Enterprise Access Control System
Avigilon Access Control Manager Systems

The Access Control Manager (ACM) system is an IT-friendly physical access control system (PACS) from Avigilon for enterprise-class installations. It’s a complete system that is designed to keep your focus on securing your people, property and assets, and maximizing your time by helping you respond immediately to alerts wherever you are. The ACM™ system is a browser-based solution that can integrate with existing IT/HR systems, minimizing the need for duplicate data entry. It comes with a full set of standard features that not only help to maximize your time, but will reliably safeguard your information.

Five reasons to deploy an ACM enterprise system

1. No server or client software to install. No costly client licensing, annual software licensing or software and support agreements to renew.
2. Manage enterprise access and events on your terms and with the devices you use every day.
3. Capitalize on company investment of existing hardware or choose to move from proprietary or unsupported hardware to the ACM system.
4. Integrate with identity management systems to connect IT and physical security systems together.
5. Map enterprise roles to physical access to enforce policy restrictions.

Secure, Linux operating system

The ACM system helps companies stay ahead of network security issues by deploying an access system that provides exceptional protection at every turn. Using an open-source Linux platform provides an extra layer of security against network vulnerabilities. This can decrease system maintenance and eliminate the cost of operating system licenses and upgrade fees.

Physical and logical security convergence

The ACM system approaches identity management in a unique way. Our system synchronizes core security information across peer-to-peer networks in real time, ensuring all operators see the most up-to-date information. This core technology, along with automatic redundant failover solutions, increases system uptime and protects valuable data, allowing IT departments more time to focus on other operational tasks.

Performance-Driven Features

- 100% browser-based PACS
- Access, video and intrusion event and alarm management
- Open architecture (Open LDAP and Open-field hardware)
- Hot standby-auto failover (System failover redundancy)
- Global anti-passback, linkages, actions, and synchronization (replication) of access information
- Role-based authorizations and policy enforcement
- Identity management (Data exchange between the ACM system and other databases)
- Graphical maps and floor plans
- Video interface and verification
- Biometric, wireless lock, and intrusion panel integrations
- Mustering (emergency tracking and reporting)
- Overrides
- Hardware status dashboard
- Priority door action
Avigilon Key to Open Access Control

The ACM system integrates with open-field hardware from Mercury Security for businesses that need to move from proprietary and, in some situations, unsupported hardware to a supported access control system. Replace your existing system with a supported platform that preserves a large portion of the existing system investment. The ACM system provides enterprise-class capability without the enterprise overhead.

Accessible from Anywhere

Our 100% browser-based ACM solution is accessible from any location (via the internet) using any device with a browser, anytime, and allows the system to be managed by multiple operators simultaneously. Whether using ACM Enterprise or Virtual system, all changes are automatically synchronized across the entire access system, displaying only the most up-to-date information.

Integrations

Avigilon provides all-in-one solutions to support your most critical business activities. By combining video management, wireless locking, intrusion control and visitor management into a powerful access management solution, security teams can assess and respond with optimum situational awareness, keeping your facility running efficiently and with a higher level of security.

Avigilon Key to Open Access Control

The ACM system integrates with open-field hardware from Mercury Security for businesses that need to move from proprietary and, in some situations, unsupported hardware to a supported access control system. Replace your existing system with a supported platform that preserves a large portion of the existing system investment. The ACM system provides enterprise-class capability without the enterprise overhead.

Powerful features that are included

The ACM system includes powerful features that are typically only offered as licensable options by other manufacturers.

• 50 concurrent client connections
• Musterling (occupancy/emergency tracker and locator)
• Door event management
• Identity search with ACC™ software
• Identity verification from ACC software

Event correlation and alarm monitoring

Use ACC software to create rule-based actions from ACM door events so security teams can visually act and respond to critical alarms. This provides a visual verification of unauthorized activities in and around your facility.

A changeover that's simple to deploy

Preserve the original cabling, enclosure and connectors. Migrate to the latest Mercury Bridge solutions from Avigilon:

• Mercury MS Bridge solution to ACM system
• Mercury M5 Bridge solution to ACM system

All the PACS, Without the Pain

AVIGILON ACCESS CONTROL MANAGER
A successful enterprise access control solution should allow you to focus on securing your people, property and assets without consuming your time with system management. Every aspect of the ACM system is designed to keep you focused externally, freeing up more operational time by providing the information you need to improve safety and resolve incidents. The ACM system interface keeps most system operations at your fingertips. Its user-friendly navigation allows you to manage and effectively report and act on critical security events.

