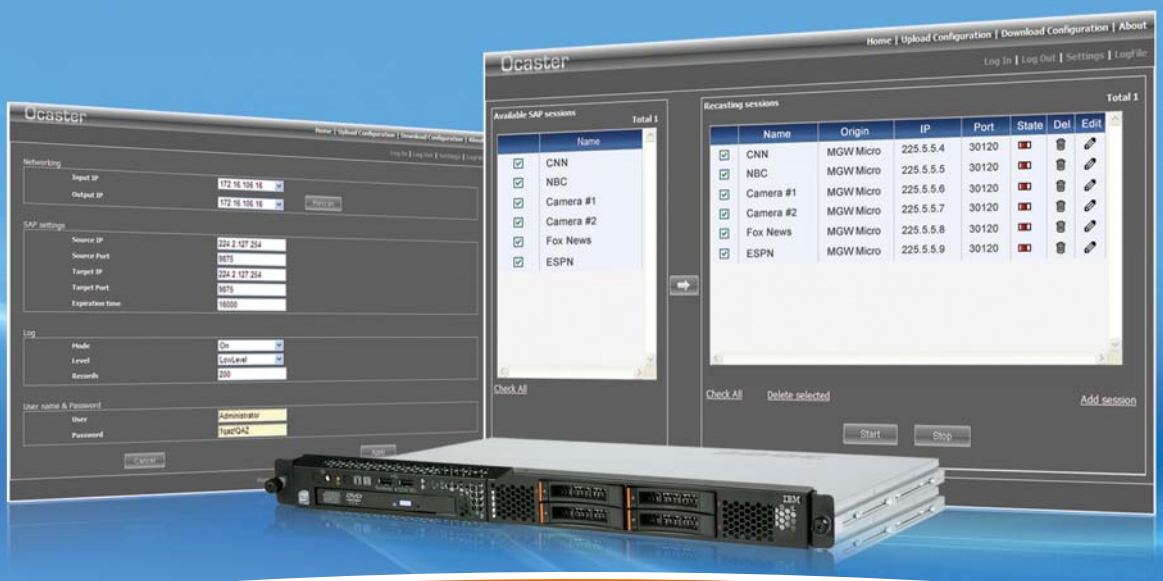

Ocaster

Military-Grade IPTV Full Motion Video Multicast and Unicast HD/SD Stream Reflector/Recaster

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Ocaster

Military-Grade IPTV Full Motion Video Multicast and Unicast HD/SD Stream Reflector/Recaster

The Optibase Ocaster™ reflection system efficiently bridges enterprise LANs by converting multicast video traffic to unicast as well as unicast stream back to multicast for network-efficient transmission of IP streams with CoT and KLV metadata.

The Ocaster™ system intercepts real-time IP traffic, reflects and re-distributes in ultra-low delay without impacting the original stream or interrupting service while retaining critical geo-location and telemetry Cursor-On-Target and Key Length Value metadata.

Transmitting Full Motion Video (FMV) between LANs across WAN connections usually involves a wide variety of network connections, from low bandwidth links to fiber and microwave relays to satellite transmission. These connections can be costly, have limited bandwidth and for the most part, have restricted multicast capabilities.

The Optibase Ocaster™ bridges local area networks by repackaging selected multicast traffic on an enterprise network as unicast and sending across WAN connections to one or more destinations. As a unicast MPEG stream, it can be encrypted through existing encryption systems or be transmitted over a VPN to ensure security of sensitive or proprietary video and data. The unicast can be played back at its destination or repackaged as multicast by another Ocaster™ at the destination LAN and played back by PC players and IP set-top boxes.

The Ocaster™ can also be used to duplicate a single video stream to multiple unicast destinations, to enable private sessions or secure content to be shared with entities around the world.

Optibase Ocaster™ uses industry standard MPEG protocols that support playback options on all MPEG-compliant devices. It is fully interoperable with third-party MPEG-2 and MPEG-4 H.264 standard definition and high definition IPTV encoders, making it the optimal solution for real-time processing of any IP stream. An advanced traffic shaping algorithm ensures quality of service (QoS) reflecting video payload on any network while maintaining consistent bandwidth utilization.

Ocaster™ integrates with Optibase EZ TV IPTV System and FITIS Full Motion Video Management Solution to enable operators, enterprises and military organizations to broadcast and share video between local and remote sites.

Applications

- Bridging LAN sites over non-multicast WAN connections
- Distribution of multicast streams to multiple unicast recipients
- Disseminating Full Motion Video content with metadata to remote users
- Conversion of incoming unicast sources to multicast for efficient distribution to LAN users
- Bridging between physical networks using reflection between two distinct network adapters

