

DOZERbox IP/IP + AES128

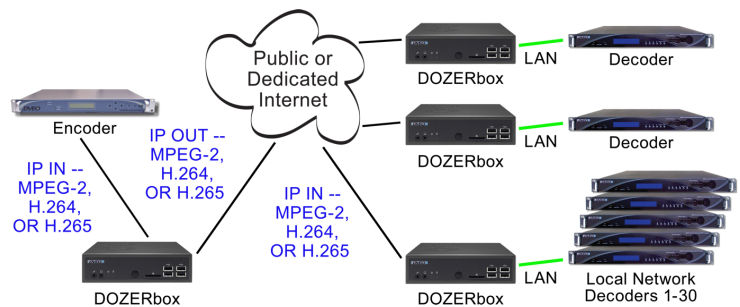
Compact (7.5 Inches Wide) IP Gateways for Reliable Delivery of Video Traffic Over UDP. Offers Error Free Distribution of MPEG-2, H.264, or H.265 SPTS or MPTS Transport Streams Over Public Internet. Ideal for Content Distribution from Hub to Affiliates who wish to Carry Your Programming. It's Now Possible to Eliminate Expensive Satellite Charges Completely. Solid Technology for CDN Operators or Mobile Network Operators Who are Deploying Traffic Across Great Distances. Documented Results. Sold in Pairs or Point-to-Multipoint. Works with ARQ Link™ Encoders and Decoders. Also available in 1 RU and Software License Versions.

Features

- Guarantees error-free UDP real-time video transport on "DOZERIZED" IP network segments
- Automated Packet Recovery: Unlike FEC protocols, it only sends extra data when packet loss is detected by the DOZER receiver and reported to the DOZER sender
- Protocol eliminates packet loss and corrects for internet jitter and packet reordering
- Underlying traffic is AES128 encrypted by DOZER
- Inputs/Outputs: 2 each Gig/E ports
- Supports IP UDP unicast and multicast, in or out, or both
- Will not alter the internal structure of the transport stream. It merely forwards all packets.
- IP address and Port can be remapped to different ones if necessary in the remote network
- Configurable destination port on listener for firewall traversal
- Can be configured for point-to-point or point-to-multipoint functionality
- Each device can be configured as a sender, a receiver, or both
- One DOZERbox transmitter can send 50+ channels to 32 DOZERbox receivers
- Each receiver device can output UDP on a local network to one or many different devices using second Ethernet port on unit
- Also available: Rack mount 1 RU – DOZER Racks™ IP/IP

Applications

- Cost effective multi-network and multi-country transfers for content producers and service providers
- Streaming studio quality live news and sports programming over congested backbone networks
- Backup to Dedicated IP for Video Delivery with delivery over Public Internet, including studio-to-transmitter links
- Replacing satellite backhaul and dedicated point-to-point lines with DOZERboxes at end points
- Protecting point to point traffic with strong AES128 encryption
- Eliminating packet loss across Metro WDM and other long haul backbones
- Works well with ARQ Link™ Encoders and Decoders



RELIABLE LIVE MEDIA OVER IP



Technology
Provider
Platinum 2016



Overview

The world is now awash with affordable bandwidth. Video delivery over IP is rapidly overtaking Satellite and Microwave. Pretty soon many inanimate objects and appliances will have their own IP addresses. The only problem is that the Ethernet/internet protocol was not designed with video packets in mind. The issue is that video packets must arrive at their destination within a set time otherwise they "expire" like spoiled food and are discarded. The other issue with video is that the UDP protocol does not do well with traffic congestion.

ARQ has evolved as a key packet loss correction technology that enables reliable delivery of UDP traffic across WANs and LANs. ARQ is the basic way to push UDP traffic across great distances across many hops. It corrects for packet loss, fixes jitter, and encrypts your traffic with AES 128. It is interesting that low level of packet loss can be found even across dedicated TELCO lines due to TCP packet contention. DVEO's patent operates at layer II of the OSI stack. This makes our technology more resilient.

The DOZERbox™ IP gateway is part of our product family of high quality, cost effective, and powerful add-ons to existing routers, encoders, and receivers.

The DOZERbox can provide telcos with affordable, scalable, and dependable solutions for professional quality one to one or one to many video distribution over congested public or private networks.

