Headends and video service providers today deal with a large amount of complex content. Programs may be re-encoded, transcoded, and multiplexed. These transformations can adversely affect the content integrity and user experience.

Keeping these diverse complexities and challenges in mind, Interra’s ORION provides an edge as the only enterprise-class software solution that offers a simple, yet powerful approach to content monitoring. ORION performs critical monitoring functions in a single, integrated platform that is comprehensive, efficient, and easily scalable for hundreds of programs.

**Advantages**

- **Enterprise Level Solution**
  - Easy deployment and expansion using standard IT hardware
  - Virtualization-ready monitoring platform
  - Centralized enterprise-wide monitoring

- **Comprehensive Monitoring**
  - From IP packets to transport streams, closed captions, audio/video quality and Ad insertion with SCTE-35 triggers

- **Proven Quality Checks**
  - Leverages QC and standards compliance of our industry-leading Baton and Vega products

- **Supports latest HEVC format**
  - Monitors HEVC streams in different resolutions including 4K
  - Assesses QoE

**Digital Program Insertion and Compliance Checks**

- Monitor and log every SCTE-35 message
- Record Ad insertions for visual inspection
- Check inserted ads for audio/video quality
- View syntax details of SCTE-35 cue messages for debugging purposes
- All relevant information extracted and summarized

**Created For**

- Broadcasters, Cable Networks
- Telco Operators
- Encoder/Decoder Manufacturers
- System Developers
- Streaming Media Providers
- End-to-end DTV Solution Providers
Key Features

- In-depth monitoring and compliance checks
  - MPEG-2 transport streams over IP
  - ATSC, DVB and ISDB compliance
  - TR 101 290 compliance
  - DVB subtitles, closed captions and teletext
  - Video and audio conformance checks
- Monitoring QoS/QoE/MOS
- Video quality checks
  - Freeze frames, black frames and blockiness
- Audio loudness compliance
  - ITU, EBU and CALM Act
- Audio quality checks
  - Loudness, silence and audio levels
- Content integrity checks
  - Digital program insertion and compliance checks
  - Encoder boundary point monitoring for ABR content
- Network monitoring
  - IP packet integrity checks - Dropped packets, RTP errors and inter-packet jitter
  - IGMP Monitoring
- Alarms, alerts and reporting
  - Highly configurable and easy to set up alarms/alerts (including SNMP)
  - Manual and automatic recording of signals based on customizable triggers for deeper debugging
  - Rich, highly configurable reports for real-time and logged data
  - Integrated with Vega analyzer for offline debugging
  - Real-time graph and timeline for analyzing alerts and trends
- Real-time playback
- Support for REST API

Orion's monitoring can be scaled from a single monitoring unit to multiple units that handle high volume streaming content effortlessly. Orion can also be scaled to monitor multiple sites across different geographical locations. Orion central manager provides real-time consolidated views and long term reports for enterprise-wide centralized monitoring.

Orion's rich and customizable web-based interface enables remote monitoring through any browser-enabled device providing extreme flexibility and on-the-go decision making. Orion users have full-featured error detection, video quality analysis, alerts, reporting, thumbnails and trend analysis tool at their fingertips.

Formats & Protocols Supported

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<th>Interface</th>
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