Use of the Standard Within Biometric Web services

ANSI/NIST-ITL WORKSHOP

JANUARY 28-30, 2013

PRESENTED BY: CATHERINE TILTON
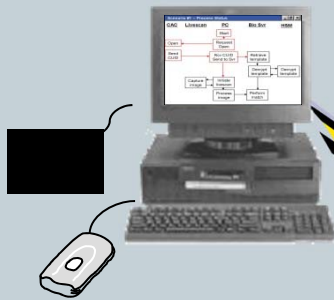
ROSS MICHAELS

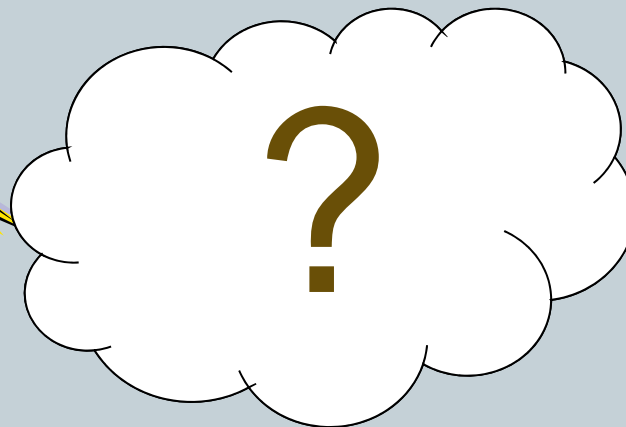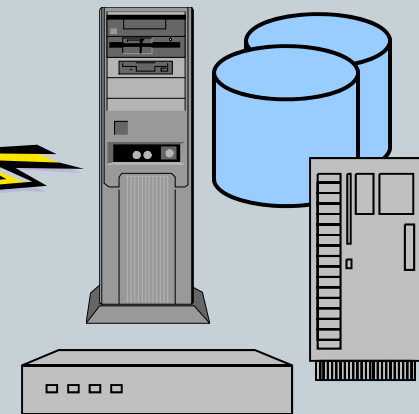KEVIN MANGOLD

In the beginning ...