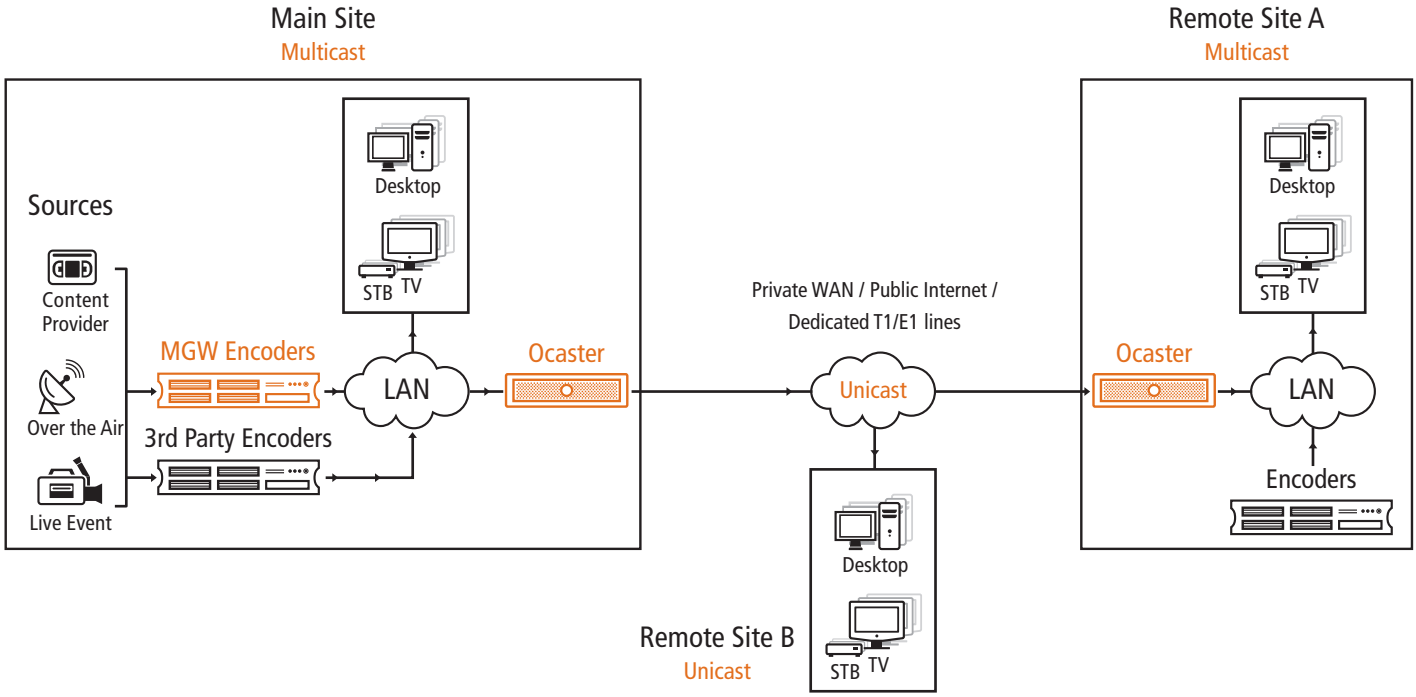
Key Features

- Highly dense MPEG reflection - up to 50 streams in a 1-RU server
- Two-way processing: Multicast to Unicast and Unicast to Multicast
- Ultra-low processing latency - less than 20 milliseconds per service
- Supports AES Encrypted streams - eliminates the need to unlock feeds in distribution centers
- Real-time SAP detection and announcement generation
- Intuitive HTTP management interface for remote configuration

Benefits

- Enables fast, efficient transmission of video in real time
- Overcomes WAN bandwidth and capacity limitations
- Compatible with existing encryption systems and VPNs to ensure data security
- Enables sharing of secure content with specific users using private unicast streams
- Compatible with EZ TV IPTV, FITIS and third-party MPEG-2 and MPEG-4 IP decoders

Flow Diagram



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Technical Specifications

Input/Output Streaming Formats

Video

- MPEG-4 H.264 Baseline Profile - Up to Level 2
- MPEG-4 H.264 Main Profile - Up to Level 3
- MPEG-4 H.264 HD High Profile - Up to Level 4
- MPEG-2 HD Main Profile - Up to High Level
- MPEG-2 Main Profile - Up to High Level
- MPEG-2 High Profile - Up to High Level
- Containers - MPEG-2 Transport
- Bit Rate - Up to 35Mbits/sec per IP stream
- Frame Rates - 1-60
- Color System - NTSC, PAL
- High Definition - 720p59.94/50, 1080i59.94/50
- Aspect Ratio - 4:3, 16:9
- Encapsulation - UDP Transport Multicast

Audio

- MPEG-1 L2
- Dolby 5.1 and 7.1
- AAC, AAC-LC, AAC+

Metadata

- Cursor-On-Target (CoT) as KLV as per MISB 0601, 0604 (synchronous and asynchronous)
- ESD multiplexed into TS user data
- Closed Captioning EIA-608 and EIA-708
- 334M
- DVB subtitles

Network Protocols

- UDP, RTP, IGMP, HTTP, SAP, Multicast, Unicast, Multi-Unicast

Retransmission Capacity

- Up to 50 MPEG TS streams (Multicast or Unicast)
- Up to 300Mbit/sec total throughout

Management

- HTTP Web management interface

Network Interfaces

- 2x 100/1000 BaseT network adapters for Input and
- Output streams or for processing IP traffic from two physical networks.

Physical and Power

- 1-RU rack mountable server 17"W x 28"D x 1.7"H
- Power: AC 110/230 V (50/60 Hz), 2 x 835W
- Redundant Power supplies and network adapters

Compliance

- CE EMC standards: 2004/108/EEC
- CE Safety standards: 2006/95/EC
- FCC standards: FCC Part 15 Subpart B Class A

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