

Application  
Example

# Fixed Installation with Automatic Routing



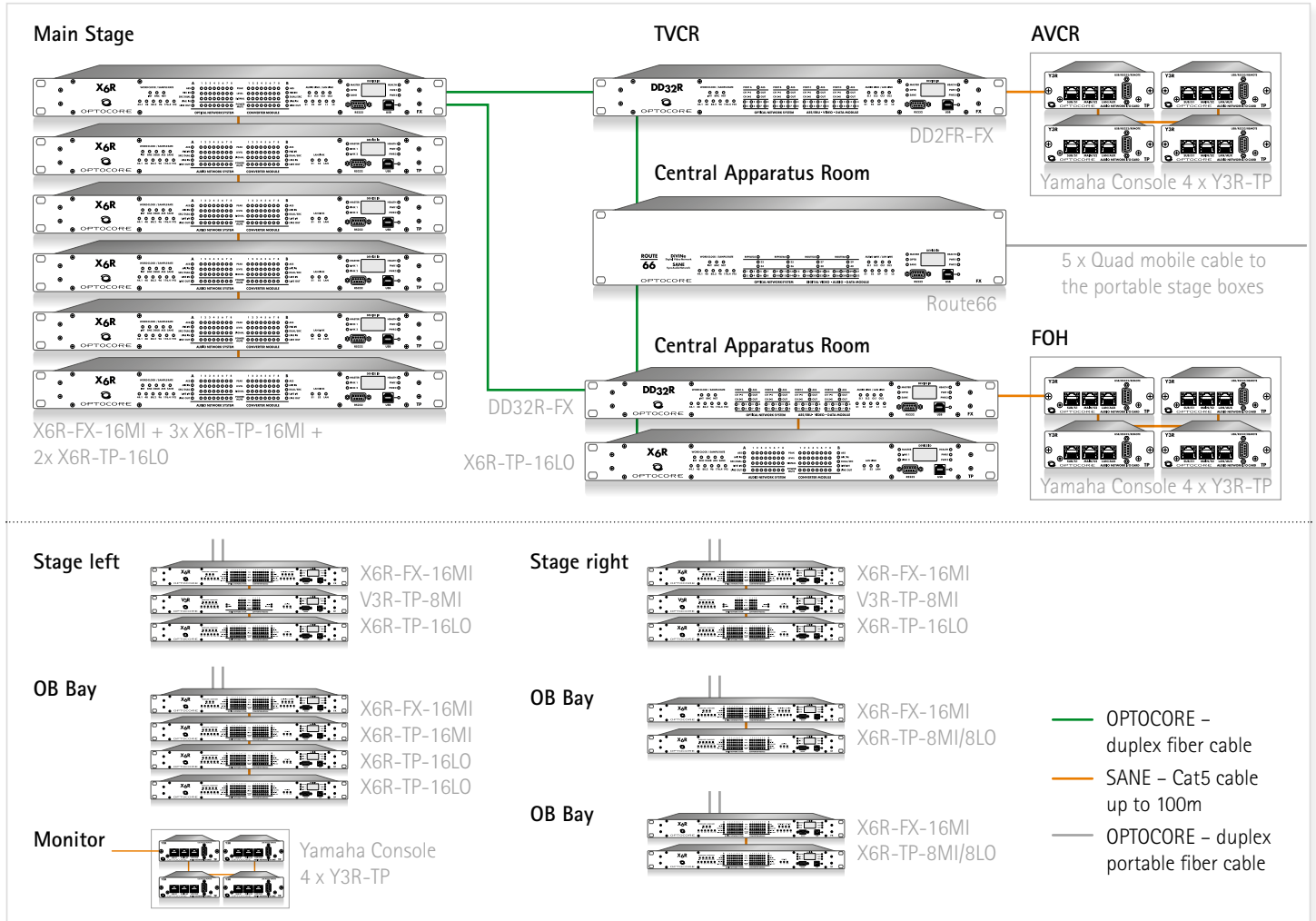
## CHALLENGES:

- Theatre with mobile audio stageboxes dependent on production
- Central Apparatus Room (CAR), Stage and TV Control Room (TVCR) are fixed location and should exchange audio in different formats
- Consoles (Yamaha in this case) are mobile between different positions – FOH, AV Control Room and Monitor



## DETAILED SIGNAL REQUIREMENTS:

- Main Stagebox with 64 Mic Inputs and 32 Line Outputs
- Mobile Stageboxes – Stage Left and Right – 2 x 24 Mic In/16 Line Out; OB Bay – 32/32 and 2 x 24/8
- MAD1 connection to feed video router in TVCR
- 64 AES and 16 analog outputs in CAR which feed DSPs and PA amplifiers
- 3 x Yamaha PM5D consoles which can receive and send 64/64 channels each and can control all stageboxes in selected order



## SOLUTION:

### Main Stagebox:

- 1 x X6R-FX-16MI – provides 16 Mic Inputs and connects the stagebox with Optocore system, exchanges 64/64 signals with the fiber network
- 3 x X6R-TP-16MI – provide 16 Mic Inputs each, connect to the main X6R-FX unit creating a 64 Mic In daisy chain
- 4 x X6R-TP-16LO – provide 16 Line Outputs each, connect to the main X6R-FX unit adding 64 outputs to the daisy chain

### Mobile Stageboxes:

- 1 x X6R-FX-16MI + 1 x V3R-TP-8MI + 1 x X6R-TP-16LO – Stage Left and Stage Right – creates 24/16 stagebox with FX device as main unit and TP as channel count extension
- 1 x X6R-FX-16MI + 1 x X6R-TP-16MI + 2 x X6R-TP-16LO – OB Bay 1 – create 32/32 stagebox with FX device as main unit and TP as channel count extension
- 1 x X6R-FX-16MI + 1 x X6R-TP-8MI/8LO – 2 x OB Bay 2 – create 24/8 stagebox with FX device as main unit and TP as channel count extension

### TVCR:

- 1 x DD2FR-FX – provides 2 x 64/64 fiber MADi ports to feed 128 channels to and from video system

### CAR:

- 1 x DD32R-FX – configured to provide 64 AES/EBU outputs (32 pairs) to the DSP processor
- 1 x X6R-TP-16LO – provides 16 Line Outputs to feed analog amplifiers
- 1 x BroaMan Route66 – Route66 works as an active fiber patchbay. When the stagebox is not connected it detects disconnected link and closes the loop with other active connections. Thanks to that system is always redundant ring

### Consoles:

- 4 x Y3R-TP – a set of 4 x Y3R-TP is used to feed Yamaha PM5D consoles. Each console can control separate set of preamps and control mapping can be set in accordance to production needs

## MAIN ADVANTAGES:

- Optocore system works as a very flexible decentralized router for multiple formats
- Optocore preamps cover the front end, enabling a usage of different consoles as well as changing the control mapping
- Optocore Control software provides macros which simplifies switching setups between different productions
- System always works as a redundant ring, even when mobile devices are disconnected from the network – Route66 Optocore Router keeps the ring always closed