

InterNational Committee for Information Technology Standards
INCITS Secretariat, Information Technology Industry Council (ITI)
1250 Eye St. NW, Room 200, Washington, DC 20005
Telephone 202-737-8888; Fax 202-638-4922
email:incits@itic.org

M1/05-0789

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Ref: M1/05-0788 (Revised Letter to INCITS Executive Board Related to this Project Proposal – Biometric Identity Assurance Services (BIAS) for consideration at the INCITS M1 meeting, December 15-16, 2005)

**Project Proposal
Biometric Identity Assurance Services (BIAS)**

Note:

This project defines biometric services used for identity assurance and invoked over a services-based framework. The binding of these services to a given framework is not included in this project, but will be the subject of separate standards. The first such standard (for a web-services framework) is planned to be developed by OASIS. As a result, close collaboration through a strong liaison relationship will be required between these two SDOs to ensure that these two 'sister' standards align.

This draft project proposal is submitted by the following M1 members:
US Department of Homeland Security, Daon, and SAFLINK Corp.

Reply to:

Brad Wing
bradford.wing@dhs.gov
(202) 298-5224

Cathy Tilton
cathy.tilton@daon.com
(703) 984-4080

Dwayne Mercredi
dmercredi@saflink.com
(425) 278-1100

M1/05-0789

Project Proposal

Biometric Identity Assurance Services (BIAS)

1. Source of the Proposed Project

1.1. Title

Biometric Identity Assurance Services (BIAS)

1.2. Date Submitted

December 15, 2005

1.3. Proposer

INCITS Technical Committee M1

2. Process Description for the Proposed Project

2.1. Project Type

D - This is a standard development project.

2.2. Type of Document

The project is expected to result in an American National Standard developed by INCITS. It will normatively reference a companion standard to be developed within OASIS.

2.3. Definitions of Concepts and Special Terms

BIAS – Biometric Identity Assurance Services. – BIAS defines a framework for deploying and invoking identity assurance capabilities that can be readily accessed using services-based frameworks (e.g. Web services).

2.4. Expected Relationship with Approved Reference Models, Architectures, etc.

This standard will sit within (and leverage) a standards suite comprising biometric standards and web-services standards.

2.5. Recommended INCITS Development Technical Committee

INCITS Technical Committee M1 – Biometrics
INCITS M1.2 Task Group

2.6. Anticipated Frequency and Duration of Meetings

Meetings will be held as necessary and will coincide with relevant INCITS M1.2. It is anticipated that there will be approximately 4 meetings per year.

2.7. Target Data for Initial Public Review

It is estimated that the draft document would be ready for submission to INCITS for Milestone 4 processing (Initial Public Review) in June 2006.

2.8. Estimated Useful Life of Standard

This standard will have a useful life exceeding 5 years.

3. Business Case for Developing the Proposed Standard

3.1. Description

The proposed standard provides a service-based framework for delivering identity assurance capabilities, allowing for platform and application independence. The standard will have the following characteristics:

- Focused on biometrics (but not exclusively)
- Biometric device, type, and vendor independent
- Leverage existing standards where appropriate (e.g. CBEFF – INCITS 398-2005).
- Transport mechanism independent (OASIS will provide bindings for Web services in a separate standard)
- Multi-platform, open
- Primarily focused on remote invocations (services), i.e. not dealing with local devices

The following represent some of the services expected to be defined:

- *Create Subject*. Create a new subject record. Include an optional parameter to specify the subject ID. If this parameter is omitted, the system will generate one. Return the assigned subject ID.
- *Add Subject to Population*. Registers a subject to a given population. Include an optional parameter to specify the value of the claim to identity. If this parameter is omitted, the subjectID (assigned with the CreateSubject function) will be used as the claim to identity.
- *Set Biometric Data*. Add biometric data to a subject record.
- *Delete Biometric Data*. Deletes biometric data from a subject record.
- *Set Biographic Data*. Set biographic data elements for a subject record.
- *Verify Subject*. Perform a 1:1 match against a specified population for a submitted biometric sample and claim of identity. Function should support

matching to an enrolment sample provided in a database or provided by the service call directly.

- *Identify Subject.* Identification function against a population returning a rank ordered candidate list with the maximum list size specified by an integer parameter.
- *Transform Biometric Data.* Transform biometric data into a target format - for example, feature extraction, format translation etc.
- *Perform Fusion.* Future - pending ongoing research and standards development. As a minimum, must address score level fusion.

This list of services is expected to be revised during development of the standard.

3.2. Existing Practice and the Need for a Standard

Organizations, especially U.S. Government agencies, are committed to utilizing standards-based solutions, understanding that the promotion of interoperability will achieve reductions in the cost, effort, and risk involved in developing, deploying, and maintaining solutions. A standard for Biometric Identify Assurance Services (BIAS), will help ensure biometric-based solutions are robust and maintainable, while providing a mechanism for accessing an organization's biometric services.

3.3. Implementation Impacts of the Proposed Standard

3.3.1. Development Costs

Technical editor(s) labor is expected to total about 3 months of a staff-year.

3.3.2. Impact on Existing or Potential Markets

The new priorities for homeland defense, the use of biometrics in support of preventing ID theft and other government and commercial applications drive the anticipated larger potential market. Development of this standard should help to further accelerate the deployment of standards-based biometric services within these applications.

3.3.3. Costs and Methods for Conformity Assessment

The cost of conformity assessment is not known at this time.

3.3.4. Return on Investment

There is no known data on which to make an estimate.

3.4. Legal Considerations

3.4.1. Patent Assertions

There are no known patents relevant to this standard.

3.4.2. Dissemination of the Standard

Drafts of this standard will be distributed electronically.

4. Related Standards Activities

4.1. Existing Standards

There are no existing standards that specify a set of biometric-based identity assurance capabilities utilizing a services-based framework.

4.2. Related Standards Activity

- ISO/IEC FDIS 19784.1 BioAPI Specification – Part 1
- ISO/IEC 2ndWD 19784.1 BioAPI Specification – Part 2, Biometric Archive Function Provider Interface
- ISO/IEC FDIS 19785.1, Common Biometric Exchange File Formats Framework: Part1: Data Element Specification
- ISO/IEC FDIS 19785.2, Common Biometric Exchange File Formats Framework: Part2: Procedures for the Operation of the Biometrics Registration Authority
- ISO/IEC WD 24708, BioAPI Interworking Protocol (BIP)

4.3. Recommendations for Close Liaison

- OASIS

NOTE: As stated in M1/05-0788 (Letter to INCITS Executive Board Related to the Draft Project Proposal – Biometric Identity Assurance Services (BIAS) for consideration at the INCITS M1 meeting, December 15-16, 2005), this project is intended to define services which will be invoked over a services-based framework and OASIS would develop a companion standard for the first set of bindings for a web-services framework. To be usable, these two standards must be very closely aligned. In order for each of the resulting standards to be technically sound and achieve widespread adoption, INCITS M1 believes it is critical that they be developed with close collaboration between the two SDOs developing the two related standards. An approach for partitioning this work into two “sister” standards and a process for achieving this close collaboration through a strong liaison relationship has been tentatively agreed between the two organizations as reflected in M1/05-0788.

- INCITS Technical Committees B10 and CS1
- BioAPI Consortium

5. Units of Measurement used in the Standard

Indicate units of measurement used in the Standard:

- ___ International Systems of Units (SI)
- ___ Inch/Pound
- ___ Both
- ___ Other
- XX Not Measurement Sensitive