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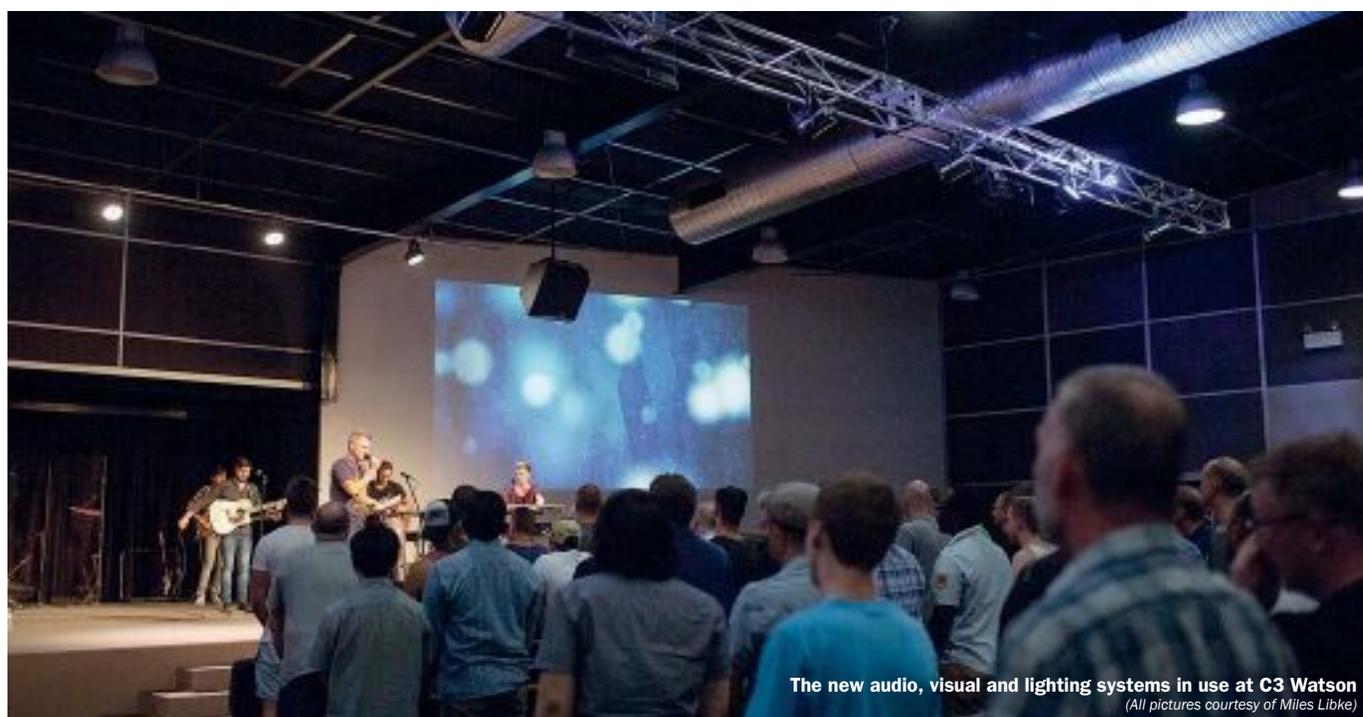
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The new audio, visual and lighting systems in use at C3 Watson
 (All pictures courtesy of Miles Libke)

First home

Canberra's C3 Watson has moved into its brand new, purpose built facility. Getting the best audio, visual and lighting system for the church's budget was the priority, as **James Ling** discovers

CANBERRA'S C3 WATSON IS TYPICAL

of a modern contemporary Christian church. It has a high standard of musicianship, and a genuine desire for strong production values. Having previously been meeting in a school gymnasium and experiencing all of the limitations that entails – such as weekly setup and pull down, poor acoustics and lots of ambient light – the C3 Watson team was very much ready to flex its creative muscles in a custom built and designed environment.

Key to this were the new audio, visual and lighting systems supplied and installed by Streamstone Audio. 'C3 made contact with us through the connection with C3 Belconnen from the project we'd done there,' recalls Tim Oliver, director at Streamstone Audio. 'The initial contact was with Dave Watson from Production Audio Video Technology as they were looking for some independent assistance to ensure they were getting the best possible results from their available resources. Dave connected me with them and it all went from there. The whole project for C3 was such a jump from where they had been before. So we worked with them in more of a consulting role in the early stages, and then as providers and integrators for the installation.'

