

PROXICASTER™ IP/IP

Linux® Based, Real Time, 1 RU, Stream Segmenter, DOZER™ End Point, Repackager, and/or Protocol Converter for Real Time Conversion of Unicast UDP Streams to Multicast or HLS Network Streams. HLS Streams are Segmented Using Adaptive Streaming Technology. Supports 80 Streams of 5 Mbps Each or any Combination of Bitrates up to 400 Mbps Aggregate. This is an Appliance that Boots Quickly to a Simple GUI Interface. All Settings are Remembered when Power Cycled. Ideal WAN Bridging Device for Intercepting Streams and Reflecting and Redirecting Streams to New Locations with Different Protocols and Wrappers like HLS or RTMP. Can Also Chunk and Add HLS Wrappers.



Features

- Converts unicast streams to multicast streams, or other direction
- Designed to repackage or chunk raw H.264 transport streams to HLS. This is called segmentation.
- Input and output format can be MPEG-2, H.264, or H.265 (No transcoding)
- Input: IP – UDP, RTP, RTSP, HTTP
- IP output protocols: UDP, RTP, RTMP, HTTP multicast and unicast transport stream with HTTP Live (HLS)
- Total 400 Mbps IP raw output capability. TELCO version supports 2-3 Gbps.
- Streams up to 80 streams total
- Optional built-in server supports 500+ simultaneous HLS users
- Transmits PAT, PMT, and PCR information
- Remote configuration management via Web Browser and Secure Shell (SSH)
- Supports NTSC or PAL
- Supports HTTP Header Authentication for HLS output
- Supports Progressive HTTP, HLS, Dash and all the typical video formats used inside HTML5 pages
- SNMP, REST, SOAP support for remote management and monitoring
- Settings are remembered when power cycled
- Based on embedded Linux®
- Carrier Grade Version: Available with 48V power supply and Fiber Interface
- TELCO Version: Available with dual redundant power supply
- Long Haul Version: Available with DOZER™ technology
- Based on Intel® Xeon® CPU running customized UBUNTU Linux that is stripped down and is integrated with OS. Works like a router.

Applications

- Adding HLS or RTMP to Unicast
- TELCO Stream Protocol Adaption or HLS Repackaging
- Live or On Demand Video
- TELCO TV
- Live RTP to HLS stream segmentation
- Streaming to designated VideoLAN VLC, JW Player, or Windows Media Player clients, or to ROKU™ or other set-top boxes
- IP TV stream redirector
- End Point for DOZER™ equipped streams
- Unicast to Multicast or Multicast to Unicast

Overview

The **Proxicaster™ IP/IP** is an IP Unicast to Multicast Converter or VV and HLS repackager for moving streams – It receives unicast or multicast IP transport streams and multicasts them over an IP Network to many different computers. This unit also works well as a stream repackager that chunks transport streams to HLS. It also creates the M3u8 stream descriptors which are required. It also works well as a stream redirector.

The system supports MPEG-2 or H.264 input and output.

Processing of PIDs and packets is transparent and does not depend on the content of each individual stream.

Depending on the configuration, the Proxicaster IP/IP forwards selected programs via IP datacasting; PAT, PMT, video PID, audio PID(s) and PCR information are transmitted. The Proxicaster IP/IP selects all required PIDs and multiplexes the demultiplexed transport stream packets into IP packets.

The unit provides PID filtering of all unwanted traffic, increasing system performance and decreasing the number of services which will be transmitted per unit.

Programs can be forwarded (pushed) as transport stream packets via UDP or as RTP (real time protocol) payload (RFC 2250). Pushing can be either unicast or multicast. Each individual converted program channel consists of all necessary elementary streams and clocking information to present a synchronized A/V signal.

The Proxicaster IP/IP can add HLS or RTMP wrappers on outgoing streams. With our optional ATLAS™ add-on, it supports 500+ simultaneous HLS users natively.



Computer Modules, Inc.

