

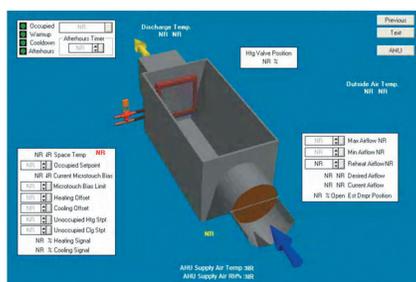


MARSHALL MEDICAL CENTERS | CASE STUDY

Alerton BACnet®-based solution leverages Marshall Medical Centers' existing equipment and saves cost of a complete swap-out

For more than 40 years, Marshall Medical Centers have served as the primary regional medical centers in Boaz, Alabama. Offering full-service healthcare, Marshall Medical Centers (MMC) are home to the county's only true "open" magnetic response imaging (MRI) machine—featuring three open sides, rather than the traditional enclosed tunnel—which makes the procedure much more pleasant for children or patients who are uncomfortable in confined spaces.

When MMC began renovation and expansion of their main facility, the building engineer wanted a heating, ventilating and air conditioning (HVAC) system



BACtalk ensures precise heating and cooling requirements can be achieved with point-and-click simplicity.

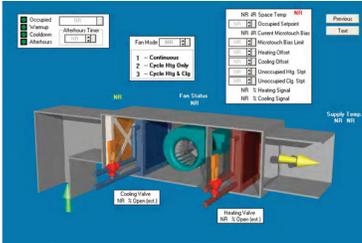
based on BACnet technology. The hospital chose QCI, Alerton's Alabama dealer, to install it in conjunction with Bendall/AllControls, Inc. (BAC).

The hospital's original controls system was expensive to maintain and it was overdue for an upgrade. MMC needed a cost-effective, scalable solution to replace it—even if that meant switching to an entirely different vendor. QCI and BAC set up BACnet demonstrations so the building engineer could see the open standard in action. The MMC building engineer and administrators liked the flexibility, scalability and integration abilities of the proposed system and approved it for installation.

The hospital housed a great deal of third-party equipment that required integration into a single controls system. Once an updated BACnet-based field server was in place, QCI and BAC technicians were easily able to interface and program more than 3,800 DDC points for centralized management.

QCI and BAC installed Alerton building controls that upgraded the hospital's HVAC system with scalable BACnet-based technology. With an open protocol communications standard, the new system integrated

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BACTalk's vividly detailed displays enable you to quickly check the operating status of every piece of equipment, such as the fan-coil unit above.

much of the hospital's original equipment. This enabled MMC to leverage its existing investment and avoid the costs of a complete swap-out. The project included global controllers, variable

air volume (VAV) controllers, air handling units, chillers, variable speed drives and BACTalk® operator workstations.

QCI and BAC first replaced the original workstation and main controller—based on a proprietary protocol—with an Alerton BACTalk operator workstation and BTI global controller. With BACnet, competitive equipment appears as standard BACTalk objects. This means the hospital's new controls system seamlessly integrates with any manufacturer's device and enables administrators to cost-effectively create the best solution to meet their needs.

QCI and BAC also installed a new chiller building and operating unit. An Alerton BACTalk Control Module (BCM)—a modular global controller and router—for Modbus controls the variable speed drives inside the operating unit to maintain accurate heating and cooling. In remodeled sections of the hospital, DDC variable air volume (VAV) boxes replaced archaic pneumatic controls, which require frequent calibration and maintenance. Other BCMs provide

economic adaptability for the hospital's future growth.

For remote access capabilities, QCI and BAC converted existing network cables to fiber optic. The interface to the hospital's fiber optic network belonged to a competitor, which further illustrates how easily BACnet integrates disparate equipment.

With the new Alerton solutions in place, MMC find monitoring and adjusting their building controls much easier to do than with the prior system. BACTalk's graphical interface quickly calls up zones and setpoints for the facilities staff to view and change. Most importantly, the hospital comes out ahead financially. Its completely new field server interface cost approximately the same as upgrading the original, proprietary system with its own latest software. With a modular approach to building controls, based on the open BACnet protocol, Marshall Medical Centers enjoy a solution that can cost effectively grow to accommodate its needs.

"I spent a lot of time in my efforts to choose the correct engineering controls for Marshall Medical Centers," said Paul Cherico, director of MMC plant operations. "We needed open protocol controls that would meet our present and future needs, provide freedom of choice down the line, and offer affordable software upgrades, parts and service. The BACnet system was a good choice."