The church venue is an entirely new build on a green field site. As the church is in a residential area, stringent restrictions were placed on the building by the local council to meet its noise pollution guidelines. As such, the building is predominantly constructed of concrete tilt slab and features very

grow,' says Mr Oliver. 'The PA needed to sound "big" and have plenty of headroom to effortlessly produce the high dynamic range of modern worship. It also needed to have excellent speech reproduction. Lighting needed to be cost effective but retain plenty of creative scope and room for growth



The stage setup

significant acoustic treatment and modelling to ensure that the noise is kept inside.

The concept for the system was established with assistance from Mr Oliver at Streamstone and Mr Watson at PAVT. 'The new system needed be able to take them to the next level and give their team significant scope to

and video had a similar brief.

'The system as a whole had to work well with the limitations typical of a church and its volunteer operators,' continues Mr Oliver. 'It needed to be easy to use without limiting creative scope, and have bullet-proof week in, week out reliability. Church systems need to be able to rise and deliver



EAW QX596i point source top boxes are the main component of the audio system

improvements constantly, as the church's operators' skill set improves.'

With the concept set out, Streamstone, worked with the church to set about selecting the appropriate equipment that would meet the needs of C3 Watson. 'On the audio side we worked closely with Dave Watson and the team at PAVT. The lighting and vision was primarily put together by myself with some assistance and training provided to the church by Jonathan Ciddor from LSC Lighting Systems,' explains the Streamstone director. 'The church took an active role. I met with C3's team a number of times through the lead up to discuss their needs and desires. I then put together a range of options and solutions and worked with them extensively to marry the needs, equipment chosen and the budget

PROJECTS



The EAW QX system was chosen for its sonic accuracy
(All pictures courtesy of Miles Libke)

together to a final solution.

'All of the equipment was carefully chosen in keeping with the requirements,' notes Mr Oliver. 'The speaker system was a significant part of the outlay, with EAW QX596i point source top boxes and SB2001 subwoofers all powered by Powersoft K series amplifiers. Budget was an issue throughout the whole project and needed to be carefully managed.'

'The EAW QX system was chosen for its incredible sonic accuracy in both frequency and phase, its high headroom and the range of coverage patterns available, allowing us to use a single point source box per side without the need for extra fill speakers,' explains the Streamstone director. 'This kept the installation less complicated and with fewer issues to deal with regarding multiple cabinet interaction. The QX system combined with the SB2001s will accurately reproduce anything their musicians and sound team will be able to throw at it.'

A further reason for this selection was the ability to expand the sound system for future growth of the venue. 'There are plans in the not too distant future to install a mezzanine seating area as the church grows, so the system was also chosen with that in mind. Once the time comes for the mezzanine, all that will be required is some small format delay speakers for greater mid high clarity,' says Mr Oliver. 'With this in mind the QX500 and SB2001 combination is possibly more than the current needs of the church dictate, but both myself and the church wanted to put in a long term solution now to minimise unnecessary outlay in the future.'

The other major component of the audio system is the mic package. For this, Streamstone opted for a combination of Sennheiser and Countryman. Three channels of wireless Sennheiser Evolution 100 series G3 wireless with two handhelds, and a wireless belt pack with a



Four ProShop Quad 18 LED wash fixtures provide backlighting

Countryman H6 low profile headworn mic have all been put to use. Alongside this, Streamstone also supplied some Audix drum mics.

One of the great opportunities presented by a new build is easy access for cabling. As with the sound system, this section of the project has been done with future expansion of both the church and its various systems in mind. 'Even though much of it isn't used at the initial stage we have installed cable for every potential production need including speaker positions, data (both Cat-6 and DMX), coax for future SDI, lighting multicore and motor control,' explains Mr Oliver.

C3's lighting install at this stage consists of static fixtures, a combination of conventional and RGBW LED wash lights. 'Control is all by LSC Lighting Systems. The priority in keeping with everything else was to install a solid lighting backbone and infrastructure so the church is able to easily expand its lighting rig into the future,' recalls Mr Oliver. 'A 12-channel LSC Redback wall mount dimmer and expandable patch bay was installed and an LSC RDM DMX splitter for DMX distribution duties.'

