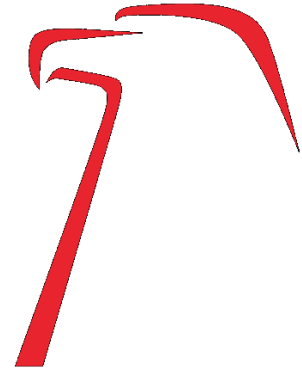


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18oct24

APL listed FICAM deployment / TWIC – MARSEC compliant deployment

Deploying an APL listed FICAM or TWIC solution requires specialized training and configuration experience. Additionally, GSA now requires all person touching FICAM related software at a federal facility hold a current CSEIP certification.¹

Integrators wishing to pursue Federal TWIC or FICAM specified project are required to stand up an in-house test bench training system, enabling their technicians to work thru configuration and setup of the system parameters apart from a customer's facility. Having an in-house system encourages continued refresher training, training of possible future technicians and testing of any GSA updates to the F.R.T.C. standards prior to deployment at an end users location.

AMAG, HID and Identity One have partnered to support dealers in deployments of their own in-house TWIC - FICAM test bench system. Integrators meeting the program requirements will have access to the required software compliant at no charge (Restricted to use on the training server only), and will receive specially discounted pricing on the required AMAG hardware. A list of required software and hardware can be found in Appendix C of this document.

Test Bench System, program requirements

1. The integrator must have at least two (2) technicians² with a current AMAG Symmetry Essentials certification, AMAG M4000 certification and an HID pivCLASS certification.
 - a. Please contact training@amag.com for a current schedule of Symmetry certification courses in your area
 - b. HID pivCLASS certification is and online, self-paced course offered at no charge³. A link along with a list of the courses required for the certification can be found in Appendix A of this document.
2. Hardware must be purchased specifically for the in-house training system, using hardware intended to be deployed at customer's site does not qualify an integrator for this program.
A list of required hardware [can be found in Appendix B of this document](#). Integrators who may already have the required hardware items can use them, provided that the hardware remain on the test bench and not be relocated once the class is complete.

AMAG will provide a FICAM/TWIC training hardware quote, with added discounts, to the integrator when applicable. This quote must be referenced on the integrators purchase order and a complete copy must be included with the purchase order.

Failure to request the proper test bench hardware quote will exclude you from participation in the training program.

¹ Information on CSEIP certification is listed in Appendix D of this document.

² Training is conducted for a minimum of 2 students. The class can accommodate up to 6 students. Each additional pair of students must have their own set of training hardware. Additional training hardware for additional students can not be ordered with added discounts. This additional hardware can be re-sold to an end user and is not restricted to lab use only.

³ HID pivCLASS certification is offered at no charge as of the publication of this document. AMAG is not responsible if HID changes this at a future date

3. All required software for the training course will be provided by the AMAG instructor. Please see conditions below.
 - a. Complaint specific software will be initially licensed for 30 days. As long as the integrator meets the requirements below, the license will be extended for 6 months. At the end of the 6 month period, if the integrator continues to meet the requirements, it will be extended again for 6 months. This will continue as long as the system is used for its intended training / testing purpose. To register or extend the license, the integrator needs to email the system ID / license number to tom.horgan@amag.com, requesting the license registration or extension for their in-house training system.

Please Note: The Complaint specific software license extension will be approved only if the following conditions are met;

- i. The integrator has maintained the personnel meeting the minimum training requirements outlined in #1 above.
- ii. The integrator has been using the system for its intended purpose, if it was set up, used once or twice, and then set aside, the license will not be extended. **Please keep in mind that a complaint configuration requires connection to the internet to function as designed. System activity will be verified prior to license extensions.**

FICAM / TWIC Test Cards

US government regulations pertaining to federally issued PIV / PIV-I / CAC and TWIC cards prohibit the card leaving the possession of the person the card was issued to. Cardholders are not permitted to loan their cards to anyone, even for testing purposes.

As part of the AMAG FICAM / TWIC training, each student will be provided with a valid test card. Additionally, each company will be provided one (1) revoked credential, to be used in training and testing. These test credential will remain with the integrator after the session has concluded.

Having additional valid credentials for the training session, and for use when configuring customer systems is critical. It is recommended that each student obtain a TWIC credential through the US government TWIC program.⁴ Students with valid CAC or PIV-I can use these credentials in the training.