**Personnel locator and occupancy tracker:**
Enhance the safety of key personnel

**Intrusion event monitoring and control:**
Correlate alarms with system actions

**Alarm management and video interface:**
Visual context for alarm events

**Custom reporting:**
Track and record relevant activities
Avigilon Access Control Manager Systems

ACM Professional
16 – 32 reader licenses

The Avigilon ACM Professional system is a browser-based PACS appliance that provides smaller businesses with powerful features at a lower cost of ownership. This system is a great choice for businesses looking to start small and expand as their needs change.

- Installs in tight spaces with a small footprint
- Eliminate the cost and complexity of legacy security systems
- Can be set up in minutes with an intuitive and easy-to-use interface
- Simplify security with a cost-effective all-in-one desktop machine

ACM Enterprise
16 – 400 reader licenses

The Avigilon ACM Enterprise system is a browser-based PACS appliance that provides enterprise-class capability without the enterprise overhead. This system requires 1U of rack space, includes essential features for enterprise businesses and is purpose-built to be deployed in an IT environment.

- Upgrade to a highly resilient, scalable software platform
- Enable simple integration with IT
- Increase uptime with a redundant appliance solution
- Able to synchronize critical data across all network appliances

ACM Enterprise Plus
16 – 2,048 reader licenses

Avigilon’s ACM Enterprise Plus system is an integrated access control network appliance that leverages an open architecture, integrates identity management and video surveillance and achieves a high level of scalability with a low cost of ownership by eliminating the need to maintain a standalone server or install software on multiple machines.

- Provides up to 1.3 TB of effective storage capacity in a RAID 5 solid state drive configuration
- Offers 32GB of expanded memory
- Delivers high availability with redundant 350W power supplies
- Hot-swappable components enable uninterrupted operation of the system

ACM Virtual
16 – 2,048 reader licenses

Avigilon ACM Virtual is a physical access control system (PACS) that is Certified VMware Ready for deployment on a virtual server. The ACM Virtual system is purpose-built for organizations that have migrated their IT infrastructure to a secure, private cloud environment.

- Eliminate the cost of standalone servers and software
- Increase the efficiency and use of computer room resources
- Highly scalable design with decreased deployment time
- Helps to reduce both capital and operational expenditures
The Avigilon ACM system introduces wireless lock integration that takes one of the most simplified access platforms in the industry to a new realm of all-in-one solutions that scale to meet the needs of most global applications. Derived from a 100 percent browser-based Linux platform that can be managed from virtually any location and device with a browser and internet connection, the ACM system sets the stage by providing the benefits of a wired installation – without the complexity and cost that traditional wired locks present.

Wireless lock integration is an excellent solution for educational facilities, healthcare offices and hospitals, commercial businesses, or any application that wants to combine all of the components typically found around the door into a simplified all-in-one system that saves you time.
**KEY FEATURES**

- **Reduced hardware costs**
  - Reduce the cost and complexity of added hardware by connecting the Mercury controller directly to the panel interface module, gateway or communications hub for a secure wireless path to the lock.

- **Modular design**
  - Flexibility to customize the lock to meet the needs of the application now, and purpose-built to allow for customizing the lock rather than replacing it in the future, with little to no operational disruption.

- **Increased security**
  - Turn any keyed door or sensitive area into a monitored access door to improve security in and around facilities.

- **Flexible lock configurations**
  - Ability to customize the reader type, chassis type, locking functions, power options, lever styles, finishes and more according to the needs of the application.

- **No integration license fee**
  - Ability to add wireless locks to new and existing projects without additional licensing fees.