'Lighting bars are in the form of a re-purposed circuit bar which the

'The EAW QX system was chosen for its incredible sonic accuracy in both frequency and phase'

'Lighting control is LSC Clarity software running on a Mac Mini with a VX20 control wing,' notes Mr Oliver. 'This was chosen in keeping with both expandability, creativity and ease of use. It is fair to say even with a limited number of fixtures that the looks and moods which can be created in the room are impressive. It was installed such that it will be very easy for the church to expand and add fixtures.'

The major feature of the visual side of the project are a pair of Optoma EW865 projectors projecting in HD widescreen onto the walls either side of the stage. 'The Optoma EW865s were chosen for their image quality and exceptional output and feature set for the money. The images are almost 5m wide and are a dominant component of the look and feel of the auditorium,' explains Mr Oliver. 'The desire was to use the screens to add to the mood created by the lighting and fill the gap left somewhat by the relatively low number of lighting fixtures for the size of the space.'

Multimedia and song words are handled by a 27-inch iMac running Renewed Vision's ProPresenter. ProPresenter's stage display output is fed to a 50-inch LCD TV mounted to the main truss for vision foldback to the stage. 'Distribution at present is HDMI over Cat-6, but the installation is ready to go for HD SDI when the time comes for a full HD vision switching installation in the future,' says Mr Oliver.

The installation itself took two weeks and C3 Watson found an interesting way to help with costs. 'The church assisted with the provision of several skilled volunteers to assist me and keep the labour costs well down,' recalls Mr Oliver. 'I think this can be very helpful for the church over the long term. Having people involved when the equipment goes in gives them a deeper understanding of how it all works. This puts them in a good position to expand



Optoma EW865 projectors project in HD widescreen onto the walls either side of the stage

and trouble shoot in the future.'

As Streamstone joined the project at a relatively late stage, the timeframe was the only major challenge. 'There were the usual time pressures of being the last "trade" to come in, in the last couple of weeks before the building's delivery but we love working under pressure,' says Mr Oliver. 'There were also some modifications required to some of the mounting hardware as things weren't quite to spec in the finished building, but this was quickly handled by a local fabrication company.'

One of the important aspects of the overall solution is that it has room to grow with C3 Watson. As such, there are a few areas where Mr Oliver would like to enhance the system. 'I'd like to see the lighting installation expand with more fixtures, and the vision system expanded to make use of switching and possibly live video,' he explains. 'One of the things that had to go due to budget pressures was a new sound console - at present they are using their existing entry level digital board, which while adequate is a limiting factor and not in keeping with the standard of the rest of the sound system. There are plans in the future for the purchase and installation of a high quality console to complete the picture. We loaned them an APB Pro4 for the opening to present



Quad 18s are used to make a feature of the galvanised air-conditioning ducts in the ceiling

the system with all of its capability.'

Despite seeing room for expansion, Mr Oliver is clearly very happy with what has been achieved at C3 Watson. 'I'm very pleased with it overall, the sound system is particularly impressive, and the lighting and vision looks fantastic,' he enthuses. 'It was a great journey to go through with the church's team - one of my favourite things about what I do is building relationships with people as we work through projects like this. It's so encouraging for me to work with people as they come to the realisation



A 300mm box truss is currently dead hung, but cabled ready for chain motors

of a dream they've sometimes had for years. I get a lot of enjoyment out of seeing the C3 team's excitement as we fire up their new equipment for the first time and grow into it - it's why I do what I do!

'The whole facility is an enormous blessing to the church and their community,' continues Mr Oliver. 'In so many ways it has taken them so far beyond where they previously were and is really lifting the profile of the church in the community. The production values are of a very high standard and as good as or better than you'll find in any top end commercial facility.'

'The church is very pleased - they are enjoying the learning curve towards reaching its full potential. A few weeks after the opening they had a major event for the community and it was great for them to take that to a whole new level in the new facility,' recalls Mr Oliver. 'It's been very well received by the congregation. It's our goal that production very much enhances a worship service and engages the congregation at a deeper level rather than distracting them. I feel we've achieved this well at C3 Watson.'

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