

Operational Intelligence Solutions for Linear Video Quality Assurance

Comprehensive Visibility into your Video Assets' Availability and Playback Quality

MARKET CHALLENGE

Delivering video to your viewers across your transport, cable, satellite and IPTV distribution networks has its challenges. The two primary contributors to playback excellence are content preparation and network performance.

The source content must first be validated for quality compliance. Then ads, closed captions/ teletext, audio levels, and SAPs must all be encoded properly into the source for downstream distribution. If you are using multi-tier distribution, this process may be replicated multiple times on the way to the viewer's set top box (STB). Each time the content is modified, quality is at risk.

Network performance issues can ruin the playback experience, in spite of perfect content preparation. Packet based video delivery is highly susceptible to packet loss and latency.

It is critical to monitor both of these aspects to assure a seamless playback experience.

THE IQ SOLUTION

IneoQuest's operational intelligence solutions for Linear video distribution gives you the information you need to manage the video quality challenge. Our **FoQus™ Platform** goes beyond merely detecting and reporting problems. The platform solutions allow you to pinpoint where those problems originate, so that you can quickly diagnose and fix them, often before your viewers even notice. The system easily pays for itself through reduced OPEX, customer support costs, and higher viewer satisfaction, engagement, and retention.

The FoQus Platform for Linear Operational Intelligence begins with the acquisition elements that gather metrics from the critical points along your video distribution chain.



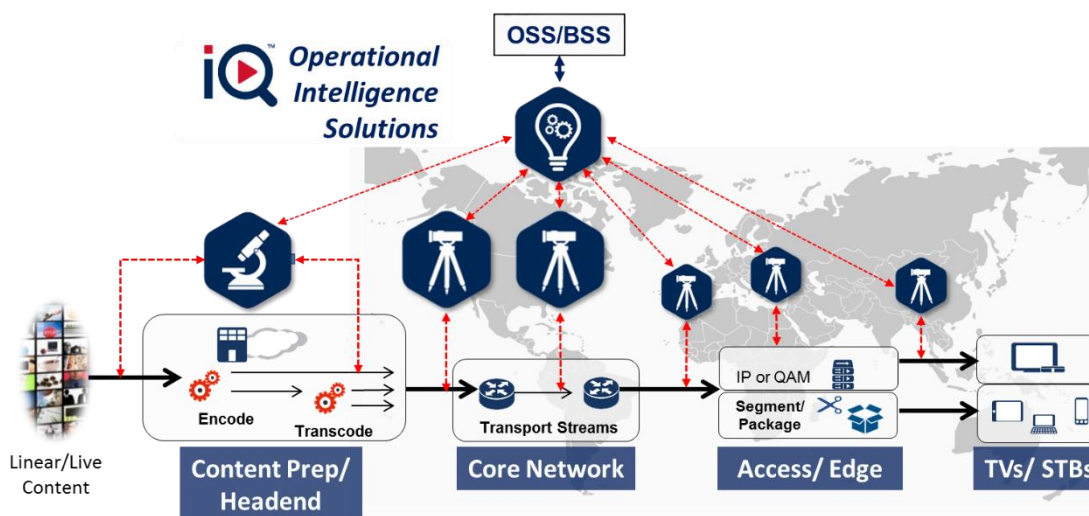
Inspector™ LIVE

Inspector™ LIVE validates your content quality wherever your content is modified and encoded - typically in "head-end" facilities. It first makes sure that the incoming live/linear video stream meets your quality requirements, then scores your encoder/ transcoder output using a variety of relevant metrics, including IneoQuest's exclusive iQ-MOS non-reference based QoE scoring algorithm, to verify that your requirements are being met. Inspector LIVE also checks for proper encoder boundary point demarcation, audio loudness compliance, closed captioning, and a variety of other tests for quality verification. Beyond these QoE-related measures, Inspector LIVE also performs QoS monitoring on the output, to verify that the transport structure meets specification, and is not bursting packets in a way that could cause downstream buffering, latency, or loss problems.



Surveyor™ TS

Surveyor™ TS is a high capacity, scalable MPEG Transport Stream monitor that provides comprehensive real-time Quality of Service (QoS) and program availability monitoring for up to 2,000 video program streams. Surveyor TS is designed to locate transport impairments as they happen and produce actionable insights that allow you to address issues before they impact the customer viewing experience. It can be deployed at the headend, hub offices, and local serving offices.