Card Holder Enrollment Hardware

The following enrollment device is required to meet GSA FRTC1.3.3 standards and will be included on the AMAG provided BOM for the test bench set up

- MSO 1350 V3

NOTE: A USB pin pad, meeting TAA compliance, is required for installation at end user facilities, but not for a test bench system. The pin pad device allows cardholders to enter their card PIN without being observed by personnel managing the enrollment. Part # TAR-KPD is listed on the AMAG FICAM / TWIC training hardware quote in the Optional Hardware section

Training Class

Once the hardware for the in-house training system is purchased, and all pre-requisite training requirements have been met, AMAG will schedule the training session with the integrator.

- AMAG-FICAM training is conducted at the integrator's facility. There is no cost to the integrator for Instructor time associated with the training session, however, the integrator is required to pay for all travel related expenses for the instructor.
- The training session will require a submitted purchase order with a line item for instructor travel related expenses. This line item must be \$3800.00. No discounts can be applied to this line item.
- After the training session has concluded, the integrator will receive an AMAG purchase credit for the difference between listed expense fee and actual costs incurred. This credit is valid for any training class

⁴ Link: US Government TWIC application website <https://www.tsa.gov/twic>

conducted by the AMAG training department for a period of 1 year, measured from the scheduled date of the AMAG FICAM / TWIC training session.

- The purchase order for the instructor travel is due prior to scheduling the session, the training session will not be scheduled until after receipt and processing of the purchase order.

Appendices

Appendix A - HID pivCLASS Certification Training

pivCLASS Training Summary					
Course Name	Course Format	Instruction Approach	Duration	Pre-requisite	Price
pivCLASS Software 5.x Certification Training	Web	Self-Paced	3 Hours + Exam	None	\$0
	pivCLASS Software 5.x Certification Training • PKI & FIPS Overview • pivCLASS Product Overview • pivCLASS PACS Service Configuration • pivCLASS Workstation Client Configuration • pivCLASS Software 5.x Certification Exam				
pivCLASS Authentication Module 5.x Certification Training	Web	Self-Paced	1 Hour + Exam	pivCLASS Software V5.x	\$0
	pivCLASS Authentication Module 5.x Certification Training • pivCLASS Authentication Module (PAM) • pivCLASS Authentication Module 5.x Certification Exam				

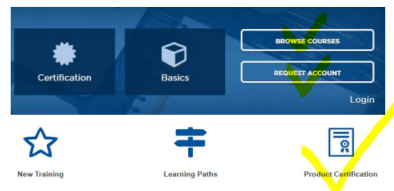
<https://www.hidglobal.com/training>

You will need to set up an account with HID Academy to take any courses.

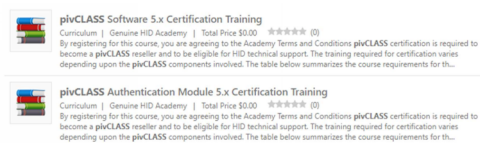
–Please allow 48 hours for account creation.

www.hidglobal.com/training

You can browse at will, but will need to set up an account with the HID Academy to take any of the courses *



Complete both pivCLASS training curriculum



Training questions: Training@hidglobal.com

pivCLASS training curriculum –links

pivCLASS Software 5.x Certification Training [LINK](#)

<https://hidglobal.csod.com/LMS/LoDetails/DetailsLo.aspx?loid=298c6622-5b1a-44af-a03f-fc0bc7e96b60&query=%3fq%3dpivCLASS+Software+5.x+Certification+Training#t=1>

pivCLASS Authentication Module 5.x Certification Training [LINK](#)

<https://hidglobal.csod.com/LMS/LoDetails/DetailsLo.aspx?loid=e1788b66-7ad0-4453-9650-089033d21b4b&query=%3fq%3dpivCLASS+Authentication+Module+5.x+Certification+Training#t=1>

Please contact Training@hidglobal.com with any questions

Appendix B – Required & Optional Hardware

Integrators are not permitted to use the training hardware for installation at a customer facility. The hardware is provided at a discount specifically for training, The integrator must have the ability to apply any GSA mandated updates to their test system prior to applying the updates to a customer's production system. Having access to the training system after the training class ends will support this.

