



Perspectives on Conformity Assessment

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Conformity Assessment – Overview (I)

- **What:** Methods to develop confidence that a product, service or system:
 - *Meets specified requirements*
 - *Demonstrates required characteristics*
 - *Performs in a specified manner*
- **How:** Assessment rigor/formality can vary:
 - *Self-Assertions by Supplier*
 - *Inspections based on Professional Judgment*
 - *Testing using Technical Operations, Procedures*
 - *Certification by Third Parties*

Conformity Assessment – Overview (II)

- **Who:** Assessment can be performed by:
 - *Supplier – First-Party*
 - *Consumer/Purchaser – Second-Party*
 - *Independent Party hired by Supplier or Consumer – Third-Party*
 - *Regulatory Body – Third-Party*
- **When:** Assessment timing can be:
 - *One Time – Prior to Acquisition/Use*
 - *Periodic – Established Interval*
 - *Ad Hoc – As-Needed during Period of Use*



Conformity Assessment - Benefits

- **Facilitates National and Global Commerce**
- **Provides Peace of Mind to Consumers**
- **Promotes Uniformity/Consistency in Marketplace**
- **Supports Interoperability; Plug-and-Play**
- **Serves as Market Differentiator for Suppliers**
- **Promotes Consumer Safety**
- **Protects broader interests (e.g., Environment)**



Conformity Assessment - Challenges

- **Standards/Specifications often not amenable to Conformity Assessment**
- **Conformity to Requirements may not imply Interoperability**
- **Transparency and Objectivity of Assessment Methods**
- **Third-Party Assessor Characteristics:**
 - *Independence and Impartiality*
 - *Consistency of Assessment Procedures*
 - *Strong Configuration Management Practices*



Conformity Assessment – Trade-Offs

- **May stifle Innovation**
- **May constrain Market Opportunities for Suppliers**
- **May delay Commerce and Adoption**
- **Time Consuming and Expensive**
- **May provide a False Sense of Confidence**



Conformity Assessment Examples (I)

- **Personal Identity Verification (PIV) Card Data Model (NIST)**
 - ***Reqs: FIPS 201 Standard and Special Pubs***
 - ***Test Requirements and Test Assertions***
 - ***800-85B Test Tool (NPIVP)***
- **PKI-Enabled Products (SAFE Biopharma)**
 - ***Reqs: SAFE PKI Bridge Certificate Policy***
 - ***Vendor Certification Program***
 - ***Test Requirements***
 - ***Test Cases***

Conformity Assessment Examples (II)

- **HSPD-12 Products and Services (GSA)**
 - ***Reqs: FIPS 201 Standard and Special Pubs***
 - ***Operate GSA FIPS 201 Evaluation Program***
 - ***Maintain Approved Products List (APL)***
 - ***EP Test & Approval Procedures for 30+ Product Categories***
 - ***EP Technical Test Tools for biometric devices, PKI and smart card products***
 - ***Evaluate 300+ HSPD-12 products and services***
 - ***Qualify 3rd Party Testing Labs***

Conformity Assessment Experience (III)

- **Smart Meters (NIST)**
 - *Reqs: AMI Meter Upgradeability Standard*
 - *Conformance Test Framework*
 - *Test Profiles, Derived Test Requirements*
 - *Test Tools*
- **Electronic Health Record (EHR) Products (NIST)**
 - *Reqs: 2014 Edition Release 2 EHR Certification Criteria and Meaningful Use Stage 2*
 - *Test Procedures and Test Procedure Packets*
 - *Conformance Tool Documentation*

Conformity Assessment Examples (III)

- **Voting Systems (NIST)**
 - *Reqs: Voluntary Voting Systems Guidelines (VVSG)*
 - *Stakeholder Consensus Building*
 - *Test Assertion Framework and Test Assertions*
- **Cloud Services**
 - *Reqs: Federal Risk Assessment Management Program (FedRAMP)*
 - *Third Party Assessor Organization (3PAO) Assessments*
- **Identity Service Providers**
 - *Reqs: GSA ICAM Trust Framework Solutions*
 - *Kantara Assessments*

Wrap-Up and Contact Information



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