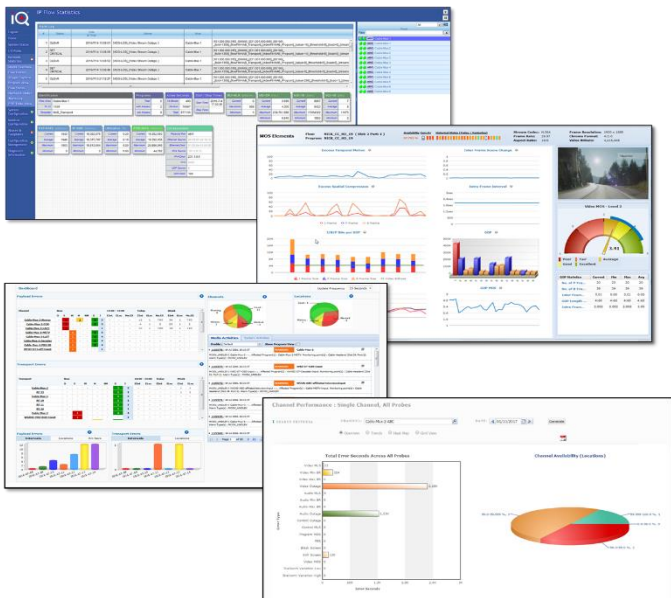


While the Acquisition elements gather data, the iQ Engines collect it, correlate it, and present it to you in ways that provide knowledge and insight. The FoQus Platform offers multiple iQ Engines designed for different tasks.

The **Intelligent Video Management System** engine, **iVMS®**, provides a comprehensive, real-time view into the health of your video services. It gathers data acquisition element data, performs program-level correlation across the aggregated data, and presents an easily understood end-to-end visualization of video service performance. It is the key to efficiently pinpointing and resolving issues wherever they occur in the network. iVMS detects customer impacting events, sends alerts and rapidly isolates faults while providing tools for remote troubleshooting. It tracks thousands of programs across hundreds of probes in a centralized system to provide true end-to-end video quality management.

The **Program Lineup Manager** engine, **PLM**, provides quick and easy configuration of your acquisition elements to monitor the program assets that you are focused on, all from a central point. PLM dramatically reduces hours spent matching configurations between the network and monitoring systems, ensuring program identification and alarm template consistency across your Video Intelligence system.

The **Consolidated Performance Analytics and Reporting** engine, **cPAR**, aggregates iQ-collected video quality data over long periods – even years – from iVMS engines to generate business intelligence (BI) reports based on iQ -collected QoS and QoE data. With cPAR, you can create and customize dashboards and trend-based reports to identify opportunities for improvement in your video operation.



FEATURES AND BENEFITS

A Single, Comprehensive Video Operations View

The power of a network increases with its connections. By distributing acquisition elements across your delivery pipeline and footprint, you gain faster issue detection, reduced diagnostic time, and greater confidence in your operational quality. Visualizing all of this data from an asset or location perspective lets you harness that power in real time– and easily collaborate with team members using common video intelligence.

Industry-Leading Technology

These solutions leverage the patented MDI metric (RFC-4445) for network Quality of Service (QoS), and our proprietary non-reference iQ-MOS algorithm for Quality of Experience (QoE) scoring. These metrics provide a very simple to understand scores for your video quality, so you'll spend less time finding insights, and more time optimizing your video operation.

Location-based Algorithms and Metrics

Unlike other “one size fits all” quality assurance solutions, IneoQuest’s acquisition elements collect different KPIs based on WHERE in the pipeline the measurement is being done: Content inspection/iQ-MOS and Passive, 100% test coverage closer to the content sources; Network QoS/MDI further downstream, closer to viewers. By combining these location-based metrics, a comprehensive, accurate view can be efficiently obtained.

Virtual or Appliance – Your Choice

All Linear FoQus platform elements are available as appliances. In addition, the Inspector LIVE acquisition element is available as either virtualized software or appliance to fit wherever your video measurement is needed. Other linear solution elements are planned for virtual packaging. Appliance-based POPs, virtualized datacenters, cloud infrastructure – we have a solution that fits.

Start Where Your Need is Greatest

If content quality and headend preparation is your key concern, start with Inspector LIVE. If network performance is your most urgent issue, start with Surveyors. Each element has its own browser interface for standalone operation. As you add acquisition elements, add the iVMS to simplify program correlation and management of your growing and evolving FoQus platform

Scalability

Each FoQus Platform element offers flexible licensing, so you can start monitoring a small number of video assets, and increase asset support as your needs grow. In addition, new acquisition elements can easily integrate into iVMS's comprehensive view.

Financial Flexibility: OPEX, CAPEX, or both

FoQus Platform offerings can be tuned to your financial needs. Build your own FoQus platform, leverage a subscription-based model, or combine both into a “owned” foundation capability and a subscription-based “extended” capability which can all be managed through iVMS.

The IneoQuest® FoQus™ Platform is the industry's premier portfolio of complementary video quality intelligence solutions. The platform is built on multiple data acquisition elements which collect real-time metrics from critical points in the video distribution chain—from content preparation, through network delivery, to playback. This data is then aggregated, correlated and processed by IneoQuest's powerful iQ Engines™, to provide an immediate and accurate view into the performance and quality of your video content and services.

Actionable Video Quality Intelligence

If you provide video to viewers – or provide critical video delivery services and infrastructure –
the IneoQuest FoQus Platform has solutions that give you unparalleled visibility into the health of your video business.