

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	IBIA	T. Ladier	G	Section 10; pg. vi	This Section calls for a review of the FIPS 201 standard every five years to assess its adequacy. We believe that this review should take place whenever significant advancements in technology have been proven that are relevant to this standard. Specifically, NIST expects to complete its testing of the ANSI/INCITS 378 Finger Minutiae Format for Data Interchange standard in late 2005. We believe that templates are more efficient for use in the PIV card for applications like physical access control and will allow interoperability of the PIV card across a wider number of applications.	Add the following sentence to the end of the last paragraph in Section 10, pg. vi: <i>"Notwithstanding the above, significant advancements in technology that are relevant to this standard may be reviewed for inclusion in the standard when they have been evaluated."</i>
2	IBIA	T. Ladier	G	Sec. 1.3; pg. 2; 2nd paragraph	This Section states that "This standard does not restrict the agencies from adopting additional alternatives". We agree with this statement. However, we believe that it is important to expand this statement to make it more explicit that other biometric technologies, formats and modalities can be used by an agency for their internal applications. There are a range of biometric technologies and implementations that can provide rapid electronic authentication as required in HSPD-12. For example, the storing and matching of templates for fingerprint is more efficient than compressed images in specific applications like physical access control. In addition, iris recognition, hand geometry and speech verification are alternative biometrics that each offer unique capabilities that can be beneficial in specific application environments.	Recommend inserting the following sentence into the middle of the second paragraph of this Section as follows: ".....from adopting alternatives. <i>Specifically, agencies are not restricted from utilizing alternative biometric technologies and/or alternative biometric record formats that may be more appropriate for their internal application environments.</i> Section 2 of the standard is....."

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3	IBIA	T. Ladier	T	Sec. 4.4.2; pg. 31; 3rd & 5th paragraphs	While we acknowledge that fingerprint images provide the only proven level of interoperability between fingerprint systems, we want to bring to the attention of NIST the practical performance issues that may arise from the use of images for specific applications. Assuming a compressed image size of 10KBytes each (20KBytes total), there could be performance issues in applications that require rapid authentication - like physical access. Assume contact chip data transfer rate from 9600 baud to 115K baud, and assume that protocol overhead reduces effective transfer rate by half, then transfer time for two fingerprint images would range from 33.3 seconds to 2.9 seconds. Additional time is required to decode signed data, decompress images, perform feature/template extraction, and perform the match. We believe that fingerprint images will not be practical for applications that demand access in 2 seconds or less.	Accelerate the MINEX 04 or other testing to validate template interoperability. As soon as sufficient test data has been established to demonstrate interoperability of fingerprint templates, modify the FIPS 201 standard to include two fingerprint templates using either the ANSI/INCITS 378-2004 Finger Minutiae Format for Data Interchange or ANSI/INCITS 377-2004 Finger Pattern Format for Data Interchange. Alternative recommendation is to define one fingerprint image and two fingerprint templates as a risk mitigation to the unknown results of MINEX 04 and other testing.
4	IBIA	T. Ladier	T	Sec. 4.4.4; pg. 34; 1st paragraph	This Section requires the capture of left and right index fingers for the purpose of PIV card authentication. We believe that agencies should have the option of determining if capture of one or both fingers is appropriate for authentication purposes based on specific application requirements. We also believe that agencies should be allowed to utilize automated fingerprint quality analysis tools that allow the enrollment system to determine the best two fingers for each user at the time of enrollment	Modify the first sentence to read: <i>"This standard requires the capture of the fingerprint from one or both of the left and right index fingers, or agency-defined alternative fingers, for the purpose of PIV card authentication."</i> Modify the last sentence to read: <i>"At the authentication station, one or both fingerprints shall be captured: (a) an impression of the left index finger and/or (b) an impression of the right index finger, or (c) agency-defined alternative fingers."</i>

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5	IBIA	T. Ladier	G	Sec. 6.0; pg. 49; 1st paragraph	The preamble to this informative Section states that "The authenticated identity of the cardholder can then be used by an agency to make an access decision (to controlled Federal Resources) based on the agency's own authorization mechanisms and local access control policy. Thus, this Section should be treated as Informative". We agree with these statements. However, we believe that it is important to expand these statements to make it more explicit that other biometric technologies, formats and modalities can be used by an agency for their internal applications.	Recommend inserting the following sentence before the last sentence of the first paragraph of this Section as follows: "and local access control policy. Specifically, agencies are not restricted from utilizing alternative biometric technologies and/or alternative biometric record formats that may be more appropriate for their internal application environments. Thus, this Section....."
6	IBIA	T. Ladier	T	Sec. 6.1; pg. 49; 2nd paragraph	This Section states that contactless use of PINs and bometrics is not supported for privacy reasons. We believe that agencies should have the discretion of placing biometric templates on the contactless side of the PIV card for more efficient use in such applications as physical access that require rapid authentication. The contactless transfer rate is much faster and the human factors are more efficient. In physical access environments, contact readers and cards may not have the durability to perform the level of transaction frequency required. In addition, the requirement for an opening in the reader housing may not conform to certain environmental requirements for dust and humidity. We believe that DESFire contactless technology provides a level of data protection that may address NIST's privacy concerns.	Delete the last sentence in this paragraph.

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