



The focal point for the 250-capacity congregation is a 20m wide x 6m deep x 0.9m high stage

Reaching Out Across Indonesia

Richard Lawn discovers how GBI's outreach ministry relies on affordable technologies to build budget-conscious yet full-featured AVL systems

AN OUTREACH MINISTRY IN INDONESIA COULD

favourably be compared to a last frontier post as depicted in those old wild western movies. As one of the largest Christian denominations in the South-East Asian archipelago, Gereja Bethel Indonesia (GBI) has rapidly expanded from island to island via these outreach ministries. They have played a significant role in the establishment of over 3,500 GBI churches in Indonesia, whose membership is now closing in on one million worshippers. However, in a democratic nation where Muslims heavily outnumber Christians, GBI has been sensitive not to cause ripples when expanding its reach.

Located under the runways of Jakarta's Soekarno-Hatta Airport, the newly consecrated GBI Modern Land outreach in Salembaran is misleadingly the latest outreach ministry of the church. It's hardly the jungles of Borneo or perched on a sandy beach on the peninsula of Aceh province. However, it is located in a rundown industrial periphery of Jakarta where the call to prayer five times a day is dutifully served. GBI's charismatic services entertain and embrace its worshippers with a mixture of preaching and music normally provided by two worship leaders, four singers and a rock band. Similarly, the outreach ministries entice new disciples with the same combination. So it's something of a dilemma, as the volume needs to be kept down so as not to upset the new neighbours.

Whilst the more established GBI churches try to invest in the best audio, video and lighting



The newly built GBI Modern Land outreach church is in close proximity to Jakarta's Soekarno-Hatta Airport in Salembaran

technology, outreach ministries are usually restricted by low budgets. Just as younger brothers and sisters are made to feel grateful for being passed on clothes from their older siblings, the younger GBI ministries are blessed with old cast off entertainment technology. This could of course be termed as recycling in today's environmentally conscious world, but as any runt of the litter will let you know, it can feel somewhat degrading at times.

A/V supplier Kairos Multijaya has been a long established servant to the HOW community and its well respected amongst all denominations of churches in Indonesia, but particularly with the GBI for whom it garners much repeat business and referrals. The call to fulfil the entire audio, video and lighting requirements in addition to acoustic works

in Salembaran was naturally on a budget. However, project manager Leo Tanzil was allowed to purchase new equipment for the facility.

The newly constructed three-storey church may stand out locally, but the 250-seat sanctuary is discretely hidden well away from view behind the gates and walls and has been acoustically treated behind rock wool and cellulose walls so as not to attract undue attention each Sunday. The slanted ceiling reduces in height from 5m at the front to 3.8m at the rear of the 24m x 20m room, ensuring that direct sound that hits it is deflected rather than fluttered. The room is also designed acoustically to have a reasonably flat reverberation time at 1.2s across the frequency spectrum.

For its converts and worshippers, GBI Modern Land outreach in Salembaran provides a Sunday service that could hardly be termed budget-conscious. This can be credited to Kairos Mutli jaya's expertise, in which it has deviated from the status quo. Whereas the majority of HOWs play safe and select from a wish list of obligatory production switchers, scalars and other unnecessary cut and paste solutions, Mr Tanzil and his team searched out the latest ground breaking technologies both at trade shows and in search engines to create what its clients thought was impossible.

A total of five inputs including three Blackmagic fixed cameras and two PCs currently feed the 5.1m x 3m P4 Showtec LED wall behind the 20m x 6m x 0.9m stage in addition to four 42-inch HD screens fixed



PROJECTS

to four vertical pillars. 'When budgets are restricted, we simplify the signal chain and minimise video installation costs by employing a Blackmagic Design Atem 1 solution,' he testifies. Connected via Ethernet, an Atem 1 M/E Broadcast Panel provides switcher control including the three cameras, transitions, keyers, fader and DVE control. The unit bypasses the need to incorporate any further scalers or converters as it incorporates four SDI and four HDMI inputs, together with SDI, HDMI and analogue outputs.

An LVP605 video processor receives the video inputs from the Blackmagic Design Atem 1 system. Four port HDMI splitters and extenders take the feeds from the HD cameras, outputting the resultant converted signal to the five screens over the IP network having converted the HDMI signal. In doing so the Kairos Multijaya team provided an HDMI over Cat-5 solution at an affordable price. 'If you place a good DI box, such as a Radial Pro AV2 multi-media into the signal chain, you eliminate ground noise and subsequently don't need to add an external USB sound card,' explains Mr. Tanzil. 'If you're recording the services, it may be best to add a mic pre-amp however.'