REQUIRED Hardware

All training sessions require the hardware listed in the Base components section, and either the components listed in the Choice A or Choice B sections

Base Components

1	M4000-DBB	M4000 Database base controller with on-board NIC. Requires fitting to an M4000-DEC4 or PW4000-DEC2 Door Entry controller at the head of each chain. Supports down stream comms to additional Door Entry controllers -up to a maximum of 20 card readers per chain. Additionally supports chained Input/Output controllers for up to an additional 80 monitor points and 64 auxiliary outputs.
1	M4000-DEC4	M4000 4 Door Entry Controller. Requires M4000-DBB to be fitted if positioned at the head of a chain.
1	M4000-IPS	100-240VAC Input \ 12\24 DC, 6\3A Output Power Supply. Intelligent monitoring via M4000 Control panels (NOTE: Can also be used with SR controllers)
1	939S-KP-SWG	Symmetry GOV - 939S-KP-SWG Federal (Wiegand + OSDP) Keypad Reader - Black for Federal Credentials and Symmetry HSE Encoded DESFire Credentials HF ONLY
1	293664695	MSO 1350v3 - Morphosmart Optic MSO 1350 e3 USB insertion / fp scanner
1	R31210349-1	HID OMNIKEY 3121 USB card reader

Choice A – HID pivCLASS Specific hardware

1	PVC-PAM-B	M2000 - pivCLASS Authentication Module (PAM) Universal FIPS-201 hardware module, preloaded firmware and documentation (with plastic enclosure back plate & cover). First year maintenance included. New revision, release may 2019 Gigabit Ethernet port, enhanced grounding management, PoE Filter (not PoE capable)
1	IC-RKCL40-K-PAM	pivCLASS RKCL40-P, Contactless and Contact Smart Card Reader, Wall Switch Keypad & LCD, No Prox, US Double-Gang Size, FDX
1	900W2030-PXYON	Stealth Bio - for use with HID PAM module Multifactor authentication for PIV, PIV I, CAC, TWIC, ISO 7816 & ISO 14443. Authentication Functions: Contactless, Contact Card Read Interface, Keypad, Fingerprint Biometrics Communications Interface: Serial RS-485

Choice B – Identity One FIPSLink Specific hardware

1	900W2030-EXYON	Stealth Bio - For use with Veridt EWAC module Multifactor authentication for PIV, PIV I, CAC, TWIC, ISO 7816 & ISO 14443. Authentication Functions: Contactless, Contact Card Read Interface, Keypad, Fingerprint Biometrics Communications Interface: Serial RS
1	900M2000	RMDC - Reader Module Data Connector: Veridt Secure Communications Module (EWAC): EWAC contains Wiegand, RS-485, Ethernet and power connections. For use with available Readers services.

OPTIONAL for training systems,

1	TAR KPD	Targus Numeric Keyboard - External USB keypad to allow cardholders to confidentially enter PINs
1	COMPUTER1	Small Form Factor Tower - Dell OptiPlex 3060, Intel Core i5-8500 Processor, 3.0GHz, 8GB RAM, MD Radeon R5 430 (2GB 2xDP) dual monitor support, 1TB HDD, DVD+/-RW, Gigabit NIC, keyboard/mouse, 1EA 24" LCD monitor (P2419H) or equivalent, Windows 10 Professional, 3-year 5x10 NBD (next business day) warranty. Recommended for Symmetry Professional Server or Symmetry Professional Client PC. TAA Compliant.
1	M4000-CAB2	M4000-CAB2 Enclosure suitable for 1 or 2 controllers together with an M4000 PSU/IPS and Battery. Will alternatively house 2 M4000 PSU/IPS with 2 batteries as a dedicated power cabinet. (NOTE: For use for M4000 only)

Appendix C – Required Software

The following software will be available to integrators at no cost for only the in-house training system, if they meet all program requirements outlined above. The instructor will provide the software prior to the scheduled class date.

Symmetry Software

1	PRO-PLAT-V9.x-HSE	Symmetry Professional Homeland Security Platform Software - Database (SQL Express) & 1 Client. Includes License & 1 Year Gold SSA (NOTE: 512 Reader MAX. 1st Client & DB run on same PC. Supports 8 additional clients purchased separately)
1	PRO-LIC-008-V9.x	Symmetry Professional 8 Reader License Add-on
1	DATA-CONNECT-V9.x	Symmetry Data Connect Module

Validation & Enrollment software

Choice A	HID pivCLASS	HID Federal Identity pivCLASS Certificate Manager Software – Provides regular updates of registered card validation (caching status proxy) and updates Symmetry. Includes first year of manufacturer technical support. Includes software only. One license per PACS
Choice B	Identity One FIPSLink	Federal Identity Registration software - Includes Validation Client license

Appendix D – Referenced CSEIP certification

CSEIP Training and Certification Program

The Secure Technology Alliance Certified System Engineer ICAM PACS (CSEIP) training and certification program provides advanced training for systems engineers on how to set-up and test E-PACS to align with government-wide specifications.

