FAZZT® SYSTEM OVERVIEW

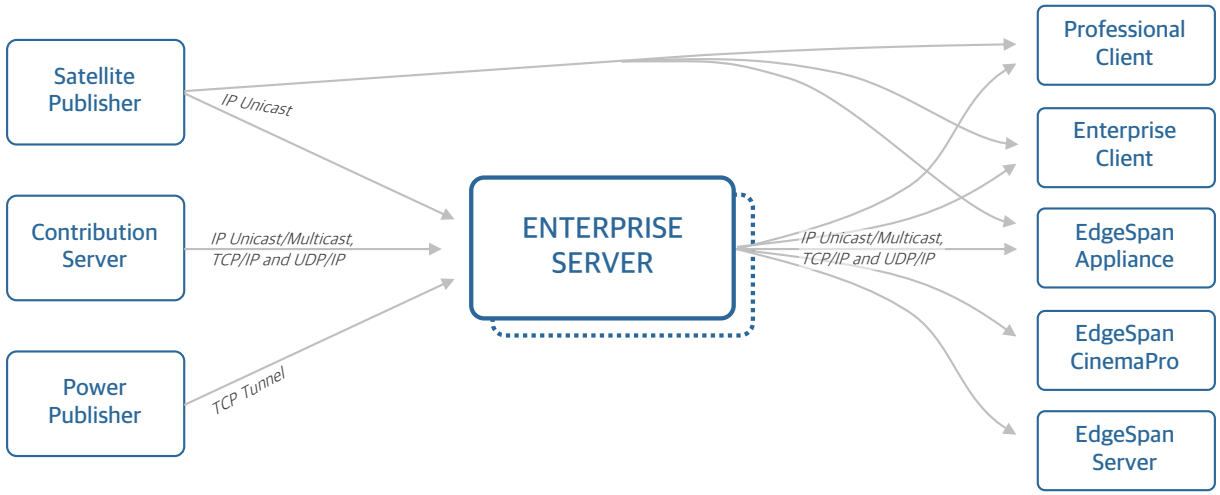
INTRODUCTION

The Fazzt® Digital Delivery System securely delivers content over both satellite and terrestrial networks directly to authorized devices at thousands of sites. Fazzt (pronounced "fast") reliably delivers streams and large files at speeds in the Gbps per channel range, using advanced error correction, compression, encryption and receive-side validation.

This document provides a brief overview of the components of a Fazzt system. Our software is available as binaries for Linux or Windows, or as a standalone EdgeSpan® appliance.

BENEFITS

- **Market-leading efficiency.** Our patented Fazzt Forward Error Correction is the most sophisticated on the market, with the lowest overhead.
- **Highest reliability.** We have been improving Fazzt for more than 20 years. Many of our customers have been using Fazzt for more than a decade.
- **Military-grade security.** Fazzt is trusted by movie studios, governments, and well, the military, to handle their most sensitive content.



PUBLISH

Fazzt Power Publisher. A special-purpose server that sends its content through a communications tunnel to a Fazzt Enterprise Server (FES). The Power Publisher has much of the same capabilities of the FES, but the actual transmission and distribution is managed by the server.

Fazzt/EdgeSpan Contribution Server. Used in the preparation and delivery of content to one or more FESs. File content may be sent in either a store-and-forward mode, or in a pass-through (tunneling) mode.

The Contribution Server uses all Fazzt reliability technologies including Fazzt Forward Error Correction and validation. It operates in conjunction with the FES, and includes all FES channel management, multiplexing, bandwidth management, queuing, and scheduling features. This gives content providers complete control over content management and distribution, while still allowing them to benefit from the advantages of the FES's shared content delivery features. It comes equipped with dual Gig-E interfaces for multi-network operation and DVB-S2 advanced satellite modulation.

KenCast

FAZZT® SYSTEM OVERVIEW

TRANSMIT

The **Fazzt Enterprise Server** is the centerpiece of the Fazzt system architecture. It collects content from publishers, sends large files and high-resolution streaming video to multiple sites, and provides unprecedented end-to-end control and security over the entire transmission path. Multi-node configurations are highly scalable and provide full redundancy.

- Receives files and stream from content providers
- Can multicast or unicast files and streams to clients, publishers and other Fazzt servers
- Works on both satellite and terrestrial networks
- Protects files and streams with Fazzt FEC
- Supports its own and also third-party encryption modes
- Manages schedules, users and bandwidth
- Can be redundantly configured with automatic failover
- Combines and compresses files with its packager
- Targets single or multiple sites, and site groups
- Provides operational and alert notifications (NMS)

The **Fazzt Scripting Engine** makes it easy to do almost anything else. Scripts are written in a simple format for customer use. For example, it can be used to customize many functions: packaging and unpackaging files, automatically executing scripts at receive sites, manipulating files and dialog boxes, controlling Fazzt operations through the organization's database via ODBC, and generally interacting with other systems. Hundreds of sample scripts are included with the system.

Blazeband® is a technology for dramatically accelerating the point-to-point delivery of very large files over wireline or wireless IP networks. We've developed a proprietary form of Accelerated UDP to maximize bandwidth utilization while maintaining high reliability. The result: file transfers are performed several times faster than traditional methods such as FTP or HTTP.

RECEIVE

The **Fazzt/EdgeSpan Professional Client** functions as a standalone client receiver, receiving transmissions from a FES. It lets you monitor incoming transmissions, tune across channels, selectively record live streams for later playback, make selections from carousels, run scripts and send information about missed packets back to the FES. The Professional Client is accessed through a Web interface, which provides tools for configuring receive channels and dozens of other features.

Tools are provided for viewing statistics and logs, as well as performance monitoring. Also included are the Fazzt Scripting Engine, Fazzt Backhaul, Fazzt File Manager, Fazzt Packager and Fazzt Upload/Download Manager. Available for Windows and/or Linux computers.

EdgeSpan Lite. A versatile, tabletop-size appliance with most Professional Client features, plus software for local video decoding and streaming.

PLAY

The **EdgeSpan Professional 2K Decoder** appliance is an add-on module for KenCast's satellite receivers and is used to prepare multi-cast signals for projection or display on high resolution monitors. It decodes AVC and MPEG-2 content up to 2K at 60 fps. It provides exhibitors a cost-effective way to support live streaming content. It also seamlessly integrates with KenCast's digital cinema workflow where live events are centrally booked and managed.

The Professional 2K Decoder supports multiple modes of management including local web administration, KenCast centralized live event management, a local **EdgeSpan® CinemaPro**, or directly via its LCD console.

Form factor for the EdgeSpan Lite, Professional 2K Decoder and EventPlay

The **EdgeSpan EventPlay** is an integrated receiver and decoder (IRD) with on-board storage that is capable of receiving both live events and DCP content. It decodes AVC and MPEG-2 content up to 2K at 60 fps to provide a cost-effective option for exhibitors that want to carry alternative content. It is well-suited for implementations in smaller theaters that may not require the extended storage capacity of the EdgeSpan CinemaPro appliance.

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