For reliable video quality over the public internet and across long distances, DOZERboxes are equipped with DVEO's patented DOZER™ technology for UDP packet recovery for IP transmission. With the DOZER™ technology, the DOZERbox gateway can provide CDN's, Telco's and "Network Operators" a cost-effective means to transmit video reliably across great distances, over public or private internet.



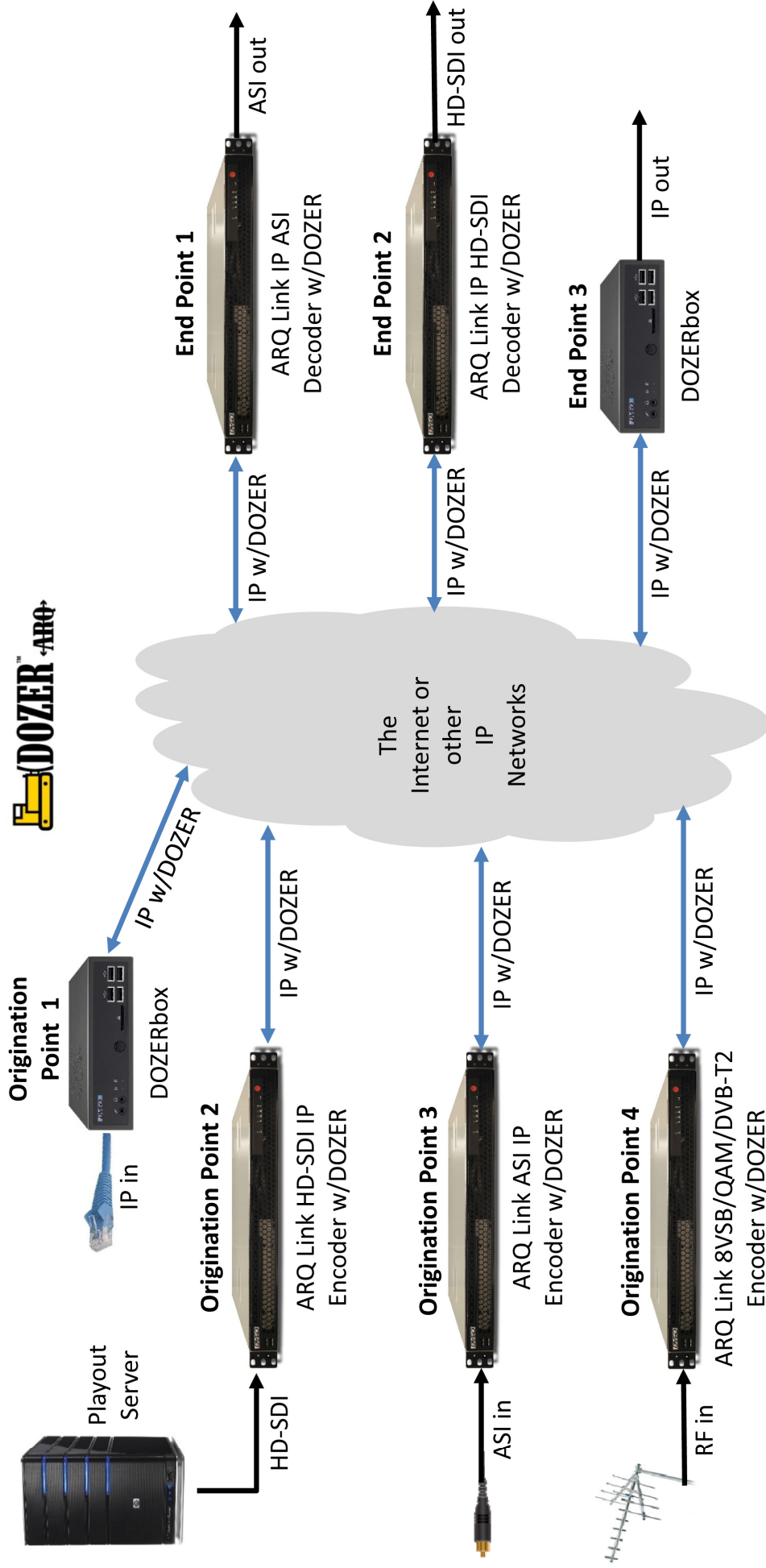
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NOTES

- Typical H.264 encoder bitrates = 5 Mbps
- Input + Output: ASI
- Each destination will need 5 Mbps
- Up to 32 end points per "encoder"
- All DOZER connections encrypted with AES-128

ENCODER INPUT

- SDI, HD-SDI
- ASI
- QAM
- 8VSB
- DVB-T2
- ISDB-T
- Etc.

