A UNIVERSAL VIDEO GATEWAY FOR IP DELIVERY

CONTRIBUTE ONCE, DELIVER TO ANY WITH THE SDVP

As broadcast industry workflows virtualize and increase in complexity, interoperability across media supply chains has become more important than ever. With live video distribution evolving towards cloud-based workflows, broadcast companies need a software-based solution that will allow them to scale the reach of their operations while maintaining control over both virtual and traditional resources.

The Software-Defined Video Platform (SDVP) enables broadcast-quality video delivery over any IP network, any protocol, any cloud provider, and any edge device, providing a comprehensive, scalable solution for the transport, monitoring and management of live video. The SDVP is the unique integration of four main components: Protocols, Video Solutions Stack, the Intelligent Data Platform, and ZEN Master. Each part of the SDVP provide unique capabilities and solutions that make live video distribution with Zixi unparalleled. Because of its unparalleled interoperability, the SDVP serves as a **universal video gateway**, a way to deploy live video workflows between and across a large ecosystem of media organizations using one comprehensive software-based platform.

USE ANY PROTOCOL FOR CONTRIBUTION OR DISTRBUTION

The SDVP is the only live streaming software platform that offers users a wide range of protocol acceptance in addition to the pioneering Zixi protocol for the delivery of live video. The **Zixi protocol**, both congestion and network-aware, dynamically adjusts to varying network conditions and employs proprietary forward error correction techniques for error-free video delivery over any IP or hybrid IP network.

While most users rely on the Zixi protocol for transport, the SDVP accepts all industry protocols and containers from other vendors, standards, and open-sourced initiatives (including NDI, RIST, SRT and more) so you can choose the right transport mechanism to fit your specific workflow needs.

MAINTAIN VISIBILITY TO AND CONTROL OVER COMPLEX LIVE VIDEO SUPPLY CHAINS

As content moves across broadcast workflows, the SDVP ensures quality delivery throughout the media supply chain. Zixi's **video solutions stack** provides robust content quality, transport, and network analytics that allow engineers and operators to ensure that streams maintain broadcast-quality during their journey in and out of integrated hardware devices and software applications. Patented Hitless Failover techniques provide 99.999%+ reliable transport between sources and receivers. The Video Solutions Stack also provides enhanced tools to streamline workflows including protocol switching, live 4K transcoding and repackaging, recording, time shifted delivery, and auto-slating.

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With Zixi's **ZEN Master** control plane, users can cost-effectively manage and monitor complex deployments at scale and configure and orchestrate live broadcast channels across protocols and the

ZEN Master

Zixi Enabled Network. ZEN Master allows for control of the edge, network, and cloud with full telemetry visualization of network streams. It offers essential monitoring and management tools like workflow visualization, alerting, history, automation, scheduling, reporting, and root cause analysis across complex media supply chains. As part of ZEN Master, **Zixi's Intelligent Data Platform** aggregates 3 billion data points a day from across the Zixi Enabled Network and uses advanced analytics, machine learning, and Zixi's unique video telemetry data to provide alerts based on patterns and insights that help media companies streamline broadcast operations by focusing their resources to fix errors before they occur and reduce costs from root cause analysis.

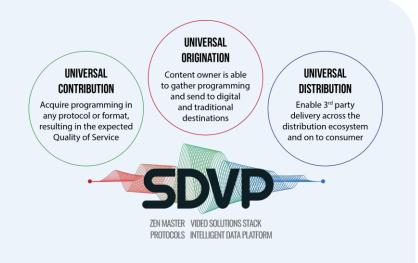
The **Zixi Enabled Network** of over 200+ integrated partners from cameras, encoder/decoders, forensic watermarking systems, editing platforms and playout systems. This unrivaled network allows Zixi users to integrate seamlessly with hundreds of software and hardware partners providing live video solutions, with the ability to monitor and manage the UIs of integrated systems from within ZEN Master.

A SINGLE PLATFORM TO STANDARDIZE AND FUTUREPROOF WORKFLOWS

When all these capabilities are leveraged together, the SDVP provides a way to standardize source acquisition and then normalize for distribution, all while providing an interoperable solution that will help simplify any broadcast workflow. The SDVP serves as a universal video gateway to streaming infrastructures that can iterate as industry trends and technology evolve, driven by a simple philosophy: users should be able to receive a signal in any protocol, process for live transcoding into any format, and deliver to any traditional or digital destination with the expected broadcast quality of service and quality of experience that broadcasters demand.

With the SDVP, users can manage live and live linear programming and deliver to regional, national and global audiences, simply and efficiently conducting universal contribution and distribution of live video to and from affiliates and partners. The SDVP allows for:

- Universal Origination Content owner can gather their programing and send once to both digital and traditional destinations
- Universal Contribution Streaming service providers can acquire programming in any protocol/bandwidth/signal/QoS – all resulting in a high Quality of Experience
- Universal Distribution Enable 3rd party delivery across the distribution ecosystem and on to consumer



ZEN MASTER ONBOARDING ORCHESTRATION ANALYTICS MONITORING REPORTING **OPERATIONS** ANY IP NETWORK OR CLOUD (PUBLIC/PRIVATE/HYBRID) SOURCE VIDEO DELIVERY TARGETS TELEMETRY WORKFLOW отт me video T. Mobile INTELLIGENT DATA PLATFORM fubo peacock sling SHARED DATA BUS SMART ALERTS. SERVICE PROVIDERS DATA SOURCES GRAPHS, ANALYSIS verizon SDVP SDVP amaai 7ixi Feed REP HD SDI 4K 8K Zixi Broadca Telstra MACHINE LEARNING ENGINE FGRESS ė iStre INGEST Zixi NDI RIST RTP TP + FE UDP HLS RTMP SRT Agent Z 3rd Party De Zixi NDI RIST IRD/MS0 6 GIGCASTERS Cateme RTP RTP + FEC UDP HLS VIDEO WORKFLOW harmonic Synamedia OROGERS VIDEO SOLUTIONS STACK atency (CMAE D CDN END CONSUMERS RTM SRT msung SMART TV LIVE fastly TRANSCODE amazon 单 🚮 Win PACKAGING INGEST firetystick Roku G SATELLITE UPLIN INTELSAT SES^{*} 쥳 eutelsat SD)V P TURKSAT ASIASAT

REFERENCE ARCHITECTURE FOR UNIVERSAL VIDEO GATEWAY

ABOUT ZIXI

Zixi provides a cloud based and on-premise Software-Defined Video Platform enabling the management, orchestration, monitoring, and delivery of broadcast-quality live and live linear video over any IP network, protocol, cloud provider or edge device. Over 14+ years, the Zixi Enabled Network (ZEN) of partners has grown to over 300 OEM and service providers with whom Zixi serves well over 700 customers representing most of the top media brands around the world with 20,000+ channels delivered daily. <u>https://zixi.com/</u>