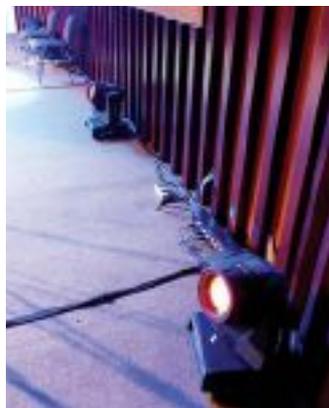


A total of eight UPM-1P dual five-inch speakers serve as front, side and rear-fills

In terms of low cost solutions, they don't come much more powerful than Just Add Power products. A 2G+ Enhanced Gigabit Transmitter has been added to create a matrix, whilst an HD over IP transmitter encodes the HDMI video for distribution over the local area network. The decoder then receives the network packet and converts it back into an HDMI signal ready to be displayed on the screens. Video control is enabled from a PC or touchscreen. 'The Just Add Power products create a really flexible A/V distribution system via the Ethernet network,' continues Mr Tanzil. 'If it needs to be extended in future, you just plug another one in the



A wedge monitor solution was adopted on stage combining RCF TT25SMA together with Mackie DLM8 and DLM12 models



A simple but effective lighting system includes four moving heads controlled by an Avolites Pearl Tiger lighting console

switch hub. It's also plug and play and needs no configuration; one transmitter serves all five screens and there is no need to add any splitters.'

Having made notable savings in the video domain, Mr Tanzil could afford to relax the purse strings slightly for the audio part of the spreadsheet. An Allen & Heath iLive T80 console is used for mixing the contemporary services and an XTA DP448 processor manages the DSP capabilities.



Microphones include Audio Technica AEW-5244 wireless hand held models together with Shure SM57 and SM58 models

The various microphone inputs on stage are fed through the iDR-10 mix rack engine. These include an Audio Technica AEW-R5200 wireless system - for which the worship leaders are equipped with AEW-5244 hand held models - and Shure SM57 and SM58 models for the musicians. The drummer is equipped with Audio Technica ATM 350 (toms), AE5100 (overheads) and AE2500 models, whilst the singers use the cost effective A-T System 10 wireless.

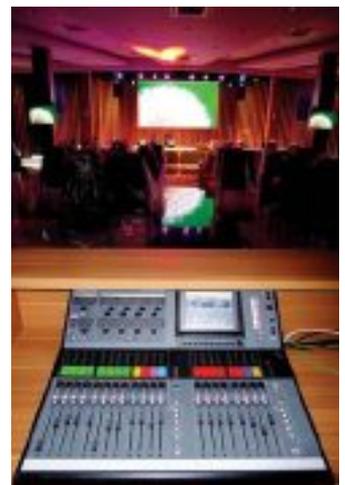
A wedge monitor solution was adopted on stage for the musicians, worship leaders and singers on stage



Radial Pro AV2 multi-media DI boxes eliminate ground noise negating the need for an external USB sound card

combining RCF TT25SMA together with Mackie DLM8 and DLM12 models. 'We selected the Mackie monitors as they are extremely portable and as such can be transferred for use by other outreach ministries,' explains Mr Tanzil.

Meyer Sound's MAPP on-line simulation software dictated the final speaker selection and positioning whilst its SIM3 software was used during tuning. 'Being a self-powered system, we were able to reduce cabling time and costs - it's virtually plug-and-play,' Mr Tanzil offers. The Meyer system consists of L-R UPQ speakers augmented by two HP-700 under-stage



An Allen & Heath iLive T80 console at FOH is connected to an iDR-10 mix rack engine at BOH

subwoofers. In addition, eight UPM-1P models have been added for which four have been fixed to the four columns serving as fills. A further two are located on the lip of the stage providing front-fills whilst the side-fills are catered for by a further two dual 5-inch models. 'Meyer Sound is perceived as being expensive, but when you calculate the savings made in amplification and installation costs such as cabling and manpower, there isn't much difference in the end.'

A Radial Duplex MK4 stereo direct box has been added to the signal chain to ensure the iLive T-80 console feeds a consistent impedance output, and acts as a filter ensuring no degradation and a guarantee that no computer noises will be heard on the main PA system. A TASCAM CG-1000 digital clock syncs all the audio, Klotz MC2000 cables were exclusively chosen for the instruments and MC5000 cabling has been installed for the main loudspeakers and other fixed audio devices. 'The digital clock is not inexpensive, but you need it when converting audio from digital to analogue and vice versa in order to retain a perfect sonic quality.'

A simple but effective lighting system comprises four moving heads, together with several fresnels and ellipsoidal fixtures on overhead trusses controlled by an Avolites Pearl Tiger lighting console. Internal communications are simplified and the balance sheet was brought below budget in the form of Motorola walkie-talkies. GBI Modern Land outreach in Salemban may be perched on marginal lands that are prone to flooding, but there is no evidence that the entertainment technology invested in by this latest GBI outreach has been compromised. The integration of good research and cutting edge technology has determined that the new arrivals don't feel second best.

www.gbimodernland.org
www.kairosmultijaya.com