

# Gallagher PIV Solution

Gallagher's PIV solution is a physical access control system designed for compliance with the **Personal Identity Verification (PIV)** requirements of the FIPS 201-3 standard, offering world class security to federal agencies and their contractors.

## Complete Solution

A single platform for the management of access control, alarms, and perimeter security, Gallagher's PIV solution provides:

- A simplified architecture, that enables one of the most efficient, cost effective PIV solutions for physical access control
- Hardware and software that is easy to implement, configure, and maintain
- Secure authentication and encryption between all system components
- Upgradeable device software, future-proofing Gallagher hardware for potential FIPS 201 standard changes
- Scalable system to incorporate any site's size requirement
- Quick and simple enrollment, requiring no additional software



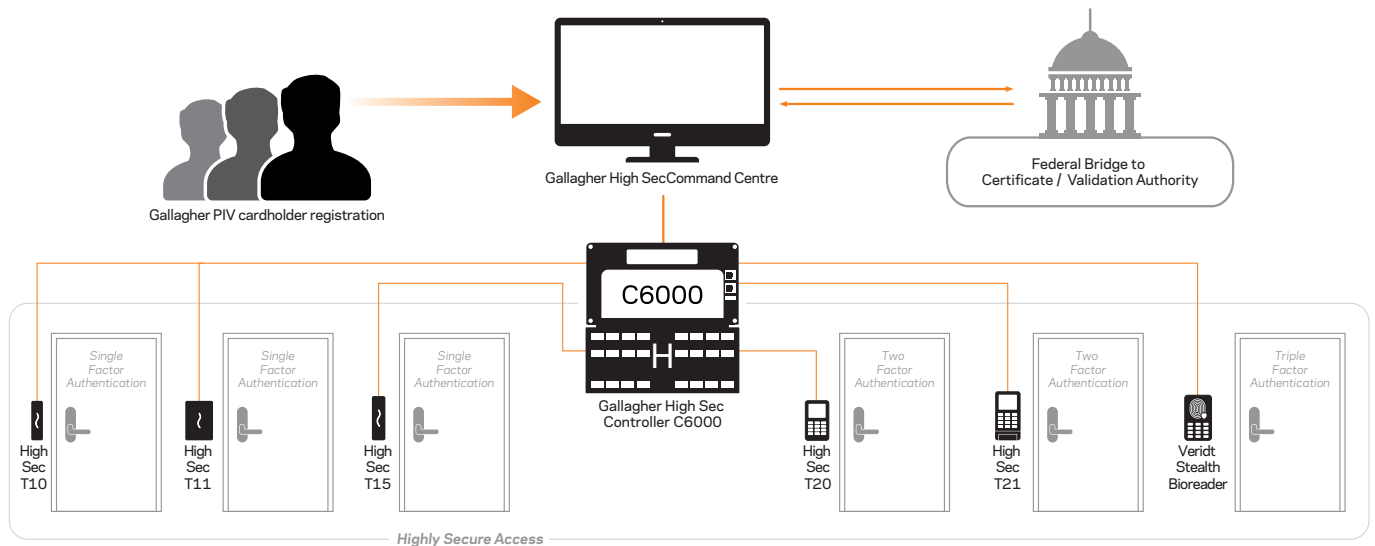
## Features

The products and software that make up the Gallagher PIV solution deliver a powerful range of features:

- Configurable periodic credential validation
- Optional support for contactless MIFARE Classic®, MIFARE Plus®, 125 kHz and MIFARE DESFire EV1® and MIFARE DESFire EV2® cards when mounted in shared federal / non-federal building entrances
- Single, dual, and triple authentication options
- Rapid PKI authentication for faster door entry
- 128-bit AES\* encryption between the Controller and access readers
- Authentication of PIV, PIV-I, TWIC, CIV, and CAC credentials
- Prevent bystander PIN disclosure at the keypad with Cipher Pad functionality



## PIV System Architecture



## PIV Products

### Gallagher PIV Software

- A Gallagher High Sec Command Centre server License enables up to 16 PIV doors on a site, expandable from the 17th door onwards with the per door PIV license
- Configurable validation checks in hours, by factors (1, 2, 3, 4, 6, 8, 12, and 24) of 24 hours
- Gallagher High Sec Command Centre provides ongoing OCSP or CRL validation of each PIV card's status; periodically checking the revocation status and trust path of each card's:
  - PIV Authentication Key (PAK) Certificate
  - Card Issuer Signature (CIS) Certificate
  - Card Authentication Key (CAK) certificate



### PIV Cardholder Enrollment

- Enroll PIV cardholders natively in Gallagher High Sec Command Centre
- No additional licensing required
- Automatic cardholder creation in Command Centre immediately following successful enrollment
- Selection of USB readers for PIV cardholder enrollment, including PIV card, PIN and fingerprint authentication options
- Optional integration to the PIVclass® Registration Engine enrollment client (separate license required)



### Gallagher High Sec Controller 6000

This controller is fully compliant to the latest FIPS 201-3 standard, and is securely and periodically updated by the Command Centre Server with full details of PIV cardholder certificates and their status.



