



ASPIRATION

Case Study: **Cyber Innovation Center**

Innovation Center on **FAAST** Track



Project:

Cyber Innovation Center
Bossier City, Louisiana



Aspiration FAAST 8100

A Louisiana data center **integrates FAAST aspirating smoke detectors with sprinkler systems to protect critical data and equipment.**

Part of the Bossier City, Louisiana, National Cyber Research Park, the Cyber Innovation Center is a state-of-the-art facility that brings together the best from government, industry, research and academia to accelerate technology transfer and develop the necessary workforce to meet growing cyber demands. Its 139,000-square-foot office building includes office space, research labs, high density computing space and meeting facilities.

Protecting its assets is one of the Cyber Innovation Center's highest priorities. Ronald Case, senior project manager for Fire Tech Systems Inc. in Shreveport, La., says this priority was best demonstrated in one of the center's data centers.

For this program Fire Tech Systems elected to integrate System Sensor's FAAST Fire Alarm Aspiration Sensing Technology® with a pre-action sprinkler system to give them the earliest

detection possible. The sprinkler system is a double interlock system that takes two actions for activation: First, there must be smoke to trip the detectors for the pipes to charge with water. Second, heat from a fire is needed to fuse any one of the sprinkler heads, and only then will water discharge.

“To detect smoke for the first trip, we needed a more advanced early warning detection system, and that system is FFAST,” says Case.

FFAST utilizes a unique Dual Vision sensing technology that uses a high-sensitivity blue LED to detect incipient fire conditions and an infrared laser to detect nuisance particulate. Advanced algorithms process data from both sensors to provide early and accurate fire

In addition, high-velocity air units are used to regulate and maintain the temperature needed for these rooms. The Cyber Innovations Center chose to adopt a hot aisle/cold aisle cooling strategy with the hot aisles being enclosed by heavy plastic sheeting. Due to the high airflow from the air conditioning and the pressure challenges presented by the large temperature differentials from cold aisle to hot aisle, Fire Tech opted to use four FFAST systems: two for the cold aisles and two for the hot aisles.

“The design involves blowing cold air through the ceiling vents into the area where the hard drives and racks are located. The air is then pulled through the racks, cooling them, and then into the hot aisles where it rises

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— **Ronald Case**, Senior Project Manager for Fire Tech Systems Inc.

detection. FFAST is an ideal fit for the data center because it enables early warning of fires while greatly reducing false alarms from dust or other nuisance situations that could interrupt computer room operations.

“Also, through the FFAST system, we can notify the tenant or the IT department operator via the Internet or email,” explains Case. “We could have even put the FFAST systems onto our network to be monitored through smart phones, tablets and iPads, as well as receive emails giving the status of the detector.”

through the ceiling and is recirculated,” Case continues. “So, it’s basically high flow, high air movement. And FFAST can be programmed to adjust to that high air flow.”

Overall, it was all a hand-in-hand project between Fire Tech Systems and System Sensor according to Case. “The FFAST system was a clear choice from the onset...the ease of installation, the features and the functions of the system, user-friendly for the end user, simple to understand, and low maintenance are all factors that not only fit the installation, it sets it apart.”



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