



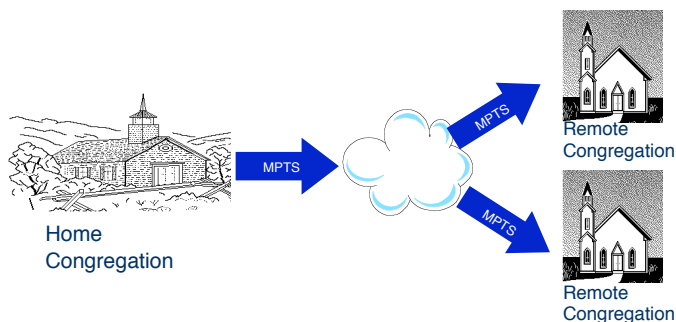
# House of Worship Playout

A growing trend in the modern House of Worship is the shared worship experience among geographically separated congregations. Extremely high production values, multi-camera high definition programs, and multi-channel audio are all needed on a near-real time basis by the remote campuses.

The DVStor2 Transport Stream Recorder provides multiple simultaneous delays of a multiplexed program with an easy to use interface.

## BACKGROUND

Audio and video production techniques for House of Worship applications now rival the capabilities of high end television production studios. Even the modest modern church often provides image magnification of the worship leader and graphics hymnal and scripture support for the convenience of the congregation. The use of high definition cameras and multiple synchronized displays is the norm in such churches.



Another trend is the remote worship campus. As congregations grow beyond the capacity of normal houses of worship many congregations choose to expand to multiple locations in order to keep the congregation a manageable size.

More and more such remote churches wish to integrate localized portions of the service with the main message from the central or head church. Some churches have implemented this by pre-recording the main service several days in advance and physically distributing content via hard drive, DVD, etc. to each remote site. On the day, the pre-recorded content is then played at the appropriate point in the local service.

Others have established live digital links between the sites and carefully managed each local production to attempt a seamless "join" with the main service. This approach, of course, requires careful coordination and timing - anything "off schedule at the main site can cause numerous schedule problems at the remote sites.

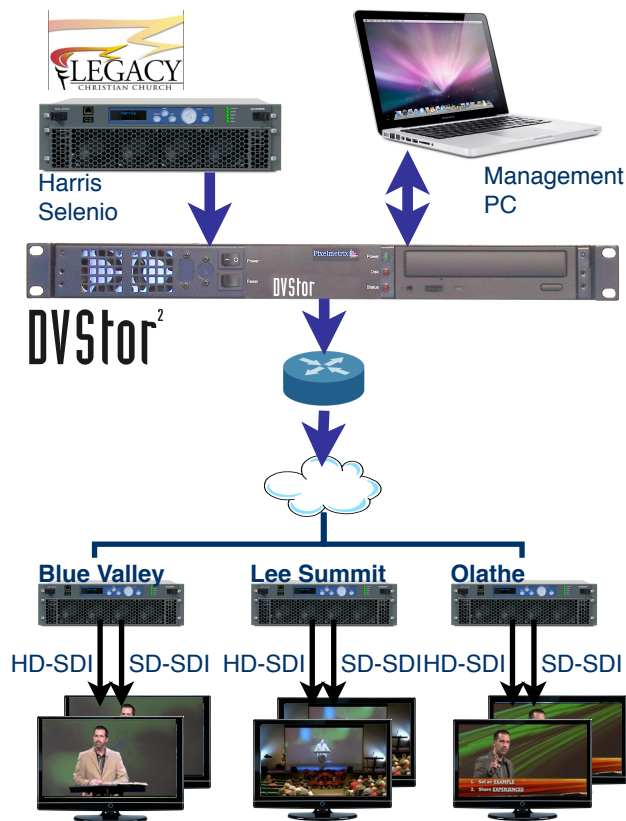


## DVSTOR<sup>2</sup> MULTIPLE CAMPUS DELAY SYSTEM

A variable delay of the integrated program from the main campus that is controlled by the remote campus is a better solution. This lets remote operators present the main message easily and naturally with the flow of the local service.

The DVStor<sup>2</sup> from Torque Video Systems has been enhanced with new functionality to provide just this capability for such House of Worship applications.

In this solution, multiple video feeds and multiple audio are multiplexed to form a single transport stream which is recorded on DVStor<sup>2</sup>. Each remote campus can log in to the DVStor and establish a separate delayed playback session. Program delays as short as ten seconds or as long as several hours can easily be established and each playback session is independent from the others and from the recording itself.



