TECHNICAL SYSTEMS OVERVIEW

**Westfield**
WORLD TRADE CENTER

OVERVIEW

The Oculus Event Technology system was designed to support a wide-range of event types, configurations and layouts. The system and underlying infrastructure allows for easy integration of additional equipment, and provides a solid base for handling many event requirements.

The power, video, audio, lighting and network infrastructure can be accessed with minimal cable runs and disruption to the facility while providing the flexibility and services these events require.

The extensive design of this infrastructure has been purposefully implemented to minimize the cost, time and labor needed to execute events.

All of these systems are available to clients as additional rentals. Please inquire with your sales representative for pricing.
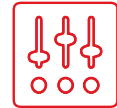
CONTROL ROOM

The Control Room is the nerve center of the system – the place where the system architecture converges and is monitored and operated. The functionality of the Control Room allows complex events to be operated without taking up valuable floor space in the event area. It also provides a higher level of reliability since the gear is situated permanently and the default connections are always left in place. Also of high significance is the time saved setting up for an event when a control area does not have to be built and then dismantled for each event.

Similar to a broadcast control room, appropriate space and services, such as internet, phone and production communications along with ergonomic design are in place for each operating position as well as the show direction positions.

Centralizing the operation of the system off the Oculus Floor provides a comfortable, functional environment that saves set-up and strike time while reducing the footprint of technology with the actual event layout.

LIGHTING SYSTEM

The lighting system is based around an industry standard lighting console that is the default for most corporate events. Capable of running programs for moving lights, LED and conventional fixtures, the console controls the 104 moving light fixtures permanently mounted within the Oculus but can easily control massive lighting rigs, should they be required for a specific event. The additional lighting would connect through the state-of-art digital MA net lighting network, which is available at 72 connection points throughout the venue.

The Oculus makes use of MA technology consoles, the industry standard for corporate and performance events. The control room houses a GrandMA2 Light console. The venue also makes use of a rolling GrandMA2 console for use on the Oculus Floor and provides an iPad for remote control operation in limited applications.

A lighting replay unit is incorporated in the system to provide playback of programmed presets in tandem or in place of the operator's console.

Event Lighting
- 56 Vari-Lite VL3500 Wash fixtures
- 48 Clay Paky Scenius Spot fixtures

Control Console
- GrandMA2 Light – Control Room
- GrandMA2 – Rolling Desk

AUDIO SYSTEM

The Audio system has been designed to provide audio coverage throughout
the Oculus and adjacent areas. Speakers and placement have been carefully considered to provide clear, musical, distortion-free audio performance for many types of events.

The focus of the sound system is the array system hanging in the Oculus on the C1 Ring, where eight speaker arrays are flown permanently. All of the speakers are controlled via an industry-standard Yamaha CL5 digital audio console located in the control room. The console and speaker system can be utilized for many types of configurations with a minimal amount of sound engineering. Additional audio accessories are also available.

A Yamaha digital audio console and Dante digital audio infrastructure feeds installed speakers and can be used to connect to additional speakers as required. Two portable rolling desks are available for use on the Oculus Floor.

Installed speaker systems rely on K-Array components – the Gold Standard for event and concert performance.

Built-in production communications system offers wired and wireless capability. Additionally, on-site stage monitors and ancillary in-house equipment can be hired as required.

Event Floor Speaker System
- K-Array KH2-Series Powered Line Arrays. 4 Stack, 4 Positions on Both North and South

Stage Systems
- K-Array Pinnacle KR402- Portable Array System

Stage Monitors
- 4 - K-Array Mastiff KM112 Low Profile Monitor

Plaza System
- 2 - Yamaha DXR12-Powered Speaker
- 2 - Yamaha DX212- Powered Sum Master

Audio Mixing
- Yamaha CL5 72 + 8 Digital Mixer (Fixed Position in Control Room) & iPad Remote
- Yamaha QL5 Digital Mixer – Rolling Desk

Backline
- Nord Stage 3 88 – 88 Key Weighted Keyboard
- 2 – Fender '68 Custom Twin Guitar Amplifier
- Aguilar DB 751 Bass Amp Head
- Aguilar DB 810 Bass Speaker Cabinet

Production Communications
- 9 Belt Packs - Helix Intercom – Control Room Positions
- 5 - FreeSpeak II Wireless Intercom

VIDEO SYSTEM

The Control Room built-in video system has the ability to playback video content and send that content to six distribution points on the C1 Ring and five points on the Oculus Floor through 12 strand single mode fiber or 12 strand multi-mode fiber. The control room houses four graphic/video playback computers with PowerPoint, Keynote, Millumin 2 and Pro Video Player installed. The system also has the ability to send live streaming content to various external points such as Facebook, YouTube or any web destination.

The Oculus space houses four permanent Robo cameras on the Oculus C1 Ring, providing turn-key services for IMAG, time lapse or live recording during events.

For events with extensive video requirements, such as multi-camera broad or narrow cast, connectivity is available throughout the event spaces as well as fiber connectivity on Oculus Plaza for broadcast vehicles.

Video Connectivity
- Grass Valley 2ME Karrera 3G Switcher
- Imagine Platinum vx 104x104 3G Router
- 3G SMF distribution throughout venue
- 2 – Sound Devices PIX-270i recorders
- 4 – Computers for graphics or video playback
- 4 – Panasonic PTZ Camera
- Single & Multi Fiber Connections on Oculus Floor, C1 Ring and Oculus Plaza
- Integrated video record capability

Wi-Fi & Network Infrastructure
- Dedicated Production Wi-Fi and Hardwire Network through Verizon Fios 940/880
- 5 - Dedicated event floor boxes throughout Oculus Floor with Structured Single Mode and Multi-mode fiber optic infrastructure in addition to copper infrastructure, including network
- Free Wi-Fi for event attendees throughout the venue

RIGGING

Westfield World Trade Center can provide a versatile rigging systems consisting of truss and motor stock for all types of suspension from 72 rigging points at either 80 or 100 feet.

The system, or part of it, can be hired and installed into any part of the center to suit the activity's requirements.

Due to the complexity of the roof structure, only Westfield approved rigging companies are allowed to rig in the roof and sign off on all designs.

POWER SYSTEMS

The power in the event spaces is strategically distributed to minimize and eliminate cable paths and easily connect to additional event elements.

Additional power can be pulled to all areas of the event spaces including the Oculus Floor, C1 Ring and Oculus Plaza.

Oculus
- 35 – A Floor Boxes – Two 20 amp circuits and Cat6E throughout the Oculus floor
- 5 – F boxes – Two 20 amp circuits, Single and Multi-Mode Fiber, Cat6E on Oculus floor
- Service A – 277/480V 200A. Requires a 150KVA step down transformer to be used
- Service B – 277/480V 200A. Requires a 150KVA step down transformer to be used
- Service C – 120/208V 400A (must be through different floor hatches)

Oculus Plaza
- 2 – 100 amp three phase service
- 6 – Floor Hatches, one 20 amp circuit
- 2 – Boxes with Cat6 and Single and Multi-Mode Fiber

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