



SouthLake Foursquare Church: Dynamic AV System Helps Enhance Message

To extend their reach to an ever-growing congregation, SouthLake Foursquare Church, located in West Linn, OR, wanted to expand their facility. While doubling their seating capacity in the main sanctuary to 800 and adding a high school youth room, the church also needed to increase their audiovisual capacity. Although budget was a consideration, the church's leaders didn't want to cut any corners when it came to outfitting the venues with the best technology available.

SouthLake Church has a very active schedule that offers programs and classes practically every night of the week with several services on Saturday and Sunday. Anderson Group International, or AGI, of Eugene, OR, was hired to bring their AV goals to fruition.

To begin, AGI worked hand in hand with the architect/general contractor and designed a state-of-the-art sound system to accommodate the flow of worship leaders as well as the SouthLake worship band. To supplement the audio side, a full range of visual media was also integrated. This includes a variety of displays, cameras, video delivery systems and processors, and plenty of Extron products to tie it all together.

Consequently, the AV equipment is being used on a daily basis. "There is a lot of technology and a lot of infrastructure," AGI's video designer Jeff Weinkauf remarked. "It's a very sophisticated system."

Directing Traffic

There are 14 primary displays placed throughout SouthLake's four venues. Three LCD projectors are positioned on three 7.5' x 10' projection screens hanging directly over the stage in the new sanctuary. Content can be shown on each screen independently or as a single panoramic image displayed across all three screens using various digital video processing and production equipment. In most cases, however, main content, such as song lyrics from a PC or video, is displayed on the center screen while the outside screens are utilized for supporting material. Three additional LCD projectors in the high school youth room mimic the set up in the sanctuary, albeit on a somewhat smaller scale. There are two more

LCD projectors in the existing child education wing, four 55" LCD displays in the foyer, and two plasmas — one in the green room and one in the secondary foyer. Several smaller secondary LCD displays mounted on music stands are located on the sanctuary's stage for the musicians to follow song lyrics.

To handle all the signal routing, AGI installed an Extron CrossPoint Plus 450 1616 HV Ultra-Wideband Matrix Switcher. "Basically, we're using the CrossPoint Plus 450 for all the video distribution," Weinkauf said. "It's like a silent partner sitting in the rack. It's reliable and it's ultra-wideband, which futureproofs it to some degree."

With 16 inputs and 16 outputs, the CrossPoint 450 Plus 1616 HV essentially directs traffic, enabling sources such as video cameras, PCs, laptops, VCRs, and DVD players to be routed



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to any of the displays in the church. Extron MDA 5V and MDA 3SV Mini Distribution Amplifiers, as well as Extron DA2 RGBHV and DA4 RGBHV Wideband Distribution Amplifiers, are integrated in the sanctuary, foyer, child education wing, and high school youth room to split output signals for multiple displays.

The CrossPoint 450 Plus 1616 HV is equipped with ADSP™ - Advanced Digital Sync Processing, a proprietary Extron technology which ensures



SouthLake's innovative AV system is integral to the sanctuary's main stage .



optimum, stable video quality while correcting any potential sync issues on SouthLake’s displays. ADSP is able to overcome possible RGB signal deficiencies, even with the wide selection of output and input sources, by restoring sync integrity and delivering stable display images throughout the church.

To further enhance signal distribution, the CrossPoint 450 Plus 1616 HV is engineered with a minimum of 450 MHz RGB video bandwidth. This dramatically contributes to the switcher’s consistent performance, making it almost transparent to the system, even when fully loaded.

Easy, One-Button Control

Control of the CrossPoint Plus 450 1616 HV at SouthLake is simplified using the Extron MCP 1000 rack-mountable remote control panel. According to Weinkauff, the addition of the MCP 1000 was motivated by two factors: 1) You don’t have to open the rack and access the switcher; 2) You can program presets into the MCP 1000 and eliminate the task of manually controlling the switcher. These points are critical at SouthLake where the church’s leaders desired a user-friendly control system to keep presentations moving efficiently.

“The remote is a great tool to simplify the operation of the system and keep wandering configurers out of the rack,” Weinkauff noted. “One of the criteria we had was single button access to many of the systems in place. The MCP 1000 is a massive simplification of a very complex system. We’ve brought it down to one button and one jack for the neophyte.”

Weinkauff was generous in his praise of the CrossPoint 450 Plus 1616 HV and MCP 1000. “The bottom line is it’s easy to use,” he said. “Drop in a simple remote control and you’re good to go. The quality and longevity make it a good long-term solution.”

