

ZIXI LIVE CONTRIBUTION FOR BITMOVIN SOLUTIONS

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

AT A GLANCE

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, Smart TV 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 and live linear video at scale to Bitmovin cloud encoding services. Bitmovin provides API based products, such as containerized live encoding engines, to help developers solve complex video problems with cloud native software that runs anywhere, on any hardware, and can be adapted to fit unique workflows.

Zixi's integration into Bitmovin's cloud encoding solution 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 Bitmovin live encoder is configured with a Zixi input, the integrated Zixi Receiver software is configured to pull the stream from a Zixi

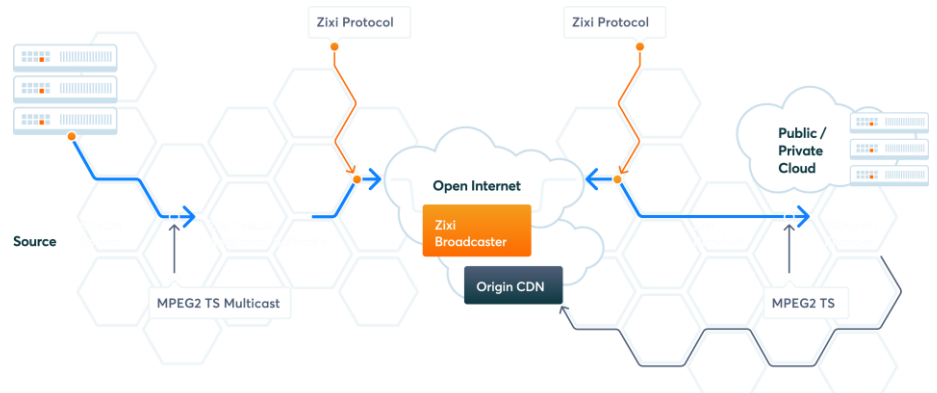
Broadcaster and deliver it directly to the live encoder.

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

Content Quality Analytics in ZEN Master provides detailed metrics on the video quality and delivery to the integrated Receiver in the Bitmovin live encoder while Bitmovin's Realtime Video Analytics provide deep performance insights on the delivery and playback portion of the video workflow.

Bitmovin's integration of Zixi software means that Bitmovin customers can contribute a stream from any encoder device with an integrated Zixi Feeder, a standalone Zixi Feeder, the Zixi iOS/Android mobile Feeder app, or another Zixi Broadcaster.

END-TO-END CONFIGURATION OF A LIVE STREAM



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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

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 at a minimal latency and with the security of AES-128/256 or DTLS.

With minimum overhead to physical bandwidth, this dynamic mechanism 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 IP networks including the public Internet.

The Zixi ecosystem consists of three components:

- **Zixi Feeder** receives MPEG2TS over IP

from a source such as a native 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 Ateme, 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.

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 a cloud based and on-premise software platform enabling the management, orchestration, monitoring, and delivery of broadcast-quality live and live linear video over IP and hybrid IP networks to broadcasters, enterprises, over-the-top video providers, and mobile service providers around the world. Over 10+ years, the Zixi Enabled Network (ZEN) of partners has grown to over 100 OEM and service providers with whom Zixi serves well over 500 customers representing most of the top media brands around the world with 10,000+ channels delivered daily. <https://zixi.com/>

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HORIZONTAL SCALABILITY MULTIPLIES VIDEO ENCODING PERFORMANCE

