

# Trinity Fellowship Church Case Study

Live Events with a Seamless,  
Uninterrupted Experience Over  
the Internet

## Trinity Fellowship Church Delivers Uninterrupted Live Broadcast over the Internet to Every Campus

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*“VideoFlow DVP allows Trinity to accomplish our ministry goals. It is important to our ministry model to have the flexibility to allow every campus to participate in live events with a seamless, uninterrupted experience.”*

Mr. Michael Wells  
Executive Director of Operations  
Trinity Fellowship Church

### Enabling Every Campus to Participate in Live Church Events

Trinity Fellowship Church (TFC), a multi-site church with seven locations throughout West Texas, wanted to create a sense of unity among its congregations despite the substantial distance between its campuses. To achieve this goal, TFC decided to broadcast live church events simultaneously to all its campuses.

One of TFC’s essential requirements was to ensure an uninterrupted, multi-channel, high-definition, live broadcast of key church events to all of its congregants, regardless of their location. Several of Trinity’s campus locations are in rural areas that do not always have access to high-quality, reasonably priced network services.

In its quest to provide broadcast-quality live video at an affordable price, TFC evaluated several IP-based offerings. To its dismay, none of these products were able to service all of TFC’s remote locations reliably, nor were they able to meet its rigorous quality standards - until they gave VideoFlow a try.

### Reliable Live Broadcast over any IP Connection

VideoFlow’s Digital Video Protection (DVP) products enable the distribution of a stable, high-quality live broadcast over IP network connections of varying speeds and quality. Live content is produced at TFC’s largest campus in Amarillo, Texas, where it is encoded using an ImmediaTV Dual-Channel HD H.264 Encoder. This Multi-Program Transport Stream (MPTS) is then sent to six remote campuses across the Texas Panhandle.

To ensure high availability, TFC has one DVP “sender” device at its main site and a second “standby” DVP at an offsite data center. One DVP “receiver” device is deployed at each of the remote locations as well. This configuration allows TFC to provide multi-redundant paths between devices and disaster recovery for a no single point of failure (NSPOF) distribution network.

At the campus level, the DVP adds FEC into the outgoing local RTP transport stream sent to dual Sencore AG-4400 OpenGear decoders. This allows TFC to save time on IP network optimization at each campus and provides an extra layer of protection in case a network switch or uplink between an edge and the campus core is sub-optimal.

TFC also has a portable DVP device which can be set up quickly at other locations for high quality ingest of live content from other churches. This setup was used to send a high-quality 16Mbps MPTS from a sister church, Gateway Church in Southlake, Texas, to the primary Amarillo campus for subsequent distribution to the rest of the campuses. This allowed TFC to provide a much higher quality of experience for their campuses than the alternative web stream normally provided by the conference simulcast provider.

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## Live Feed Return for Confidence Monitoring and Diagnostics

Each campus location also utilizes the DVP to send high quality, HD return camera feedback to headquarters for remote evaluation, logging, and real-time technical support for the campus production staff. This allows engineers to monitor a low latency, high-quality window into each location, and provide real-time fixes and adjustments to ensure a quality service experience at each campus.

*"DVP has proven to be an essential component in assuring reliable, high quality live broadcasts using open internet links. This enables the ministry to reach people attending any of our campuses, regardless of how remote the location is,"* said Michael Wells, Executive Director of Operations. *"Despite the significant geographic distances between our locations, our congregation is now able to feel a sense of unity and more fully enjoy participating in the unique expression of our mission to Experience God, Find Community, and Fulfil Your Purpose,"* he added.

## Live Events Are All About Reliability

TFC thoroughly evaluated several competing solutions and concluded that VideoFlow's DVP was the only product capable of providing the level of reliability they require for live broadcast distribution over the Internet.

*"From a technology point of view, the VideoFlow DVP is by far the best-in-class product for broadcast-quality delivery of live content across the Internet,"* said Wells. Other solutions simply were not able to meet TFC's demanding expectations for delivering live Gospel. The drawbacks of competitive solutions evaluated were their sensitivity to packet loss, lack of scalability, and higher price.

Also, DVP's stream monitoring makes it very simple to determine the root cause of a problem, which allows not only fast detection and isolation of issues but also dramatically reduces the time it takes to regain high-quality service.

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## Results and Benefits

By using VideoFlow's DVP, Trinity Fellowship has achieved concrete benefits:

- **Reliability over the internet** – DVP uses patented Emmy® award technologies to adapt bitrate and ensure 100% packet recovery for true service reliability over unmanaged IP networks.
- **Broadcast with confidence** – Stream monitoring and detailed diagnostics allow TFC engineers to check DVP streams and troubleshoot in real time.
- **High availability** – Path diversity and disaster recovery allows TFC to offer uninterrupted broadcast-quality live TV.
- **Operational cost savings** – Using Internet connections rather than expensive leased lines or fiber reduces TFC's monthly operational costs.
- **Community enablement** – Every campus can now participate in live events with a seamless, uninterrupted viewing experience.

## About Trinity Fellowship

Trinity Fellowship is a multi-campus church with one mission in mind: to help you Experience God, Find Community, and Fulfil Your Purpose. From generational ministries to small groups to volunteer opportunities, there are lots of ways we would love to come alongside you and your family to help you grow in your faith.