---

Schlage Panel Interface Module

ACM Enterprise Appliance

NDE Series wireless locks

LE Series wireless locks

ENGAGE™ RS485 Gateway

Aperio® wireless locks

Aperio Hub

900 MHz

2.4 GHz BLE 4.0

2.4 GHz

AVIGILON ACCESS CONTROL MANAGER
## Wireless Lock Solutions

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>AD-300 SOLUTION</th>
<th>AD-400 SOLUTION</th>
<th>NDE SOLUTION</th>
<th>LE SERIES</th>
<th>ASSA ABLOY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lock support</td>
<td>16 Schlage AD-300 locks per PIM</td>
<td>16 Schlage AD-400 locks per PIM</td>
<td>10 NDE series locks per ENGAGE gateway</td>
<td>10 NDE series locks per ENGAGE</td>
<td>8 Aperio locks per hub</td>
</tr>
<tr>
<td>Number of supported locks</td>
<td>Standard Mercury licensing applies to the number of doors that can be connected to the ACM system (e.g., a 256-door Enterprise license supports 256 wireless locks).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>125 kHz proximity and 13.56 MHz smart card</td>
<td>900 MHz – 902-928 MHz</td>
<td>2.4 GHz Bluetooth© Low Energy 4.0 between lock and gateway or 2.4* GHz Wi-Fi® between lock and IP Host</td>
<td>2.4 GHz Wi-Fi® (IEEE 802.11b/g/n)</td>
<td>2.4 GHz – IEEE 802.15.4 (16 channels, 11–26)</td>
</tr>
<tr>
<td>Encryption</td>
<td>AES 75-bit</td>
<td>AES 128-bit</td>
<td>AES 256-bit between the gateway and enabled wireless lock and TLS 1.2 between the enabled wireless lock and the IP host.</td>
<td>AES 256-bit</td>
<td>AES 128-bit</td>
</tr>
<tr>
<td>System interface</td>
<td>Wiegand or Clock &amp; Data via PIB300 or RS-485 directly</td>
<td>RS-485 from PIM to Mercury controller</td>
<td>RS-485 from ENGAGE gateway to Mercury controller</td>
<td>RS-485 from ENGAGE gateway to ACP</td>
<td>RS-485 from Aperio hub to Mercury controller</td>
</tr>
</tbody>
</table>

*ACM software only supports RS485 from each gateway to Mercury panel for real-time communication.
Allegion AD-300 Solution

Schlage® electronic wireless locks are designed to be modular and provide more options to choose from, more functionality in the lock and more compatibility with existing systems. Its patent-pending modular design allows the lock to be customized to fit the needs of an application now, and changed to meet future needs without removing it from the door.

Key Features

- Open architecture platform
- Panel interface options ensure seamless communication with ACM
- Field configurable fail safe/fail secure and other capabilities per code
- Compatible with major brands of master key systems
- Real-time communication between ACM system and lock
- A wide selection of credential readers and networking options

Allegion AD-400 Solution

Schlage® wireless locks communicate over a secured 900 MHz band to a panel interface module that acts as the gateway between the Mercury hardware and the wireless lock. Each Panel Interface Module (PIM) allows a wireless connection of up to 16 AD-400 wireless locks. This solution uses two variants of Mercury hardware controllers that connect over RS-485 to the Schlage PIM.

Key Features

- Automatic linking to remote wireless access points with 10 channel frequencies
- Five visual indicators to quickly pinpoint and display status
- Commission the AD-400 solution using a handheld programmer
- Support for 125 kHz proximity and 13.56 MHz smart cards
- AD-400 series locks receive power from standard alkaline batteries
NDE Series Wireless Locks
Schlage NDE wireless locks communicate over a secured 2.4 GHz Bluetooth 4.0 connection to the ENGAGE gateway. Each gateway supports up to ten NDE or LE series wireless locks. The ENGAGE gateway provides real-time communication to the ACM software to monitor the condition of each wireless access door. Each gateway communicates over RS-485 to the Mercury controller.

Key Features
• Provides real-time communication to the ACM system
• Easy installation for existing doors
• Simple to commission using the ENGAGE mobile app
• Compatible with Allegion aptiQ™ multi-technology, smartcard and proximity credentials from Avigilon
• NDE series locks receive battery power from standard alkaline batteries

LE Series Wireless Locks
Managed with ACM system from Avigilon, the Schlage® LE wireless mortise lock with ENGAGE™ technology is designed to affordably extend electronic access control deeper into the building beyond traditional perimeter and high security openings. LE wireless locks simplify installation by combining the lock, credential reader, door position sensor and request-to-exit switch all in one unit.

Key Features
• Weather-resistant design for use on perimeter doors
• Built-in Bluetooth® enables wireless configuration from smart phones and tablets
• Networked real-time communication with Software Alliance ACM via the ENGAGE Gateway
• Up to 2 years of battery life

ASSA ABLOY Aperio Solution
Aperio wireless locks communicate over a secured 2.4 GHz band to an Aperio communications hub. Each hub allows a wireless connection of up to eight Aperio wireless locks. This solution uses three variants of Mercury hardware controllers that connect over RS-485 to the Aperio hub.

