



Public-Private Standards Development Collaboration Case Study: INCITS M1

Executive Summary

Law enforcement officials demanded an application-specific data format standard for the interchange of biometric information. In 2001, INCITS (a voluntary standards forum operated by ITIC) established a U.S. standards committee to develop generic biometric standards and the international standards community followed. In the past ten years, INCITS has developed more than two dozen standards, with input from industry experts, government officials and academics. U.S. government agencies, such as the Departments of Defense and Homeland Security, rely on these standards (particularly for Personal Identity Verification (PIV) cards for federal employees).

Results:

In November 2001, the INCITS (InterNational Committee for Information Technology Standards; (<http://www.incits.org/>)) Executive Board (INCITS EB) established INCITS Technical Committee M1 on Biometrics, and decided to propose the formation of a counterpart international Subcommittee in ISO/IEC JTC 1 to develop international generic biometric standards.

From the beginning, INCITS M1 has been comprised of members from the private sector (vendors and system integrators), government, consultants and academia. The present M1 membership total is: 32 member organizations including 23 voting members, five Advisory members and four Liaison organizations. Currently, approximately 75 percent of the voting and Advisory members are from private industry. Approximately 21 percent of members are from government, and four percent are from academia. Liaison organizations include the International Biometric Industry Association, OASIS, the Security Industry Association and the BioAPI Consortium.

Since the inaugural meeting of INCITS M1 in January 2002, 26 American National Standards and one ANSI Technical Report have been published. Although its major emphasis is supporting the development of International standards, INCITS M1 continues to develop national standards required by its members. Currently, 10 draft standards are in development.

Since the first meeting of ISO/IEC JTC 1/SC37 in December 2002, 31 international standards and four Technical Reports have been published. SC37 is currently processing 52 draft standards and six draft Technical Reports. INCITS M1 is a significant contributor to SC37's Program of Work under the responsibility of SC37 and its six Working Groups.

INCITS M1 provides technical contributions to about 85% of the SC37 projects. In addition INCITS M1 contributes with a large number of technical editors/co-editors for the international projects. Most of the international standards developed by SC37 have been adopted as American National Standards.

The M1 and SC37 standards have proven to be very market-relevant. The initial M1 concept of operation was to quickly develop ANSs and semi-concurrently develop SC37 standards. Large international organizations have adopted a number of the international standards developed by JTC 1/SC37. International Civil Aviation Administration (ICAO) adopted them for the Machine

Readable Travel Documents (MRTD) and the International Labor Office of the UN (ILO) for the Seafarers' ID Card. Countries represented in JTC 1/SC37 have adopted some of the international biometric standards as well.

In the U.S. government, the requirements for the Personal Identity Verification (PIV) Card for Federal Employees/Contractors requires conformance to several of the biometric ANSs developed by INCITS M1. Other representative examples in the U.S. of government agencies requiring the use of M1 and SC37 developed biometric standards are the Department of Homeland Security and the Department of Defense.

The National Science and Technology Council (NSTC) Subcommittee on Biometrics and Identity Management (which includes participation of a significant number of U.S. government agencies) has developed the *Registry of USG Recommended Biometric Standards*. For U.S. government-wide applications, this publication recommends several standards developed by M1 as well as international standards developed by SC37.

Background

The need for the development of biometric standards to support applications in open systems environments was recognized in the 1980s. Around 1985, the law enforcement community and other government and private sector interested parties developed six versions of an application-specific data format standard for the interchange of biometric information. This standardization was done under the auspices of NIST/ITL, which is an ANSI accredited standards developer.

After September 11, 2001, biometrics and biometric standardization became a priority for the U.S. Many government users and industrial organizations expressed the urgent need for the rapid development of national and international generic biometric standards that could be used in many high-priority applications. In response to these new requirements, NIST worked with other U.S. government agencies and private industry via INCITS to help establish national and international standards groups for generic biometric standards development.

The purpose of INCITS M1 is to ensure a high-priority, focused and comprehensive approach in the U.S. for the timely development of national and international biometric standards that are needed for biometric personal authentication in growing identity management applications in commerce and government. INCITS M1's program of work includes the development of biometric standards for data interchange formats, sample quality standards, common file formats, technical interfaces, application profiles, conformance and performance testing, and reporting methodologies.

ISO/IEC Joint Technical Committee 1 (JTC1) SC37 on Biometrics was established by JTC1 in June 2002. The formation of JTC1/SC37 was initiated and championed by the U.S. through INCITS.

Since its inception, INCITS M1 has been chaired by a NIST representative. An SC37 Working Group Convener and the SC37 Chairperson are also NIST employees. Many of the project editors for the INCITS M1 projects and the SC37 projects are from U.S. government agencies, such as DOD, DHS, FBI and NIST.

For further information, please contact the Information Technology Industry Council at 202-626-5752.