SOFTWARE HOUSE

From Tyco Security Products

IP-ACM v2

2-Reader Ethernet Door Module

Features that Make a Difference:

- Cost-effective IP access control module
- Up to 32 IP-ACMs per iSTAR Ultra and iSTAR Ultra SE, and up to 8 per iSTAR Ultra LT[1]
- Convenient second port for biometric reader or efficient network diagnostics
- Wet lock outputs provide up to 0.75A each for ability to power most lock types
- Highly distributed architecture
- PoE or PoE Plus
- 10/100/GigE connectivity
- AES-256 network encryption
- Configurable offline mode
- Easy setup with static IP or DHCP
- Small, 'office-ready" enclosure design
- Full duplex RS-485 on board to leverage future technology
- Selectable "wet" and dry output relays
- OSDP support fosters device interoperability
- Supports TLS 1.2 and 802.1X secure network protocols for protection against the threat of cyber attacks

Access Control for the IT-Savvy

The more you read about security system compromises, the more you can understand why IT-savvy customers are demanding more secure ways to deploy and manage their security technology.

With all of the attention and money being spent on safeguarding a company's network, leveraging that network infrastructure for access control makes a lot of sense from a security and cost perspective.

IP-ACM v2 is a flexible and future-proof Ethernet door module that helps reduce wiring and installation costs, and supports TLS 1.2 and 802.1X secure network protocols for protection against the threat of cyber attacks.

Distributed Architecture Offers the Ultimate in Scalability

IP-ACM v2 is installed 'at the edge' or near the doors it is controlling (typically in the ceiling) and communicates securely over IP to an iSTAR Ultra GCM, iSTAR Ultra SE GCM or iSTAR Ultra LT using AES-256 encryption. The GCM contains the local access database and makes all access decisions.

Each IP-ACM v2 can support two doors, or one door with in and out readers (Wiegand, RM, BLE, or Open Supervised Device Protocol (OSDP v2). Each iSTAR Ultra supports up to 32 readers; so, if each IP-ACM is connected to one reader, up to 32 IP-ACM devices may be connected to a GCM. If each IP-ACM has two readers, then 16 IP-ACMs may be connected to the GCM.

Use IP-ACM v2 on the same primary network as iSTAR Ultra, iSTAR Ultra SE or iSTAR Ultra LT, or set up a separate dedicated subnet to the iSTAR Ultra GCM, iSTAR Ultra SE GCM or iSTAR Ultra LT for a more secure option. In this highly secure layout, the iSTAR Configuration Utility or a similar tool can be used to set static IP addresses for each IP-ACM v2.

You can even use IP-ACM v2 in a hybrid layout, combining IP-ACM doors with traditionally wired doors.

Offline Mode for Reliable Continuity

IP-ACM v2 is one of the industry's only IP door modules that includes a configurable offline mode that allows users to select "No Access", "Access based on the last buffered 1,000 unique cards" and/or "Access for specific personnel group" if network communication is lost. This ensures that authorized cardholders can still gain entry even in a network outage. All card admits and rejects will be buffered, and uploaded when the IP-ACM is back online.IP-ACM v2 will alarm on any loss or latency of network communication, allowing you to proactively manage the situation.

[1] 32 readers per GCM maximum for iSTAR Ultra and iSTAR Ultra SE, and 8 for iSTAR Ultra LT

Features

Flexible Enclosure and Power Options

IP-ACM v2 is available as a standalone board, in a metal enclosure with lock & tamper or an ABS plastic enclosure with front and rear tamper. For finished spaces, the aesthetically pleasing ABS plastic enclosure is ideal for mounting on the secure side of a door.

