



Building automation system upgrade and energy management services reduce operational costs; improve comfort, air quality and system functionality; result in energy savings of more than 18 percent.

Challenge

The HVAC equipment and controls, original to the Kansas State Alumni Center building, were fifteen years old and in need of upgrade. The alumni association sought solutions to reduce operational costs, lower the risk of expensive, unexpected controls system failures, increase facilities staff effectiveness, and improve comfort.

Solution

Based on a long-standing equipment and controls relationship, Kansas State Alumni Center administrators met with Knipp Services, a Trane franchise, to discuss the association's upgrade objectives. "Our original equipment and controls were Trane," said Brad Sidener, senior vice president & COO, Kansas State University Alumni Center.

Knipp Services assessed the current system to review the existing configuration and operating conditions in order to help prioritize needs. During a business meeting, the Knipp Services team, consisting of representatives from its controls and sales groups, and Trane building and energy services, discussed solutions and highlighted the potential impact of a Trane building automation system (BAS) R'newal® Program.

Upgrading technologies

Trane BAS R'newal® is a building controls upgrade program designed to make existing building automation systems more effective to improve facility performance. The program renews the BAS without the cost and inconvenience of a full replacement, upgrading the technology with wireless communication, Web-enabled access, mobile control, 3-D graphics, and customized dashboards to transform data into valuable insights.

Improving operational efficiency

With the center's existing Trane® Tracer Summit® BAS upgraded to a Tracer® SC BAS, building operators now have easy access and control of their systems from anywhere using a mobile device such as a tablet or smartphone. Facility managers use the BAS to monitor HVAC equipment, make set point changes, control temperature and humidity levels, manage alarms, and quickly respond to hot/cold calls. "The BAS is user-friendly and helps improve the efficiency of our technicians," said Bill Cecil, facility coordinator, Kansas State University Alumni Center. "Our technicians can use the phone they carry to make adjustments to the systems. The people at Knipp Services can also log in, so if there is an issue, they can walk through it with our technicians to resolve problems quickly."

"Our original equipment and controls were Trane."

- **Brad Sidener**, Senior Vice President & COO, Kansas State University Alumni Center

Kansas State University Alumni Association

CASE STUDY

Reducing energy use, maintaining comfort levels

To maintain comfort levels, while reducing operational costs in the highly-utilized alumni center, the association uses Trane® Air-Fi® wireless communication to incorporate CO2 sensors into the Tracer SC. With a reliable and stable Air-Fi signal, the CO2 sensors efficiently regulate outside air based on occupancy levels, allowing the association to reduce energy costs when the facility is not in use. Eliminating the need to run wires, the Air-Fi wireless communication helps preserve aesthetics of the alumni center.

Uncovering opportunities for improvement

The alumni center employs Trane Intelligent Services for ongoing energy management. Intelligent Services facilitates monitoring, analysis, alerts, reporting, tracking and data visualization of building and system information. Real-time monitoring helps drive down costs by discerning where and when energy is being used, allowing the team to spot anomalies, prioritize building equipment issues and implement schedule changes.

The alumni association and Knipp Services meet four times a year to discuss issues and potential areas for additional energy savings. With ongoing support and consultation from its Trane team of experienced building professionals, Knipp Services analyzes the center's energy data, using graphs and reports generated by the energy management system. Working together, the Kansas State University Alumni Center and the Knipp Services teams assess the data to identify opportunities for improvement and transform it into targeted actions to optimize building performance for increased energy efficiency, reliability and occupant comfort.

Results

Using Trane BAS R'newal® to upgrade its controls systems and Trane Intelligent Services for ongoing energy management, the Kansas State University Alumni Center has reduced energy and operational costs, and improved comfort, air quality and system functionality. The Alumni Center has seen a significant energy savings of more than 18 percent.

"We have lowered our utility costs by integrating new and more efficient operating systems," said Sidener. "We've also enhanced the work environment for our staff with increased comfort and lower noise levels."

"The system works well and we have been able to partner with Knipp Services, a local vendor who understands our systems," added Cecil. "Plus, it's nice to know we have the Trane controls and services team to back us up."

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- **Brad Sidener**, Senior Vice President & COO, Kansas State University Alumni Center



About Kansas State University Alumni Association

The Kansas State University Alumni Association is a 43,000-member, self-governed, dues-based organization. Its alumni center is housed in a stunning three-story, 55,000 sq ft limestone building that includes offices and event space for banquets and receptions.



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