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Travis County
CASE STUDY

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Travis County Counts on Monitored Power for Continued System Integrity

Multi-phase access control upgrade moves from outdated legacy to updated networked solution

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For the County of Travis in Austin, Texas, research, dedication and the right team resulted in the perfect integrated security solution for its sprawling campus and multi-location facilities. The Security Division of the Facilities Management Department (FMD), which governs security projects for the County, realized its goal of a consolidated and upgraded access control, surveillance, intrusion and life safety platform with networked power that provides data on system integrity and assists with uptime and proactive monitoring and maintenance.

Travis County, with multiple facilities in the Austin, Texas area, is leveraging intelligent networked power solutions to assist with connected system reliability and ensure greater uptime.

Photo courtesy Preferred Technologies

Travis County stretches some 35 miles and includes 81 different buildings ranging in age, size and overall purpose, encompassing more than three million square feet of office space. Some locations are historical buildings where project execution required a delicate hand. Occupied spaces also dictated detailed coordination so staff and community members would not be inconvenienced. The County's footprint includes courthouses, correctional facilities, community centers, clinics, data centers, labs, forensic center, fleet services, stadium, show barn and park ranger facilities. The city of Austin is growing dramatically, continually expanding the need for new facilities and services.

Goals and challenges

Many of the access control systems were inherited from buildings acquired and converted to commercial space as the County grew. There was a mix of different types of systems in place at different buildings—and of course getting all those solutions to talk to each other and report in a consistent manner was unwieldy at best. The goal was to move from the older legacy systems in place to a cohesive system that could be actively monitored, controlled and managed from a single user interface and platform. Key to these capabilities was an integrated power solution that could be proactive managed and monitored.

Some of the critical remote monitoring capabilities from the connected power solution installed by systems integrator Preferred Technologies LLC (Pref-Tech), Houston, provide the end user real-time notification of AC loss, overcurrent alerts, low battery warnings and other intelligence that allows FMD to address situations before they progress to a dangerous or critical area.

During the project, currently ongoing and slated for completion in 2021, older access control was removed and migrated to newer readers and controllers and locks were also upgraded. Buildings deploy a full spectrum of different access control technologies, including barcode, proximity, smartcards and Bluetooth readers. New IP security cameras were added, as well as upgraded Category 5E and 6A structured cabling. The specification also calls for new parking management, alarm monitoring, security communications, intrusion detection and life safety systems.

One of the important criteria for the access control migration, according to Stephen Davis, CPP, PSP, PCI and Security Division Manager for the Facilities Management Department, was a cohesive solution that would allow the department to provide the best service to county departments and offices. The Travis County FMD manages and provides professional services for project management, planning, design, construction, maintenance, operations and leases. It takes building projects from conception through planning, design and construction, with some locations LEED certified smart buildings with solar energy.

“We monitor the assets we have the privilege to protect,” said Davis. “We have a lot of moving parts and responsibilities, including monitoring and protecting many locations that must be compliant with State and Federal regulations. We have a 24-hour security operations center which is similar to a 911 facility. The overall goal is to be good stewards of the County’s funds and provide a solution that’s cost effective and results in a lower total cost of ownership—while fulfilling the needs of all stakeholders.”

Shannon Clyde, Electronic Security Systems Manager, Security Division of FMD, is

overseeing and implementing the massive migration of access control.

"There were quite a few different access control systems operating," Clyde said. "To begin the project, we did an overall assessment of technologies available and issued a Request for Proposal. We decided on the Genetec Security Center," he added.

Security Center is the unified security platform from Genetec Inc., Montreal, Can., that blends IP security systems within a single intuitive interface to simplify operations. From access control, video surveillance, and automatic license plate recognition to security communications, intrusion detection and analytics, Security Center provides enhanced situational awareness, unified command and control and cloud connectivity.

Historical buildings

Clyde said minor challenges were tied to the age of the buildings, some dating from the 1800s with historical status. "There weren't too many challenges that couldn't be met with having the right people and the right technology. We have an excellent provider and partner in Pref-Tech."

Pref-Tech, led by Shaun Castillo, President, is a multi-generational company that focuses on the highest levels of service to the customer. Pref-Tech has migrated successfully to an IT centric systems integration company with design-build-management expertise in data communications networking, security and low voltage. Its IT-focused staff is able to complete custom design and programming to meet the needs of Travis County.

Pref-Tech answered the Request for Proposal, a multi-phase bid centering on migrating from a legacy Lenel Facility Commander WNX. The County also required the specification to include LifeSafety Power Inc. prewired enclosures with integration into Genetec Security Center for remote monitoring. Pref-Tech's custom monitoring plug-in fit the spec for that direct integration.

"The goal of the project was to upgrade their security and centralize on a unified platform," said Castillo. "One of the items important to Travis County was the ability for FMD to proactively address any problems with power-connected solutions system wide, so they specified LifeSafety Power network communications and the Pref-Tech monitoring plug-in for the project. They are already starting to see widespread benefits with networked monitoring of power supplies."

