

**Single Fingerprint  
Capture Device  
Approval Procedure**

VERSION 9.0.0

April Giles  
Nabil Ghadiali



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**FIPS 201 EVALUATION PROGRAM**

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Approved	9.0.0	05/27/2010	Updated category description.	Public

## Table of Contents

<b>1</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Overview.....	1
1.2	Category Description .....	1
1.3	Purpose.....	1
<b>2</b>	<b>Application Package Contents .....</b>	<b>2</b>
<b>3</b>	<b>Evaluation Procedure for Single Fingerprint Capture Device .....</b>	<b>3</b>
3.1	Requirements .....	3
3.2	Approval Mechanism Matrix.....	4
3.3	Evaluation Criteria .....	4
3.3.1	Certification .....	4
3.3.2	Attestation .....	5

## List of Tables

Table 1 - Applicable Requirements .....	3
Table 2 - Approval Mechanism Matrix .....	4

## 1 Introduction

### 1.1 Overview

The FIPS 201 Evaluation Program (EP) is a U.S. Government entity administered by the Office of Government-wide Policy (OGP), within the General Services Administration (GSA) agency. The goal of the FIPS 201 Evaluation Program (EP) is to evaluate products and services against the requirements outlined in FIPS 201 and its supporting documents. In addition to derived test requirements developed to test conformance to the National Institute of Standards and Technology (NIST) Standard, GSA has also established interoperability and performance metrics to further determine product suitability. A set of approval and test procedures have been developed which outline the evaluation criteria, approval mechanisms and test process employed by the Laboratory during their evaluation of a Supplier's product or service against the requirements for that category.

A Supplier desiring to submit a Single Fingerprint Capture Device (hereafter referred to as the Product) for evaluation must follow the Suppliers Policies and Procedures Handbook. In addition to this handbook, Supplier also need to refer to this Approval Procedure which provides the necessary category-specific details in order to have a Supplier's Product evaluated by the EP and placed on the Approved Products List (APL).

### 1.2 Category Description

The *Single Fingerprint Capture Device* is a biometric capture device that is used for capturing live fingerprint(s) biometric samples in order to authenticate the cardholder upon receipt of the PIV Card. SP 800-76 minutiae templates may be generated in this device, and matching of the authentication template to the enrollment template may also occur on the device.

### 1.3 Purpose

The purpose of this document is to provide the following information:

- (i) Provide a list of the artifacts and/or documentation that needs to be submitted to the Evaluation Lab as part of the application package submission.
- (ii) Document the list of the requirements that apply to this category
- (iii) Specify the evaluation criteria along with their approval mechanisms that will be used by Evaluation Labs to verify compliance of the Product against the requirements that apply to this category.

## 2 Application Package Contents

The Application Package Contents include the artifacts, documentation and in some cases the product itself that needs to be submitted to the Evaluation Lab so that evaluation can be performed. The Application Package Contents for this category include the following:

- Completed Application Form, provided on the Evaluation Program website. (This form will be available through the web interface once users have been assigned a login credential);
- Completed and signed Attestation Form (found in the application submission package ZIP file). The Attestation Form should be completed and scanned into a document to be uploaded to Evaluation Program website;
- Completed and signed Non-Disclosure Agreement (found in the application submission package ZIP file). The Non-Disclosure Agreement should be completed and scanned into a document to be uploaded to Evaluation Program website;

*Note: This NDA can be substituted with a Supplier-provided document; however, this will slow the evaluation process as the NDA submitted will need to be reviewed by the Lab.*

- Completed Supplier VDR-VTDR justification worksheet (found in the application submission package ZIP file);
- Official Certification documentation from the appropriate entity (e.g., NIST) showing conformance of the Product to the tested requirements of FIPS 201. Specific reference to the exact type of certification necessary can be found in Section 4.3.

### 3 Evaluation Procedure for Single Fingerprint Capture Device

#### 3.1 Requirements

In order to approve the Product as conformant to the requirements of PIV, it at a minimum, must comply with all the requirements listed below. The approval mechanism column describes the technique utilized by the Lab to evaluate compliance to that particular requirement.

Identifier #	Requirement Description	Source	Reqt. #	Approval Mechanism
SFCD.1	Fingerprint sensors used for PIV authentication shall conform to the FBI's Image Quality Specifications For Single Finger Capture Devices [ <a href="#">SINGFING</a> ].	SP 800-76-1, Section 4.2 Para 1 pg.13	2.1-46	Certification
SFCD.2	{Devices shall be capable of imaging an area of at least 12.8 millimeters horizontally x 16.5 millimeters vertically.} The native scanning resolution of the device shall be at least 197 pixels per centimeter (500 pixels per inch) {in each direction}.	SP 800-76-1, Section 3.3 Para 3 pg.5	2.1-7	Certification
SFCD.3	{If authentication templates are matched on the device using live fingerprint images, the template matcher needs to be certified by NIST under the MINEX program for PIV as conformant to the criteria as specified in SP 800-76.}	Derived	10-59	Certification

**Table 1 - Applicable Requirements**

### 3.2 Approval Mechanism Matrix

The table below provides an indication of the total number of requirements applicable for the Product and provides a breakup of how the evaluation will be conducted based on the different approval mechanisms available to the Lab.

