

IP DISTRIBUTION AT SCALE

Simplify Complex Live Video Workflows FAST Channel, International Syndication, OTT

IP DISTRIBUTION AT SCALE USE CASES

- Content Owners delivering to many platforms, partners and devices
- Live Event Producers that must dynamically scale out ultralow latency live video routes for remote production and syndicated distribution
- Service Providers ingesting live linear and event channels from a wide array of content partners

IP-based transport enables flexible, efficient workflows with lower fixed costs, better visibility into stream data, and allows for greater regionalization of content. FAST Channel delivery, International syndication, OTT platforms and connected devices are all driving the need for live video distribution at scale.

Zixi offers more capabilities to deliver high volume live video distribution, at scale, reliably over any network. Video distribution over IP is an essential part of a modern, agile live video delivery strategy and Zixi offers advanced features and functionality to deliver high volume live video distribution, at scale, reliably over any network. Compliance Validation. Content Formatting. Stream Localization. Ad Load. Delivery Strategy and Security. These requirements represent major challenges for media companies looking to syndicate programming to an increasing number of target destinations.

Challenges to Scaling Live Video Delivery

Content owners require the flexibility to deploy live channels to an increasing number of discreet publishing points, and managed service providers and content aggregation platforms must ingest live channels from many content partners each potentially with their own delivery capabilities and standards. The ability to connect live video securely and reliably across IP networks, normalized to the requirements of the target destination is a major challenge with increasing complexity as the number of channels and live events are scaled. Organizations must have robust capabilities in order to meet the business requirements:

- End-to-end visibility with robust telemetry and actionable alerting
- Real-time compliance validation
- · Low latency live video processing
- · Dynamic software-defined scaled infrastructure
- Rules-driven monetization, localization and security strategies

SOLUTION: Zixi Software-Defined Video Platform (SDVP) and Zixi-as-a-Service (ZaaS)

The SDVP and ZaaS are modular, cost-efficient and purpose-built video services designed specifically to securely manage highly complex, scalable and resilient live video routes over mixed IP networks. The SDVP integrates seamlessly into customer infrastructure environments, providing the flexibility to scale out video processing, redundant video routes and sophisticated monitoring services across customer managed infrastructure. ZaaS builds on top of the SDVP, adding video-optimized live video cloud infrastructure and cost-efficient video routes that can augment or replace existing public cloud deployments. These offerings include:

- **Centralized Management** Zixi ZEN Master is a centrally managed control plane, delivering orchestration and live visibility across the distribution.
- **End-to-end Monitoring** Zixi includes a complete live video monitoring suite, with robust network telemetry details, real-time audio/video analytics and live impairment detection.
- **Dynamic Scale** Operation teams can scale on-demand, flexibly provisioning additional resources, increasing throughput and adding new delivery targets in real-time and without disruption.
- Match Delivery Requirements Ultra-low latency live transcoding, content switching, program mapping and live compliance validation automatically conform inbound source streams to meet unique requirements for each target destination



ZIXI SDVP BENEFITS

- Orchestration Architect and securely deploy workflows across diverse cloud platforms, global regions and private networks
- Telemetry Extend visibility to endpoints downstream with Zixi protected multicast
- Interoperability 17+ protocols, 200+ integrated partners, open standard transmission options
- Scalability The Zixi
 Broadcaster software is multithreaded, so high throughput
 can be achieved 6Gb+
- Security DTLS connection security, AES content encryption, SSO and password protected
- Virtualization Bridge remote media facilities to maximize value of diversely deployed resources and tools
- Zixi Sequential Hitless Failover

 Zixi patented hitless failover
 is extension and improvement
 of SMPTE 2022-7 with industry
 leading packet sequence
 alignment algorithm
- Bonding Zixi dynamically and intelligently manages fluctuating bandwidth, packet loss, and latency differences of individual connections in real-time, to choose the optimal path to route IP packets
- Low Latency Zixi manages latency as an adjustable parameter and automatically drives latency down while achieving desired QoS

Zixi Simplifies Complex Scaled Video Distribution

The SDVP and ZaaS provide many options that enable live operations to more efficiently, effectively and reliably scale live linear and event channel distribution.

• Interoperability at Scale

With 400+ integrated partners and 17+ supported protocols, Zixi is the largest global ecosystem of live video solutions to meet operational challenges in a uniform, predictable and scalable way, regardless of how the video originates or where it is being delivered, dynamical provisioning events, resources and routes.

• Rapidly Monetize New Revenue Sources

Zixi efficiently and reliably enables rapid expansion to new distribution opportunities, such as digital first target destinations like SmartTVs, International rights holders and FAST channel distribution. Zixi includes advanced features such as content localization, program mapping, time-shifting and advanced processing to tailor channels to the unique needs of each delivery endpoint.

· Deploy Agile Channels On-Demand

IP-based transport enables flexible, efficient workflows with lower fixed costs, better visibility into stream data, and allows for greater regionalization of content. The SDVP and cloud-first ZaaS enable operations teams to confidently spin up efficient channel distribution on-demand, with integrated advanced monitoring, AI/ML driven analytics, industry proven reliability and direct integration with the largest partner network in the industry.

· Support A Universal Gateway Architecture

The SDVP functions as a Universal Gateway, allowing contribution from any IP network with Zixi protocol or any of 16 additionally supported industry protocols. Customers can benefit from the unique interoperability of the SDVP to cost-effectively facilitate universal contribution and distribution to and from affiliates and partners across the Zixi Enabled Network of customers, integrated hardware and software applications and platforms and service providers standardized on Zixi.

ZaaS Delivers Cloud-Scale for Live Video

Full SDVP Solution Benefits PLUS Video Optimized Cloud Infrastructure

ZaaS combines the power of the SDVP with the flexibility and scale of the cloud, unlocking global event remote production without sacrificing production quality or increasing costs.

Multi-Cloud Redundancy for Premium Events

Seamlessly combine ZaaS with other 3rd party cloud provider infrastructure leveraging the SDVP to orchestrate delivery with hitless failover across regions

Video Optimized Cloud

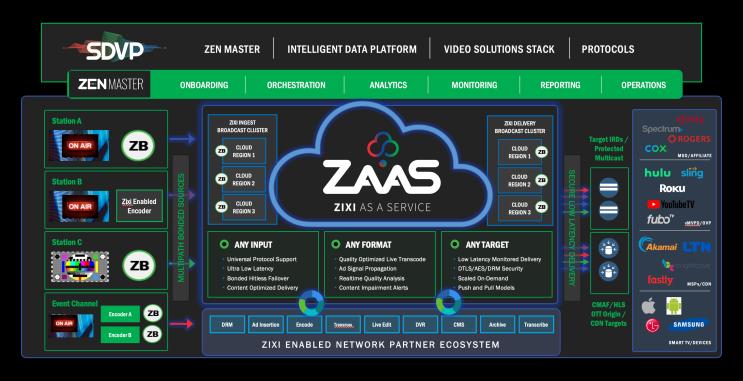
Provision global cloud ingress, advanced low-latency processing and high-throughput distribution resources on Zixi's managed cloud infrastructure purpose built for efficiently delivering live video.

Lowest Cloud Egress Costs

ZaaS is a complete solution, including market-leading performance that offers significant cost savings over traditional public clouds that was built to do one thing, deliver broadcast quality, ultra-low latency live video.



Zixi Manages FAST Channel Video Distribution



ABOUT ZIXI