This GSA-approved training program will provide the training and certification required for E-PACS engineers employed by commercial organizations that are looking to bid on GSA procurement agreements for access control systems. **To ensure that procurements of approved E-PACS for GSA managed facilities are installed properly, GSA requires that all billable work performed on such systems be done using certified system engineers.**

Secure Technology Alliance

<https://www.securetechalliance.org/activities-certified-system-engineer-icam-pacs-training-and-certification-program/>

This comprehensive program will provide systems engineers with the necessary training to demonstrate their ability to efficiently and effectively implement PKI and federal ICAM architectures for E-PACS and meet all federal requirements.

The program has a core classroom training curriculum and hands-on training to teach engineers best practices for set-up and testing E-PACS. The program will provide:

- A comprehensive three-day program including two days of instructed training and a third day of review prior to written and practical exams. The CSEIP training program is led by Lars Suneborn of Identification Technology Partners (IDTP) and Bryan Ichikawa, Secure Technology Alliance, both certified as [CSEIP instructors](#) by the Secure Technology Alliance
- A comprehensive set of course materials addressing how E-PACS work, how PKI is managed within the system and how the PIV credentials interface with the security system
- A hands-on training exercise using approved E-PACS to demonstrate the engineer's abilities to set up, test and configure PIV access control features within the security system
- An online directory of certified E-PACS engineers that can be used by federal contracting agents to check if commercial organizations have met the minimum requirements to be a bidder or be awarded a contract
- CSEIP Certification qualifies for 17 ASIS CPE credits toward CPP, or PSP Recertification

Learning Objectives for CSEIP Training and Certification

The classroom training curriculum includes learning objectives that will provide system engineers with the knowledge to properly implement E-PACS. This is a lecture-lab training course. The first day is primarily lecture and discussion from a prepared training script. The second day is partly review of the lecture materials followed by extensive hands-on lab training experience on a live E-PACS system. At the end of the second day, there will be more directed question and answer reviews of the principles presented in the course. The third day is for the written and practical exams to demonstrate that each person has understood the E-PACS training principles and can successfully apply their knowledge to configure a test E-PACS system that will enable a successful end to end PIV-enabled access control transaction. The learning objectives are:

- **PKI 101**
 - o Public key infrastructure basics
 - o Cryptography
 - o Digital certificates
 - o Certificate validation
 - o Policy OIDs
- **Biometrics**
 - o How they work
 - o How they support high assurance PIV credentials
 - o How operational biometrics can enhance or undermine PIV identification
- **Credentials**
 - o Traditional ID badges
 - o High assurance credentials
 - o PIV data model
 - o Credential types
 - o Cardholder populations
- **Trusted E-PACS**
 - o ICAM
 - o Authentication methods
- **PKI Configuration** for trusted E-PACS (both classroom exercises and hands-on computer training)

Required Qualifications to Enroll in the CSEIP Training and Certification course

Each individual registering for the training must have the following qualifications prior to enrolling and taking the class:

- Must have at least one PACS manufacturer certification for design and installation of a PACS
- Must have at least one year of configuration and installation experience for PACS
- Must have configured and implemented at least one complete PACS system in the field (software set-up and configuration a must)
- Must have knowledge and experience using contactless smart card ID badges and reader technology
- Must have a basic understanding of network technology (e.g., routers, switches, IP addressing, LAN technology)

Application for CSEIP Training and Certification

To be credentialed as a CSEIP, you must meet the minimum requirements, complete an application, attend the three-day program and pass the written and practice certification exams.

- Download the CSEIP application –
Fillable Word Form, https://www.securetechalliance.org/wp-content/uploads/CSEIP-APPLICATION-FORM_2017.doc
PDF https://www.securetechalliance.org/wp-content/uploads/CSEIP-APPLICATION-FORM_2017.pdf

Certified System Engineer ICAM PACS

–A Listing of Certified Professionals

See who has their CSEIP credentials. <https://www.securetechalliance.org/activities-cseip-registry/>