitoring
- Regulatory Compliance Monitoring
- Detect MPEG and IP Issues
- Historical Reporting and Graphing
- Live Thumbnails
- Error Seconds and Program Availability Reporting
- Program Group Bandwidth Graphing
- Triggered Alert Stream Capture
- Real-time Detection and Alerting

Applications

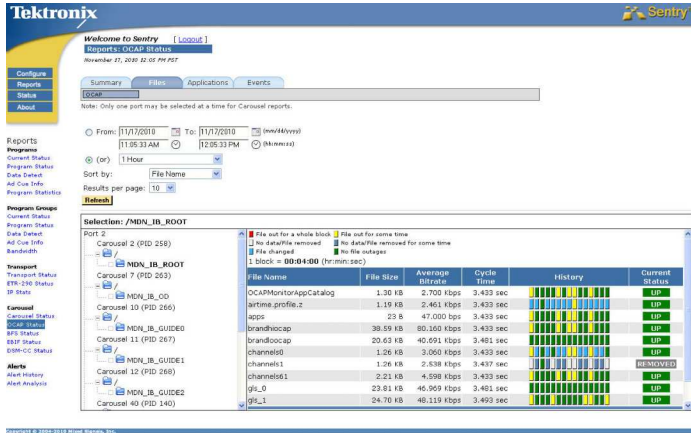
- Post-splice Monitoring
- QoS Monitoring
- Audio Loudness Monitoring
- Digital Program Insertion Monitoring
- EBIF Monitoring
- Program Statistics and Availability Reporting

Sentry Assure offers Sentry Verify functionality with Digital Program Insertion (DPI) monitoring and Audio Loudness Monitoring (ALM) options included and serves as a last line of defense before modulation and encryption.

Sentry Assure is cost effective and future proofed for large-scale post-splice monitoring deployments. It has been optimized to help cable television operators and other providers of multichannel video services comply with the Commercial Advertising Loudness Mitigation (CALM) Act, which requires that ads be no louder than the programs they accompany.

Sentry Assure is designed specifically for identifying loud commercials in the multichannel environment. It combines the ability to simultaneously monitor hundreds of channels in real-time with loudness detection capabilities and post-splice ad insertion monitoring, which makes Sentry Assure an ideal solution for cable operators' CALM Act needs. Additionally, Sentry Assure's reporting tools enable operators to diagnose and repair issues related to local ad insertion, which mitigates revenue loss from ads failing to air properly.

Sentry Assure also helps operators comply with government regulations for closed captioning with its support for the SCTE-608, SCTE-708, and SCTE-20 specifications. Sentry Assure monitors CGMS data, closed caption data, teletext, subtitles, scrambled data, and discontinuities.



Monitoring tru2way™/OCAP Carousels.