Key Features
• Integrated antenna with the option to mount an external antenna
• Visual status indicator
• Commission the Aperio solution using a PC or laptop
• Support for HID 125 kHz proximity and 13.56 MHz iClass® contactless credentials
• Aperio series locks receive power from alkaline or lithium batteries
## Allegion Ordering Information

### North America

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC-ALL-SCH-PIM400-485-RSI*</td>
<td>900 MHz PIM for use with the Mercury EP2500 intelligent controller</td>
</tr>
<tr>
<td>AC-ALL-SCH-PIM400-1501-LC*</td>
<td>900 MHz PIM for use with the Mercury EP1501 PoE intelligent controller</td>
</tr>
<tr>
<td>AC-ALL-SCH-HHD-KIT-USB</td>
<td>Handheld device kit to program the Schlage locks and PIM devices</td>
</tr>
<tr>
<td>AD-400 Series Locks</td>
<td>Custom lock options available</td>
</tr>
<tr>
<td>AD-300 Series Locks</td>
<td>Custom lock options available</td>
</tr>
</tbody>
</table>

### North America and EMEA (Europe, the Middle East and Africa)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC-ALL-SCH-GWY-ENGAGE*</td>
<td>ENGAGE gateway</td>
</tr>
<tr>
<td>NDE Series Locks</td>
<td>Custom lock options available</td>
</tr>
<tr>
<td>LE Series Locks</td>
<td>Custom lock options available</td>
</tr>
</tbody>
</table>

*Does not include Mercury hardware from Avigilon

### Images

- ENGAGE RS485 gateway
- NDE Series Locks
- Allegion app for simplified setup
- Schlage PIM400-485
- Schlage PIM400-1501
- HHD Programming Kit
- AD-400 Series Locks
- AD-300 Series Locks
- LE Series Locks
### Mercury Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC-MER-CONT-1DR</td>
<td>Single-door PoE networked controller for use with Allegion and ASSA ABLOY Aperio</td>
</tr>
<tr>
<td>AC-MER-CONT-2DR</td>
<td>Two-door networked controller for use with only ASSA ABLOY Aperio</td>
</tr>
<tr>
<td>AC-MER-CONT-64DR</td>
<td>Intelligent 64-door networked controller for use with Allegion and ASSA ABLOY Aperio</td>
</tr>
<tr>
<td>AC-MER-CONT-LP1501</td>
<td>PoE+ edge-capable intelligent controller (2 readers, 2 inputs, 2 outputs)</td>
</tr>
<tr>
<td>AC-MER-CONT-LP1502</td>
<td>Intelligent controller (2 readers, 8 inputs, 4 outputs)</td>
</tr>
<tr>
<td>AC-MER-CONT-LP2500</td>
<td>Master intelligent controller (No onboard I/O)</td>
</tr>
</tbody>
</table>

![Images of controllers](images)
## ASSA ABLOY Ordering Information

### North America

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC-MER-AH30RN1-RC*</td>
<td>Aperio RS485 hub 1:8 with RC enablement SW</td>
</tr>
<tr>
<td>AC-MER-APD-10-USB</td>
<td>Aperio USB radio dongle</td>
</tr>
<tr>
<td>AC-AA-HUB-EXT-10-ANT</td>
<td>Aperio hub external omnidirectional antenna</td>
</tr>
<tr>
<td>Aperio Series Locks</td>
<td>Custom lock options available</td>
</tr>
</tbody>
</table>

*Does not include Mercury hardware from Avigilon

---

Aperio RS485 hub  
Aperio USB radio dongle  
Aperio Series locks from Avigilon

---

**AVIGILON ACCESS CONTROL MANAGER**

---

**ASSA ABLOY**

The global leader in door opening solutions
Engineered Solutions for Enterprise Class Businesses

Avigilon solutions are engineered from the ground up with exceptional IT standards that easily integrate with an organization’s existing physical or virtual IT environment. Avigilon is committed to providing the ease-of-use demanded by facility managers and the flexibility required by IT departments.

**Supported Access Control Solutions**
- Mercury Security
- HID Global
- ASSA ABLOY
- Allegion
- Farpointe Data®
- EasyLobby® by HID
- LifeSafety Power
- ViRDI Biometrics
- Simons Voss

**Supported Video Integration Solutions**
- Avigilon Control Center™
- Milestone Systems
- Salient Systems
- Exacq Technologies by Tyco Security
- Dedicated Micros

**Supported Third-Party Databases**
- LDAP
- Active Directory
- SQL Server
- Oracle® RDBMS
- Comma Separated Value (CSV)
- XML (Event push)

**Supported IT Platforms**
- Linux
- OpenLDAP™
- Certified VMware Ready
- Firefox®
- Google Chrome
- Apple Safari
- Internet Explorer
- Microsoft EDGE
Avigilon Value

Commitment and quality
• More than a decade of experience in the business
• Quality products, manufacturing and operations
• Continuous investment in new technologies

Fast time to value
• Easy installation
• Complimentary 24/7 support

Low total cost of ownership
• No recurring software licensing fees
• No maintenance fees
• Complimentary training
Avigilon enterprise-class access control solutions provide a 100% browser-based Linux platform that delivers exceptional value, allowing customers to achieve full access control capability at a lower cost of ownership.

To learn more, visit avigilon.com/acm