DECODER/END POINT OUTPUT

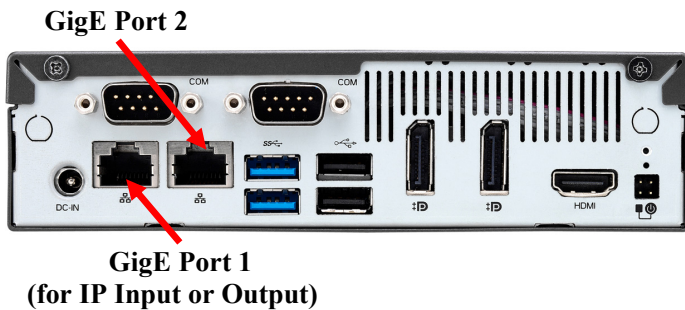
- HD-SDI
- IP
- ASI

Title:	Content Distribution – Cable & IPTV Head-ends
Project:	ARQ Link & DOZER – Origination & End Points
Date:	Sep 30, 2016
Rev:	Rev. 1.2
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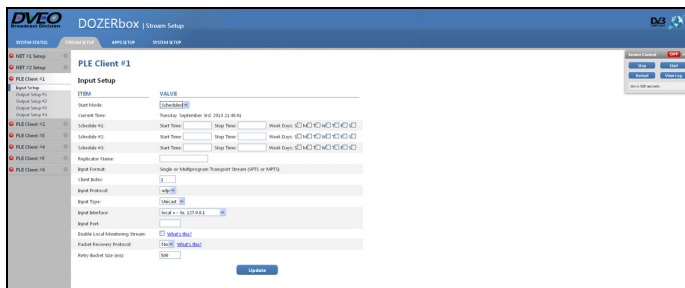
Front View



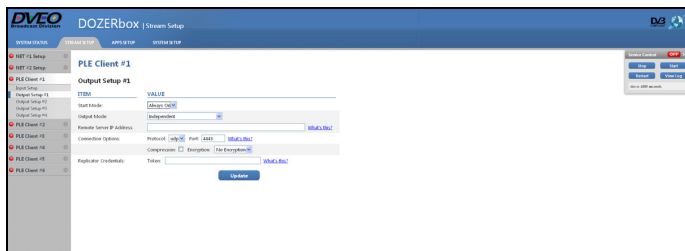
Rear View



Sample of GUIs



Input Setup



Output Setup

Ordering Information

DOZERbox IP/IP + AES128 (typically sold in pairs)

Also Available:

Rackmountable 1 RU – DOZER Racks IP/IP

ARQ Link HD IP – DOZERIZED Encoder or Decoder

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Benefits

- Smooth Error Free Delivery of Compressed Video Across Public Internet with Guaranteed Upload and Download
- Transits Most Firewalls
- Saves Money versus Private Point to Point Connections
- Can be added to most of our products and others' products
- All Content is Encrypted with AES128 between units
- Linux® based reliability
- Can eliminate need for satellite delivery of point-to-point

Specifications

IP Inputs/Outputs

IP protocols:	UDP with AES128
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Administration

Access:	Web interface, ssh interface, with passwords
SNMP:	Monitoring and alerts
UPTIME™:	Failover software

CPU and Operating System

CPU:	Intel® Core i3
OS:	DVEO embedded Linux® on SSD
Hard Drive:	8 GB RAM
Memory:	120 GB SSD Intel

Other

Latency:	About six times the Ping Time
Bandwidth Overhead:	7% typical, but depends on network issues

Physical & Power

Size:	7.5 x 6.5 x 1.7 inches (W x D x H) 190 x 165 x 43 mm (W x D x H)
Weight:	3 lbs. (1.36 kg)
Shipping Weight:	5 lbs. (2.27 kg)
Power:	External 90W fanless power adapter Input: 100~240V AC, 50/60 Hz Output: 19V DC, 4.74A
Power Consumption:	Maximum 90 watts
Operating Temperature:	0°C to 50°C
Processor Cooling:	Heat pipe processor cooling with two 60 mm fans on the upper side of the chassis
Relative Humidity:	10% to 90% non-condensing
Conformities:	UL, BSMI, FCC, CE, RoHs, C-Tick, CB, ETL

Security

Port scanned to MIL requirements prior to shipment
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