# Gallagher PIV
## Products

Gallagher's PIV solution is a physical access control system designed for compliance with the Personal Identity Verification (PIV) requirements of the FIPS 201-2 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

- Scalable system to incorporate any site's size requirement

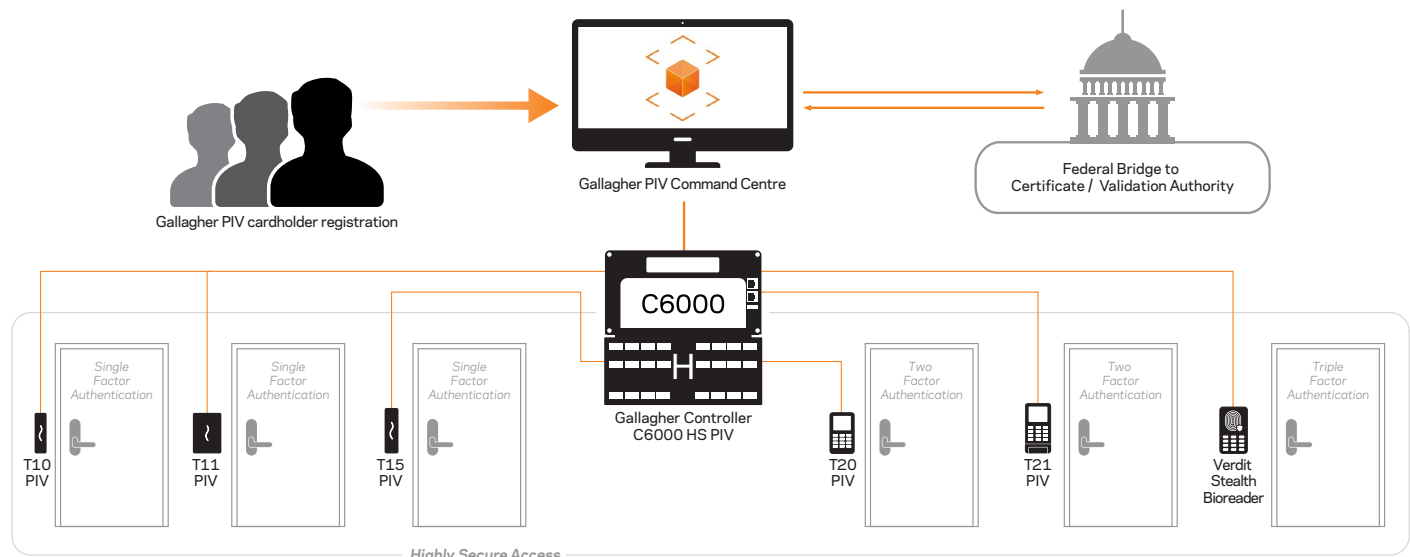- Quick and simple enrollment, requiring no additional software

## 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, and CAC credentials

# PIV System Architecture



Gallagher PIV cardholder registration

Gallagher PIV Command Centre

Federal Bridge to Certificate / Validation Authority

C6000

Gallagher Controller C6000 HS PIV

| Single Factor Authentication | Single Factor Authentication | Single Factor Authentication | Two Factor Authentication | Two Factor Authentication | Triple Factor Authentication |

T10 PIV | T11 PIV | T15 PIV | T20 PIV | T21 PIV | Verdit Stealth Bioreader

*Highly Secure Access*

# PIV Products

## Gallagher PIV Software



- A Gallagher PIV 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 PIV 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 PIV Command Centre
- No additional licensing required
- Automatic cardholder creation in Command Centre immediately following successful enrollment
- The Morpho USB Enrollment Reader reads PIV cards and confirms that cardholder fingerprints are correct to provide trusted enrollment
- Optional integration to the PIVClass® Registration Engine enrollment client (separate license required)

## Gallagher Controller 6000 High Spec - PIV



This controller is fully compliant to the latest FIPS 201-2 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 Controller 6000 High Spec - PIV 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.

| T10 PIV Reader | T11 PIV Reader | T15 PIV Reader | T20 PIV Reader | T21 PIV Reader |
|---|---|---|---|---|
| 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 201-2 '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
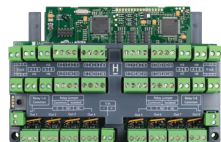
Gallagher modules support home run wiring of other control devices, and I/O connectivity for door and equipment monitoring.

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

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

## Morpho USB Enrollment Reader

A key part of the enrollment system, the MorphoSmart 1300 Series device matches presented fingerprints against those stored on a PIV credential.

- Contact insertion and biometric reader
- Seamlessly integrated with PIV Command Centre
- Supports direct USB Connectivity
- FIPS 201 and MINEX compliant Feature Extractor and Matcher onboard.

## 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 | PIV Command Centre License 16 door server license | 2A8500 | PIV Door License per door - from the 17th door onwards |

### PIV Readers

| | | | | | |
|---|---|---|---|---|---|
| C305400 | T10 PIV Reader – Black | C305470 | T15 PIV Reader, Black | C305460 | T20 PIV Reader - Multi Tech, Black |
| C305401 | T10 PIV Reader – Black | C305471 | T15 PIV Reader, White | C305461 | T20 PIV Reader - Multi Tech, White |
| C305410 | T11 PIV Reader – Black | C305480 | T15 PIV Reader - Multi Tech, Black | C305500 | T21 PIV Reader, Black |
| C305411 | T11 PIV Reader – White | C305481 | T15 PIV Reader - Multi Tech, White | C305501 | T21 PIV Reader, White |
| C305430 | T11 PIV Reader – Multi Tech, Black | C305450 | T20 PIV Reader, Black | C305510 | T21 PIV Reader - Multi Tech, Black |
| C305431 | T11 PIV Reader – Multi Tech, White | C305451 | T20 PIV Reader, White | C305511 | T21 PIV Reader - Multi Tech, White |
| C861600 | Veridt Stealth Bio Reader | C861650 | Veridt Stealth Bio Reader Heavy Weather Enclosure | | |

### Other

| | | | | | |
|---|---|---|---|---|---|
| C305101 | Controller 6000 High Spec – PIV | C300142 | 4H Modules – 4 door I/O | C305721 | LSP E4 Cabinet, 12A PSU |
| C305111 | Controller 6000 HS PIV - 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.

## Controller 6000 HS PIV

| | | | | |
|---|---|---|---|---|
| Power | Voltage | 13.6 v DC±15% | | |
| | Idle current @ 13.6Vdc** | No Relays | 4 Relays | 8 Relays |
| | (with module connected) | 610mA | 730mA | 870mA |
| Environmental limits | Operating temperature | -10˚ to +55˚ C | | |
| | Humidity | 95% Non-condensing | | |
| Communications | RS485 Device Communications (2 Ports) | Up to 1 Mbits 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 | | | |

## T-Series PIV Readers°

| | | T10 PIV | T11 PIV | T15 PIV | T20 PIV | T21 PIV |
|---|---|---|---|---|---|---|
| Dimensions | mm (H x W x D) | 115 x 35 x 12 | 115 x 70 x 12 | 139 x 44 x23 | 179.5 x 96 x23 | 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 x0.9 | 7.1 x 3.8 x0.9 | 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 (http://www.openssl.org/) <br> **Reader current will increase during card activity <br> +For further cable specifications please refer to the Gallagher Security System Technical Reference Manual <br> °For full Veridt Stealth Bio Reader technical specifications please refer to Gallagher Veridt Stealth Bio Reader datasheet | | | | | |

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