



Henry B. Gonzalez Convention Center Technology Advancements

The following is a summary of the advancements to technology features for the HBGCC Expansion Project.

Communication Infrastructure

- 10-gigabit Ethernet
- Plug-and-play technical services
- Preinstalled MaxCell innerduct allows for easy addition of fiber optics as needed to support any client's needs
- Floor boxes
 - House both Single Mode Fiber Optics and 50 Micro Multimode Fiber Optics
 - Category 6 Unshielded Twisted Pair
 - Telephone to 1000BaseT Ethernet
- Similar set-ups for meeting rooms

Lighting, HVAC, Security, Sound, & Wi-Fi

- With 400+ access points in the building, event staff will have the ability to control their systems from anywhere in the facility
- Handheld wireless device means real time adjustments to system while standing with clients
- Audio technicians can tune and make adjustments without having to rely on a second person
- Magnetic locking doors can be secured and unsecured as needed from anywhere in the facility (wireless)
- Virtual network will allow guests to access the web from anywhere in the facility
- Probes will constantly "sniff" the airwaves for rogue devices and advise network control
- Tune itself in real time, giving the clients a positive Wi-Fi experience

The following information outlines a more complete narrative, which describes each of the above sections and bullet points for your convenience.

Communication Infrastructure

Upon completion of The Henry B. Gonzalez Convention Center's expansion project, the City of San Antonio, Texas will possess one of the most technical convention centers in America. Its communication infrastructure is based on industry standard 10-gigabit Ethernet architecture that can support the IEEE Super Computer event without upgrades. This user-friendly facility will allow for plug-and-play technical services from anywhere in the expansion. With an eye to the future, the robustness of the fiber optic backbone and planned growth potential sets the convention center up for success. Right sized engineered conduit pathways with preinstalled MaxCell innerduct allow for easy addition of fiber optics as needed to support any client's



needs. Show floor boxes every thirty feet on center house Single Category 6 Unshielded Twisted Pair (UTP) wires, which can support a standard telephone to 1000BaseT Ethernet for Internet service and anything technical in-between. Meeting rooms, pre-function areas, the Grand Ballroom, and multi-purpose hall will also have the same technical services as the show floor, thus giving clients access to any technical services needed. The concept of a single communication infrastructure designed to be a multipurpose tool supporting any communication protocol required by the facility's sub services (i.e., lighting, HVAC, security, sound, and Wi-Fi), as well as clients' needs was used in the design phase of the expansion.

Lighting, HVAC, Security, Sound, & Wi-Fi

Untethering event staff from building sub service control computers was a constant consideration during the design phase. The ability to accomplish this goal rests within the Wi-Fi network. With 400+ access points located in front and back of house locations, event staff will have the ability to control their systems from anywhere in the facility. A single event staff member with a handheld wireless device can make real time adjustments to their systems while standing next to the client. Audio technicians can stand in the room they are attempting to tune and make adjustments without having to rely on a second person with a radio to make changes.

The Wi-Fi network, in addition to supporting event staff in running the facility, will be used by guests. A partitioned virtual network will allow guests to access the web from anywhere in the facility. Additional access points can be added to the network as needed to support those events requiring more wireless bandwidth. The Wi-Fi network will also support probes that will constantly "sniff" the airwaves for rogue devices and advise network control. Triangulation will then occur and event staff can identify the rogue device and take the necessary action. The Wi-Fi network will also has the ability to tune itself in real time, giving the clients a positive Wi-Fi experience.