



HiQnet  
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SMALL HOUSE OF WORSHIP APPLICATION GUIDE

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This small House of Worship uses the BSS Soundweb London BLU-160 and BLU-120 in the system design which provides flexibility at a cost effective price point. This design utilizes BLU link as the primary digital audio transport and HiQnet over an Ethernet network for control.

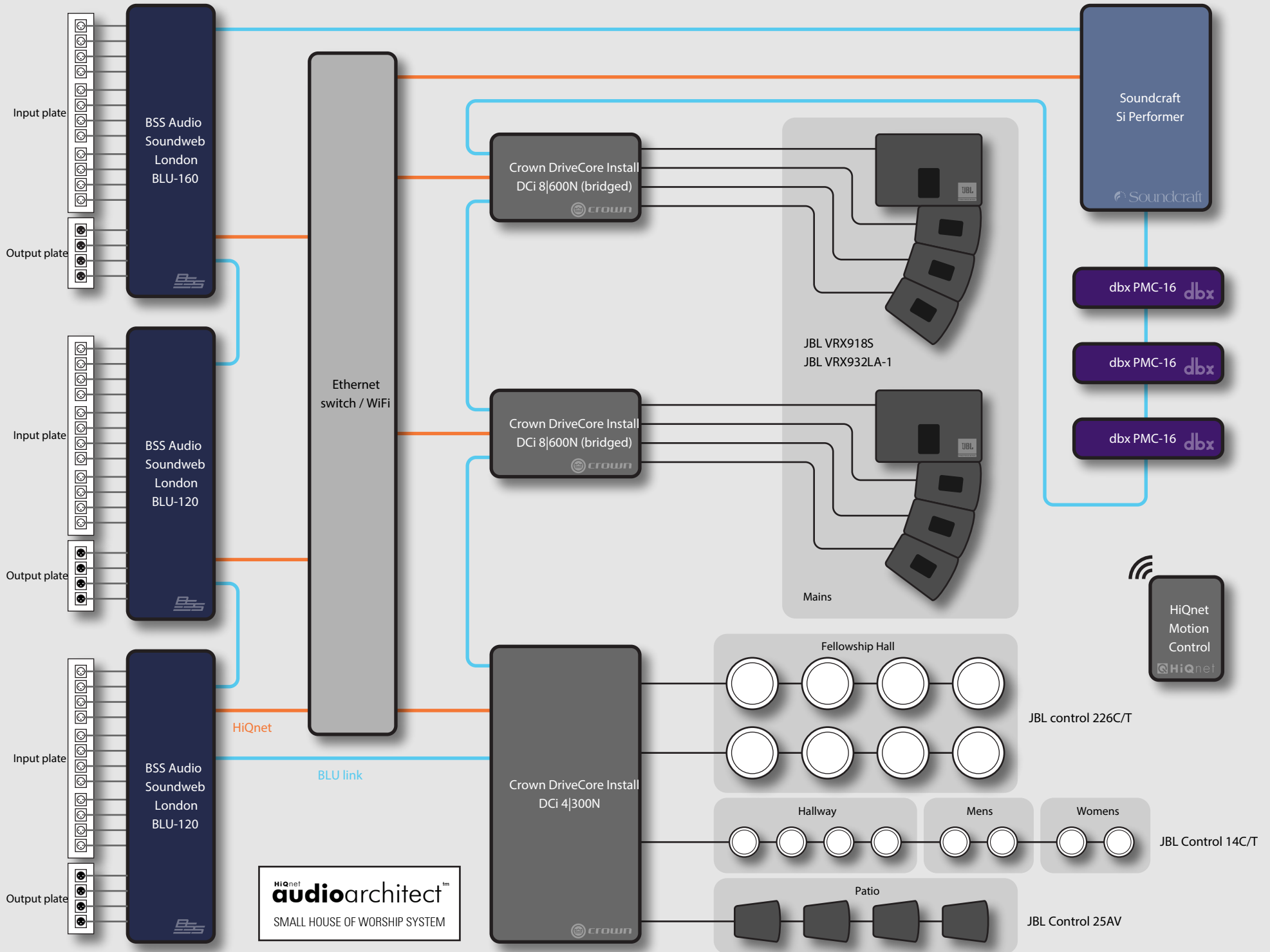
Some of the features of this system are:

- A 32 x 12 digital snake from the stage to the Soundcraft BLU link-enabled Si Performer console in the Sanctuary
- dbx PMC-16 personal monitor controllers for musicians to mix their own monitors (AKG headphones or amplified loudspeakers)
- Two operation modes for the Sanctuary - automatic and manual
- A simple Apple iOS remote control running the HiQnet Motion Control app in the Sanctuary for controlling stage microphones in automatic mode
- A feed from the Sanctuary to the Fellowship Hall for overflow situations as well as audio for several additional back-of-house spaces including bathrooms and patio

Using BLU link as a digital snake has the benefits of low latency and very small infrastructure requirements. In a retrofit scenario there may not be conduit in place to use traditional multi-pair copper audio snakes. BLU link utilizes standard CAT5e cable or fiber optic pairs to interconnect devices, requiring much smaller conduit or cable chase. This allows for the use of surface mount cable chase in retrofit situations where conduit is just not an option, such as an old stone church for example.

At the stage location we will use one BLU-160 and two BLU-120s, each loaded with three input cards and one output card, providing 36 input channels routable as needed to the 32 Si Performer console inputs. dbx PMC-16 BLU link personal monitor mixers provide outputs for the stage monitors in addition to the 12 output jacks on the wall plates. At the mix position there are also local inputs on the mixer for audio sources such as CD players or Apple iPods. With a WiFi enabled iOS device, we also have the ability to control the stage microphones with the HiQnet Motion Control app when the system is in automatic mode. In manual mode, the mixer at the front-of-house location provides the control for the stage microphones.

**BLU link** Complementary to Ethernet-based audio transports, the BLU link digital audio bus provides an unprecedented level of routing flexibility. BLU link is capable of routing 256 channels of audio directly from device to device within a local rack, or an entire rack room. BLU link is fault-tolerant and is compatible with the majority of Soundweb London devices and DriveCore Install Series Network amplifiers.



# DSP CONFIGURATION

In this House of Worship the system can be used in one of two ways. The first four inputs are routed to the BSS Audio Soundweb London BLU-160's Automixer Gain Sharing processing object to allow a simple service - with four microphones or less - to take place without a sound operator. For more complicated services, the other 32 inputs on the wall plates are routed to the console's inputs. A ducker is provided to automate the switching between the two systems, giving the automixed signal a priority over the console's feed. Shown on this diagram

are the first 8 wall plate inputs routed to the console. The remaining 24 wall plate inputs are routed similarly from the two BLU-120 units via BLU link to the Si Performer console. Stereo outputs are routed to the main speaker system while a mono sum is routed to back-of-house amplifiers. Each speaker or zone has a Gain, a Parametric EQ and a High or Low Pass Filter, with delay and limiting built in. There are also four outputs on each plate routed through each processor via BLU link from the console for use as monitors or for recording.

