

Leviton IT/AV Solution Connects Church Congregations



Several times a year, congregants from the townships of Lake Stevens, Monroe, Clearview, Maltby, and Sultan Washington come together at the Snohomish Washington Church of Jesus Christ of Latter-day Saints (LDS) to hear sermons and participate in leadership training. With such a large number of congregants in attendance (sometimes as many as 1,400), the church needs to make use of every room in the building.

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Until recently the Snohomish Stake of the Church relied on an analog audiovisual network, which paired poorly with new, high-definition TVs and failed to deliver the level of quality desired. “We felt our lack of a high-def solution was diminishing the experience,” said Steve Coons, Technology Coordinator for the Snohomish Stake of the Church. “We wanted to provide a good, clean picture so attendees would feel more engaged.”

At a Glance

Profile: Multiple times a year, congregants from several nearby townships come together at the Snohomish Washington Church of Jesus Christ of Latter-day Saints (LDS) to hear sermons and participate in leadership training. To take advantage of all available space in the building while providing a clean picture, the stake of the church upgraded their audiovisual network with Leviton IT/AV connectivity.

Industry: Spiritual Worship

Location: United States

Business Problem: The Snohomish Washington Church of Jesus Christ of Latter-day Saints needed a hassle-free, high-quality AV solution that would simultaneously engage audiences in multiple rooms throughout the building.

Solution: Leviton HDBaseT™ Signal Extender

Connecting Congregations

To meet the needs of the congregation and ensure everyone could see and hear church leaders during sermons and presentations, the Snohomish Stake of the Church turned to a Leviton Network Solutions IT/AV technology. “The local church buildings already use Leviton networking products for their administrative office functions and computerized genealogy libraries,” said Coons. “It was only natural to use a Leviton solution to solve this dilemma.”

By using the building’s existing category 6 cabling infrastructure combined with Leviton plug-and-play HDBaseT™ devices, the church is able to extend their 1080p HD audiovisual signal and provide feeds from the main assembly room to high-definition flat-screen displays in classrooms and overflow rooms throughout the building. “Planning and installation was really easy and straightforward,” said Coons. “It was much easier than I anticipated.”

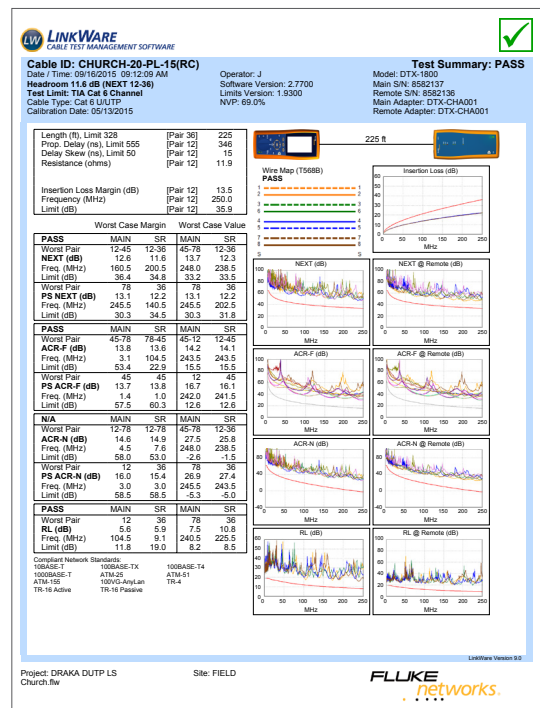
Testing the Link

Leviton was also able to help with troubleshooting during the installation process. Since the installation was performed following Leviton IT/AV standards, it has a testable permanent link. Using diagnostic tools already available on hand, Leviton experts quickly discovered that the third-party patch cords being used were not performing at the required frequencies, causing re-occurring signal drops. Within a few minutes the third-party patch cords were replaced with a high-quality certified solution, resulting in a clear and consistent video signal.

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Test Results

- As found on first arrival, the full category 6 channel would not connect when using the third-party patch cord (resulting in loss of video), and it failed the category 6 testable link (CHURCH-3-PL-3), though it did pass the category 5e testable link (CHURCH-3-PL-3(RC)).
- The installed permanent link passed with good headroom, but that was without testing the field termination or patch cord (CHURCH-PL).
- Individual tests were conducted for the third-party patch cord alone, resulting in significant failures.
- The channel was re-tested with Leviton Cat 6 patch cords, being replaced at both ends, and it passed immediately (CHURCH-20-PL-15(RC)).
- HDBaseT extenders and end devices were re-attached, instantly providing uninterrupted high-definition video.



“This test also showed just how marginal Cat 6 is with HDBaseT,” said John Segar, Principal Technical Specialist, Leviton Network Solutions, “and that Cat 5e is not good for HD over HDBaseT. This was not a long link, but the original link failed by -2.2dB. When re-certified to a Cat 5e channel it passed, but the HDBaseT setup would not link to HD on this 225’ link until we added headroom to at least pass Cat 6.”

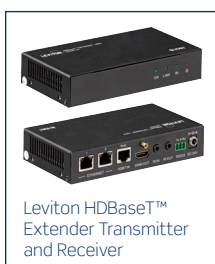


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Leviton All the Way

Once a camera was setup in the main chapel and the third-party patch cords were swapped for a high-quality Leviton replacement, the video quality improved drastically. “From the high-def display in one of our overflow rooms I could clearly see the wood grain on the pulpit,” said Coons. “It was much better than anything I expected.”

In addition to deploying a new Leviton HDMI® Extender with HDBaseT Transmitter and Receiver, the church completed the end-to-end solution with Leviton Atlas-X1™ Cat 6 UTP connectors at the connection wallplates for verified performance and reliability. “It’s an elegant solution, easy to use and set up, and it offers power at either end,” said Coons, “which is really convenient and gives us greater flexibility.”



Leviton HDBaseT™ Extender Transmitter and Receiver



Leviton HDMI® Extender Transmitter and Receiver



Leviton Atlas-X1 Cat 6 UTP Connector

Preparing for Future Growth

“For this installation we were able to work with the building’s existing Cat 6 infrastructure, avoiding a costly rip and replace project to save the church time and money,” said Bill Lauby, Leviton Senior Product Manager, AV Solutions. “However, for new installations or future expansions, we recommend a Cat 6A UTP solution with alien crosstalk prevention technology. This ensures the highest level of performance while maintaining greater signal integrity.”

Impressed with the flexibility and unity afforded from Leviton products, local officials hope to upgrade other buildings in the area with the same technology within the next few years. “The leaders of the local Stake of the Church believe in efficient utilization of its buildings, to conserve resources and benefit more people,” said Coons. “Often we will have multiple congregations using the same building. Leviton’s solution helped us take the next step and enhance our members’ experience. We are quite pleased with the outcome.”