

ORION[®]

24x7 Confidence Monitoring of Linear/IP Video

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.

Enabling Superior QoS and QoE



ORION effortlessly monitors streaming content scaling single to multiple monitoring units / sites across different geographical locations. ORION Central Manager provides real-time consolidated views and long term reports for enterprise-wide centralized monitoring.

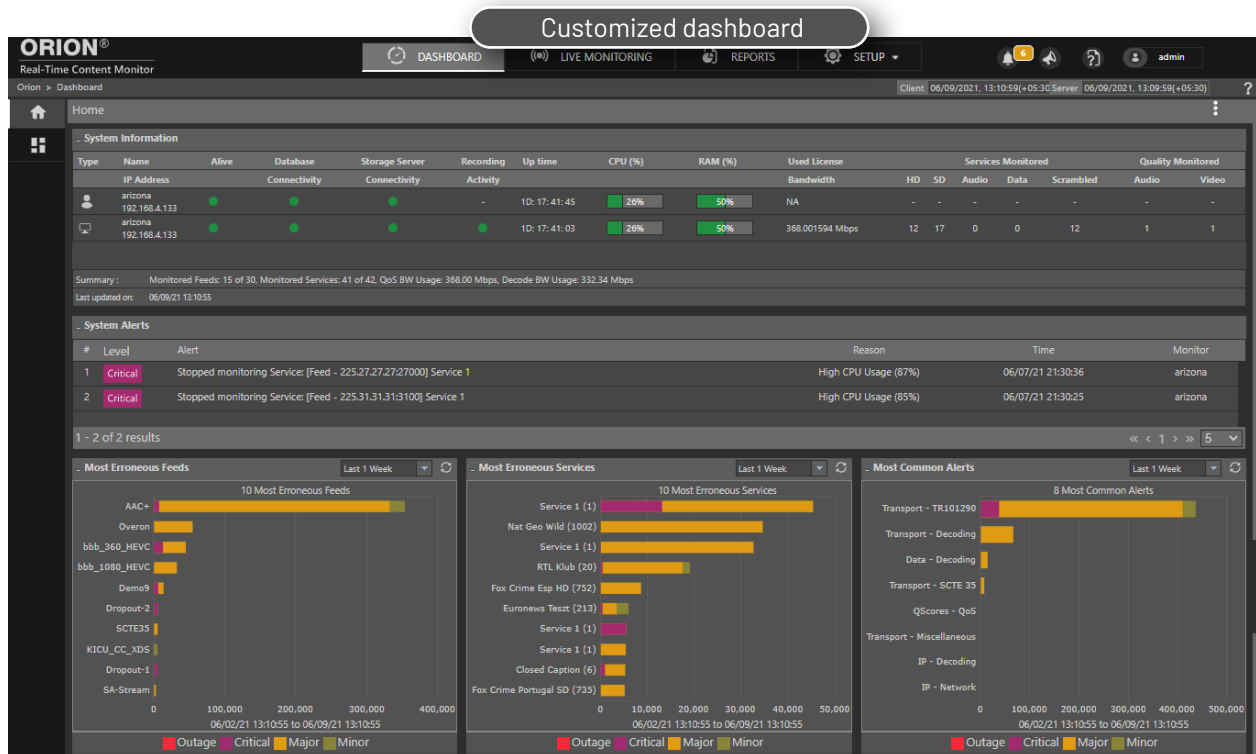
ORION has a rich and customizable web-based interface enabling remote monitoring, thereby providing extreme flexibility and on-the-go decision-making. ORION offers other significant features like error detection, video quality analysis, alerts, reporting, thumbnails, and trend analysis.