Twist & Route

Due to numerous long cable runs, space restrictions in the sanctuary and foyer, and

general aesthetics, AGI integrated several Extron twisted pair products. Low cost, high performance, and ease of installation appealed to Weinkauff and his team. “Any additional expense is justified by cutting the labor involved with running cable,” he said. “Pulling and terminating the cable is faster and we get a consistent signal no matter what the distance is.”

VTT001 AAP VGA Twisted Pair Transmitters are mounted in the rack, next to the CrossPoint 450 Plus 1616 HV, while VTR001 MAAP VGA Twisted Pair Receivers are mounted next to their corresponding projectors. Extron’s Enhanced Skew-Free™ A/V UTP cable is in place for the twisted pair cable runs in the ceiling and along some walls, mostly in the sanctuary.

Supporting Roles

With such a complex, sophisticated system, AGI also relied on several other Extron A/V products to help fill in the gaps. Extron’s BNC-5 Mini

High Resolution Cable is installed for any of the standard five-wire runs, while various Extron cable assemblies are utilized for interconnecting equipment.

To maintain consistent use of the RGB video format throughout the facility, component video signals in the child education wing are scaled to RGBHV with an Extron DVS 406 Six Input Video Scaler. For additional scaling needs in the sanctuary, there are three Extron DVS 204*, Four Input Video Scalers. Scan conversion is handled by one of three Extron VSC 500 High Resolution Computer-to-Video Scan Converters, allowing high resolution signal programs to be recorded. Presenters are also able to plug a laptop directly into either one of the two Extron RGB 109xi Dedicated VGA-QXGA Interfaces that feed into the CrossPoint 450 Plus 1616 HV and out to the projector.

As the job was nearing completion, AGI prepared to test the system and once again called on Extron for a solution: Digital Video

Southlake Foursquare Church - Extron Equipment List

Quantity	Model	Version Description	Part #
1	CrossPoint 450 Plus 1616 HV	16x16 Ultra-Wideband Matrix Switcher for RGBHV	60-332-12
1	MCP 1000	Master MCP - Matrix Control Panel	60-298-01
1	232 Series Cable	9-pin D Male to Female RS-232 Cables	26-433-08
3	DVS 204*	Four Input Video Scaler	60-442-01
3	VSC 500	High Resolution Computer-to-Video Scan Converter	60-476-01
4	RSB 129	1U 9.5" Deep Basic Rack Shelf	60-604-01
2	MDA 5V	Five Output Composite Video MDA - Mini Distribution Amplifier	60-446-01
2	RGB 109xi	Dedicated VGA-QXGA Interface with Audio & ADSP™	60-289-01
3	DA4 RGBHV	Four Output Wideband Distribution Amplifier	60-489-01
6	VTT001 AAP	VT - VGA Twisted Pair Transmitter - AAP Module	70-258-11
6	VTR001 MAAP	VT - VGA Twisted Pair Receiver - MAAP Module	70-285-11
1	AAP 301	Full Rack Width, 1U AAP Mounting Frame	60-632-02
6	CPM101	One-Gang MAAP Mounting Frame	60-583-11
10	IN9454	One RJ-45 Female to Female Barrel - Data	70-314-14
10	BNC-5 Mini HR - 6'	BNC Male to Male Five Conductor MHR - Mini High Resolution Cables	26-260-01
30	BNCF-RCAM	BNC Female to RCA Male Adapter	100-226-01
14	SYM BNCM/50	15-pin HD Male to BNC Male Mini High Resolution Cables	26-533-05
6	SYM BNCM/3	15-pin HD Male to BNC Male Mini High Resolution Cables	26-533-12
6	VGA M-M MD/15	Male to Male VGA Molded Connector Cables	26-238-02
4	MDA 3SV	Three Output S-Video MDA - Mini Distribution Amplifier	60-444-01
1	MDA 3V	Three Output Composite Video MDA - Mini Distribution Amplifier	60-439-01
20	SVHSM-2BNCF	S-Video Male to 2 BNC Female Adapter	26-353-01
1	DVS 406 AD	Six Input Video Scaler with Seamless Switching	60-363-04
1	DA2 RGBHV	Two Output Wideband Distribution Amplifier	60-488-01
1	Digital Video Essentials Professional	Professional A/V Test Reference DVD Set	29-058-01
1	MHR Universal Crimp Termination Kit	Crimp Termination Kit with 100 MHR BNC Male Connectors	100-266-01
1	BNC Male MHR Crimp Connectors	75 Ohm BNC Crimp Connectors	100-250-01

* The DVS 204 has been replaced by the Extron DVS 304 in our product line.

Essentials Professional, an A/V test reference DVD set from Joe Kane Productions and sponsored by Extron for designing, calibrating, evaluating, and installing A/V systems.

“We had been using inconsistent test material,” Weinkauf explained. “We were able to use the Digital Video Essentials set as playback material and have it be consistent from environment to environment.”

