

Use of the Standard Within Biometric Web services



ANSI/NIST-ITL WORKSHOP

JANUARY 28-30, 2013

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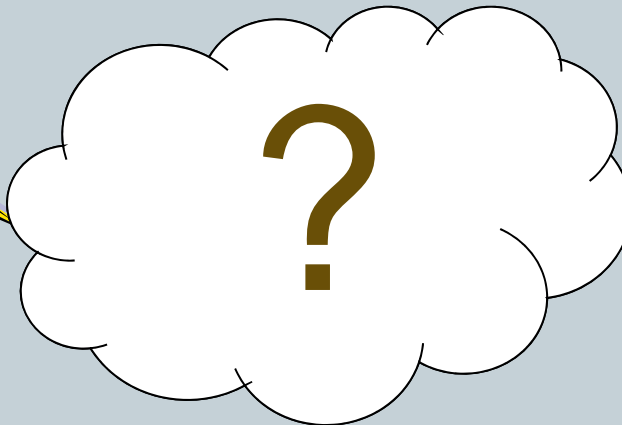
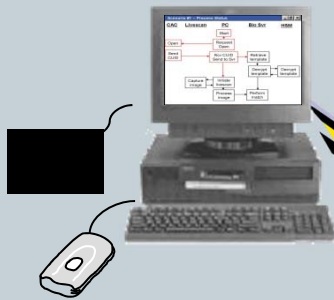
ROSS MICHAELS

KEVIN MANGOLD

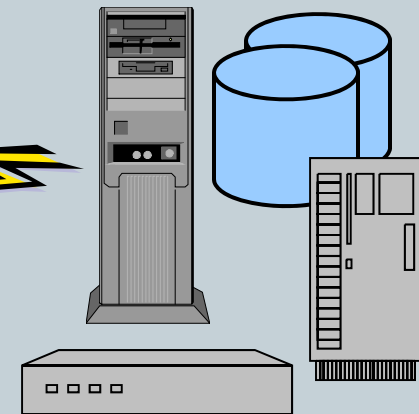
In the beginning ...