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Inputs/Outputs

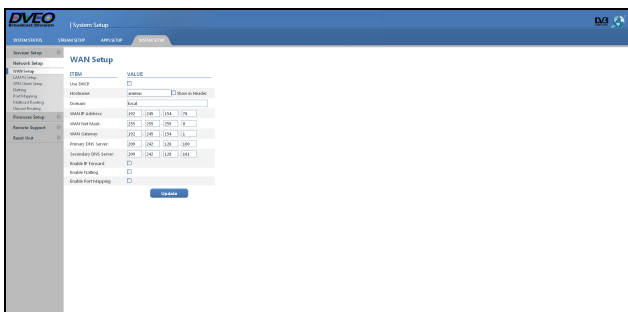


IP Input IP Output

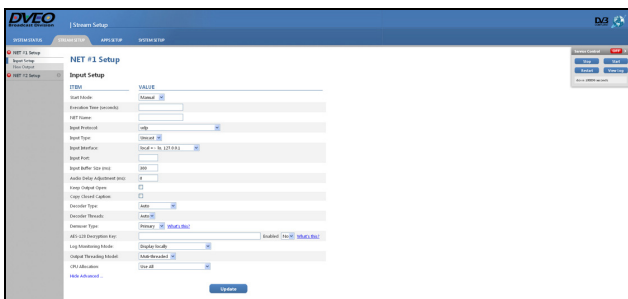
Sample of GUIs



Status Screen



Network Setup



IP Input Setup

Specifications

IP Input

Input protocols:	UDP, RTP, RTSP, HTTP
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IP Output

Output protocols:	UDP, RTP, RTMP, HTTP, HTTP Live (HLS)
Bit rate:	Up to 400 Mbps IP raw output capability TELCO version: 2-3 Gbps
Ethernet:	Up to 2 x 1 GigE
Type:	IP-multicast, IP-unicast
Video:	NTSC or PAL

Administration

Access:	Web interface, SSH (Secure command line interface)
SNMP:	Monitoring and alerts

CPU and Operating System

CPU – 1RU:	Intel® Xeon® processor
OS:	DVEO embedded Linux® on SSD

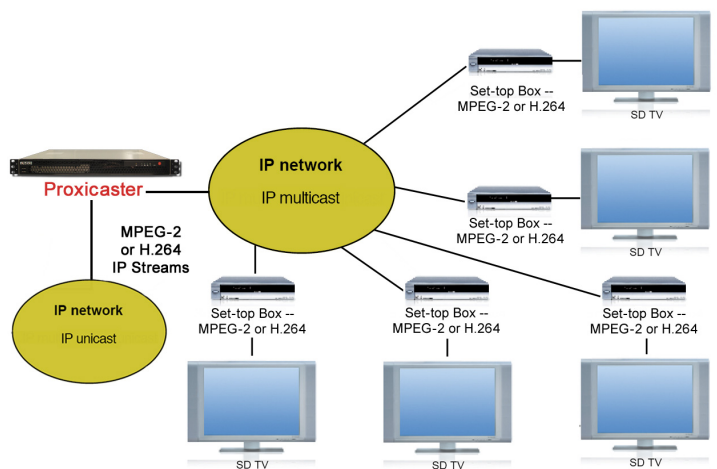
Physical and Power

Size – 1 RU high:	19 x 14.96 x 1.7 inches (W x D x H) 483 x 380 x 43.4 mm (W x D x H) (Optional 3 RU unit with dual redundant power supply)
Voltage:	100-240V, 4-2A, 60-50 Hz, 220 watts
Temperature:	10°C to 35°C
Humidity:	20% to 90% non-condensing
Weight:	15 lbs. (6.8 kg)
Conformities:	UL, BSMI, CSA, FCC, CE, RoHS

Security

Ports security scanned to MIL requirements prior to shipment

IPTV Application with STB's



Ordering Information

- Proxicaster IP/IP
- Proxi DOZER – with DOZER
- Carrier Grade Version: with 48V power supply and Fiber Interface
- TELCO Grade Version: with dual redundant power supply and dual 10 Gig ports
- Long Haul Version: with DOZER Technology



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