



TAG Video Systems Integrates Zixi SDVP® for an Efficient and Complete Monitoring Solution for Live Video

MONITOR LIVE STREAMS ACROSS ANY IP-NETWORK

AT A GLANCE

FEATURED TAG VS SOLUTION WITH ZIXI INTEGRATION

MCM-9000 – Provides a complete multi-channel monitoring solution for all live video transmission layers starting from the TS packet header all the way down to the encoded video content and quality. The MCM-9000 creates a visual mosaic from the monitored streams with rich data overlay, supplying the NOC operator with a strong tool for error detection and alerting.

KEY BENEFITS:

- **Simplified Systems Design** – No need for outboard Zixi processing
- **Quickly Gain Workflow Flexibility and Agility** – Software-based solutions allow for setting up monitoring of connection or transport in a matter of minutes, not weeks
- **Reliable Transport** – With Zixi achieve 99.999+% reliability and monitor stream health with TAG
- **Reduced Costs** – No additional servers needed, reduced cloud footprint, faster system setup and configuration
- **Proactive Monitoring** – By monitoring the Zixi stream directly, TAG can measure the underlying impairments such as IAT and help customers proactively address transport issues
- **Operator Trust** – With direct encoding of input signals within TAG and reliable Zixi transport Operators can be confident that any impairments they see in the mosaic images are present in the monitored signals

A COMPLETE SOFTWARE-BASED SOLUTION FOR IP MONITORING & RELIABLE BROADCAST-QUALITY TRANSPORT

Users of TAG Video Systems MCM9000 can leverage key elements of the Zixi Software-Defined Video Platform, the Zixi protocol and the video solutions stack, to monitor broadcast-quality live video over any IP network. The Zixi protocol allows TAG customers to use the public internet and unmanaged networks to transport professional video signals and avoid the costs of dedicated video links, MPLS Ethernet networks and satellite.

COMPREHENSIVE MONITORING & DATA WITH TAG MCM-9000

The MCM-9000 provides a complete monitoring solution for all the transmission layers starting from the TS packet header all the way down to the encoded video content and quality. The MCM-9000 provides three levels of monitoring: transport level monitoring based on ETR-101-290 compliance, Video/Audio baseband content level monitoring, and template-based monitoring for detection of configuration changes in the monitored stream.

The MCM-9000 creates a visual mosaic from the monitored streams with a rich data overlay, supplying the NOC operator with a strong tool for error detection and alerting. The created mosaic is an HD or UHD video stream, encoded and transmitted enabling remote monitoring, mobile device access and a very flexible installation topology.

The MCM-9000 monitors complete ETR-101-290 compliance with a rich variety of properties including video freeze, black video, audio silence, audio levels, color space, resolution change, service bitrate and PMT structure.

TAG MCM-9000 IP-MULTIVIEWER AND MONITORING SYSTEM





KEY ZIXI BENEFITS

- **Security** – Zixi provides best-in-class security enhanced with DTLS and AES standards-based protection
- **Reliability** – Contribute source streams with 99.999+% broadcast reliability; hitless failover provides redundant transmission options for higher reliability and disaster recovery
- **Ultra Low Latency** – With network adaptive Forward Error Correction and recovery, proven sub 1 second live linear latency
- **Interoperability** – Zixi is compatible with the largest ecosystem of encoding devices and contribution sources

ENSURING RELIABLE TRANSPORT OVER THE PUBLIC INTERNET WITH THE ZIXI SDVP

With the industry leading Zixi protocol, the Software-Defined Video Platform is the only solution that can provide five and six nines availability utilizing patent pending sequenced hitless and bonded hitless failover over mixed IP networks such as internet, fiber, satellite and cellular.

The Zixi protocol is a resilient congestion and network-aware protocol that adjusts to varying network conditions and employs patented, dynamic Forward Error Correction techniques for error-free video transport over IP with 99.999+% uptime at minimal latency. With minimum overhead to physical bandwidth, the Zixi protocol removes jitter, recovers and re-orders packets, smooths video delivery enabling the streaming of broadcast-quality video over any distance, while overcoming the varying network conditions of unmanaged networks.

The Zixi video solutions stack provides essential software tools and core media processing functions that allow for transcoding, auto-slating and time-shifting over multiple transmission paths and bitrate adaptation to ensure reliability over any IP network and any protocol. Enabled via a license, Zixi makes it easy to shift from hardware-based to software-defined solutions to quickly gain workflow flexibility and agility when it comes to enabling new revenue sources and cost-effective content exchange.

AGGREGATE ALL SOURCES INTO ONE VISUAL MONITORING PLATFORM FOR ON PREM & REMOTE MONITORING

With this powerful Zixi integration into TAG's MCM-9000, NOC operators can now quickly gain workflow flexibility and agility, monitoring all broadcaster formats, from uncompressed to highly compressed HLS.

Input stream support allows Zixi feeds to be received, monitored and displayed directly by the TAG system, and output stream support allows TAG mosaic outputs to also include Zixi processing when feeding operator displays that are at remote locations that are distant from the TAG system. Extensive alerting capabilities can be set for individual channels or groups of channels, combined with event notification ensures broadcast quality video is maintained throughout the workflow. Mosaic display outputs can now be protected with Zixi, maintaining image and sound integrity and fidelity even in work from home situations. Operators can now be confident that any impairments they see in the mosaic images are present in the monitored signals.

With the Zixi and MCM-9000 joint solution, users can quickly and easily migrate to an all IP infrastructure while increasing speed, enhancing flexibility and improving the quality and efficiency of their video delivery infrastructure at scale.

ABOUT TAG VIDEO SYSTEMS

TAG Video Systems is the world leader in 100% software based integrated IP Multiviewing, Probing and Monitoring solutions. Introducing its first IP solution in 2008, today TAG supports over 50,000 channels across the four primary broadcasting applications - Live Production, Payout/Master Control, Distribution and OTT. www.tagvs.com | sales@tagvs.com

ABOUT ZIXI Zixi provides the cloud based and on-premises Software-Defined Video Platform (SDVP®) that enables reliable broadcast-quality video delivery over any IP network, any protocol, any cloud provider and any edge device. The company offers technologies for broadcasters, enterprises, over-the-top video providers, sports leagues, service providers, cable operators and Telcos around the world, giving them the lowest TCO in the industry. Many of Zixi's clients are delivering and managing thousands of streams, and there is no other alternative in the market that can provide 99.999%+ reliability at scale. Zixi simplifies building and managing congestion-aware live video routes on any network, with support for 18-protocols across any operating environment, with products that are purpose built to provide market leading performance, universal interoperability and an operational control plane that simplifies management and orchestration at scale. With 15+ years of innovation and expertise, the Zixi Enabled Network has grown to over 1000+ media customers and 400+ OEM and service providers that deliver 20,000+ channels daily, with 110,000+ deployed instances in over 120 countries, gathering over 9 billion data points a day while delivering over 100,000 live sporting events a year. This powerful ecosystem of the largest media organizations in the world exchanging live video allows for the creation and acceleration of new content acquisition, business models, and opportunities to reduce cost and generate revenue. www.zixi.com | sales@zixi.com