

Subject: Iridian Comments on FIPS 201 Draft  
From: "Jim Cambier" <jcambier@iridiantech.com>  
To: <DraftFips201@nist.gov>  
Cc: "Frank Fitzsimmons ...snip... tsembhi@iridiantech.com">

Gentlemen:

Attached are Iridian's comments on the public review draft of FIPS 201 recently circulated by NIST.

The major points we would like to make are:

- the exclusion of other biometric technologies is not necessary or advisable. This is consistent with the IBIA comments, which we fully support. Individual facilities should have the option to use alternative technologies if they more effectively meet their operational needs.
- We wish to point out that, for fully interoperable store-on-card applications, iris recognition offers a fully interoperable solution based on the ANSI INCITS 379 polar image format that requires only about 2K bytes of storage per eye. This is substantially less than finger image or face image.
- Iris recognition also offers the capability for match-on-card, using Iridian's proprietary IrisCode® template format; use of open image-based formats for MOC is not practical for reasons given in our comment No. 10.

Thank you for your consideration of our comments. Please feel free to contact the undersigned if you have any questions.

Sincerely,

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IridCommentTemplate.xls

Cmt #	Organization	Point of Contact	Comment Type (G-General, E-Editorial, T-Technical)	Section, Annex, etc and Page Nbr	Comment (Include rationale for comment)	Proposed change
1	Indian Tech	Cambier	E	iv	Title "Federal Information Standards Processing 201" is incorrect	change to "Federal Information Processing Standards 201"
2	Indian Tech	Cambier	E	3.3.1 p 14	"it's" should be "is"	change
3	Indian Tech	Cambier	T	4.1.4.2	Use of "mandatory" in title is unclear. Normative elements should be identified by use of "shall"	delete "(Mandatory)"
4	Indian Tech	Cambier	E	4.2.4.2.a	Second sentence is inconsistent	Change to "The format for this serial number may be at the discretion of the issuing Agency."
5	Indian Tech	Cambier	E	4.1.4.2.b	"s of" is typographic error	delete
6	Indian Tech	Cambier	T	4.1.4.3	Use of "(Optional)" is not appropriate. Informative elements should be indicated by use of "may".	delete "(Optional)"
7	Indian Tech	Cambier	T	4.1.4.3.d	"The agency using [PDF417] bar code shall use this location" is unclear. Is use of PDF417 normative? Is the location normative"	Clarify
8	Indian Tech	Cambier	T	4.1.4.4	Use of "(Optional)" is not appropriate. See also Cmt 6	delete "(Optional)"
9	Indian Tech	Cambier	T	4.1.5.1	Exclusion of other proven biometric technologies, such as iris recognition, is short-sighted and unnecessary. Some agencies or facilities may have requirements that make fingerprints impractical, such as a need for secure, noncontact authentication, use of gloves, etc. Iris offers storage formats compliant with INCITS 379 that require only 2100 bytes of storage, and therefore can be read off a contact card and authentication performed in 2-3 seconds. Further, iris offers proven interoperability across multiple image capture platforms offered by different vendors. In contrast, a finger image stored in compliance with INCITS 381 could easily occupy 20K (after WSQ compression per INCITS 381) and could take 20 seconds to read off the card for authentication. This will not be practical for physical access control.	Make enrollment of fingerprints normative to enable criminal background checks and assure interoperability across agencies, but allow enrollment and use of other operational biometrics by specific organizations.
10	Indian Tech	Cambier	T	4.1.6.1 para 3	This specifies biometric match-on-card for card activation, yet the recommended stored biometric is a finger image per INCITS 381. Smart cards, in general, do not have sufficient processing power to generate a template on the card. Currently available MOC solutions for finger (and iris) store a template on the card.	Clarify, qualify, or eliminate this function.
11	Indian Tech	Cambier	T	4.1.6.1 para 3	Last sentence says the specification does not prescribe the type of biometric to be used for card activation. Does this mean that iris may be used for activation but fingerprint must be used for authentication?	Clarify

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12	Indian Tech	Cambier	T	4.4.4	Specifies same compression, resolution, and pixel depth for both enrollment and authentication. Para 4.4.3 recommends against use of JPEG2000 for enrollment yet INCITS 381 allows it. This exclusion, and any other exceptions to the INCITS 381 standard, should be formally expressed in a suitable application profile.	Generate a specific application profile that defines how INCITS 381 will be used and include it as a normative annex.
13	Indian Tech	Cambier	T	4.4.5	"The facial image may be used in conjunction with the fingerprint image if lower false acceptance rates are required." The ability of a face image to reduce FAR in a multimodal application with fingerprint is questionable.	Include a reference to published research showing that addition of face to finger in a multimodal system is beneficial. Also, if face is used, a formal application profile should be included as an annex, rather than the subclauses under 4.4.5.
14	Indian Tech	Cambier	E	6.1	2nd para, last sentence, "supportedPINS" should probably be "...supported. PINS..."	Correct.
15	Indian Tech	Cambier	T	6.1.3	Entry of a PIN in this case appears to serve no purpose other than to initiate the biometric reader. The biometric acquisition can be initiated automatically by the reader, at least in the case of some biometric devices (e.g. iris cameras).	Eliminate the PIN input.