Conformance

- Meeting the requirements of a standard or specification

- Functional & Non-functional

Performance

- Accuracy

- Throughput, response time, capacity
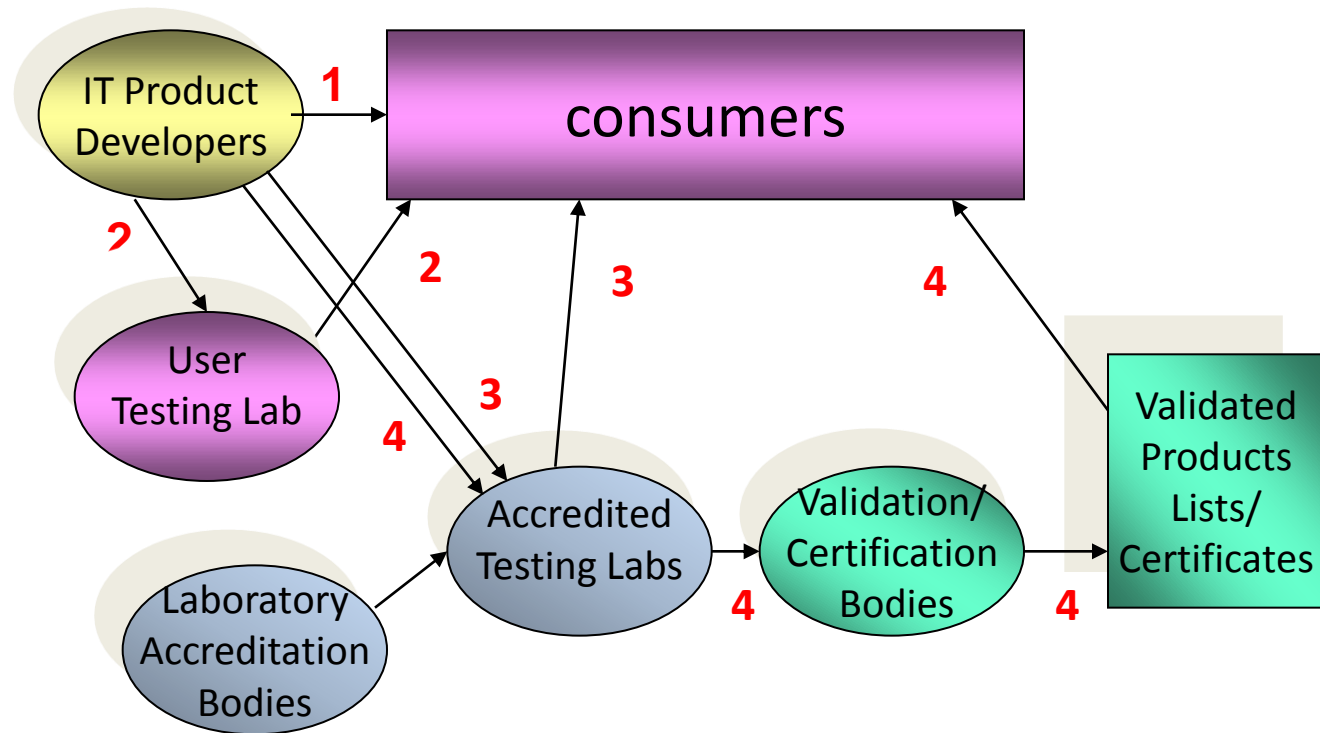
Conformance

Performance

Certification

- **Path 1**: IT Product Developer self declaration of conformity

- **Path 2**: Second Party Testing

- **Path 3**: Conformance demonstrated by evaluation in accredited laboratory

- **Path 4**: Conformance demonstrated by evaluation and validation/certification

One standard, one test report, accepted everywhere

Source: NIST & BAH

4

Why Certify?

Per the FBI:

- Certification provides assurance to users of biometric collection systems that certified products meet or exceed minimum FBI interoperability standards and will work with the Integrated Automated Fingerprint Information System (IAFIS).

- These standards ensure that the images used in the system are high quality and support all phases of identification for both fingerprint experts and the IAFIS.

- FBI – Appendix F and PIV
- BSI 3121 (App F equivalent)
- Airport Access Control QPL
- TWIC Reader QPL/QTL
- UID STQC
- FIPS 201 Approved Products List
- MINEX certified template generators/matchers
- Common Criteria certification
- DoD EBTS certification
- ILO SID certification
- NVLAP Biometrics Laboratory Accreditation Program

FBI Certification Categories

Certification Category	Specification	~ Capture Dimension (WxH inches)	Types of Prints collected
Fingerprint Printer	Appendix F		
Fingerprint Card Scanner	Appendix F	8 x 5	
Live-Scan (Tenprint) System	Appendix F	1.6 x 1.5 roll 3.2 x 2.0 flat	Rolls, plain & 4-finger
Identification Flats	Appendix F	3.2 x 3.0	4-4-2 flats
PIV Single Finger	PIV-071006	0.5 x 0.65	1 finger flat
Mobile ID (see below)			# Simultaneous. flats
FAP 10	PIV-071006	0.5 x 0.65	1
FAP 20	PIV-071006	0.6 x 0.8	1
FAP 30	PIV-071006	0.8 x 1.0	1
FAP 40	PIV-071006	1.6 x 1.5	1-2
FAP 45	Appendix F	1.6 x 1.5	1-2
FAP 50	Appendix F	2.5 x 1.5	1-3
FAP 60	Appendix F	3.2 x 3.0	1-4

WASHINGTON--(BUSINESS WIRE)--April 27, 1998--

ICSA-The Security Assurance Company

The International Computer Security Association (ICSA, formerly NCSA) Monday announced the industry's first six biometric product certifications at a press conference held in Washington, D.C.

The certification announcement follows six weeks of rigorous testing by the ICSA Biometrics Certification Lab.

"We have arrived at an exciting juncture in the history of the biometrics industry," said Dr. Peter Tippett, ICSA president. "As evidenced by the high quality products which achieved certification today, biometrics technology has arrived and is no longer only the stuff of fictional James Bond movies.

"ICSA certification will help advance the deployment of biometrics by providing customers a framework for continuous and measurable product improvement."

X9.84	• Verification: FMR$<=10^{-4}$ (mand)$<=10^{-5}$ (rec) • FNMR $<= 10^{-2}$
FIPS 140-2	• FAR: 1 in 10^6 • Biometric used to protect key
PIV/TWIC	• SP800-76: EER $<= 1\%$ • TWIC Reader Spec: EER $<= 1\%$
19795-5	• 3 levels of FAR: 0.1%, 0.3%, 1.0% • 6 levels of FRR: 0.33% - 7.00%

Pros & Cons
of Certification Testing

PROs

- Establishes a baseline
- Provides confidence for adopters
- Users can leverage a 3rd party testing (rather than each doing their own)
- Levels the playing field
- Can cover a range of requirements
- Can be domain specific

CONs

- Cost (esp. to smaller organizations)
- One size fits all
- Multiple certifications – which one(s)?
- Hesitancy to include performance requirements (application specific)
- Correlation to performance in the field is not guaranteed
- 'If we have it, they will come' syndrome
- Technology refresh time (can be) < certification time

- **Does certification increase or decrease competition?**

- **Does certification increase adoption of biometric technology/products?**

- **Is the cost/benefit compelling? (To buyers? Vendors?)**

- **Can today's rapid timelines support it?**