In conjunction with T-Series PIV readers, the controller is responsible for performing all PIV card authentication checks, enforcing the revocation status of PIV card certificates, and performing cardholder specific access control decisions without the need for constant server connectivity.

- Options to support daisy-chain wiring via 2 on board RS-485 ports, or home-run wiring via optional 4H / 8H Modules (4 and 8 x RS485 ports respectively)
- Can be mounted in the Gallagher Cabinet, Gallagher Dual Cabinets, Life Safety Power Cabinet, or on the Gallagher Mounting Plate (all supplied separately)
- 2 door variant also available for where 1-2 doors are required at each physical location (requires PIV Command Centre v8.10 or later).

Data Storage per Controller 6000	
Max. number of access zones	Unlimited
Max. number of alarms zones	256
Max. number of access groups	2,000
Max. number of time schedules	400
Max. number of cardholders	150,000
Max. number of events	80,000
Max. number of doors	10
Max. inter-controller peer to peer connections	60

## Gallagher T-Series PIV Readers

Gallagher T-Series PIV Reader's are thin, contactless/contact card readers that transfer data between PIV smart cards and the High Sec Controller 6000 via the secure HBUS protocol. Gallagher T-Series PIV readers can be configured to work with varying PIV smart card data rates and authentication modes.

- Support for real-time and secure certificate based authentication of PIV, PIV-I and CAC credentials

- All readers can be configured to support MIFARE DESFire EV1/EV2, Plus, and Classic credential technologies. Multi Technology readers also provide support for 125 kHz technology
- High grade authentication(256 bit ECC) and encryption (128-bit AES\*) between the readers and Controller 6000
- Limited lifetime warranty for T10, T11, T15, and 5 year warranty for T20 and T21.

				
<b>High Sec T10 Reader</b>	<b>High Sec T11 Reader</b>	<b>High Sec T15 Reader</b>	<b>High Sec T20 Reader</b>	<b>High Sec T21 Reader</b>
The T10 is designed for mounting on door mullions, or where a small footprint reader is desirable.	The T11 reader is designed for mounting on vertical format flush boxes, or for covering mounting holes of previous installations. Available in standard and Multi-tech variants.	Perfect for deployment in environmentally challenging locations, the T15 still fits easily in small spaces. Available in standard and Multi-tech variants.	The T20 reader is a contactless PIV card plus PIN reader, compliant to the FIPS 201-3 'PIN to PACS' specification. Available in standard and Multi-tech variants.	The T21 reader is a contact card plus PIN reader, for areas requiring multi-factor PIV card authentication. Available in standard and Multi-tech variants.

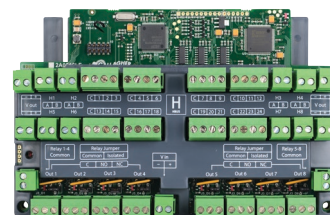
## 8H - 4H Reader Modules

Gallagher modules support home run wiring of other control devices, and I/O connectivity for door and equipment monitoring.

devices (as on a daisy-chained run). Each HBUS port can also support multiple HBUS devices.

Gallagher 8H and 4H modules allow HBUS devices to be home run wired back to a secure controller cabinet, removing the risk of one faulty connection taking down all downstream

Gallagher 8H and 4H modules monitor and report the state of balanced inputs, and enforce decisions to switch output relays, if required.



## Gallagher Cabinets

Gallagher supplies secure enclosures for the Gallagher C6000 Controllers, and HBUS devices. Gallagher Cabinets are available in several form factors.

- Keyed lock for cabinet access
- Reversible cover
- Cable entry points on all cabinet edges
- Optical tamper protection.



## LSP Cabinets

Gallagher provides LSP UL compliant cabinets in high grade steel locking enclosures. Each cabinet comes pre-installed with power supply and distribution modules, and is available in two variants:

- LSP E2 Cabinet, 6A PSU, 8-Channel Distribution board, and a 75W Power supply board
- LSP E4 Cabinet, 12A PSU, 2 x 8-Channel Distribution board, and a 150W Power supply board



## Secugen Hamster Pro Duo SC/PIV

The Secugen Hamster Pro Duo SC/PIV combines SecuGen's U20 fingerprint sensor with a PIV compliant contact smart card reader.

- FBI Certified fingerprint reader (PIV, FIPS 201, Mobile ID FAP 20 Compliant)
- Single slot contact smart card reader that supports ISO/IEC 7816 ID-1 cards
- Support for PIV (Personal Identity Verification) card, CAC (Common Access Card), and TWIC (Transportation Workers Identification Credential)



## Veridt Stealth Bio Reader

Veridt's Stealth Bio Reader integrates seamlessly with Gallagher's PIV system.

