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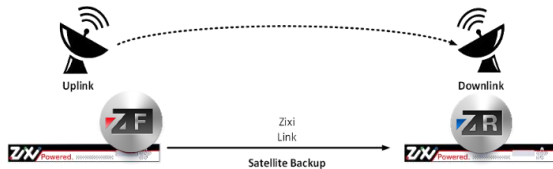
The point-to-point Zixi-Link™ solution is a one-way, secure, single channel, distance-agnostic connection between the Zixi Edge Points™ (ZEP) – Zixi Feeder™ and Zixi Receiver™. A Zixi-Link is simple to put in place and easy to configure. This software solution can be leveraged for use cases such as satellite back up, disaster recovery, primary contribution for live events, and more. Leveraging the Zixi Transport Stream Protocol, Zixi-Link is an economical alternative for securely sending high-quality video over any distance.

Quick & Easy

Zixi-Link is comprised of two software components – Zixi Feeder and Zixi Receiver – that can run on a dedicated Zixi Server or be embedded inside a Zixi Eco-System partner hardware or software appliance.

When running Zixi-Link, the Zixi Feeder encapsulates the video feed in the Zixi transport stream and delivers the feed via standard Internet connections to a Zixi Receiver.

This economical connection is quick and easy to configure and implement.



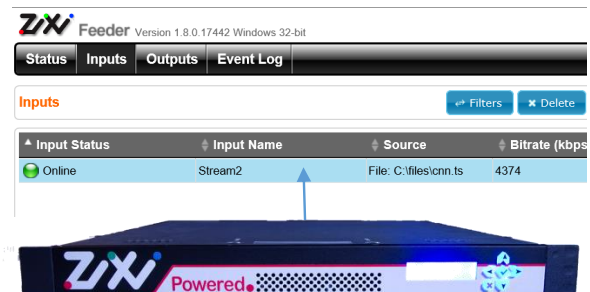
Zixi Eco-System and Zixi-Link Embedded

The Zixi Eco-System consists of a growing list of partners who have added support for Zixi Feeder into their encoders, cameras, and software applications. With an embedded Zixi-Link solution, broadcasters, sports networks, and video distribution service providers can immediately deploy a secure point-to-point connection for delivering high-quality video over IP networks.

Zixi-Link Components and Zixi GUI

To create a point-to-point Zixi-Link, users simply need to load Zixi Feeder on a dedicated Zixi Server appliance located at the point of acquisition, and load Zixi Receiver on another dedicated Zixi Server Appliance located at the receive point. Using the Zixi GUI to create the link to enable an error free transmission of a live feed, VOD feed, or satellite feed.

The Zixi Server is a 1U appliance that is qualified to run all of the Zixi modules, including Zixi Feeder and Zixi Receiver.



Zixi-Link™ Applications

- Satellite Backup
- Disaster Recovery
- Primary Contribution
- Point to Point
- Distribution

Zixi-Link™ Benefits

- High Quality
- Fixed Latency
- Error Free Stream
- Distance Agnostic
- Network Aware

Zixi Feeder™

Supported Protocols

Input:

- MPEG-TS over UDP (unicast and/or multicast) and/or RTP
- RTMP
- ASI

Output:

- Zixi protected transport to Zixi Broadcaster
- UDP to specified IP address and port
- MPEG-TS output to file system

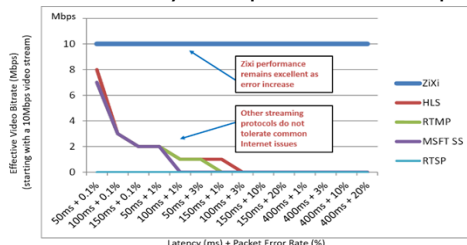
Quality of Service and Error Correction

- Transport protocol used between Zixi Feeder and Zixi Receiver optimizes bandwidth to deliver broadcast quality
- Maximum stream latency can be specified, and then guaranteed, assuming available bandwidth
- Content-aware forward error correction (FEC)
- For low latency applications, FEC maximum overhead can be specified as a percentage of the original bit rate
- Programmable HTTP/JSON API for monitoring, automation, and customization

Performance, Availability, and Security

- Stream password protection
- Stream encryption with up to 256-bit AES encryption
- SMPTE 2022 FEC decoding allows recovery of input streams coming from a managed network
- Web administration app for configuration
- TR-101-290 MPEG stream analysis (priorities 1 and 2)
- SSH secure tunnel access to Zixi Feeder for configuration and management

Zixi stream resiliency as compared with traditional protocols



Zixi Receiver™

Supported Protocols

Input:

- Zixi protected transport and/or RTP with SMPTE-2022 support from Zixi Feeder to Zixi Receiver
- MPEG transport stream files from local file system

Output:

- UDP
- Output to compatible ASI cards
- MPEG transport stream output to local file system
- File output segmented by user selected time interval
- Re-multiplex output streams to strict CBR for extensive compatibility with integrated receiver decoders (IRDs)

Availability and Reliability

- Ability to assign fallback source to Zixi Receiver output to ensure continuity
- Stream monitoring available statistics, throughput, packet rate, FEC, and ARQ measurements

System Management

- Web administration app for configuration
- SSH access via secure tunnel

Security

- Stream password protection
- Decryption of inbound video using up to AES 256-bit encryption

Zixi Appliance

- Specifically designed to run all components of the Zixi product family, including Zixi Feeder and Zixi Receiver
- 1RU rack mountable appliance:
 - Linux OS
 - 4x Gigabit Ethernet
 - 1000BASE-T
 - RJ45 cards capable of up to 800Mbps per interface
- Available pre-configured and can be drop shipped anywhere in the world