

Zixi Live Contribution for Bitmovin Solutions

SECURE AND RELIABLE VIDEO TRANSPORT WITH ZIXI NOW AVAILABLE ON BITMOVIN API BASED PRODUCTS

HIGHLIGHTS

BITMOVIN SOLUTIONS WITH ZIXI INTEGRATION

Enable live and live linear contribution from Zixi Enabled Network devices to Bitmovin's cloud encoding service

KEY BITMOVIN BENEFITS

- **Lower Cost** – Reduce video streaming costs using codecs like HEVC, VP9 and AV1 to reduce files size by up to 50%
- **Fast Startup** – Get content online faster with Bitmovin's containerized encoding architecture
- **Configurable** – Flexible API to simplify workflows, integration and support
- **Low Latency** – Supports CMAF low latency live streaming
- **Compatibility** – Encode into adaptive streaming formats like MPEG-DASH and HLS in multiple codecs to reach every device
- **Advanced Player** – Seamless playback of live streams across a wide range of web, mobile, SmartTV and connected TV devices

Bitmovin leverages Zixi, the global leader in video transport over IP, to enable customers to securely, reliably, and economically contribute live video sources at scale to Bitmovin's cloud encoding services. Bitmovin is a leading provider of cloud-based video streaming solutions, such as their Live Encoder, to help developers solve complex video problems with cloud-native software. It offers highly resilient event-based and 24/7 services that can scale seamlessly from 1 to thousands of events and be adapted to fit unique workflows.

Zixi's integration into the Bitmovin Live Encoder allows content contributors and distributors to leverage Zixi's proven video over IP technology crafted over 10+ years and utilized by over 500+ customers in 100+ countries to distribute video to mass markets via the Cloud.

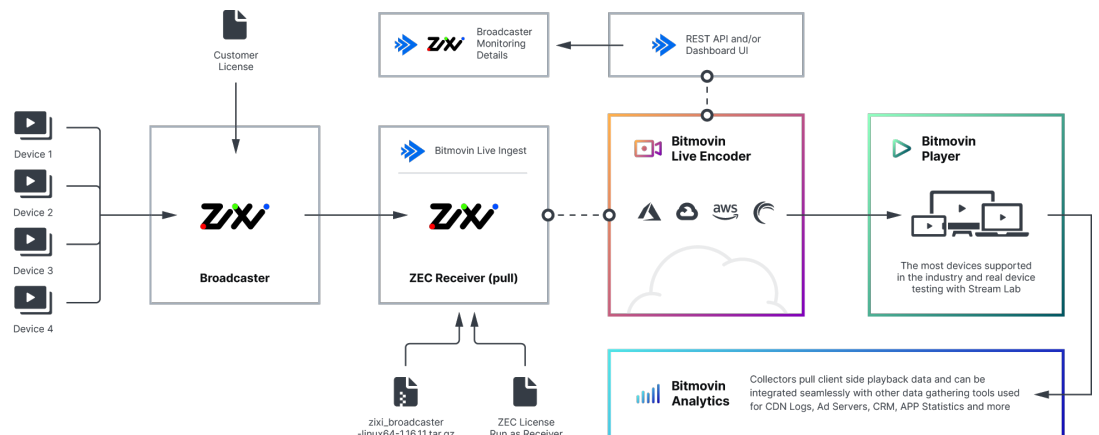
INTEGRATED SOLUTIONS

When a customer configures the Live Encoder with a Zixi input, the integrated Zixi Receiver software pulls the stream from a Zixi Broadcaster and delivers it directly to the Live Encoder.

The Receiver integrated into the Live Encoder can pull streams from standalone Zixi Broadcasters and Zixi Broadcasters managed by Zixi ZEN Master. When configuring the Zixi input in the Bitmovin Live Encoder, an AES-128/256 encryption/decryption can be set up, or Datagram Transport Layer Security (DTLS) can be configured from ZEN Master.

Content Quality Analytics in ZEN Master provides detailed metrics on video quality and delivery to the integrated Receiver in the Bitmovin Live Encoder, while the Bitmovin Analytics product provides deep, real-time performance insight and QoE metrics on the delivery and playback portion of the video workflow.

Bitmovin's integration of Zixi software means that if the customer has a Zixi Broadcaster license, the Live Encoder can run in Zixi Broadcaster mode. This means that Bitmovin customers can contribute a stream from any encoder device with an integrated Zixi Feeder, a standalone Zixi Feeder, or the Zixi iOS/Android mobile Feeder application.



KEY ZIXI BENEFITS

- **Centralized Management** – ZEN Master provides a centralized view of the entire Zixi enabled contribution and distribution network
- **Security** – Zixi provides best-in-class security enhanced with DTLS and AES standards-based protection
- **Reliability** – Contribute source streams with 99.999+% broadcast reliability with hitless failover provides redundant transmission options for higher reliability and disaster recovery
- **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

ABOUT BITMOVIN

Bitmovin is a leading provider of video infrastructure for online media companies and enterprises globally. Bitmovin technology innovations focus on video encoding, playback, and analytics around user experiences. Innovations include the co-authoring of the MPEG-DASH streaming protocol, and massively parallel cloud-native encoding. For more information, please visit: www.bitmovin.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 1,000,000 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

ZIXI TRANSPORT

Bitmovin customers benefit from Zixi's well-proven methods of optimizing IP networks for contributing live video content in real-time.

Zixi transport provides best-in-class resiliency using a combination of content-aware and network-adaptive forward error correction, error recovery, congestion avoidance, bonding of multiple transmission paths, and dynamic feedback to control encoder bitrate. All this is done at a minimal latency and with the security of AES128/256 or DTLS.

With minimum overhead to physical bandwidth, this dynamic mechanism removes jitter, recovers and reorders packets, and smooths video delivery, enabling the streaming of broadcast-quality video over any distance while overcoming the varying network conditions of unmanaged IP networks, including the public Internet.

The Zixi ecosystem consists of three components:

- **Zixi Feeder** receives MPEG2TS over IP from a source such as an encoder/multiplexer or is integrated directly into an encoder or DCM and delivers the data via the Zixi protocol to a Zixi Broadcaster. Encoders with the Zixi Feeder built-in are available from vendors such as Ateame, AWS Elemental, Harmonic, and more.
- **Zixi Broadcaster** receives streams in the Zixi protocol over IP or in the RIST protocol over IP from RIST-compliant devices. The Zixi Broadcaster then delivers the streams to other Zixi Broadcasters and Zixi Receivers, including the Receiver integrated into the Bitmovin Live Encoder.
- **Zixi Receiver** requests the data from the Broadcaster, converts the Zixi protocol back into MPEG2TS, and provides that data over the local network or directly into an application that has integrated the Receiver.

Ingest your Zixi into the Bitmovin Live Encoder and stream live seamlessly across any major cloud provider.



Microsoft Azure



Google Cloud



Amazon AWS



Akamai