Key Features

- **In-depth monitoring and compliance checks**
 - CableLabs checks
 - MPEG-2 transport streams over IP / ASI
 - ATSC, DVB and ISDB compliance
 - TR 101 290 and ATSC A/78 compliance
 - PCR Overall Jitter check for PCR analysis
 - Analyze SI/PSI/PSIP Tables on Private PIDs
 - Video and audio conformance checks
 - Monitor SRT and RIST contribution feeds
 - Video Metadata checks for Frame rate and Picture Scanning Type
 - Logo Detection, Dropout and position change checks
 - DVB subtitles, Closed Captions, Teletext, XDS, and Text Services
 - SMPTE 2022-2 standard for IP Conformance
 - Service Availability monitoring and reporting
 - Wallboard Mosaic View
 - Round-robin monitoring mode
- **Monitoring QoS/QoE/MOS**
- **Video quality checks**
 - Freeze frames, black frames, blockiness, blocky distortion
- **Audio quality checks**
 - Loudness compliance (ITU, EBU and CALM), silence and audio levels
 - True Peak
 - Stereo Pair Absence
 - Jitter Noise
 - Audio Clipping
- **Ad Insertion Monitoring**
 - SCTE35 Compliance checks
 - Logging and Inspection of SCTE35 Cue Markers and Avails
 - SCTE-104 Ad Markers monitoring
- **Encoder Boundary Point Monitoring**
 - Advanced EBP monitoring for aligned EBPs across ABR Feeds
 - Multi Bitrate Transport Stream (MBTS) monitoring using IDR-PTS
- **SDI signal monitoring**
 - SDI over BNC
 - SDIoIP (ST-2110)
- **Well-managed recordings**
 - Manual and automatic recording of signals (TS or PCAP) based on customizable triggers
 - Continuous / chunked recording of a specified time or file size
 - Reason-specified manual recording
- **Alarms, alerts and reporting**
 - Audio Alarms
 - Highly configurable and easy to set up alarms/alerts (including SNMP/Email)
 - Custom alerting actions, such as Slack, HTTP Push, Microsoft Teams
 - Rich, highly configurable reports for real-time and logged data
 - Real-time graph and timeline for analyzing alerts and trends
 - Historical reports for PCR Measurements
 - XML export of Closed Captions, EBP and IGMP information
 - Exportable Ad-Insertion Monitoring Reports with Cue details and Video Thumbnails
 - Exportable Ad Marker reports in XLS and PDF formats
 - Customizable Notification Scheme for System Level Alerts
 - Integrated with VEGA analyzer for offline debugging
- **REST APIs support**
 - APIs for Setup and Configuration
 - APIs for controlling Monitoring operations
 - APIs for Alert reports in XML, PDF and CSV format
 - APIs for fetching Bitrate, Loudness, PIAT, RTP Loss, Jitter, FEC Packet Recovery stats in XML and CSV formats
 - APIs for fetching Closed Captions, SCTE-35, EBP and IGMP data in XML format
- **Role-based access**
- **Dark and light theme based UI for better user experience**

Benefits

- **Enterprise level solution**
 - Support for 10 Gbps monitoring with fiber and copper connectivity
 - Easy deployment and expansion using standard IT hardware
 - Supports Linux operating system
 - Seamlessly deploys in virtual/cloud-based environment
 - Authentication/authorization using LDAP
 - Centralized Probe Management
- **Comprehensive monitoring**
 - MPEG-2 TS monitoring, closed captions, audio/video quality, and Ad insertion with SCTE-35 triggers
 - ST2110 Monitoring including support for ST-2110-10/20/30/31/40, PTP, Redundancy and NMOS Integration
- **Established quality checks**
 - Leverages QC and standards compliance of our leading BATON and VEGA products
- **HEVC 4K support**
 - 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 and time-accurate thumbnails of SCTE-35 cue messages
 - Trigger service recording around SCTE 35 SPLICE OUT and SPLICE IN events



Created For

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

Formats & Protocols Support

Interface

IP (v4), ASI, SDI, SDI over IP (ST-2110), VLAN 802.1Q

Protocols

MPEG-2 Transport, DVB, ISDB, and ATSC compliance

Audio Formats

MPEG-1/MPEG-2 Audio, AAC/AAC+ (HE-AAC) Audio, Dolby AC-3, EAC-3 Audio, AES3 Audio, SMPTE 302M

Video Formats

SD/HD/UHD/4K Video, HEVC, H.264/MPEG-4 Part 10 (AVC), MPEG-2 Video, HDR

Embedded Data

Closed Captioning (EIA-608, EIA-708, SCTE-20, DIVICOM, NADBS, VANC (SMPTE 2038), Text Services), DVB Subtitle, Teletext, SCTE-27, SCTE-35, XDS, SCTE 104

Network Transmission Protocol

UDP/RTP, Multicast (IGMP v1/2/3), HRTMP, SRT/RIST