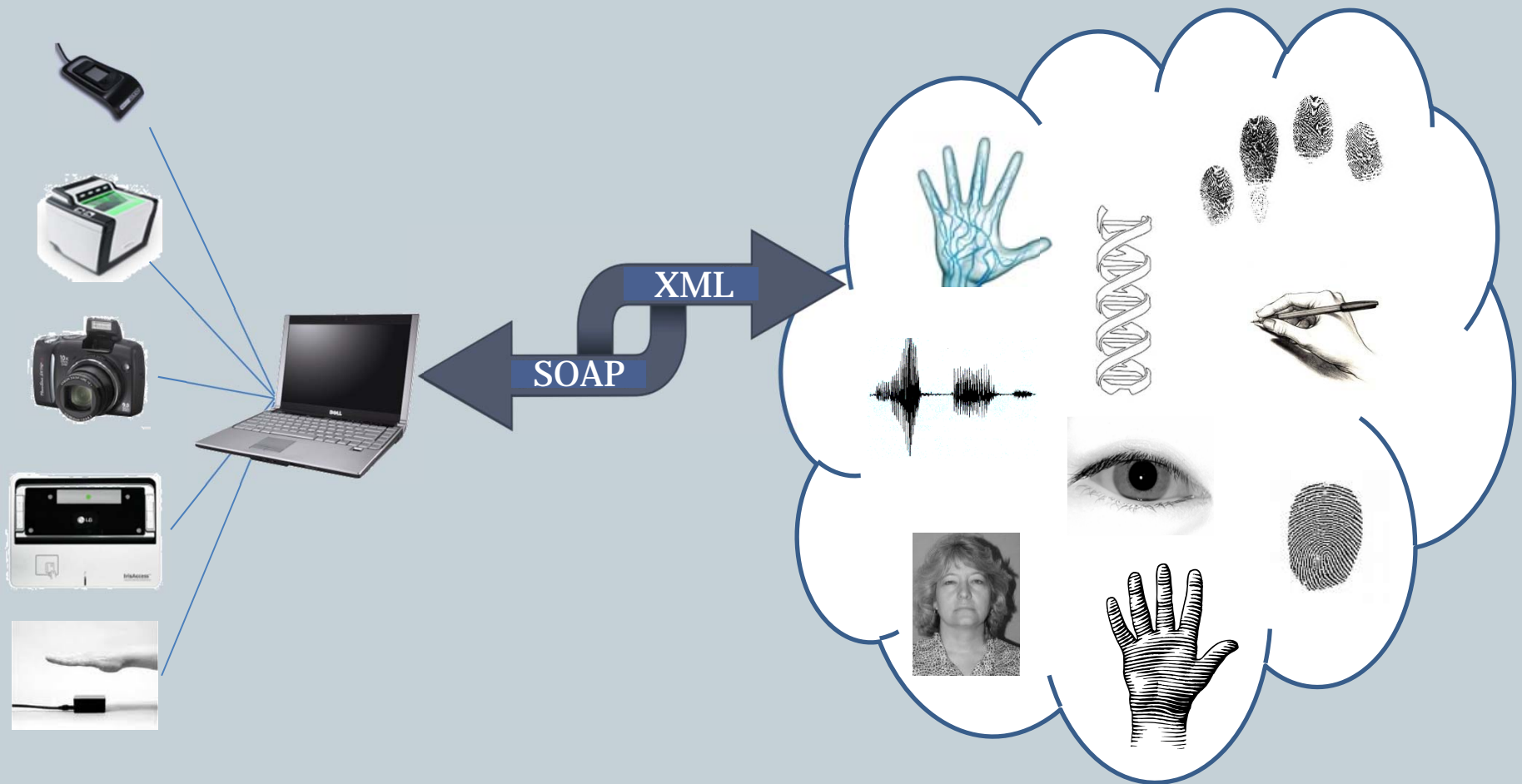**Biometric Applications**

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

Services

- Enrollment
- Screening
- Authentication
- Credentialing