## SIMPLIFIED USER INTERFACE

Each DVStor remote client is provided with a special URL dedicated to each remote church. The HTML user interface is accessed via a standard web browser and is intuitive and easily managed by a volunteer or staff operator.

**IP Playback (Delay) Lee's Summit**

Playback and re-cue controls

Initial delay offset

DVStor : Sun Feb 12 13:00:20 2012

Target IP Address : 98.100.100.180

Day	Hour	Minute	Second
Initial delay offset :	000	00	08
Current delay offset :	000	06	21

Note : Minimum delay = 8 seconds.

**Recording Table**

Seg	Start Time	Stop Time	TS Duration	TS Size	TS Bitrate
1	2012-02-12 7:30:13am	2012-02-12 1:00:01pm	05:29:48	22.76 GB	9.200Mb/s
2	2012-02-11 5:00:16pm	2012-02-11 8:00:01pm	02:59:45	12.40 GB	9.200Mb/s
3	2012-02-05 7:30:10am	2012-02-05 1:02:00pm	05:31:50	22.80 GB	9.200Mb/s
4	2012-02-04 8:00:10pm	2012-02-04 8:00:01pm	02:59:51	12.41 GB	9.200Mb/s
5	2012-01-29 7:30:07am	2012-01-29 1:00:01pm	05:29:54	22.76 GB	9.200Mb/s

Total duration span : 35d 19:59:59  
Recorded TS duration : 2d 02:09:45

Total HDD size : 5.777 TB  
Used HDD size : 219.07 GB (3.79%)  
Total recorded TS size : 194.13 GB (3.36%)

## Simultaneous Multi-Client Play Back

Each playback instance may be accessed and cued independently by the remote operator. This frees the local congregation from any constraint in scheduling or trying to "fit" the message from the home church.

**IP Playback (Delay)**

Client 1 (Playing...)

Three simultaneous play-out channels

Press "Pause" at appropriate part of main program. On director's cue press "Play" to start playback.

DVStor : Friday, October 28, 2011 10:53:40 AM

TOT/DTDT : Friday, October 28, 2011 10:53:41 AM [+0d 00:00:01]

LIFE  
1-800-947-LIFE (5433)

Fullscreen Sound Subtitle << Rew Fwd >> 30 min

Audio : Track 1 - 简体中文  
Subtitle : Disable

Digital 8 [2] Digital CNA [3] Digital 5 [4]

Target IP Address : 192.168.15.73

Day	Hour	Minute	Second
Initial delay offset :	000	00	08
Current delay offset :	000	00	08

## RECORD SCHEDULING

DVStor<sup>2</sup> allows setting of a multiple event recurring record schedule. In the delay mode operators typically schedule DVStor to begin recording an hour before a scheduled service and 1-2 hours after the service is finished. This provides operators with plenty of time to cue their delay playback.

**IP Recording Scheduler**

Enable scheduler

Recording schedule	IP connection of TS to record	Live payout	Playback recording	Playback destination IP/Port	Op
Day Sun	Src IP/Port				Add
Start	Dest IP/Port				
Stop					

Scanned IPTV traffic : 192.168.1.1:6500 ----> 239.1.1.2:6500

**IP Recording Schedule**

Num	Recording schedule	IP connection of TS to record		Live payout	Playback recording	Playback destination IP/Port	Del
		Src IP/Port	Dest IP/Port				
0.	Sun 07:30-13:00	192.168.1.1:1234	192.168.1.12:1234	No	No	None	
1.	Sat 17:00-20:00	192.168.1.1:1234	192.168.1.12:1234	No	No	None	

Supplied with a standard 8 TB of Raid-5 disk storage, DVStor<sup>2</sup> retains the most recent 32 days of recorded material, allowing more than 700 hours of recordings at 20 Mbps. In a typical HOW application this means the most recent year of recorded services are online at all times and can be accessed for post production purposes.

## VIDEO WALL

DVStor<sup>2</sup>'s unique Video Wall display allows local and remote operators to view and listen to all videos streams simultaneously.

**Video Wall (Time)**

9.200 Mb/s

Refresh page

Sunday, February 12, 2012 9:34:00 AM

<< Rew Fwd >> 2 min

[1] [2] [3]

## FOR MORE INFORMATION

To learn more about our innovated video solutions or request a demo, contact us today!

Web: [www.torquevideo.tv](http://www.torquevideo.tv)  
Email: [info@torquevideo.tv](mailto:info@torquevideo.tv)

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