



## iSTAR Controllers

Powerful, IP-enabled control panel

### Features That Make a Difference:

- Suite of highly secure control panels to support enterprise and government applications – from four doors to thousands
- iSTAR eX controller features onboard FIPS 140-2 validated AES encryption, eliminating the need for external encryption boxes
- Supports redundant backup of configuration data
- Easily add features and enhance functionality with a compact flash slot
- LCD provides important controller status and diagnostics information
- Equipped with LEDs for each output, Ethernet and serial communication, and onboard “heart-beat” monitor to ensure consistent operation
- DHCP support automatically assigns IP addresses for easy installation
- Supports multiple cards per cardholder and multiple formats for a highly secure, flexible solution
- Compatible with C•CURE® 800/8000 and C•CURE 9000
- iSTAR Pro is available in rack-mount models

### iSTAR Pro supports up to 16 readers

iSTAR Pro is an intelligent, powerful 16-door controller that works with both the C•CURE 800/8000 and C•CURE 9000. iSTAR Pro's strong feature set provides a solution to the most demanding access control applications.

Its streamlined design features the latest technology and a minimum of circuit boards to provide a highly dependable, cost-effective solution for enterprise-wide access control.

iSTAR Pro uses a General Controller Module (GCM) which includes standard 64 MB memory that can be increased to 128 MB using a field-installable, industry-standard 64 MB SDRAM module. The GCM controls up to two Access Control Modules (ACM) with each supporting up to eight Wiegand or RM readers. The ACM also includes 16 supervised inputs and eight output relays for door control. iSTAR Pro also includes two PCMCIA slots, alphanumeric LCD, and DIP switches for configuration and diagnostics, as well as various network and serial communication ports.

### iSTAR eX supports up to eight readers

iSTAR eX is a four- or eight-door Ethernet-ready controller that provides FIPS 197-validated 256-bit encryption. iSTAR eX is also listed for FIPS 140-2, the U.S. government's most rigorous standard for cryptographic products. This is ideal for government applications or for any enterprise looking for the highest security available in the industry today.

Initially available with four door support, iSTAR eX is easily field upgradable to eight readers using a USB security key. Additional RM readers (5-8) can be activated by inserting the security key into a USB port located on the panel.

iSTAR eX works with C•CURE 800/8000 and C•CURE 9000 and other Software House controllers to provide the most demanding customers with a solution they can use across their entire corporation. Whether installed at the corporate headquarters with hundreds of employees, or at the regional sales branches with only a few employees, iSTAR eX ensures that the same security policies and procedures are implemented across the entire corporation.

In the same vein, iSTAR eX provides government facilities with a highly secure option for protecting their Sensitive Compartmented Information Facilities (SCIFs) which can be small, classified areas with a limited number of doors.

# features

## Easy to setup with DHCP/DNS/WINS

iSTAR controllers support Dynamic Host Configuration Protocol (DHCP) to simplify installation. DHCP is a communications protocol that lets network administrators centrally manage and assign Internet Protocol (IP) addresses from a central point. When a device is plugged into a different place on the network, iSTAR sends a new IP address to the administrator. For easy setup, iSTAR controllers also support Domain Name System (DNS), which translates domain names into IP addresses, and Windows Internet Naming Service (WINS), a system that determines the IP address associated with a particular computer on the network.

## Ensure Effective Communication with Clusters

iSTAR Pro controllers support Ethernet and RS-232 communication topologies and contain a PC Card Type II (PCMCIA) slot for additional types of communications. iSTAR eX contains two onboard Ethernet ports for communications. Communication is peer-to-peer, meaning that the controllers communicate with one another without the need for host intervention. A single connection from the host supports multiple controllers through a TCP/IP subnet.