Biometric Applications

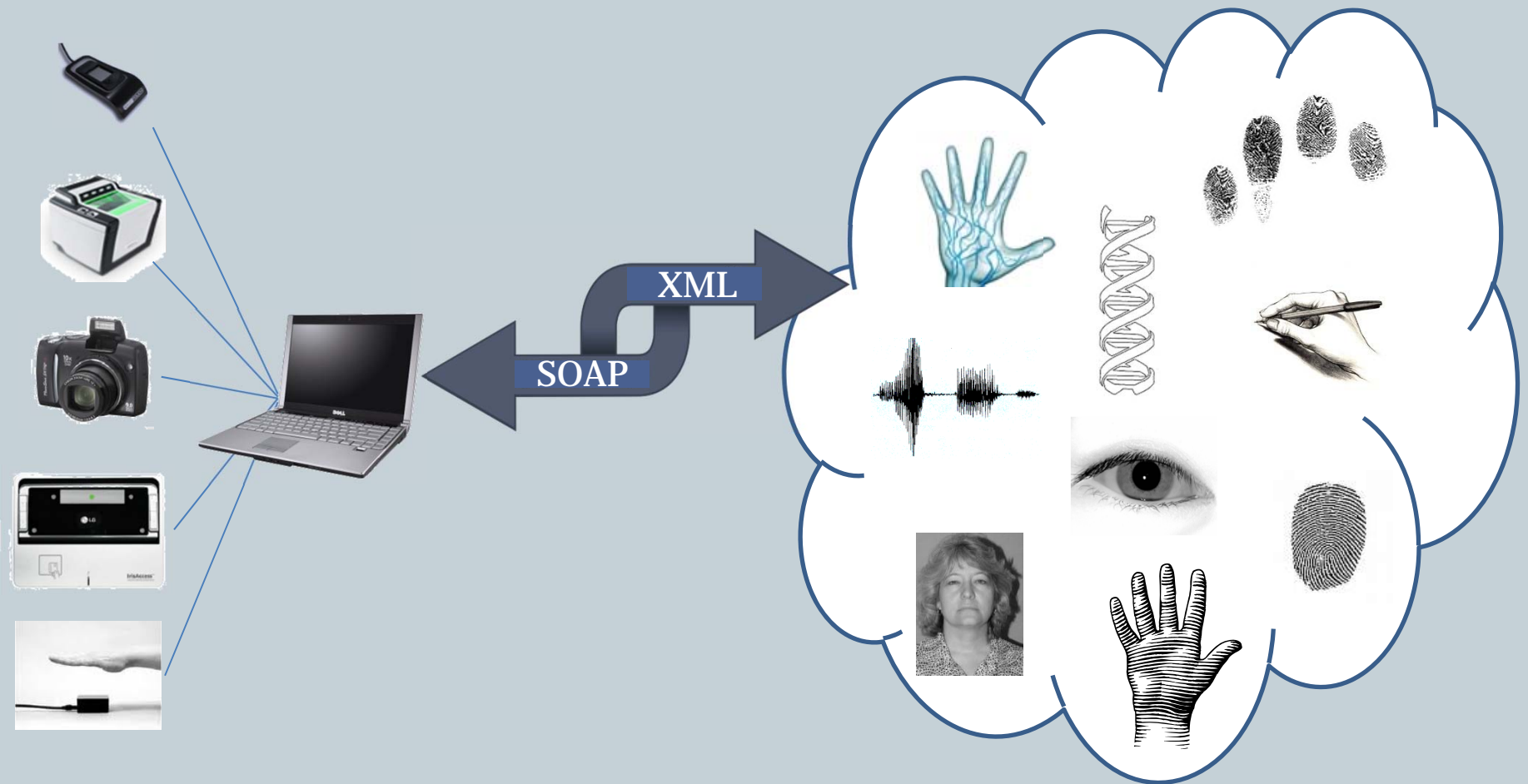


Biometric Resources

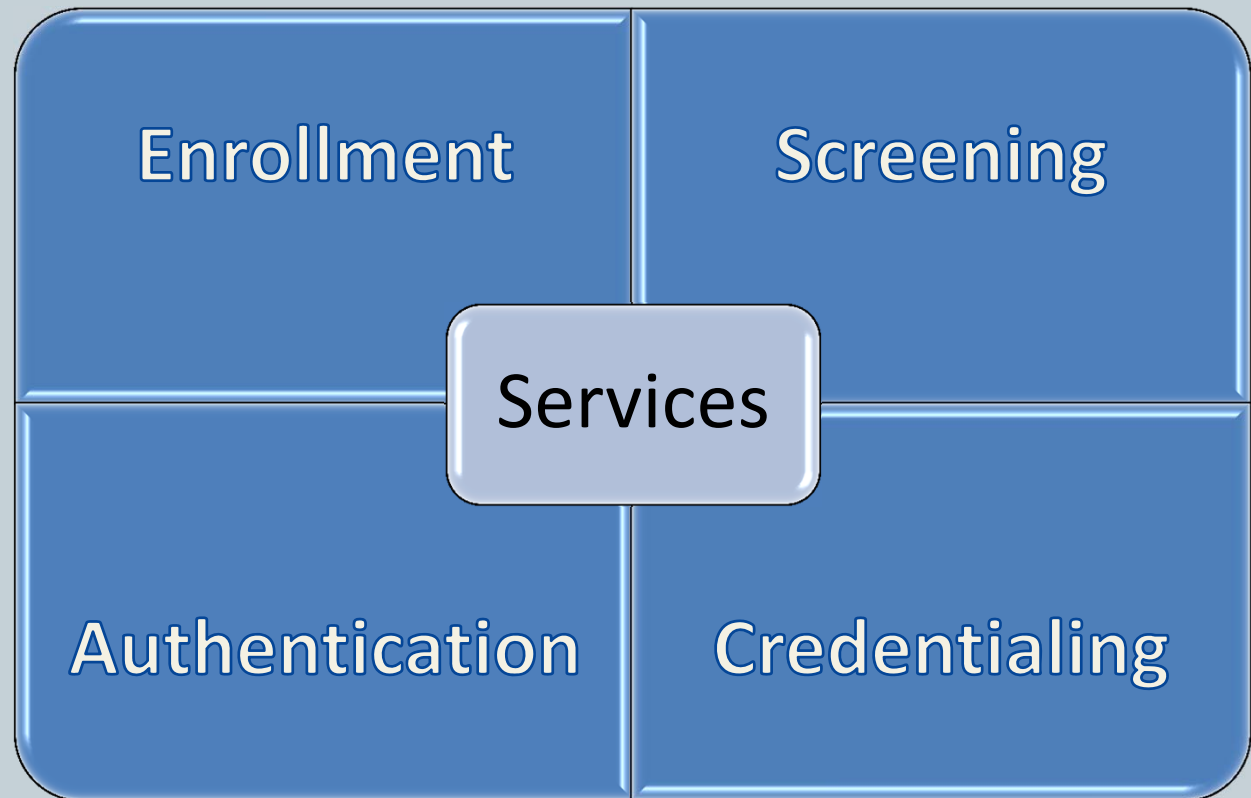


- In reviewing the biometric-related standards portfolio and service oriented architecture (SOA) references, it became apparent that a gap existed in the availability of standards related to biometric services.

