

Integrating Intelligent Electronic Access Systems

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As security requirements become more stringent, engineers are looking to integrate electronic access systems (EAS) into cabinets, racks and other enclosures. These systems provide an extra layer of security for sensitive information and equipment in two ways: they guard against unauthorized entry and they offer the ability to track and report who accesses the enclosure as part of advanced, networked systems.

The EAS on the enclosure can be integrated with existing security systems, which is particularly important for medical supply and drug cabinets and computer data network cabinetry. More than just a means to lock/unlock doors, electronic access technology enables the design of sophisticated access management systems that can control access privileges, create audit trails and integrate into a larger security strategy.

Security Tailored to the Application

Self-contained electro-mechanical solutions can simplify the integration of electronic access technology into enclosures. Available in standalone and networked configurations (see Figure 1), an electronic access control system is composed of an access control device, such as a keypad or electronic key, connected with an electronic lock that can be integrated with a network system. So data center managers now have the ability to retrofit existing racks and cabinets with a complete security solution, which can speed deployment.

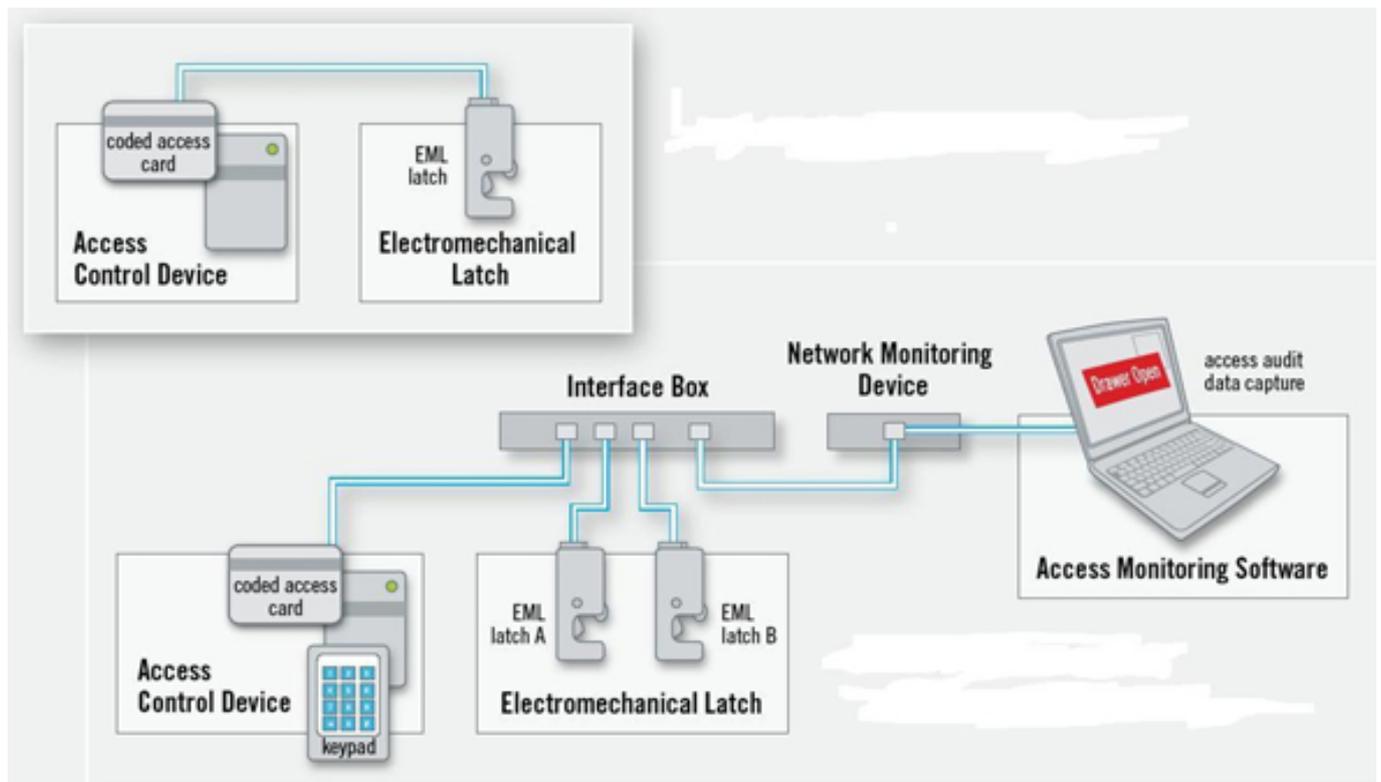


Figure 1.

Security restrictions and remote monitoring and control capabilities that were once impossible with mechanical locks and keys can be easily configured into an electronic access solution. For example, an IP-based access control system can be used to protect the same networking equipment that provides the IP network for the enterprise. An electronic access system can limit access to protected equipment, data or supplies based on administrator-defined security privilege and job functions. Updates can be quickly made remotely from a network system and credentials, whether created in the form of keypad codes, electronic keys or other RF-based devices. This level of sophistication could never be achieved with a mechanical lock and key system.

Taking security another step forward, an electronic access system can also monitor the activities of personnel that are granted admission into the enclosure. Interfaced with an existing network, the electronic access control system can send a signal to a remote monitoring system each time a latch opens or closes, leaving an “electronic signature,” creating an audit trail that records a range of information about the event, that can include who accessed the enclosure and for how long.

These systems can be taken even further by integrating customized capabilities, such as soft-touch switch door access, wireless remote access and the integration of lighting with access points.

Scalable Security

Unlike mechanical locks that provide a static solution, electronic access system can be scalable, designed to grow as companies, networks and needs expand. For example, an electronic access system, originally built as a standalone system

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without software or network administration, can later accept components to provide advanced access management and monitoring via remote network connection. As a system ages, retrofits can update or expand existing security and capabilities at a fraction of the cost of new installations.

Electronic access systems offer heightened security capabilities, flexible industrial design and the ability to integrate locking/latching operations into an automated control system. These solutions have eliminated the limitations imposed by physical key management. They can simplify security management and generate high-value data, which allows administrators to identify and close holes in their security infrastructure. As demands for greater security, real-time monitoring and centralized control grow, so will the use and sophistication of electronic access technology.

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