

Charter Communications Controls Case Study

*Flexible Services
Smart Solutions*

Project Highlights:

- Full System Integration
- All work completed while building was occupied
- Custom-Designed User Interface



Project Overview

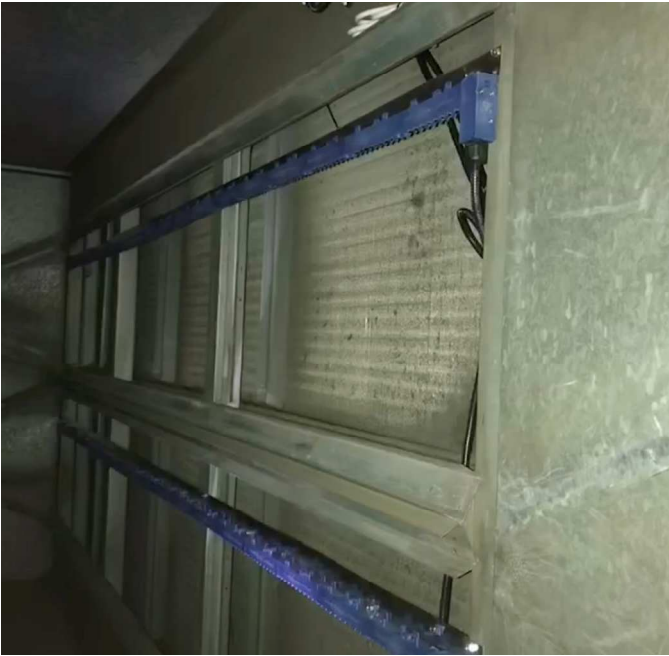
The existing Trane temperature control system, circa 2003, was proprietary in nature and now obsolete, leading to constant service needs and limited options for repairs. A front end upgrade from Trane would be costly and result in having another proprietary system. Mared was tasked with implementing an open front end, integrating existing plant equipment, and managing 200+ field controllers.

Mared's System Integration Team developed a plan to integrate 4 chillers and nearly 200 variable air volume boxes (VAVs). Integrating the VAVs deferred expensive replacement costs employing a run-to-fail strategy so that segments of the system would be upgraded gradually over time.



MARED MECHANICAL CONTRACTORS, INC

Air handling units were upgraded with new controllers increasing reliability and paving the way for future indoor air quality implementation that was not compatible with the existing controllers. Mared loaded software drivers into the new front end that enabled seamless communication between the new supervisory controllers and the existing VAVs and chillers.



Previously, internal staffing used one PC as a point of access to manage the HVAC in a 120,000 sq ft facility. Now the system is accessible from any PC/tablet/smartphone so the BAS can be used as a resource during diagnostics. Sessions of owner training provided by Mared empowered internal staff to troubleshoot problems and address comfort complaints instead of requiring contractor support. Secure, remote access via the internet allows Mared's Controls Team to assist with diagnostics reducing down time, truck rolls, and ongoing service costs. By installing flexible air handling unit controllers, Mared was able to later implement bipolar ionization monitoring and demand controlled ventilation, improving indoor air quality while controlling energy costs and reducing virus transmission risk.



Project Scope:

- 2 Supervisory Controllers
- 14 Air Handling Units
- 4 Air-Cooled Chillers
- 1 Steam-to-hot water converter system
- 1 chilled water distribution system
- 178 VAV controllers
- 1 Computer Room Air Conditioning system integration

4230 W. Douglas Avenue
Milwaukee, WI 53209

Phone: 414-536-0411

Fax: 414-536-0534

Email: info@maredmechanical.com