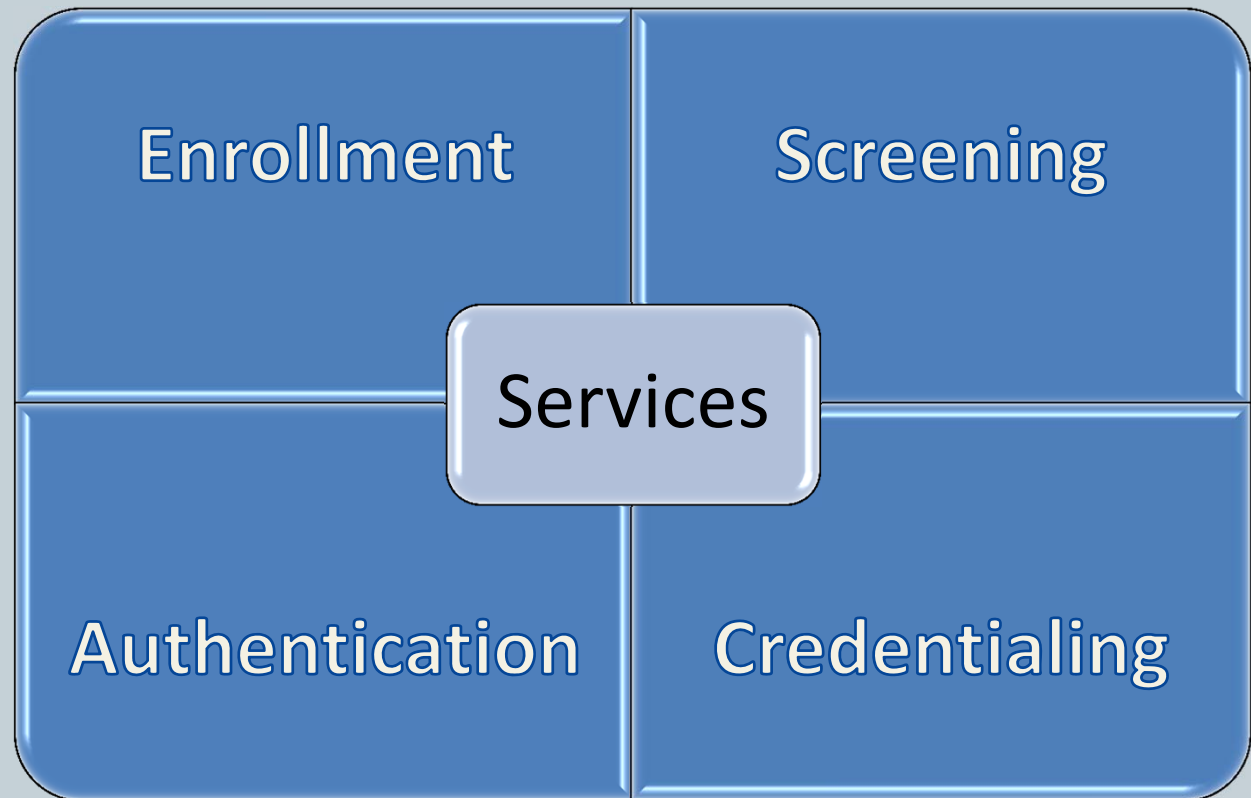
Use Cases – Biometric Data Sharing
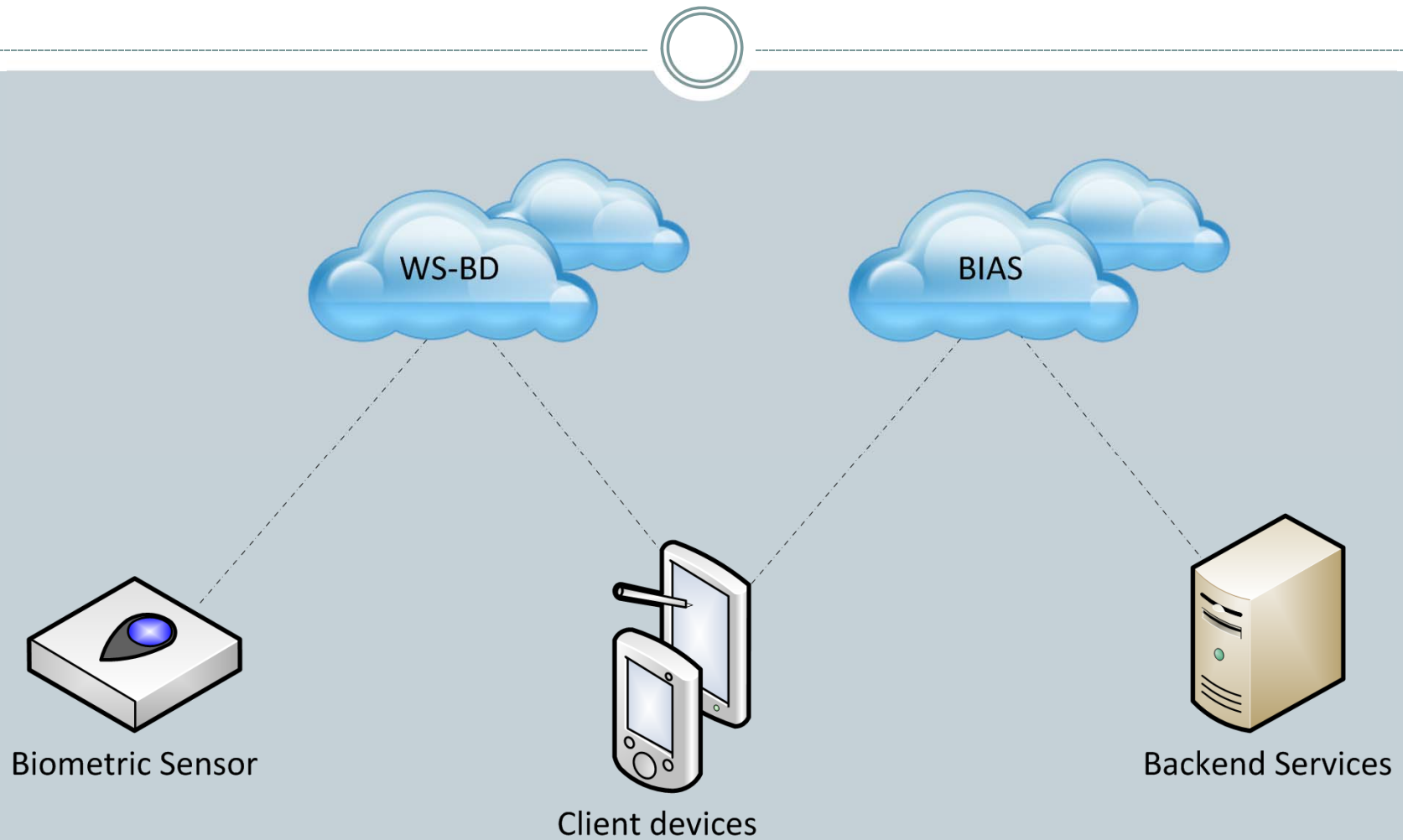
- Cross-Program
- Cross-Agency
- Inter-state
- International