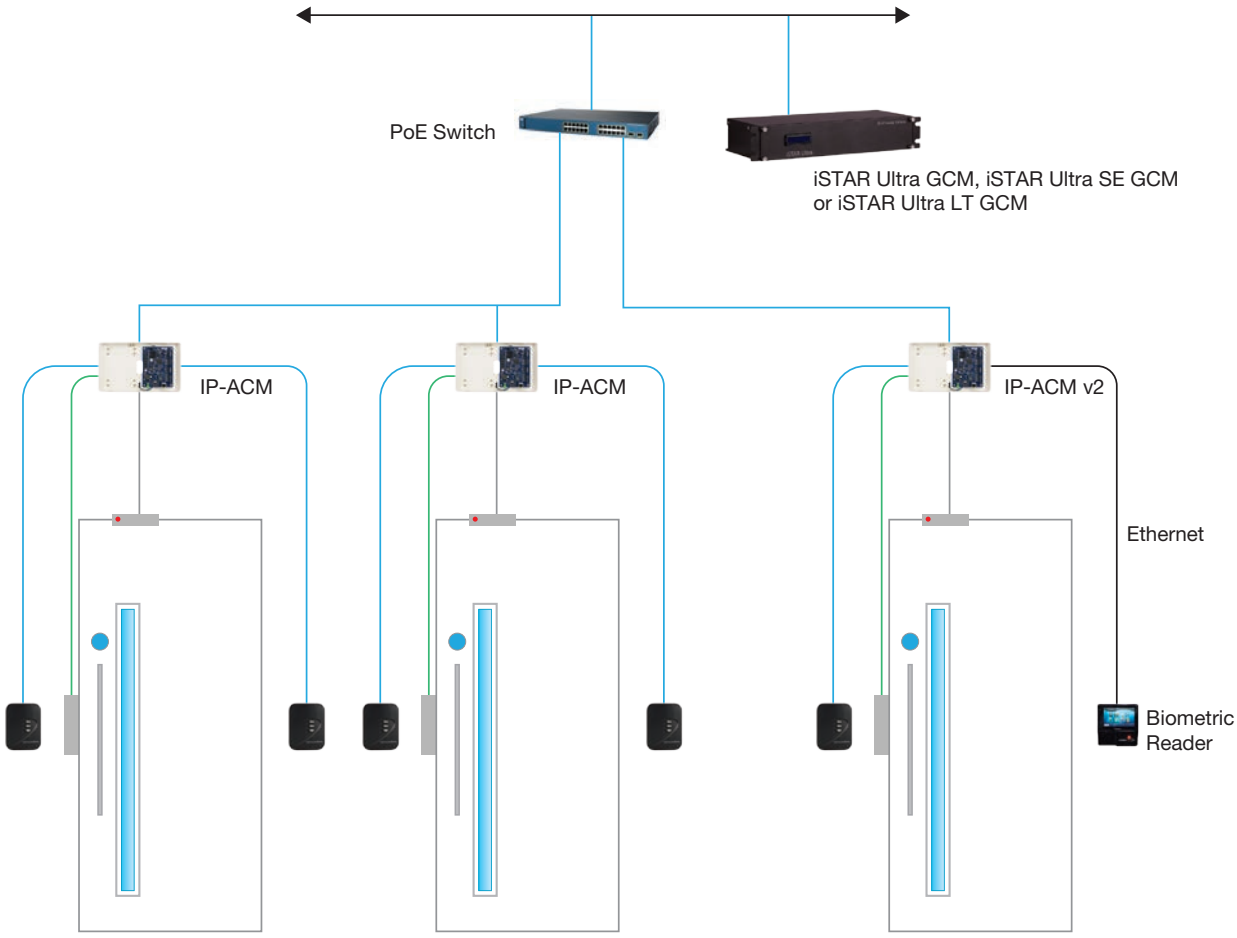
Each IP-ACM v2 can be powered by a local 12 or 24V DC power source, or power can be provided through PoE or PoE Plus (Primary port only) to each door, further reducing wiring costs. To provide compatibility with the greatest number of PoE Plus network switches, IP-ACM v2 supports Link Layer Discovery Protocol – Media Endpoint Discovery (LLDP-MED) protocol for negotiation of power requirements when using PoE Plus.

Future-Proof IP Solution

Its scalability alone makes the combined IP-ACM v2 and iSTAR Ultra GCM, iSTAR Ultra SE GCM or iSTAR Ultra LT a superior solution around which to build your security infrastructure. Add full duplex RS-485 on board, and now you know you will be able to leverage future technology like the Software House TST-100 Touchscreen Reader and VoIP.

And with OSDP v2 support, you benefit from a communication protocol that fosters interoperability among myriad security devices such as readers, and paves the way for advanced security applications.

Leverage Your Network Infrastructure



Use the IP-ACM v2 on the same primary network as iSTAR Ultra, iSTAR Ultra SE or iSTAR Ultra LT, or set up a separate dedicated subnet to the iSTAR Ultra GCM, iSTAR Ultra SE GCM or iSTAR Ultra LT GCM for a more secure option. A hybrid layout can also be used.

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Specifications

Physical

Dimensions (H x W x D)
Metal Enclosure . . . . . 210 x 187 x 84 mm (8.25 x 7.34 x 3.31 in)
Plastic Enclosure . . . . . 183 x 307 x 62 mm (7.20 x 12.09 x 2.44 in)
Board . . . . . 148 x 112 x 18 mm (5.83 x 4.41 x .710 in)
Metal Enclosure Material . . . . . 18g steel, with lock and tamper
Plastic Enclosure Material . . . . . ABS plastic, with front and rear tamper
Expansion . . . . . Includes mounting standoffs for two point expansion modules (I8, I8-CSI or R8)
Environmental . . . . . 0° to 50° C (32° to 122° F), 5 to 95% relative humidity, non-condensing
Weight with Metal Enclosure. . . . 1.4 kg (3.0 lbs)
Weight with Plastic Enclosure . . . . . 0.7 kg (1.5 lbs)