Clusters are user-defined groups of up to 16 controllers and can be created to enhance security by separating a widely dispersed facility into different controlled areas. A cluster is led by a master controller which manages the primary communication between the host computer and the rest of the controllers within the cluster. The master controller communicates all event and cardholder data between the cluster and the C•CURE 800/8000 and C•CURE 9000 host. The other controllers in the cluster or “members” communicate through the master to the other controllers in the cluster to link events and control anti-passback in the area secured by this cluster of controllers. To ensure constant security, clusters also feature a secondary communication path in the event the master controller loses communication with the network.

## Control Security Better with Global Anti-Passback

Global anti-passback is critical for ensuring uncompromised security. Using a cluster configuration as described above, the iSTAR controllers can easily share cardholder status and location. The controllers are then able to send an anti-passback violation notice to the C•CURE 800/8000 system should a cardholder pass a card back to another person to use or if that same cardholder tries to access the same area more than once during a specified period. Similarly, tailgating, or following another cardholder into a secured area without presenting a separate badge, can easily be flagged.

## Keypad Commands Provide the Ultimate in Flexibility

Used with C•CURE 800/8000, keypad commands provide a powerful way to activate events. These commands include anything from triggering a duress call and sounding an alarm, to locking and unlocking doors, directly from an RM reader keypad. Commands can be configured to require a card presentation and/or a PIN to validate the command.

## Extended Card Numbers Enhance Security

iSTAR controllers support extended card numbers allowing you to comply with certain federal guidelines (such as FIPS 201) that require a Cardholder Unique Identifier (CHUID), which is comprised of multiple field lengths. In addition, iSTAR controllers support card numbers of up to 256 bits, eliminating the need for multiple facility codes, site codes, or offset in order to avoid card duplication. Longer card numbers offer greater protection against card duplication and are especially valuable to customers who require card numbers that exceed ten digits.

## How Many Cards or What Kind - You Decide

Used with C•CURE 800/8000 and C•CURE 9000, iSTAR controllers allow administrators to assign up to five cards per cardholder record rather than having to create a separate record for each card. Using this powerful feature, users can assign a PIN as one of the cards for a flexible and secure solution. This simplifies the management and maintenance of personnel records.

For additional flexibility, iSTAR controllers can support up to 128 card formats system-wide and ten card formats per reader, including smart cards. This expanded ability to use multiple card types (such as 26-bit, 37-bit, or Corporate 1000) at a single reader frees customers from having to consolidate or re-issue new cards.

## Easily Test and Troubleshoot with Configuration Diagnostics

iSTAR controllers include a built-in suite of diagnostics to test and troubleshoot hardware components such as inputs, outputs, reader ports, last card read, PCMCIA cards, and battery charger state. In addition, via the Internet, you can retrieve real-time status and diagnostics of:

- controller time/boot time
- total/available memory
- connection status
- firmware and OS versions
- hardware (MAC) and IP addresses
- downloaded clearances and cardholders

Plus, for easy installation and quick troubleshooting, iSTAR controllers include an LCD.

# take a closer look

## Data Security is Critical

iSTAR eX combines AES encryption with the strict guidelines set forth by US government regulations to provide a highly secure solution. AES specifies a FIPS 140-2 approved cryptographic algorithm that can be used to protect electronic data. iSTAR eX communicates with C•CURE 800/8000 and C•CURE 9000 using 256-bit FIPS 140-2 validated AES encryption making it the first security system in the industry to satisfy this rigorous requirement from the federal government.

Secure communication for the iSTAR Pro is provided using RSA Data Security's RC4 technology implemented using Microsoft® CryptoAPI. Multi-key authentication for real-time communication and password authentication for use with the local diagnostic configuration utility provide a barrier against intrusion into all iSTAR controllers.

Additionally, all iSTAR controllers address the needs of businesses to protect critical security data. With instant database backup and restore capabilities, iSTAR controllers provide a highly reliable security solution and ensure that important data is protected, even during communications failure.