Total Requirements	Approval Mechanisms					
	SV	VTDR	LTDR	VDR	C	A
3	N/A	N/A	N/A	N/A	✓	✓
<b>Legend:</b> SV – Site Visit; VTDR – Vendor Test Data Report; LTDR – Lab Test Data Report; VDR – Vendor Doc. Review; C – Certification; A – Attestation						

**Table 2 - Approval Mechanism Matrix**

### 3.3 Evaluation Criteria

This section provides details on the process employed by the Lab for evaluating the Product against the requirements enumerated above.

#### 3.3.1 Certification

<b>Reference(s):</b>	SFCD.1, SFCD.2, SFCD.3
<b>Evaluation Procedure:</b>	<ol style="list-style-type: none"> <li>The Lab will update the status in the Web-Enabled Tool to “C Begun” as instructed in the Web-enabled Tool Laboratory User Guide.</li> <li>The Lab will perform the following activities in order to determine certification status of the Product with the FBI PIV Spec 071006: <ul style="list-style-type: none"> <li>Examine the certification statement to see if it provided by the FBI and that it is still current i.e. valid;</li> <li>Review the list of certified fingerprint sensors to determine inclusion of the Product on the FBI’s Integrated Automated Fingerprint Identification System (IAFIS) Image Quality Specifications website located at : - <a href="https://www.fbi Biospecs.org/IAFIS/Default.aspx">https://www.fbi Biospecs.org/IAFIS/Default.aspx</a></li> </ul> </li> <li>The Lab will perform the following activities for the Template Generator (if embedded within the Product), in order to determine certification status of the Product with SP 800-76 requirements: <ul style="list-style-type: none"> <li>Examine the certification statement to see if it provided by NIST and that it is still current i.e. valid;</li> <li>Verify the authenticity of this NIST certification provided by the MINEX program, as compliant to FIPS 201 and supporting documentation; and</li> <li>Review the list of Template Matchers to determine inclusion of the Product. The list is available on the website located at: <a href="http://fingerprint.nist.gov/MINEX/QPL.html">http://fingerprint.nist.gov/MINEX/QPL.html</a>.</li> </ul> </li> <li>The Lab will update the status to “C Complete” as instructed in the Web-enabled Tool Laboratory User Guide.</li> </ol>

<b>Expected Results:</b>	<ol style="list-style-type: none"> <li>1. The Product has been certified by the FBI as meeting the requirements of the FBI PIV Spec 071006.</li> <li>2. The Product is capable of imaging an area of at least 12.8 millimeters horizontally x 16.5 millimeters vertically at a native resolution of at least 197 pixels per centimeter in each direction.</li> <li>3. The Product has been validated by NIST under the MINEX program as conforming to the certification criteria for Template Matchers as specified in SP 800-76.</li> </ol>
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### 3.3.2 Attestation

<b>Reference(s):</b>	N/A
<b>Evaluation Procedure:</b>	<ol style="list-style-type: none"> <li>1. The Lab will update the status in the Web-Enabled Tool to “A Begun” as instructed in the Web-enabled Tool Laboratory User Guide.</li> <li>2. Review the Attestation Form provided by the Supplier, confirming that the Product to the best of their knowledge, conforms to all the necessary requirements of the category under which the Product applies. Verify that person signing this Attestation Form has the authority to do so (a minimum “C” level [e.g. CSO, CEO, CIO, CFO, Vice-President, President, Business Partner or Owner]).</li> <li>3. The Lab will update the status in the Web-Enabled Tool to “A Complete” as instructed in the Web-enabled Tool Laboratory User Guide.</li> </ol>
<b>Expected Results:</b>	<ol style="list-style-type: none"> <li>1. The Attestation Form has been signed by an authorized individual (e.g. CSO, CEO, CIO, CFO, Vice-President, President, Business Partner or Owner).</li> </ol>



**A.1 Document Release Summary of Changes**

Identifier #	Reference	Description of Change
N/A	Section 1.2	Updated category description to specify that matching of the authentication fingerprint template to the enrollment fingerprint template may occur within the device. The previous version's category description was inconsistent with the requirement SCFD.3.