Edge computing enhances public sector physical security systems

Streamline data Acquisition and Analysis to drive Action

Securing public sector facilities is an important aspect of protecting people, assets and data. Technology has always played a role in creating physical security, evolving from simple locks and keys to more modern approaches. Today, smart sensors are a key part of the public sector security infrastructure. Located in electronic keypads, motion detectors, video monitoring systems, access panels, and other electronic security systems, sensors play a pivotal role in securing critical government assets.

Challenges: Acquiring, Analyzing and Acting on data to enhance physical security

The proliferation of smart sensors potentially transforms physical security in the public sector. Local and federal agencies can rely on data provided by sensors, whether it's electronic entry systems, such as keypads or security gates, or access to critical facility interfaces that connect to the network.

To achieve the promise, certain challenges must be addressed. The breadth of sensors can produce large amounts of data, even in a single day. Much of that data is fairly mundane, logging perfectly normal facility accesses and other typical events. Yet, all data can play a role in understanding security needs if the sheer volume can be handled.

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Rules-based security alerts are also problematic. As more sensors are deployed, the number and frequency of security alerts generated by the sensors rises. Not all these alerts are actionable. A bird flying by can activate a motion sensor triggering an alert. A storm can cause a tree branch to spark an electronic barrier.

Parsing through those alerts to determine which are legitimate threats that require action can quickly become overwhelming for security monitors. Agencies must find new ways of acquiring, analyzing and acting on the data from these sensors.

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Solution: Edge computing moves analytics to the edge for fast analysis and action

Edge computing can relieve much of the burden of collecting and analyzing threat data from security sensors. Security algorithms that live out on the edge can quickly analyze sensor data and act on it in real-time, such as immediately locking down security doors or blocking access to critical systems. This is especially important when preventing a physical breach is a matter of public safety.

Lumen operates over 40 edge computing sites across the nation. By moving key applications to the edge, latency can be reduced to improve the response times when a physical breach is detected. Because Lumen works with the major cloud providers, these edge facilities can stay in synch with cloud resources while improving application performance and being compliant with state and federal regulations.

For instance, artificial intelligence (AI) engines in the cloud can provide analysis of security data from sensors, producing algorithms that can then be deployed at the edge. That business logic can then parse data in real time, producing alerts only when action must be taken. Because security is a multi-faceted concern, Lumen's edge compute infrastructure provides facilities where partners can deploy their technologies closer to customers, providing a tailored security solution for public sector needs.

Results: Enhanced physical security through data acquisition, analysis and action

Utilizing edge computing with smart sensors embedded in public sector security infrastructure significantly reduces the workload on monitors by analyzing data close to the source and reducing the amount of data that must be transmitted across the network. Consider just a few benefits:

- Automated real-time response to physical threats
- Reduction in the number of false security alerts
- Delivered in a manner compliant with state and federal regulations

Edge-based computing is a key enabler for the new public sector security infrastructure.

Visit lumen.com/edgecomputing for more information.

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