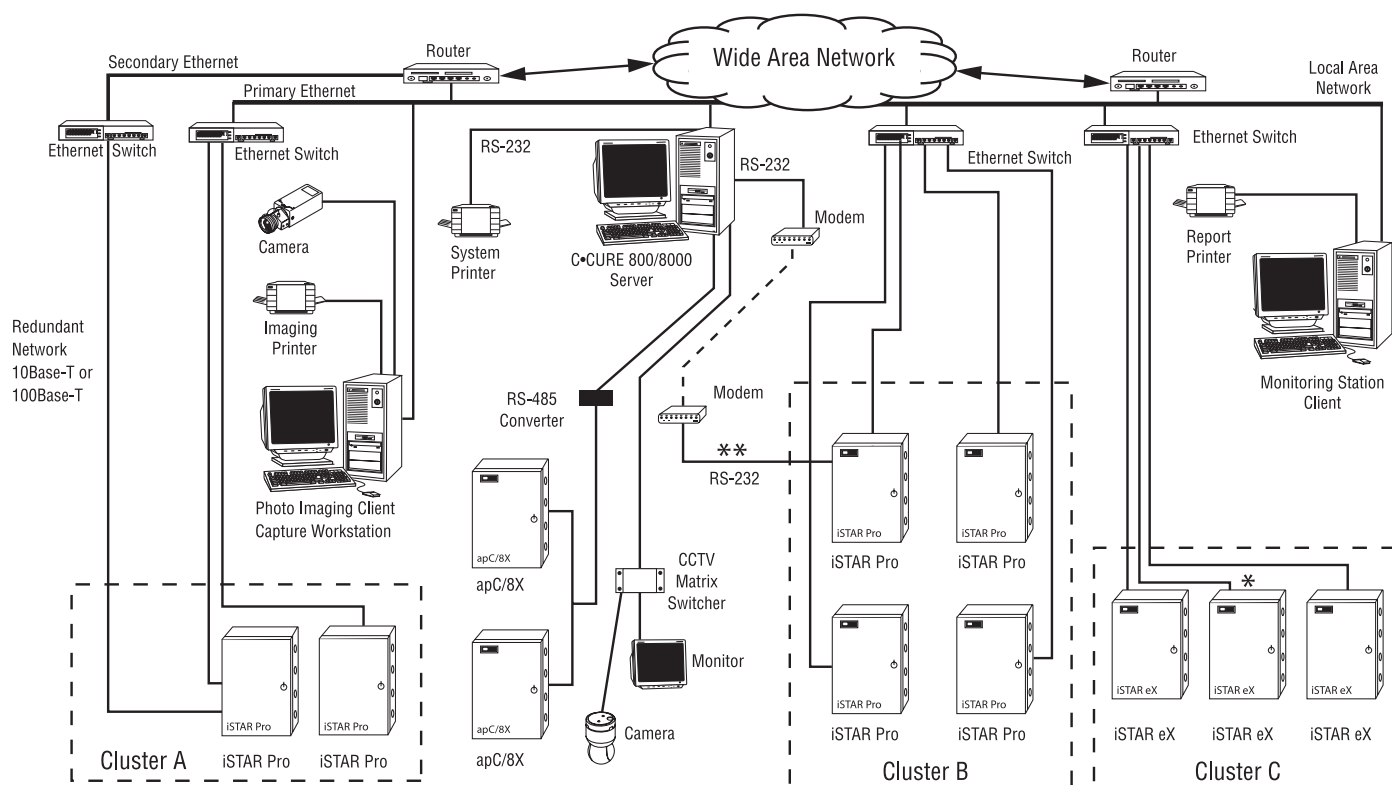
## Easily Upgradeable

All iSTAR controllers feature the ability to flash new functionality directly from the host, ensuring that you always have the very latest technology.

## Choose an iSTAR architecture that makes sense for your application

Providing a security solution that is unsurpassed in the industry for its versatility and security, iSTAR Pro and iSTAR eX controllers can be used together in the same system. This provides an enterprise solution that recognizes that even the largest corporations have smaller branches and facilities that may need to use the same security standards without enormous overhead.

iSTAR and apC controllers can operate together with a C•CURE 800/8000 or C•CURE 9000 host on the same network. Although they cannot communicate directly to each other, event linking can easily be configured through the host.



