

NIST HANDBOOK 150-17 Annex C CHECKLIST

Personal Identity Verification (PIV) Testing

Instructions to the Assessor: This checklist addresses specific accreditation requirements prescribed in NIST Handbook 150-17, *Cryptographic and Security Testing*, for Personal Identity Verification test methods. It is used in conjunction with the NIST Handbook 150-17 Checklist, which covers the requirements in clauses 4 and 5 of the program handbook.

Place an "X" beside any of the following items that represent a nonconformity. Place a "C" beside each item on which you are commenting for other reasons. Record the item number and your nonconformity explanation and/or comments on the appropriate comment sheet(s). Write "OK" beside all other items you observed or verified as compliant at the laboratory.

Note: The numbering of the checklist items correlates to the numbering scheme in NIST Handbook 150-17, Annex C, Section C.5.

C.5 Additional technical requirements for accreditation

C.5.2 Additional personnel requirements for 17PIV testing

- ___ C.5.2.1 The laboratory shall demonstrate, in addition to the technical expertise required by each test method as described below, that their personnel has basic knowledge of cryptographic and security practice for information systems and that the laboratory is aware of the governing standards and publications, especially the ones listed in this handbook.
- ___ C.5.2.2 The laboratory's personnel shall have experience, training, or familiarity in the areas of:
- ___ a) cryptography – symmetric versus asymmetric algorithms and uses;
 - ___ b) cryptography – encryption protocols and implementations;
 - ___ c) key management techniques and concepts;
 - ___ d) the families of cryptographic algorithms;
 - ___ e) FIPS-approved and NIST-recommended security functions (FIPS 140-2 or successors);
 - ___ f) cryptography – Public Key Infrastructure (PKI);
 - ___ g) access control security models;
 - ___ h) smart cards;
 - ___ i) smart card readers (contact and contactless);
 - ___ j) Application Protocol Data Unit (APDU);
 - ___ k) Basic Encoding Rules (BER);
 - ___ l) biometric authentication techniques;

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- ___ m) concepts of the operational PIV systems; and
 - ___ n) contact and contactless interface standards.

C.5.5 Additional equipment requirements for 17PIV testing

___ C.5.5.1 The laboratory shall own at least one designated IBM compatible PC¹ equipped with, at a minimum, a compact disk rewritable (CD-RW) drive or other secure digital storage media and running Microsoft Windows XP¹ (or later) or compatible.

___ C.5.5.2 The laboratory shall also meet the following hardware, software, and operating system requirements for the platform on which the *PIV Card Application* and *PIV Middleware* tools (also known as *PIV Test Runner*) will run:

a) Hardware:

- ___ 1) a test computer running Windows XP¹ and with at least 4 MB of available space on the hard disk;
- ___ 2) contact and contactless smart card reader or a dual interface reader;
- ___ 3) a dual interface FIPS 201 conformant PIV card loaded with SP 800-73 conformant PIV card application; and
- ___ 4) a printer for reporting and documenting the test results.

b) Software:

- ___ 1) SUN¹ Microsystems Java Runtime Environment (JRE) version 1.5 or later;
- ___ 2) *JAVA Cryptography Extension* (JCE) Unlimited Strength Jurisdiction Policy Files 5.0; and
- ___ 3) *PIV Card Application* and *PIV Middleware* test toolkit application software provided by NIST/ITL or NVLAP (version 2.9.8 or later).

C.5.6 Additional measurement traceability

___ C.5.6.3 Laboratories shall use the test methods listed in NIST SP 800-85A: *PIV Card Application and Middleware Interface Test Guidelines* (or successors) for conformance testing of the PIV card application and PIV middleware.

