



## *CenturyLink Central Office A/C Upgrade*

HEI Engineering Group upgraded the air-conditioning system for CenturyLink's Central Office in Mansfield, Ohio. Precise 24/7 control of both temperature and humidity in the 3,000 square foot Telephone Exchange Room was especially critical because it is the hub for all 911 calls for Richland County. With racks of telephone equipment continually being added to the front of the room and poor overhead distribution, the existing 20 ton roof-top unit was unable to solely maintain space temperature in the summer months.

HEI added a new roof mounted 30 ton chilled water air-handling unit. If this unit should fail, however, our design allows both existing 20 tons roof-top units to now run simultaneously with the addition of modulating control dampers and new ductwork off of the existing overhead distribution system. The new ductwork drops down along the front wall to direct air towards the equipment "hot spot" with adjustable air nozzles.

With this new air-conditioning system, the flexibility of redundancy and future growth is now available and, more importantly, will ensure the proper space conditions are maintained year round. New pressure relief systems were also added for use during the "free-cooling" economizer cycle which is utilized by both the new and existing HVAC units.

