

## GUIDE TO CONFERENCE ROOM DESIGN

The following guide provides some of the basic guidelines to Designing & Building a Conference Room that contains the latest technologies and all the Bells & Whistles within. More often, many of the critical design criteria and functional aspect of the rooms are overlooked resulting in the subsequent changes and renovations which can be quite costly and a disruption to the operations and business as well.

The following are some of the Key Design Aspects:

### **Centralized Control**

With the vast amount of Audio & Video equipment within a Conference Room, one of the key component is the Centralized Control System. The system allows for an easy integration and control of the various systems and equipment under one centralized control mechanism, often being a touch control panel. The control panel can be programmed to handle the various business applications inside a Conference Room including, Audio Conference, Video Conferencing & Presentation.

The amount of systems that requires control including the Display TV's, Video Conferencing System, Phone System, Audio System & Speakers, Microphones, Projection system & screen, Cameras, Lighting System and Blinds. To put it simple, without a centralized control system, you will need a remote control unit for each of the equipment installed and that can be dozens.

### **Acoustic Design**

The last thing you want in a Conference Room is the echo and poor sound quality that defeats the primary functionality of a Conference Room and that is to Conference. By having a room designed with proper acoustic properties, the quality of sound will allow users to focus and concentrate of any conference calls without having the headaches & concerns over whether the far end can hear him or her clearly. Room acoustics is key especially during the design stage where consultants will require to work with the designers in reducing glass partitions where possible and if not, increase the use of acoustic materials to absorb the sound and reduce reflection. The acoustic materials can be applied to walls, ceiling & even blinds to reduce the reflection of sounds causing echo, reverberations and unwanted feedbacks.

### **Conferencing Camera Design**

Proper positioning of the Video Conferencing Camera can provide a comfortable viewing angle for the "Far End" which will increase the feel of the interaction between the conferencing parties. Setting the camera too high will result in Near End users looking up when speaking which can be quite uncomfortable for extended conference calls and Far End users will see the attendee on the opposite side quite high looking down and reducing the face to face feel, which is often the optimal feel. The position of the Display Screen, whether the camera should be above, between or below the screen will require consultants to suggest based on display size, camera type and the physical height of the room.

System labeled as Telepresence are fixed design by some manufacturer specifically tailored to address the positioning of not only the camera, but also the screens, tables & chairs in trying to create the perfect size and ratio of the life like picture that the Far End attendees are right in front of the Near End parties conferencing all within the same room. Ultimately, trying to create an environment for the users to host a discussion with the feel that they are all in the same room is the ultimate design objective.

### **Credenza Ventilation**

With the vast amount of Audio & Video & Control Equipment required within a Conference Room, one of the most commonly area to house these equipment is the credenza cabinet directly under display TV's. Often the cabinet contains multiple doors and levels inside to address and position the related batch of equipment. A common problem faced by many users is the overheating of the credenza cabinet due to insufficient air ventilation for the heat generated from the various equipment to dissipate. This issue is commonly overlooked at design stage and will be a hard fix after the equipment installed and move in. Changes will again be costly, time consuming and causing disruption to the business.

At design stage, the credenza will need to address proper ventilation either by natural air flow or ventilating fans. The objective will be to find an area for the heat to go while circulating cool air back into the credenza. This can be achieved by the installation of multiple low decibels ventilation fan for retracting the hot air into the ceiling void. Multiple fans are required to avoid single point of failure and with regular checking by maintenance contractors to confirm functionality. Another option would be to design an open credenza backing that can allow the hot air to naturally dissipate into the ceiling void. The ventilation path will have to be larger to accommodate the natural air flow.

### **Equipment Access**

With the large amount of Audio Visual & control equipment placed into the credenza cabinet, the density of the cabinet is often quite high and congested. In addition, there will most definitely be tightly fitted with numerous volume of interconnection cables between these equipment as well. Our recommendation would be to use a retractable type AV equipment racking system where the rack can be extended out of the credenza for servicing and changes allowing for easy access and visibility of all the equipment and interconnection cables. This will make servicing and troubleshooting so much easier.

The AV rack will however, need to be coordinated with the designer and fitout contractor at the early stages of the renovation project so that the sizes of the rack and associated hardware can be coordinated and fitted in with the Credenza design. Otherwise, there will be no way that a rack can fit based on uncoordinated design. In addition, power, data and AV connections will also be required to be coordinated inside the Credenza cabinet for better outcome.

The above are some of the key areas to address when designing a Conference Room and should you require any further information, please go to our website at: [www.komstadt.com](http://www.komstadt.com)

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