Electrical

Power Requirements . . . . . Local power: 12V DC (-15/+20%) or 24V DC (-15/+25%), auto-sensing; board only: 200 mA@12V DC or 100mA@24V DC; Max. of 1.65 A@12V DC or 835mA@24V DC for board plus all attached devices
PoE Standards Supported (Port 1 Only) . . . . . PoE (802.3af), 12.95 W min; PoE Plus (802.3at), 25.5 W min. (Power negotiation uses two-state physical discovery or LLDP-MED protocol.)
Lock Power Voltage . . . . . Jumper-selectable between 12V DC and 24V DC; applies to two outputs
Power Available for Attached Devices . . . . . PoE: 600 mA@12V or 300 mA@24V; PoE Plus or local power: 1450 mA@12V or 735 mA@24V
Heat Dissipation . . . . . 90 BTU/HR typical

Cardholder Capacity

Cardholder Capacity . . . . . Online, dependent on GCM; offline, buffered 1000 cardholders
Offline Transaction Buffer. . . . . Up to 750 dependent on message types
Offline Mode Card Formats Supported . . . . . For offline personnel group: 26b, 32b, 36b, 37b and 64b serial (HID Corp 1000 not supported in offline mode for personnel group, but supported for last known cardholders)

Network Communications

Ethernet Ports 2
Primary Ethernet Port . . . . . 10/100/GigE full duplex LAN port to iSTAR Ultra
Network Protocol . . . . . IPv4, IPv6 (IPv6 supports stateless auto configuration, but not stateful auto configuration)
Network Encryption. . . . . AES 256-bit
Port Authentication . . . . . 802.1X port authentication protocol (primary port only)
Secondary Ethernet Port . . . . . 10/100 pass-through “switch” port, for secondary device. PoE not supported on this port.

Readers

Number of Readers Supported. 2
Types of Readers Supported. . . . . Weigand, RM, OSDP Secure Channel, Touchscreen
Maximum Distance to Door . . . . RM, OSDP: 1,219 m (4,000 ft); Wiegand: 150 m (500 ft) (dependent on wire gauge and power considerations) Touchscreen: 10 m (32 ft)
Reader Power Available. . . . . 12V DC, 0.75 A total per pair of Wiegand and RS485 port
RM and OSDP Bus Communications . . . . . Two ports, RS-485 half duplex (two wire) or full duplex (four wire), plus optional two wires for device power. Full duplex (four wire) RS-485 supported for Touchscreen Reader.

Inputs

Supervised Inputs . . . . . Four
Additional Inputs . . . . . Tamper switch
Input Expansion. . . . . Two I8 boards (one I8 per RS485 port)

Outputs

Outputs . . . . . Two output relays; each individually selectable, via jumper, for either “wet” or “dry” operation
Output Power, Wet . . . . . 12V or 24V DC, 0.75 A, jumper-selectable between12V DC and 24V DC)
Output Protection, Per Output . . . . . Current limiting load switch, transzorb
Output Rating, Dry . . . . . 30V AC/DC, 3 A
Output Expansion . . . . . Two R8 boards (one R8 per RS485 port)

Regulatory

Access and Burglar. . . . . UL 294, UL 1076, ULC/ORD C1076, CSA C22.2 No. 205
Fire . . . . . UL 2043 (metal enclosure only, for use in plenum air handling spaces)
Safety . . . . . EN 60950, IEC 60950
EMI/EMC. . . . . FCC Part 15 Class A, EN 55022, EN 55024, EN 50130-4, AS/NZS CISPR 22, ICES-003
Encryption. . . . . AES 256
Environmental . . . . . RoHS
International. . . . . CE, cULus, RCM

Offline Mode Limitations

Offline Mode can only be enabled when the IP-ACM follows a specific wiring configuration:

- One door
- Entry reader - Wiegand reader #1 (iSTAR Ultra FW 6.5.1 and higher)
- Exit reader, if used – Wiegand reader #2
- Door latch - output #1
- Door switch - input #1
- Request to exit, if used - input #2 (default to unlock on REX)
- Offline mode personnel group members must use same card format. No support for Corporate 1000 format in offline mode for personnel group

Please refer to the C•CURE 9000 Hardware Configuration Guide for more details.

Ordering Information

Model Numbers	Description
IP-ACM2A-MB	IP-ACM v2, board only
IP-ACM2A-EM	IP-ACM v2 in metal enclosure
IP-ACM2A-EP	IP-ACM v2 in plastic enclosure
IP-ACM2-CAN	IP-ACM metal enclosure without board
IP-ACM2-CAN-P	IP-ACM plastic enclosure without board
IP-ACM2A-MB-5PK	IP-ACM v2, board only five pack box

Related Products

C•CURE 9000


iSTAR Ultra Controllers


RM Readers

Approvals

UL CERTIFIED CE FC

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