HiQnet audioarchitect™

SPORTING VENUE APPLICATION GUIDE

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Sporting venues have traditionally been simple systems using only a few inputs and multiple distributed outputs. Many new sporting venues are demanding more sophisticated audio routing and processing capabilities. In this example we use Dante networking enabled BSS Soundweb London devices to route the outputs of a Dante-enabled Soundcraft Vi1 console to multiple rack locations. With 4 times the DSP processing and the 256-channel BLU link digital audio bus for routing local rack audio to the new Crown DriveCore Install Series multichannel amplifiers, the Soundweb London BLU-806 and BLU-326 are the perfect choice for this application. These remotely located devices are connected to both an Ethernet network for audio routing and control as well as the point-to-point connections of BLU link for digital audio.
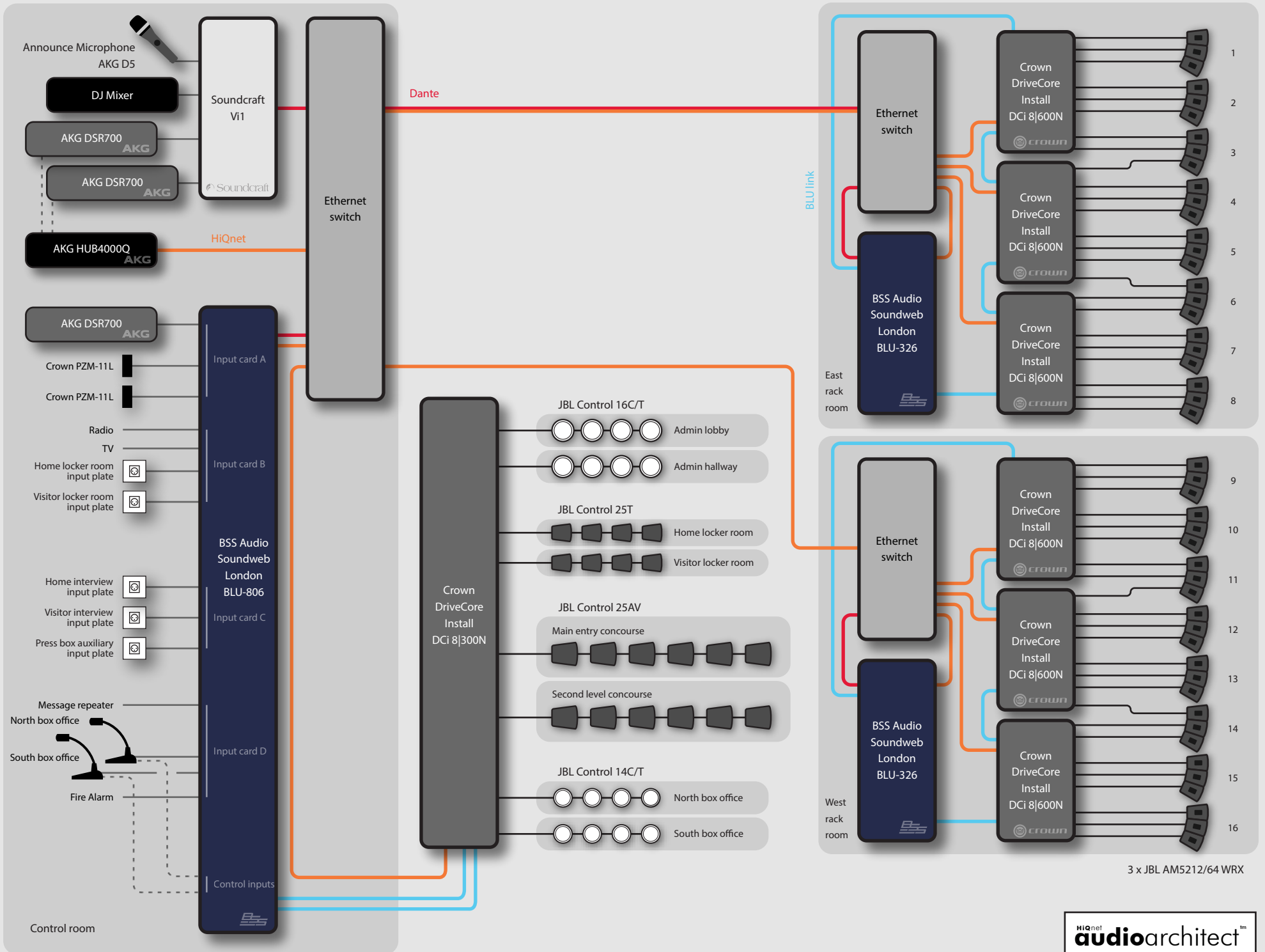
The main system covering the seating area is divided into 16 zones. The HiQnet Audio Architect Venue View interface is able to display a graphic layout of the seating areas. This allows the operator to access the controls for any zone by clicking the remote panel icon on the plan which opens a control panel for that zone. This is very useful for venues that may have different speaker usage based on the type of event they are running. Custom Control panels can also be divided into 'layers' using tabbed pages, allowing access to as little or as much information as the application requires.