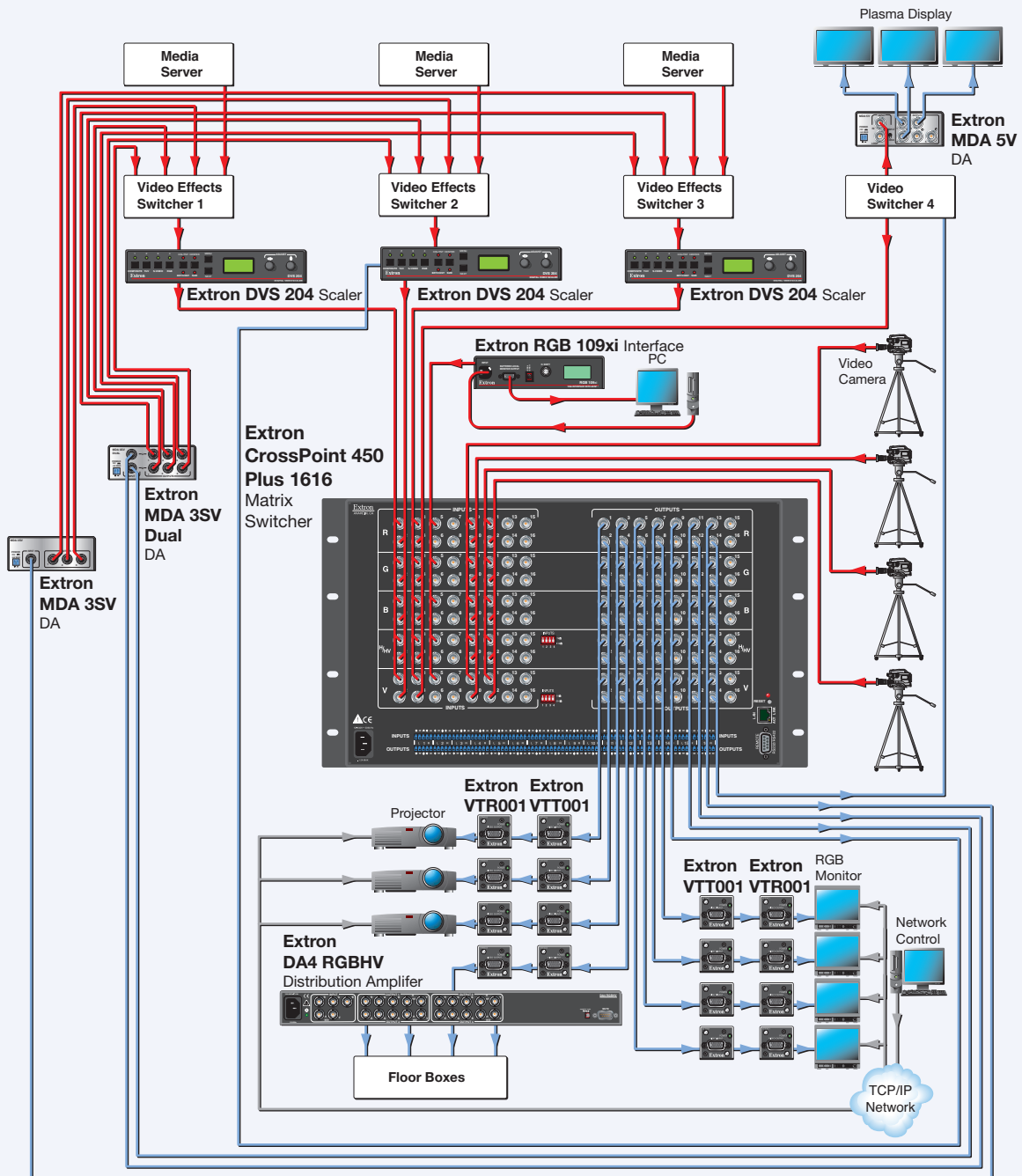
Servicing the Ministry

With plans to eventually build a 2,100 seat sanctuary, SouthLake Foursquare Church will undoubtedly be outfitted with more Extron equipment in the future. Weinkauf was quick to note that as a one-stop shop, Extron is in a class by itself.

“There are a lot of great companies making a lot great equipment,” he said. “But with

Extron, we’ve also experienced exceptional service. They keep coming out with great products that don’t break because they’re practically bulletproof. But if something goes wrong, Extron’s support team is on it.”

For additional information, see: Anderson Group International, Inc. - <http://www.agiprofessional.com/> Southlake Church - <http://www.southlakechurch.com/>



The CrossPoint 450 Plus 1616 HV enables routing of video cameras, PCs, laptops, VCRs, and DVD players to any of the church’s displays