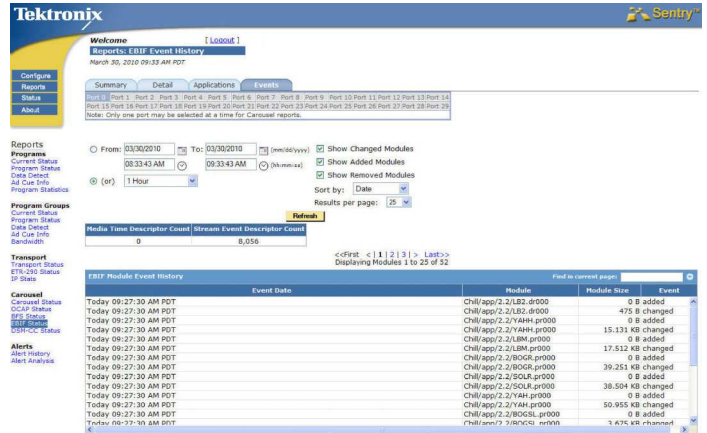
Software Options

Carousels tru2way / OCAP/MHP / DSM-CC

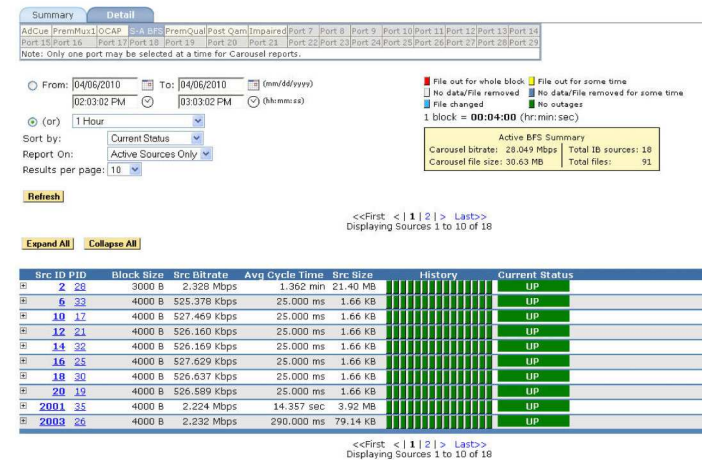
The OCAP Monitor is a tool for monitoring tru2way™/OCAP carousels. Digital set-top boxes receive continuous delivery of applications and data from the headend or uplink center. These data and applications are critical for normal set-top box function and service delivery. With the advent of tru2way™ (OCAP) and other carousels, multichannel service providers are introducing a vast array of complex, interactive services to their subscriber base. Monitoring the carousel activity is essential to ensuring the quality and consistency of experience for subscribers. Sentry Verify supplies detailed reports of carousel performance and activity based on their real-time behavior and data output. Service providers are able to identify the root cause of errors and make necessary changes to eliminate issues and guarantee rapid application deployment. The reports show detailed source and file structures and carousel changes in real time while observing streaming metrics such as cycle time, bandwidth utilization, and stream packet continuity. Real-time alerting notifies users of critical situations, enabling them to resolve issues such as outages, cycle-time fluctuations, and unauthorized changes.

EBIF Monitoring

Interactive applications and associated advertising allow you to deliver enhanced capabilities to your subscribers and monetize advanced digital services in a broad range of digital set-top boxes. eTV content consisting of the applications and metadata is, however, prone to errors during transport, rate-shaping, and muxing. Old video-over-IP metrics such as MDI and Continuity Counter (CC) errors are incapable of detecting any content errors, especially with eTV. The EBIF/eTV monitoring solution breaks down and reports on eTV application data and critical signaling information,



Monitoring EBIF/eTV.



Monitoring Scientific-Atlanta Broadcast Files System.

so service providers can be assured they are delivering the best possible quality of experience for their subscribers. In addition, a 60-day application-level historical report (available by service and by location) provides critical trending information about eTV delivery. Tailored alerting and dashboards provide proactive eTV monitoring and fast troubleshooting.

SA-BFS Monitoring

Sentry is designed to identify and monitor data carousels within the transport, which enables it to keep detailed information about the real-time and historical status of the Scientific-Atlanta Broadcast Files System (BFS). Similar to the way other application carousels (tru2way, DSM-CC, etc) are monitored, Sentry is able to provide critical information about the status of BFS carousels. Multichannel service providers can set alerts to be notified of bit rate errors, file changes, file cycle times, and if files are missing.

Characteristics

Characteristic	Description
Browser Support	Firefox, Safari, and Internet Explorer
MPEG/IP Input Port	1000BASE-T Ethernet interface
Management Port	1000BASE-T Ethernet interface

Supported Protocols

HD/SD programs, SPTS or MPTS, multicast (IGMP v3) and unicast MPEG-PSI, DVB-SI, ATSC-PSIP table support, SNMP trap and MIB support

Characteristic	Description
Video	MPEG-2, H.264, VC-1
Audio	Dolby AC-3 (5.1 Surround) MPEG-1 Layer II (mono, stereo) AAC, HE-AAC, and HE-AAC v2
Carousel	tru2way, BFS, MHP/DSM-CC
Program Insertion	SCTE-35 (local ads)

Physical Characteristics

Dimension	mm	in.
Height	50.8	2
Width	432	17
Depth	381	15
Weight	kg	lb.
Net	9.2	20.3
Power Requirements	100-240 V AC, 50-60 Hz	

Environmental Characteristics

Characteristic	Description
Max Storage Temperature	70 °C
Max Operating Temperature	35 °C
Max Humidity	85%

Ordering Information

VNM-ASR

Sentry Assure Video Quality Monitor.

Options

Option	Description
DCU-BFS	Monitoring support for SA Broadcast File System
DCU-OCAP	Monitoring support for tru2way (OCAP), MHP, and DSM-CC in-band carousels
EBIF	Monitoring support for EBIF

Service Options

Option	Description
VNM-SUP	One-year service support
VNM-SUP-REN	Renewal of one-year product support

Power Plug Options

Option	Description
A0	North America power
A1	Universal Euro power
A2	United Kingdom power
A3	Australia power
A5	Switzerland power
A6	Japan power
A10	China power
A11	India power
A12	Brazil power
A99	No power cord or AC adapter



Tektronix is registered to ISO 9001 and ISO 14001 by SRI Quality System Registrar.

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For Further Information. Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit www.tektronix.com



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