Use Cases – Biometrics in the Cloud



Use Cases – Biometrics as a Service



Use Cases – Biometric Data Sharing



Cross-Program

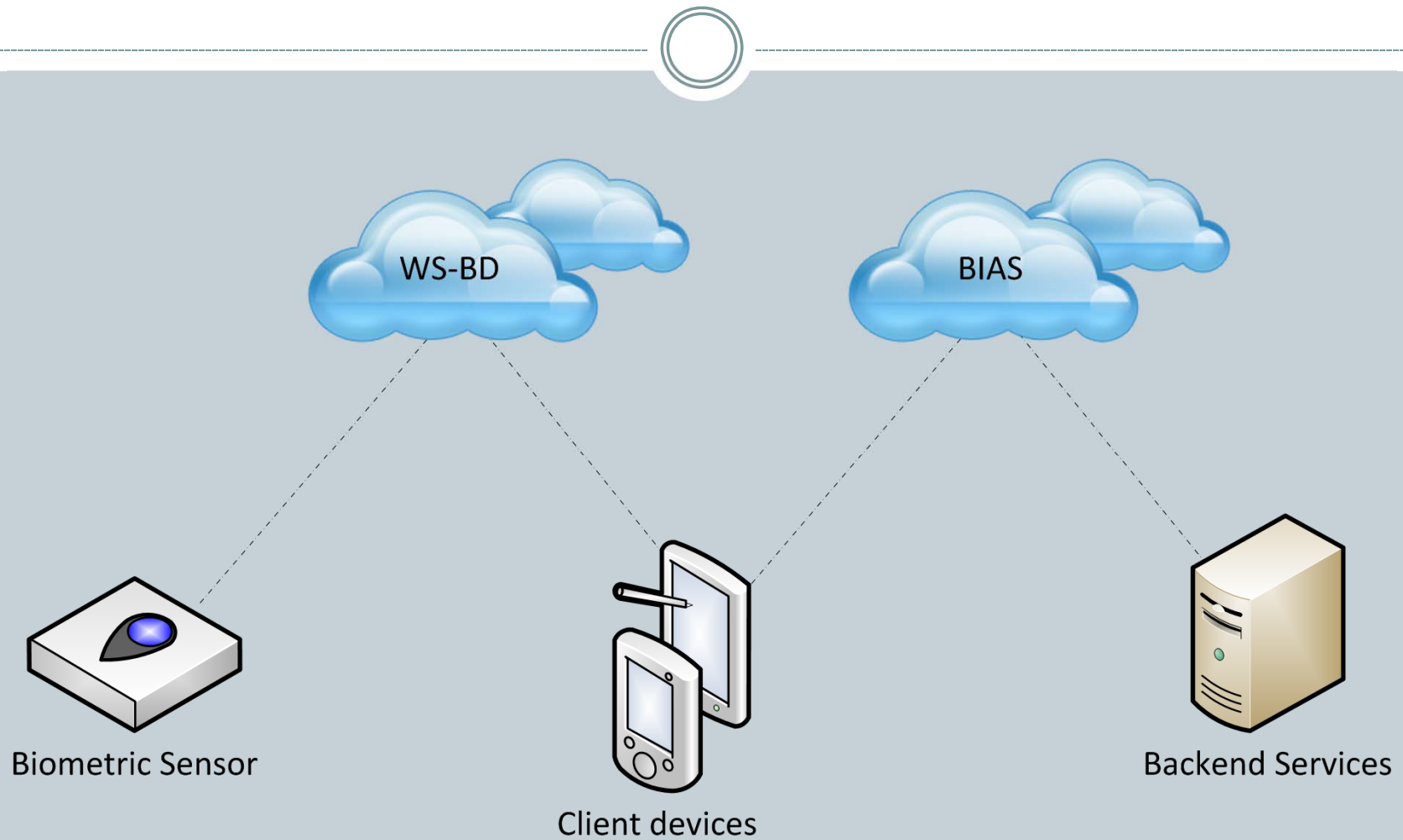
Cross-Agency

Inter-state

International



Initial Targets



General Characteristics (1)