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
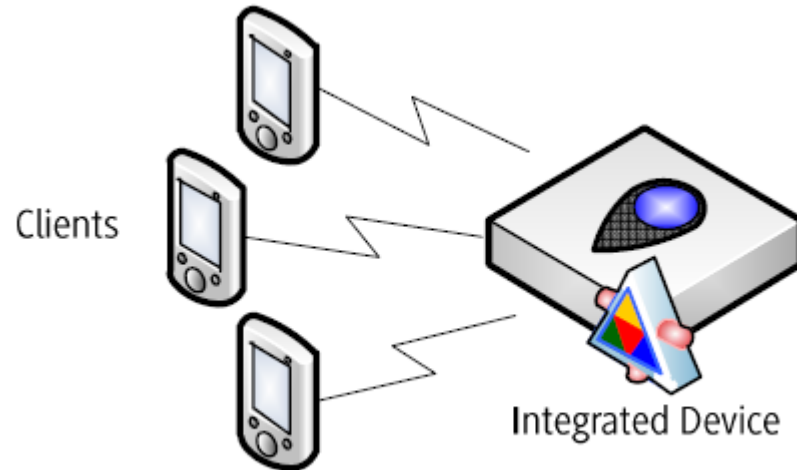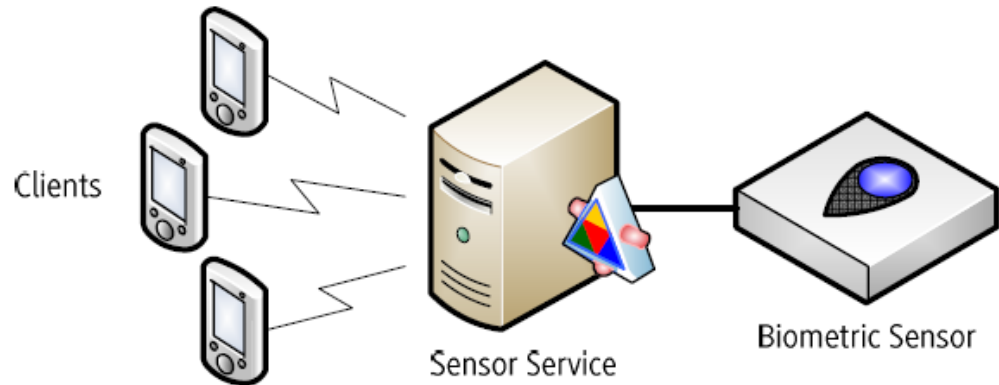
Physically integrated WS-BD implementation

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.