

Electrosoft

Fueling Customer Success Through Outstanding Value and Trust!

PIV Card Test Requirements & Conformance (SP 800-85A-4) Update

Presented By: Jason Mohler (Supporting NIST)

March 3, 2015

Electrosoft Services, Inc. 1893 Metro Center Drive Suite 228 Reston, VA 20190 Web: http://www.electrosoft-inc.com

Email: info@electrosoft-inc.com

Tel: (703) 437-9451 FAX: (703) 437-9452



- Background
- Version numbering
- Key changes to the existing version
- Publication process timeline



- The document's focus is conformance testing to NIST SP 800-73-4 Parts 1, 2, and
 3
- SP 800-85A contains the test requirements and test procedures for testing smart card middleware as well as the card application.
- Testing supports the interoperability goals of FIPS 201-2
- Last updated July 2010 for NIST SP 800-73-3—6 months after the finalization of SP 800-73-3

Version Numbering

"WHAT HAPPENED TO SPECIAL PUBLICATION 800-85A REVISION 3?"

Revision numbers between NIST Special Publications 800-73 and 800-85A were misaligned from the start because the initial publication of SP 800-85A did not occur until after the publication of SP 800-73, Revision 1. When SP 800-73, Revision 2 and Revision 3 were published, SP 800-85A was updated to Revision 1 and Revision 2, respectively. This revision numbering mismatch created ongoing uncertainty and confusion regarding which revision of SP 800-85A was consistent with which revision of SP 800-73. To reduce this uncertainty going forward, revision number 3 has been skipped for SP 800-85A, and this version of SP 800-85A has been given revision number 4 (SP 800-85A-4) since this version is consistent with the updates to SP 800-73, Revision 4. Future revisions of SPs 800-73 and 800-85A will maintain the revision number consistency.

Key changes to the existing version

Added

- 2 new testable interfaces (Secure Messaging, Virtual Contact Interface)
 - Behavior on the new interfaces is very similar to the existing interfaces
 - · VCI closely mirrors the contact interface
 - · SM closely mirrors the contactless interface
- New command behavior and return codes in SP 800-73-4
- PIN/PUK value conformance checking
 - Previously only checked length
- One new middleware command
 - (pivEstablishSecureMessaging)
 - SM leverages GENERAL AUTHENTICATE at the card command level

Page 5

- OCC and pairing code added to VERIFY card command
- Test Assertions Section approximately 35% longer than the previous revision



Key changes to the existing version

Removed three appendices to make the document more manageable

- Appendix containing a sample test report
- Appendix that mapped DTRs to test assertions
 - Similar information is already present in the test assertion sections
- Informative appendix on middleware implementation considerations

Publication Timeframe

- Tied to the final publication of SP 800-73-4
- Updated in parallel with the development of SP 800-73-4
- Currently up-to-date with the 2nd public draft of SP 800-73-4
- Remaining updates are related to the comment resolutions for the 2nd public draft of SP 800-73-4
- The plan is to release SP 800-85A-4 for public comment when SP 800-73-4 is published as a final or shortly thereafter

Page 7





Page 8