- **Purpose:**
 - Provide a method for performing biometric operations over a services-based framework
- **Desired functionality:**
 - Perform remote capture operations
 - Invoke remote biometric services
 - Access remote biometric resources
 - Exchange biometric data

General Characteristics (2)

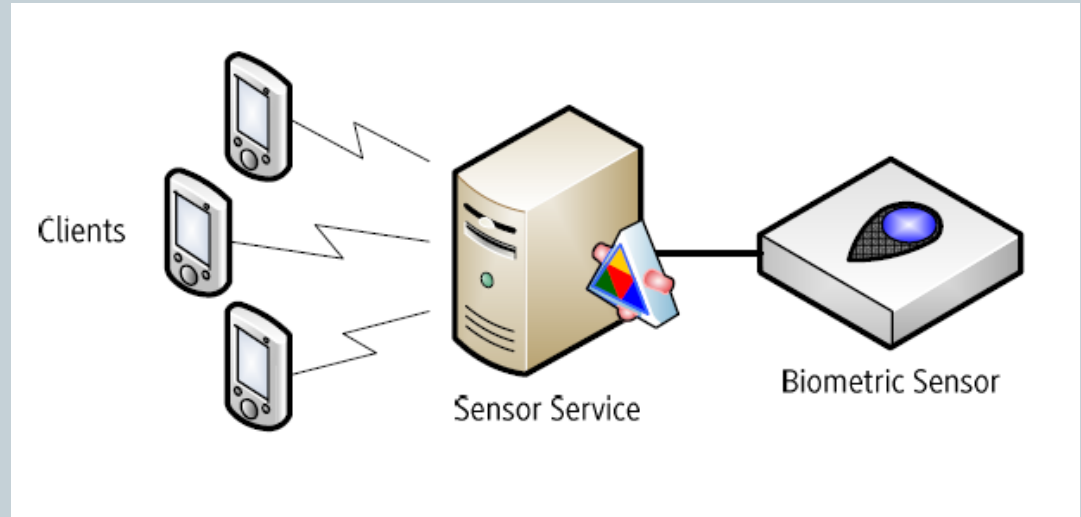


- **Services:**
 - Capture biometric sample(s)
 - Control biometric device
 - Create/delete subjects
 - Set/list/update/delete/retrieve biographic, biometric, document data
 - Verify, identify, enroll
 - Process/transform data
 - ✦ (incl. compression, feature extraction, data format translation, etc.)
 - Quality assessment
 - Classification
 - Fusion

Sensor Description



**Physically separated
WS-BD implementation**



**Physically integrated
WS-BD implementation**

Video



- **Insert video here**

Relationship to ANSI/NIST standard



- Both BIAS and WS-BD are XML based
- BIAS is capable of carrying data in a variety of formats including:
 - ANSI/NIST records
 - NIEM
 - ANSI/NIST profile files (e.g., EFTS/EBTS)
- WS-BD supports return of captured sensor data in ANSI/NIST format
- ANSI/NIST is a standard data format. Web services provides a method for moving that data.

Status



- **BIAS is published as INCITS 442 & OASIS BIAS SOAP Profile.**
 - International version in progress
 - NIST reference implementation available
 - 3 “statements of use”
- **WS-BD is published as NIST SP 500-288**
 - NIST reference implementation available
- **SBIR demonstrated use of both in a video facial recognition application**

Future Plans



- **OASIS standing up new ‘Biometrics TC’**
 - Broader in scope than previous BIAS TC
 - Will take over maintenance of the BIAS SOAP Profile
 - ✦ Possible REST version
 - First project will be based on WS-BD
- **First meeting: Tuesday, 12 February, 11am-12 ET**
 - Join by 5 Feb to gain voting rights
- **Website:**
 - https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=biometrics

Accelerating the use of biometrics through services and enhanced interoperability in distributed environments.