# Salt River Fields

CASE STUDY





## Challenge

The Salt River Fields complex was operating with equipment from three different vendors, controls from yet another, and two separate contractors servicing the mechanical and controls systems. As a result of the assortment, the facility was experiencing inconsistencies, inefficiencies and excessive energy consumption. Facility managers sought to streamline operations, and reduce energy and operational costs.

## **Solution**

Although none of the equipment or controls were Trane products, Salt River Fields was familiar with Trane's professional service operations and contacted the company to discuss its challenges. The Trane team presented a solution that included both mechanical and controls service, and the addition of energy services from the Trane Intelligent Services portfolio. The Trane presentation included real-life examples of Intelligent Services Building Performance reports demonstrating operational improvements and energy reductions. Realizing the value of a one-stop-shop for both its mechanical and controls service, and the enhanced energy management capabilities provided by Trane Intelligent Services, Salt River Fields selected Trane as their service partner.

### **Enabling data capture and analysis**

The existing third-party control points were integrated into a Trane® Tracer™ SC building automation system (BAS) and sent to the Trane command center to analyze. The integration enabled Trane to capture and measure energy data, giving insights into building operations and energy use, and enabled Building Performance system analysis to help increase energy efficiency, operational savings, and sustainability.

## Assessing building performance, increasing equipment life

An initial Building Performance assessment revealed underlying issues, including systems operating on a 24/7 schedule, fluid coolers not operating properly, air handlers not economizing during low temperatures, and variable air volume (VAV) boxes unable to control set point. Using Building Performance data to prioritize opportunities, Salt River Fields and Trane moved forward to correct fluid cooler issues. Although the coolers were equipped with variable frequency drives (VFDs), they were operating as an on/off solution, causing undo wear and excessive energy consumption. Faced with the options of reprogramming or replacing the existing cooler controls, Salt River Fields reviewed a simple payback analysis with Return on Investment (ROI), before choosing to replace the controls with a Trane UC600 controller. The pre-package controller provides tower optimization to help with building consistency, includes a one-year warranty, and is remotely supported by the local Trane office through Building Performance.

# Salt River Fields Scottsdale, Arizona

### **PROJECT HIGHLIGHTS**

With Trane as its trusted advisor, Salt River Fields integrated controls, implemented Trane Intelligent Services, and entered into one-stop HVAC/controls service contracts to more effectively manage third-party systems, reducing energy and operational costs.

Salt River Fields, spring training home of the Arizona Diamondbacks and Colorado Rockies, includes an 11,000-seat ballpark, twelve practice fields, clubhouses, training facilities, and offices.



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### **Optimizing operations**

Using Tracer™ SC, facility managers reprogrammed VAV and air handling unit schedules, eliminating multiple on-off schedules previously controlling the equipment. Trane also proceeded with other efficiency and comfort improvement opportunities, including the investigation of air flow design issues, common heating and cooling set points, improper exhaust box setup, and elimination of open-window unit operation.

#### Reviewing performance for continuous improvement

Ongoing inspections keep systems running at their best. Trane BAS service technicians notify Salt River Fields of upcoming visits, and provide details regarding system reviews and scope of work, enabling facility managers to alert personnel, address concerns, schedule coaching, and prioritize opportunities. Alarm logs are reviewed to identify critical events; heating/ cooling system schedules are aligned with facility use; repeat overrides are tracked to determine the need for adjustments; and environmental sensors are checked for accuracy, calibration and signs of potential failure. Operator coaching and user support are provided to raise staff expertise in BAS operation, align habits to best practices, and answer questions.

### Maintaining mechanical systems to OEM standards

Trane protects and enhances system functionality by ensuring that third-party HVAC equipment and components are well maintained and functioning to original equipment manufacturer standards. Regular inspections, maintenance, and preventive measures are completed based on data collected by the energy management system. With continuous analytics identifying issues requiring immediate attention, service technicians focus their time and attention more productively. Technician visits conclude with a summary of actions, findings, professional insights and recommendations, allowing Salt River Fields to plan and prioritize future service work.

## Results

Integrating a new Trane Tracer SC controller with third-party systems enabled Salt River Fields to more precisely control cooling tower operations, resulting in less wear on equipment. With Trane acting as a trusted advisor, Salt River Fields uses Intelligent Services to proactively optimize facility operations and energy management, using data and reports to make more informed decisions regarding building operations, act on energy saving opportunities, and validate performance. Trane technicians also use data obtained from Building Performance to identify potential mechanical issues and increase the productivity of their quarterly visits.

"We've been able to reduce our electric usage, and have fewer issues with our HVAC equipment, which is lowering labor costs and maintenance bills. More importantly, we are extending the life of our equipment," said Jorge Toro, facility maintenance manager, Salt River Fields. "Trane is always on time with service and maintenance, very helpful and very proactive."



# **About Salt River Fields**

Using Building Performance testing, inspections, performance analysis and energy consumption reports, Salt River Fields takes a proactive approach to increase energy efficiency, operational savings, and sustainability.



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit *trane.com* or *tranetechnologies.com*.