In addition to the main system, there are a number of utility spaces that require audio. Each of these spaces, rest rooms, concourses and administration rooms have separate processing. This allows for independent source select, EQ, gain & delay controls for each zone.

Two AKG DMS700 V2 encrypted digital wireless microphones networked via the AKG HUB4000Q are connected to the Soundcraft Vi1 console digitally via AES/EBU connections. Using these microphones with this console allows not only for a pure digital signal path from microphone to loudspeaker, but also for HiQnet monitoring of the wireless microphone status from the console's Vistonics display using VM^2 microphone monitoring. A third DMS700 is connected directly to the BSS Soundweb BLU 806 providing a direct feed for the referee microphone so it can automatically duck (lower the level of) the program signal when an announcement is made. All three microphones can be monitored via Audio Architect GUI and the AKG Wireless iPhone App as well.

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.

Dante™ Dante is a proprietary audio networking technology from Audinate and employs standard Internet Protocols over 100Mb and / or Gigabit Ethernet. Channel counts can be high over Gigabit Ethernet, although switch management is required for most Dante systems. The Soundweb London BLU-806 and BLU-326 bring Dante capability to the Soundweb London family.

Announce Microphone
AKG D5

DJ Mixer

Soundcraft
Vi1

AKG DSR700

AKG DSR700

AKG HUB4000Q

HiQnet

Dante

Ethernet
switch

BLU link

Ethernet
switch

Crown
DriveCore
Install
DCi 8|600N

1

2

3

Crown
DriveCore
Install
DCi 8|600N

4

5

6

BSS Audio
Soundweb
London
BLU-326

Crown
DriveCore
Install
DCi 8|600N

7

8

East
rack
room

AKG DSR700

Input card A

Crown PZM-11L

Crown PZM-11L

Radio

TV

Home locker room
input plate

Visitor locker room
input plate

Input card B

Home interview
input plate

Visitor interview
input plate

Press box auxiliary
input plate

Input card C

Message repeater

North box office

South box office

Fire Alarm

Input card D

Control inputs

Control room

BSS Audio
Soundweb
London
BLU-806

Crown
DriveCore
Install
DCi 8|300N

JBL Control 16C/T

Admin lobby

Admin hallway

JBL Control 25T

Home locker room

Visitor locker room

JBL Control 25AV

Main entry concourse

Second level concourse

JBL Control 14C/T

North box office

South box office

Ethernet
switch

BSS Audio
Soundweb
London
BLU-326

West
rack
room

Crown
DriveCore
Install
DCi 8|600N

9

10

11

Crown
DriveCore
Install
DCi 8|600N

12

13

Crown
DriveCore
Install
DCi 8|600N

14

15

16

3 x JBL AM5212/64 WRX

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SPORTING VENUES SYSTEM

DSP CONFIGURATION

This DSP design is based on the principle that zone processing is handled within the BSS Audio Soundweb London BLU-806 processor located in the control room while all speaker drive processing is held within the networked Crown DCi Series amplifiers located in two distributed rack rooms on the East and West side of the bowl. The BLU-806 processor provides special capability to perform ambient level sensing for the bowl loudspeaker adjusting the output of the system as needed based on the level of the crowd noise. A wireless reference microphone is routed through the Soundweb London BLU-806 in order to take advantage of

a ducking circuit that will duck any content coming from the console when the ref makes a call. This processor also accommodates a switch-over circuit for emergency fire alarm paging into both the bowl and back-of-house systems.

Paging is made available from the Box Offices into their respective back-of-house areas. Auxiliary feed from locker rooms, interview rooms and Radio and TV are also routed to all back-of-house areas through source selectors to allow the end user to choose the appropriate content for the area.

HARMAN