

# Biometric Consortium 2005 Conference

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**Topic:** Biometrics and E-Authentication

**Abstract:** Biometrics offer many advantages for personal authentication. Not the least of these is that you can't easily forget your biometric, nor is a biometric as easy to give to someone else as a password. It is natural to want to use biometrics when authenticating to remote computer systems. But in the general case of remote electronic authentication, where the biometric capture is not attended or supervised by the verifier, how does a verifier, looking at a message from some remote system, somewhere on the Internet, tell if the biometric in the message is a fresh capture, an old electronic copy, an artifact synthesized by a computer program, or even just something produced by a "gummy" model? We use well-understood protocols based on secrets for remote authentication, but it seems on the face of it very hard to keep a biometric truly secret. It seems obvious that more fully exploiting biometrics for remote authentication could potentially improve both security and convenience. NIST held a workshop on this issue in February 2005 and is working to find ways to incorporate biometrics into the framework of NIST SP 800-63, the NIST guidance on electronic authentication. This talk will discuss the results of that workshop and the issues NIST sees with using biometrics for remote authentication.

**Biography:** Bill Burr manages the NIST Security Technology (Sectek) Group, which is responsible for Federal Information Processing Standards and guidance for Cryptography, PKI and cryptographic applications, and has an active standards program for biometrics data representation. He is also Chairman of the Federal Public Key Infrastructure Technical Working Group. Mr. Burr and his Sectek group are now heavily involved in supporting both the FIPS 201 Personal Identity Validation (PIV) card initiative and the Federal E-Authentication initiative. He is one an author of NIST Special Publication 800-63, Electronic Authentication Guideline, which provides guidance to Federal agencies implementing E-Government services through the Internet, and of NIST SP 800-78, which defines the algorithms and key sizes used for the PIV program. Since joining NIST in 1978, Mr. Burr has worked to develop standards for computer peripheral interfaces, high-speed networks, and security. Since 1990, when he became a member of the NIST Computer Security Division, he has worked on standards for PKI and Encryption, and was a member of the Advanced Encryption Standard selection team.