\*Alternate master takes over if master panel fails

\*\*Alternate communication path takes over if primary communication path fails

Note: iSTAR Pro and iSTAR eX controllers cannot exist together in the same cluster. Also, iSTAR eX does not support a dial-up modem currently as a primary or alternate communication path.

	iSTAR Pro	iSTAR eX
<b>Electrical</b>		
Power Input	90 to 240 VAC, 47 to 440 Hz, 0.5 A	90 to 260 VAC, 47 to 440 Hz, 0.5 A
Power Output (of power supply)	12 VDC at 5.0 A maximum	12 VDC at 6.5 A maximum;
Battery Backup	Rechargeable NiMH batteries provide backup of memory and RTC for 24 hours, with a 24 hour recharge time	Built-in UPS with 17 Ahr SLA battery provides full operational backup for four hours, with a 24 hour recharge time
<b>Mechanical</b>		
Dimensions (H x W x D)	61.6 x 41.9 x 10.2 cm (24.25 x 16.5 x 4.0 in)	61.6 x 41.9 x 10.2 cm (24.25 x 16.5 x 4.0 in)
Unit Weight	10.6 kg (23.3 lbs)	16.8 kg (37 lbs) with battery
Construction	16 AWG metal wall mounted locking cabinet with tamper switch on door	16 AWG metal wall mounted locking cabinet with tamper switch on door
<b>Inputs/Outputs</b>		
Supervised Inputs	32	16
Input Expansion	Up to 128 additional, using I8 input modules on RM bus	Up to 64 additional, using I8 input modules on RM bus
Outputs	16 Form C relays, 30 VAC/DC, 2.5A	Four Form C relays, 30 VAC/DC, 2.0A, plus four open collector outputs, wet or dry
Output Expansion	Up to 128 additional, using R8 output modules on RM bus	Up to 64 additional, using R8 output modules on RM bus
Reader Inputs	16 (Eight-reader model available)	Four (optional four additional through RM)
<b>Regulatory</b>		
	UL294, UL1076, CE, FCC, RoHS	UL294, UL1076, CE, FCC, RoHS, FIPS 140-2
<b>Environmental</b>		
Operating Temperature	0° to 50°C (32° to 122°F) 5 to 95% RH, noncondensing	0° to 50°C (32° to 122°F) 5 to 95% RH, noncondensing
Storage Temperature	-20° to 70°C (-4° to 158°F)	-20° to 70°C (-4° to 158°F)
Operating and Storage with Battery	0° to 50°C (32° to 122°F)	-20° to 40°C (-4° to 104°F)
<b>Heat Dissipation</b>		
	409 BTU/hr	522 BTU/hr

Controller Capacity	iSTAR Pro 64 MB	iSTAR Pro 64 MB	iSTAR Pro 128 MB	iSTAR Pro 128 MB	iSTAR eX 64 MB
Firmware version	up to v3.3	v4.0 or higher	up to v3.3	v4.0 or higher	v4.1 or higher
Number of personnel records with one clearance, one card/person, ten-digit cards	500,000	525,000	1,000,000	1,200,000	410,782
Number of personnel records with ten clearances, one card/person, ten-digit cards	295,000	295,000	640,000	680,000	235,774
Number of personnel records with one clearance, five cards/person, ten-digit cards	N/A	170,000	N/A	375,000	132,820
Number of personnel records with ten clearances, five cards/person, 40-digit cards	N/A	110,000	N/A	250,000	88,546

Notes:

- Memory allocation within iSTAR Pro and iSTAR eX is dynamic and shared between cardholders, event storage, and configuration information.
- To estimate how much space is needed for the personnel database in iSTAR Pro v4.0 and higher and iSTAR eX for multiple cards and/or extended card capacity, refer to the C•CURE 800/8000 v9.3 README file located in the Member Center on [www.swhouse.com](http://www.swhouse.com).
- iSTAR can support up to five cards for each cardholder record; each card is independent of each cardholder in the system.

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