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The Standard Federal Bank building in Troy, Mich., uses BACnet for its communications protocol.

Banking on BACnet

By Randy Amborn

"I don't need an office full of computers," says Bob Deacon about the Standard Federal Bank building in Troy, Mich. Deacon is a chief operating engineer with the facility management firm responsible for this 477,000 ft² (44 000 m²) facility.

Initially constructed as a banking headquarters and computer center, the seven-story building also includes some space for commercial tenants.

An important consideration for updating the facility's building automation system was single-seat operation of HVAC, lighting, computer room air-conditioning, and fire alarm systems. The BACnet standard provides the open communications protocol, and a Trane Tracer Summit® building automation system provides the platform for integrating various subsystems. Deacon says, "Technology has finally caught up with what I wanted to do. I can sit at my PC and look at the various systems run-

ning the building, while I am word processing or running a spreadsheet."

System integration means simplified operations, enhanced productivity and less training for operating staff. The building automation system interfaces to a fire and life-safety system and a computer room system for air conditioning and power management. The operations staff can run the building using one system that is on each workstation. The staff doesn't have to learn several different interfaces.

The building's HVAC system includes four chillers and constant volume terminal units. Energy-saving strategies include thermal storage, heat recovery, and free cooling. As a result, multiple options exist for heating or cooling a particular space. For example, it is possible to heat the build-





BACnet was chosen as the communications protocol because systems from different vendors can be interconnected. Building operations, from the temperature in a conference room to the lighting in an office, can be monitored using a single interface.

ing with heat-recovery chillers (using heat from a computer center) down to outdoor temperatures of 15°F (–9°F). Lighting control is another energy management component of the integrated system.

In Deacon's role as property manager, he appreciates having the systems from different vendors interconnected, while still having each vendor responsible for maintaining their gear. Future plans include interfacing variable frequency drives into the building automation system over Modbus communications. This enables users to read a VFD and know speed, Hz,

amps, etc.; without having to look at a separate system.

Deacon sees himself as an enthusiastic, early-adapter of open systems. "I read every article I see on BACnet and LonWorks," he says. As the Standard Federal Bank building continues its evolution, BACnet and the building automation system integration are delivering the operation needed today and the options needed for tomorrow.

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The Standard Federal Bank building, located amid corporate offices, is adjacent to an upscale mall.