In one recent incident FMD and Pref-Tech received real-time notification of a temperature condition that caused airflow to stop. "We both got the alarm and were able to take immediate action," Clyde said.

"Our monitoring plug-in can see data spikes and provide the information immediately to the Security Division operating center and to our support team," said Terry King, General Manager, Pref-Tech. "In another instance, the monitoring plug-in received a power fault error and notified Travis County before they were aware. It was an AC fault but our system was proactively giving us the information to more effectively manage the issue. That further addresses system reliability and protects the investment they have made."

Pref-Tech Lead Technician/Superintendent Ryan Nelson tests the newly installed ProWire solution for Travis County.

Photo courtesy Preferred Technologies

Direct integration yields rich data

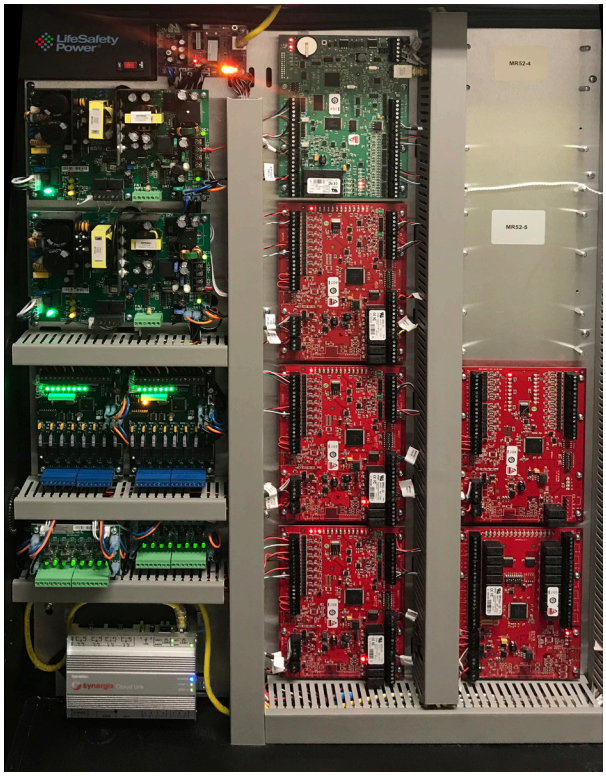
Clyde said Pref-Tech was able to create an integration with the Genetec software that provides interaction and notification congruent with LifeSafety Power solutions. "It's been extremely helpful. We can manage power supplies remotely and get alerts by email if there is an AC supply issue or battery going out. We have a small team and an expansive area to cover. Before, we didn't know what was going on until we sent someone to physically check the facility. This is a fantastic time and cost savings mechanism," Clyde said.

The custom programming of the LifeSafety Power data analytics into the Genetec Security Center software was directed and executed by the IT team at Pref-Tech, including Josh Glover, IT Director and Mark Roland, Development and Systems Team, Manager. Pref-Tech is a Genetec Channel Partner and worked with the manufacturer to deploy Security Center's Software Development Kit (SDK) which allows it to interface and run notifications, alerts and other capabilities directly in the program.

"At a high level, we created a plug in which runs inside Security Center," said Mark Roland. "That allows us to run our own code to extend the Security Center platform and integrate with other products and devices. It uses Simple Network Management Protocol (SNMP) to communicate with LifeSafety Power's NetLink (NL4 and NL2)

Network Communication Modules to receive alerts and other notifications from the connected power solutions. SNMP traps enable a device to notify the management station of significant events and share this detail with Genetec software so all alerts and notifications are coming into the platform, including AC loss, overcurrent alert, low-battery (standby) warning and more," Roland said.

All computer workstations on the Travis County network with the plug in receive notifications natively in the user interface as a custom task under the Pref-Tech tab. Once the user opens the tab it reverts to the Genetec Security Center where users can click on a power supply and see status or other alerts. Alerts can be configured in this area and notified via email and also raise alarms in Security Center. Any workstation can see an alarm and acknowledge, but the ones with the plug in can open the custom task and isolate the issue further, said Roland.



A 16-door Mercury ProWire solution with an added Genetec CloudLink module provides integrated power system monitoring.

Photo courtesy Preferred Technologies

Labor and cost savings

Clyde said it's imperative to have this type of detailed reporting for their system, because of the wide area of coverage and limited staff available to handle emergencies and even routine maintenance.

"We previously had an outside firm to perform preventative maintenance and visit every site. Not only is this a time saver but it saves money as well."

He added that while there is additional upfront cost for the solution, it makes up for that with preventative maintenance savings and a lower total cost of ownership. "We can see, in the single pane of glass, what's happening and take action immediately. If there's a temperature increase in the enclosure, maybe the environment is a little hot. If that scenario continued on it would shorten the life of the equipment and cost a lot of money down the road."

Travis County Access Control Equipment List:

- LifeSafety Power NetLink Network Communications Modules NL4 and NL2
- Genetec Security Center
- Pref-Tech/LifeSafety Power plug-in
- HID readers
- Axis Communications cameras
- Mercury controllers

For more information on LSP managed power systems visit:
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