

Case Study: Why Is It So Cold In Here?

Harmonizing Two Conflicting Automation Systems in a Large Medical Center

Project: University of Utah Medical Center

Integrator: Atkinson Electronics

Equipment: Siemens Talon, Johnson Controls Metasys®, and the S4 Open: BACnet-N2 Router

Location: Salt Lake City, Utah, USA



The Customer

The University of Utah Hospital in Salt Lake City, Utah first opened its doors in 1965, and since that time has grown from a single hospital to an extensive health care network that includes four hospitals and 10 neighborhood health centers staffed by 1,000 board-certified University of Utah physicians trained in 200 medical specialties. The hospital has been the recipient of financial gifts and endowments from several philanthropic organizations within the state and throughout the nation. The hospital attracts patients from several states who come to Utah to receive specialized treatment. More than 9,000 people enter the hospital through the main lobby every day; as a result, the lobby has become a focal

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point of hospital hospitality for patients and families. The lobby was originally remodeled in 1997 through a generous donation made by Mr. Reed Brinton. Today, the lobby contains a beautiful grand piano, numerous art objects, and a breathtaking donor wall that displays the names of the hospital's donors and patrons. Works of art and comfortable seating create a positive and peaceful environment for all who enter the hospital.

The Problem

The University of Utah Hospital staff began to receive complaints that the lobby was not a comfortable environment to spend time in. Patients and families complained about the temperature; it was cold when patients needed to feel warm and welcome. The average temperature in the hospital lobby was only 38 degrees last winter. The hospital staff called upon Atkinson Electronics to find a solution to the problem.

Atkinson Electronics had previously installed a Siemens Talon Tridium-based front end and controls during a previous renovation in the hospital complex. This system operated independently of the existing Johnson Controls System in the hospital buildings. Since the systems did not work together, the result was negative building static pressure, which resulted in the uncomfortably cold environment.



The Solution

Atkinson Electronics integrated the Johnson Controls system N2 field controllers into the Siemens Talon front end using The S4 Open: BACnet-N2. Russ Weaver, engineer, describes the S4 Open: BACnet-N2 Router as “robust product solution. The user interface is easy to learn, intuitive and easy to install.” There were 240 N2 devices in the facility. The project called for three S4 Open: BACnet-N2 Routers.

A contributing factor to the success of the integration was the use of the ComBus Quick Tester. Russ Weaver added, “This is a handy device. I would not do another job without one.” The ComBus Quick Tester can identify any problems on the N2 bus and helps to save time and energy in integration projects. This product is available from the S4 Group, Inc. In fact, Atkinson Electronics utilized the ComBus Quick tester to isolate and repair a problem with another legacy Metasys® N2 network that was not a part of the integrated environment. When hospital administration asked Atkinson to investigate a problem with N2 devices going offline in Metasys®, the Quick Tester was able to identify a N2 bus repeater that was intermittently failing. A power cycle of the device would enable it to work for a short

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time, after which it would fail again. Atkinson replaced the repeater and the N2 bus has been performing solidly ever since.

Customer satisfaction

The main goal of the project was to improve occupant comfort. In addition, the project has improved Hospital energy management, and provides far superior graphical visualization and management tools for the facility operations staff. The University of Utah Hospital's main lobby is now a comfortable 70 degrees: The complaints of the cold have stopped, and the lobby, once again, soothes visitors with the piano music and enriches their visits with the lovely works of art.

About the Parties Involved

Atkinson Electronics, Inc. (AEI).

Atkinson Electronics uses its unique organization to combine custom manufactured electronic interfaces with engineered automatic control systems to deliver a superior solution for our valued customers.

AEI has integrated more DDC and open systems along the Wasatch front than any competitor has, and has been the premier controls contractor in Utah and Idaho since 1980.

With over 25 years' experience in digital control systems, 10 years as an open system integrator with more than 50 open system building installations, Atkinson has integrated more systems than any other competitor in the intermountain area.

AEI provides the ultimate blend of affordable and reliable control components that are required for today's complex mechanical systems, including:

- Open protocol HVAC control systems
- LON and BACnet based systems
- Ultimate customer flexibility current and future
- WEB based user interface
- Unmatched customer access
- Reliable and secure remote support
- Bullet-proof Phoenix laboratory controls
- The most safe and reliable lab control
- Highly technical staff to install and support systems
- Industry leading system design and integration for 30 years
- Continued leading-edge development of open systems and integration

For more information about Atkinson Electronics, contact Russ Weaver Russ@atkinsonel.com

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The S4 Group, Inc.

The S4 Group, Inc. is an innovator in software and network appliance development. Products include the S4 Open family of network appliances that enable the opening up of legacy BAS systems and integrating them into open protocols such as BACnet and OPC.

For additional information, please visit our website at www.thes4group.com or contact Steve Jones, Managing Partner steve@thes4group.com.