

Dallas Fort Worth International Airport



Project name: Wireless Access Point
Infrastructure Cabling

Location: DFW International Airport
Address: DFW Airport, TX 75261

Company: T-Mobile Hotspot

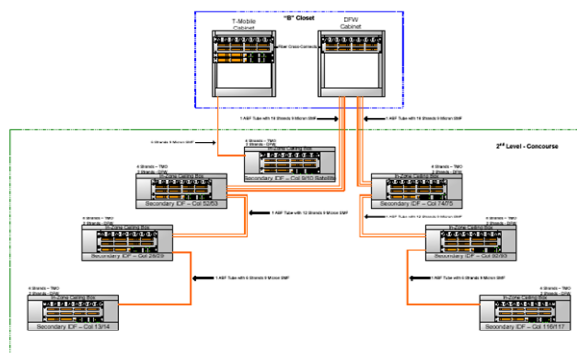
Completion Date: May 2005

Project overview

This project involved the installation of copper cabling, fiber optic structured cabling system and termination hardware to support a Cisco Products Wireless Access Point Network. Work was performed within Terminals A, B, C, and E. The overall design of the network incorporated using the DFW Airport fiber optic infrastructure that exists between the Central Utility Plant and the "B" Closet on the third level of each Terminal. Supplemental single-mode fiber was added to connect new "Secondary IDF's". Each Secondary IDF was serviced by 6-strands of single-mode fiber.

Each terminal currently had existing 3" conduit that ran from end to end on the second level. Junction boxes or (TDU's) were positioned at regular intervals along this pathway. Each TDU collapsed back to the TDU in the center of the Terminal below the "B" Closet using a 7-Cell Air Blown Tube Cell. This centrally positioned TDU in turn connected the "B" Closet using a 19-Cell Air Blown Tube Cell. The DFW Airport Authority allowed the maximum use of two cells from each pathway. In order to use the minimum amount of Tube Cell cable, an 18-strand ABF single mode cable was blown into the first TDU, 6-strands were terminated and the remaining 12-strands were fusion spliced and continued to the next TDU and final TDU. (Only 3 TDU's were connected to each 18-strand fiber run this process was repeated for the second tube cell from the "B" Closet. In terminals where 7 TDU's were required, the last TDU was connected to the "B" Closet via a direct run of 6-strand single-mode armored cable placed directly in the overhead ceiling. All TDU's were connected in a daisy chain fashion. Secondary IDF's were established using a combination of 6-strand single-mode Air Blown Fiber or conventional fiber optic cabling with an armored jacket. The Secondary IDF shell consisted of

Panduit in ceiling zone termination box. This box was connected to the nearest TDU using a 1" EMT conduit. The 6-strand fiber optic cable was installed within this conduit. Each secondary IDF contained one network switch, one 1RU horizontal cable manager and one 1RU Panduit modular patch panel that accepted up to 24 Mini-Com inserts. Wireless Access Point antenna were collapsed into the nearest Secondary IDF using category 5e UTP plenum rated cabling. Copper and Fiber Optic patch cords were provided to connect the AP run to the network switch with the Secondary IDF and the network switch to each fiber optic backbone run.



Product Solutions

