

NIST Special Publication 800-76

Biometric Data Specification for  
Personal Identity Verification

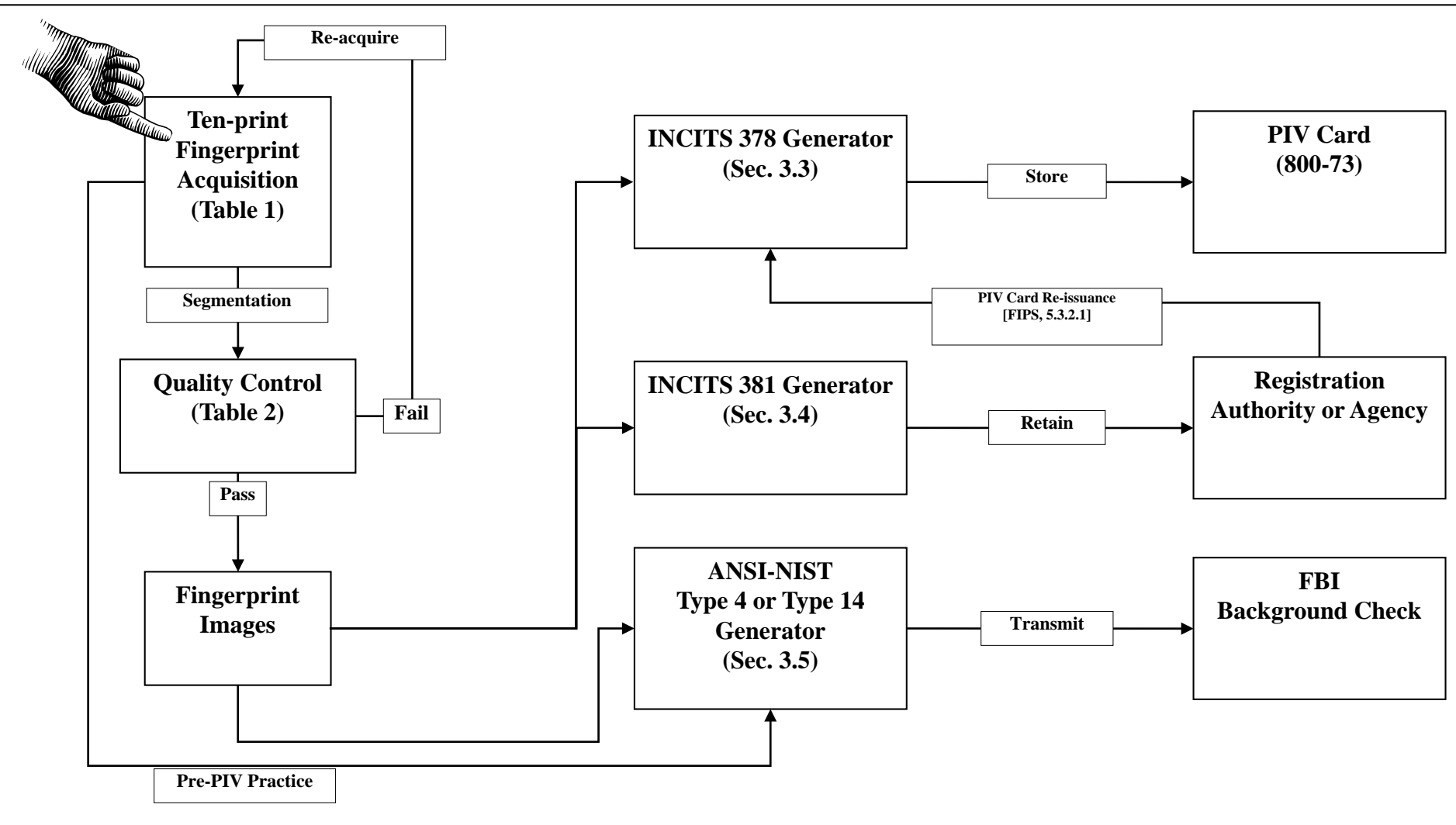
March 3, 2006

Update

# SP 800-76 Status

- Final version released February 1, 2006
- Replaced the December 2005 in response to 468 comments
- FAQ here
  - <http://piv.nist.gov/pivqa/>

# SP 800-76 Figure 1



# SP 800-76 Fingerprint Template Specification

- Mandatory biometric is now fingerprint templates.
- Template specification is the INCITS 378:2004 standard.
- 800-76 template specification is an application profile of INCITS 378
- 800-76 template specification restricts the options of INCITS 378 :
  - No extended data
  - No proprietary data
  - One view for each finger.
  - Restriction of minutia type (bifurcation, ridge ending)

# SP 800-76 Fingerprint Image Storage

- Flat fingerprint imaging is specified as the main mode of image collection
- Store segmented flats impression in INCITS 381 record
- The FBI has supported the Type 14 based transaction since addition of Appendix N to the Criminal Justice Information Services Electronic Fingerprint Transmission Specification in May 2005.
- Retention supports regeneration of templates, should amendment of minutiae specification make it necessary.

# Facial Data Specification

- Face specification is INCITS 385 for image acquisition and storage.
- Face specification is not intended for PIV on-card storage. It is specified to support the printed image, and human check for card issuance and re-issuance.
- Face specification is appropriate for automated face recognition applications where needed.
- Compression ratio is 15:1
- Recommend that this image use J2K and ROI at 24:1 if it is to be placed on the PIV Card.

# CBEFF Structure

CBEFF STRUCTURE		
<b>CBEFF_HEADER</b>	<b>CBEFF_BIOMETRIC_RECORD</b>	<b>CBEFF_SIGNATURE_BLOCK</b>
Section 6	Sections 3.3, 3.4 and 5.2	FIPS 201
INCITS 398 5.2.1	INCITS 398 5.2.2	INCITS 398 5.2.3

# Common Biometric Exchange File Format (CBEFF) Requirements

- A CBEFF wrapper is required for biometric data on PIV cards.
  - Includes mandatory elements.
  - Includes all agency-optional biometric data.
- A new CBEFF Patron Format will be established.
- Patron Format PIV = Patron Format A +
  - Definitive data types for its elements
  - Inclusion of the FASC-N, per 800-73.



# Authentication Sensor Requirements

- Meet EFTS/G equivalent specifications
- Minimum area is 12.8 x 16.5 mm
  - Supports compact non-optical sensors

# Template Interoperability

- MINEX report expected on schedule second week of March 2006
  - Performance of the INCITS 378 templates
  - Interoperability of the INCITS 378 templates
- INCITS M1.3 has a ad hoc group on INCITS 378 minutia angle computation.