- Supports up to triple factor authentication: PIV card, PIN and Biometric
- Scheduled operation modes, aligning authentication with security threats
- Compliant with NIST SP-800 specification for authentication to access 'limited' security areas
- Optional Heavy Weather Enclosure available



## Technical Specifications

Product numbers					
PIV Software					
C201611	High Sec Command Centre License 16 door server license	2A8500	High Sec Door License per door - from the 17th door onwards		
PIV Readers					
C305400	High Sec T10 Reader - Black	C305470	High Sec T15 Reader, Black	C305460	High Sec T20 Reader - Multi Tech, Black
C305401	High Sec T10 Reader - White	C305471	High Sec T15 Reader, White	C305461	High Sec T20 Reader - Multi Tech, White
C305410	High Sec T11 Reader - Black	C305480	High Sec T15 Reader - Multi Tech, Black	C305505	High Sec T21 Reader, Black
C305411	High Sec T11 Reader - White	C305481	High Sec T15 Reader - Multi Tech, White	C305506	High Sec T21 Reader, White
C305430	High Sec T11 Reader - Multi Tech, Black	C305450	High Sec T20 Reader, Black	C305510	High Sec T21 Reader - Multi Tech, Black
C305431	High Sec T11 Reader - Multi Tech, White	C305451	High Sec T20 Reader, White	C305511	High Sec T21 Reader - Multi Tech, White
C861600	Veridt Stealth Bio Reader	C861650	Veridt Stealth Bio Reader Heavy Weather Enclosure		
Other					
C305101	High Sec Controller 6000	C300142	4H Modules - 4 door I/O	C305721	LSP E4 Cabinet, 12A PSU
C305111	High Sec Controller 6000, 2 door*	C300182	8H Modules - 8 door I/O	C200100	Gallagher Cabinet
C200001	Gallagher Mounting Plate	C305720	LSP E2 Cabinet, 6A PSU	C200105	Dual Cabinet
C864605	Morpho USB enrollment reader				

Additional software and hardware options from the Gallagher general solution range may be added to a Gallagher PIV solution where required. Please consult the Gallagher Access Control and Intruder Alarms Systems Product List for more information on available options. \*requires PIV Command Centre v8.10 or later.

High Sec Controller 6000			
Power	Voltage	13.6 v DC±15%	
	Idle current @ 13.6Vdc** (with module connected)	No Relays 610mA	4 Relays 730mA
			8 Relays 870mA
Environmental limits	Operating temperature	-10 ° to +55 ° C	
	Humidity	95% Non-condensing	
Communications	RS485 Device Communications (2 Ports)	Up to 1 Mb/s per second, 500m (1640ft)	
	Network protocol	TLS 1.2	
	Ethernet network connection	10/100/1000 BaseT Ethernet Port (2 ports)	
Standards compliance	CE, A-Tick, C-Tick, FCC and UL		
Additional notes	** Current measurements are indicative only and exclude external devices. Currents have been rounded up to the nearest 5mA. Controller 6000HS measurements include the use of both primary and secondary high speed ethernet ports. Please refer to the Gallagher Security System Technical Reference Manual and Product Installation Notes for detailed power supply and operating characteristics		

High Sec T-Series Readers		HST10	HS T11	HS T15	HS T20	HS T21
Dimensions	mm (H x W x D)	115 x 35 x 12	115 x 70 x 12	139 x 44 x 23	179.5 x 96 x 23	232 x 96 x 33
	inches (H x W x D)	4.5 x 1.4 x 0.5	4.5 x 2.8 x 0.5	5.5 x 1.7 x 0.9	7.1 x 3.8 x 0.9	9.1 x 3.8 x 1.3
Power Supply	Operating Voltage Range at Reader	9 - 16 VDC	9 - 16 VDC	9 - 16 VDC	9 - 16 VDC	9 - 16 VDC
	Idle current @ 13.6Vdc - MIFARE***	51mA	50mA	50mA	168mA	149mA
	Idle current @ 13.6Vdc - Multi	n/a	80mA	81mA	157mA	164mA
Communications*	Recommended Cable Type:	HBUS 500m				
Environmental limits	Temperature Range	-31° to 158°F			-22° to +158°F	-22° to +158°F
	Humidity	95% non-condensing				
	Environmental Protection	IP68			IP66	IP55
	Impact Rating	IK07			IK08	
	UV Stability	Nil structural degradation for the life of the reader				
Standards compliance	UL, FCC, CE, RCM. Compliance and certification information is available on our support site or by contacting Gallagher.					
Additional notes	*This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit ( <a href="http://www.openssl.org/">http://www.openssl.org/</a> ) **Reader current will increase during card activity *For further cable specifications please refer to the Gallagher Security System Technical Reference Manual °For full Veridt Stealth Bio Reader technical specifications please refer to Gallagher Veridt Stealth Bio Reader datasheet					

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