

Case Study: Protecting Data Center Perimeters with SightLogix Smart Thermal Security Systems



Data centers are the backbone of the digital economy. As the amount of data scales, there are increasing reasons to be concerned about physical protection of each data center facility, where a tremendous volume of information is aggregated into a concentrated area, exposing new risks. Protecting these assets from perimeter intrusions is crucial for ensuring business continuity.

Recognizing that security starts at the perimeter, data centers are taking the same strategy that is common for the network - where firewalls, antivirus and other cyber security methods are standard practice - and extending it to the perimeters and buffer zones around the data center facility itself. Because early and accurate detection of an intruder is essential, smart thermal technology plays a critical role by consistently monitoring even the most expansive data center perimeters.

SightLogix makes highly reliable Perimeter Intruder Detection Systems (PIDS) that include thermal cameras with edge-based AI analytics. These systems explore in real time—and with the highest probability of detection—when an intruder crosses into the property, so security teams can be instantly alerted and have the knowledge to determine how to respond.

Mission: Secure and Protect Data Center Perimeters with Edge-Based Thermal Analytics

Data center customers have recently initiated a re-evaluation of their current solutions to ensure they were using the most effective solutions available. Understanding that technologies evolve and improve, they invited leading manufacturers of perimeter security systems of various technologies to participate, including video analytics, to select systems that could deliver:

- Early threat detection at the outermost perimeter boundary
- Real-time situational awareness of perimeter events
- An edge-based solution that eliminates the risk of a system-wide failure



Multiple vendors were invited based on reputation for performance protecting critical perimeters. Each manufacturer's equipment had to detect intruders up to a specified distance and provide visual assessment of every event. The systems to emerge from the rigorous testing had to meet the following objectives:

- Detect with extremely high reliability without overtaxing the manned resources of their Security Operations Center (SOC)
- Interface seamlessly with their Access Control System (ACS) and Video Management System (VMS)
- Achieve system performance without dependence on complex APIs, SDKs, and frequent software patches
- All manufacturers, whether selected or not, must adhere to a non-disclosure agreement

SightLogix was invited to compete against other video analytic products, and provided smart thermal SightSensors that matched the customer's evaluation criteria. Evaluation criteria included:

- Probability of detection
- Nuisance Alarm Rate (NAR)
- Ease of deployment
- Interoperability with other systems (e.g., VMS, ACS)

There are a number of challenges unique to data centers that are well served by a smart thermal video solution. Thermal video analytic cameras work day and night, obtaining a wide range of information to detect intruders in the darkness or bad weather. They provide early detection for preemptive awareness. When security professionals are alerted to this activity with video detail, a heightened level of security can be put into place to ensure appropriate response.

Like all the manufacturers invited to participate, SightLogix was allowed to certify their product's initial configuration. Once done, the system had to stand on its own without any further involvement from SightLogix or the integration partner during the evaluation. This would help ensure that only top-performing, real-world systems would earn the business.

As a result of the SightSensor's excellent performance, SightLogix was chosen as the approved video analytic solution for the customer's data center projects. A SightLogix certified partner was selected as a certified systems integrator to deploy the solution at all geographical sites where it met the customer's requirements.

The SightLogix system was selected among the video analytic manufacturers based on several key, demonstrated capabilities:

- **Detection:** The system's video analytic detection performance, which detects and acquires an intruder's speed, bearing, and geo-location in milliseconds – for the fastest preemptive response
- **Early Warning:** The system's ability to provide early warning of intruders at the client's requirement, detecting targets outside, inside, and at the perimeter fence
- **Real-time Awareness:** The system's ability to produce video at the point of the intrusion, and also automatically spin and zoom PTZs to follow the detected target(s)
- **Edge-based architecture** that pass video and alarms across the IP network peer-to-peer without server resources
- **Powerful processing** that analyzes the full dynamic range of the thermal video, providing more data to deliver more accurate results
- **Geospatial Detection Zones**– not merely tripwires–based on size, speed, bearing, and geo-location of targets
- **Automatic Stabilization** that reduces nuisance alarms due to camera shake from wind and vibrations
- **Open architecture** for interoperability with the customer's ACS and VMS
- **A toolbox of filters** to manage outdoor conditions at each data center site

SightSensors have now been successfully deployed at the customer's data centers globally. SightLogix and the certified partner continue to work closely with the customer to meet their rigorous requirements for outstanding perimeter protection.

Summary

With a proven track record of providing a high level of perimeter security for data centers, our clients can expect:

- Excellent detection with minimal nuisance alarms
 - Reduced infrastructure and maintenance costs from reliable, long-range systems built to survive the toughest elements
 - A system that is very easy to install, setup and maintain
 - Outstanding support from the SightLogix team
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About SightLogix

Packed with power and engineered for performance, SightLogix smart thermal cameras solve outdoor security problems at sites where detection matters. It's our passion and our mission to deliver highly reliable and easy-to-deploy security systems with edge-based video analytics, long and wide area coverage, and geo-spatial target tracking, purpose-built to help you succeed. Learn more at www.sightlogix.com.

Information and Resources

- To perform an online perimeter security design of your facility in minutes, visit: <http://www.sightlogix.com/sightsurvey-tool/>.
- To read more about SightLogix SightSensor technology, visit: www.sightlogix.com. To request a meeting with a solution specialist, email info@sightlogix.com or call +1 609.951.0008.