Embedded Linux® Based, Telco Tested, 1 RU, Stand Alone Multiple IP to IP Time Delay System for Multiple Video Streams in Both Standard and High Definition MPEG-2, H.264, or H.265 Streams. Standard Unit Ships with a .25 Tera Byte Intel® High End SSD. Can Time Delay Up to 40+ Separate IP Streams for Seconds to Days. Larger SSD’s Available. Managed by Remote GUI with Easy To Use Graphical Interface with Pull Downs and Recalling Config Files. Throughput: 300-400 Mbps – Depends on Gig/E Throughput of NIC on Motherboard.

Features

- Input: One GigE IP input (H.265, H.264, MPEG-2, or VC-1) – UDP, RTP, RTSP, HTTP, HTTP Live, RTMP (pushed from Flash server)
- Supports NewTek™ NDI® input
- Outputs: Multiple delayed simultaneous IP streams (MPEG-2, H.264, or H.265) – HTTP Live (HLS), HTTP, UDP, RTP, RTMP (Open Flash), or multicast and unicast with transport stream envelope
- Capable of pulling the source streams over IP (UDP, RTP, RTMP, adaptive, or HTTP)
- Supports up to 1.5 TB of storage for time delay – over 30 days of programming, depending on stream resolutions
- Can store and forward (perform time delay) on 40 independent IP streams at the same time
- Supports multiple outputs at different time delays per single input
- Accurate to the second on multi-hour delays
- Simultaneously reads and writes with “on the fly” adjustment of delay time
- Resolutions: qHD, H.264up, SQVGA, QCIF, QVGA, CIF, or any custom size up to 1080p
- Supports SD or HD input
- Up to 1080p HD output
- Tested compatible with major brands of IP devices including Amino™, Roku®, Telergy, Android™, and Apple iPad® and iPhone®
- Audio support: AAC, MPEG-1 Layer II, optional MP3, and/or optional “SurCode for Dolby Digital” AC-3
- Settings are remembered when power cycled
- Based on embedded Linux®
- SNMP, REST, SOAP support for remote management and monitoring
- Relies on Intel® Xeon® processor
- Time calibration via NTP
- 2 types of delay: IP delay via hard drive in 1 second steps with 10 second minimum, or IP Delay via output buffering in 1 ms steps up to 10 seconds

Overview

Transport streams are packetized MPEG video streams. They are used to stream video to the myriad of devices that are now connected to the Internet. IP based video streaming is now becoming the prevalent methodology of distributing video. Real time streaming video is perfect for most applications, but in some cases delaying a stream is desired.

Time delay of video streams is very attractive when the content is coming from a totally different time zone. In such cases, programming created for morning or evening showing is going to attract more interest when shown at the correct time.

The DelayServer IP™ is a delaying file server that re-streams 40+ MPEG-2 or H.264 IP transport streams and plays them back after a delay that is finely adjustable from seconds to days. Capture and playback can be simultaneous on multiple streams.

Interestingly the delay time can be adjusted “on the fly” by the user.

Delay capability is primarily set by storage capacity. We employ solid state drives as primary storage.

Applications

- Accurate Transport Stream time delay for webcasting across multiple time zones
- Over 30 days of Back Up and playback of all channels for Network Operations (N.B. at low rates and disk dependent)
- IP lip sync delay
- IP stream synchronization for failover switching
**GUIs**

**Network Setup**

**Scheduled Input Setup**

**Input/Output**

LAN  WAN  
(Either can be Used for IP)

In lieu of bulky RAID systems we write to Intel SSD Drives...

**Ordering Information**

DelayServer IP – Standard system with 250 GB SSD Storage  
DelayServer IP/1 TB – Optional 1 TB SSD Storage  
DelayServer IP/1.5 TB – Optional 1.5 TB SSD Storage  
DelayServer IP/1 TB: TELCO – Telco version with dual power supply and 4 ports

---

**Specifications**

**Supported Resolutions – Input and Output**

| 1920 x 1080 | 720 x 480 | 480 x 480 | qHD H.264up |
| 1280 x 720 | 704 x 480 | 480 x 320 |  |
| 720 x 576 | 640 x 480 | 320 x 240 |  |

Also supports any custom resolution not listed here.  
Note: Supports closed captions.

**IP Input**

IP Input protocols, “wrappers”: UDP, RTP, RTSP, HTTP, HTTP Live (HLS), RTMP (pushed from Flash server).  
Supports NewTek™ NDI® input.

**IP Output**

- **Ethernet**: Up to 2 x 1 GigE  
- **Audio Output**: AAC, MPEG-1 Layer II, optional MP3, and/or optional “SurCode for Dolby Digital” AC-3  
- **Output “wrappers”:** UDP, RTP, HTTP, HTTP Live (HLS), RTMP (Open Flash)  
- **Type**: IP-multicast, IP-unicast  
- **Output bit rates**: Multiple H.264, MPEG-2, and/or H.265 video streams at different bit rates (.1 to 15 mbps)  
- **Quality**: 8 bit encoding with 4:2:0 color sampling  
- **Video**: NTSC or PAL

**Administration**

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

**CPU and Operating System**

- **CPU**: Intel® Xeon® processor  
- **SNMP**: DVEO embedded Linux® on SSD  
- **Hard Drive**: 1 TB (Option)

**Physical & Power**

- **Size – 1 RU high**: 19 x 14.96 x 1.7 inches (W x D x H)  
- **Voltage**: 85-265 VAC/50-60Hz, 50 watts  
- **Temperature**: 0°C to 50°C  
- **Humidity**: 5% to 95% 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

**Note**: Solid State drives need to be replaced every 2-3 years.

---

© 2018 Computer Modules, Inc.  
DVEO and DelayServer IP are trademarks of Computer Modules, Inc.  
Intel and the Intel logo are trademarks of Intel Corporation in the U.S. and/or other countries.  
All other trademarks and registered trademarks are the properties of their respective owners.  
All rights reserved.  
Specifications are subject to change without notice.  
AAC licensed via Via Licensing.

**Computer Modules, Inc.**

11409 West Bernardo Court  
San Diego, CA 92127  
Tel: (858) 613-1818  
Fax: (858) 613-1815  
www.dveo.com