Conformance Test Program for Government Smart Card

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Components of Conformance Testing

- Standard or Specification

** GSC-Interoperability Specification (includes conformance clause)

- Conformance Test Suite

** Card edge and BSI test suites being developed by NIST

- Validation and Certification Process

** Described in this presentation

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Testing Components

Certification
qualified bodies to do the testing and certification
control board - advisory and arbiter

Validation
Process - policy and procedures for testing

Conformance Testing
Test assertions
Test suite
(test software, test scripts, test criteria)

Standard
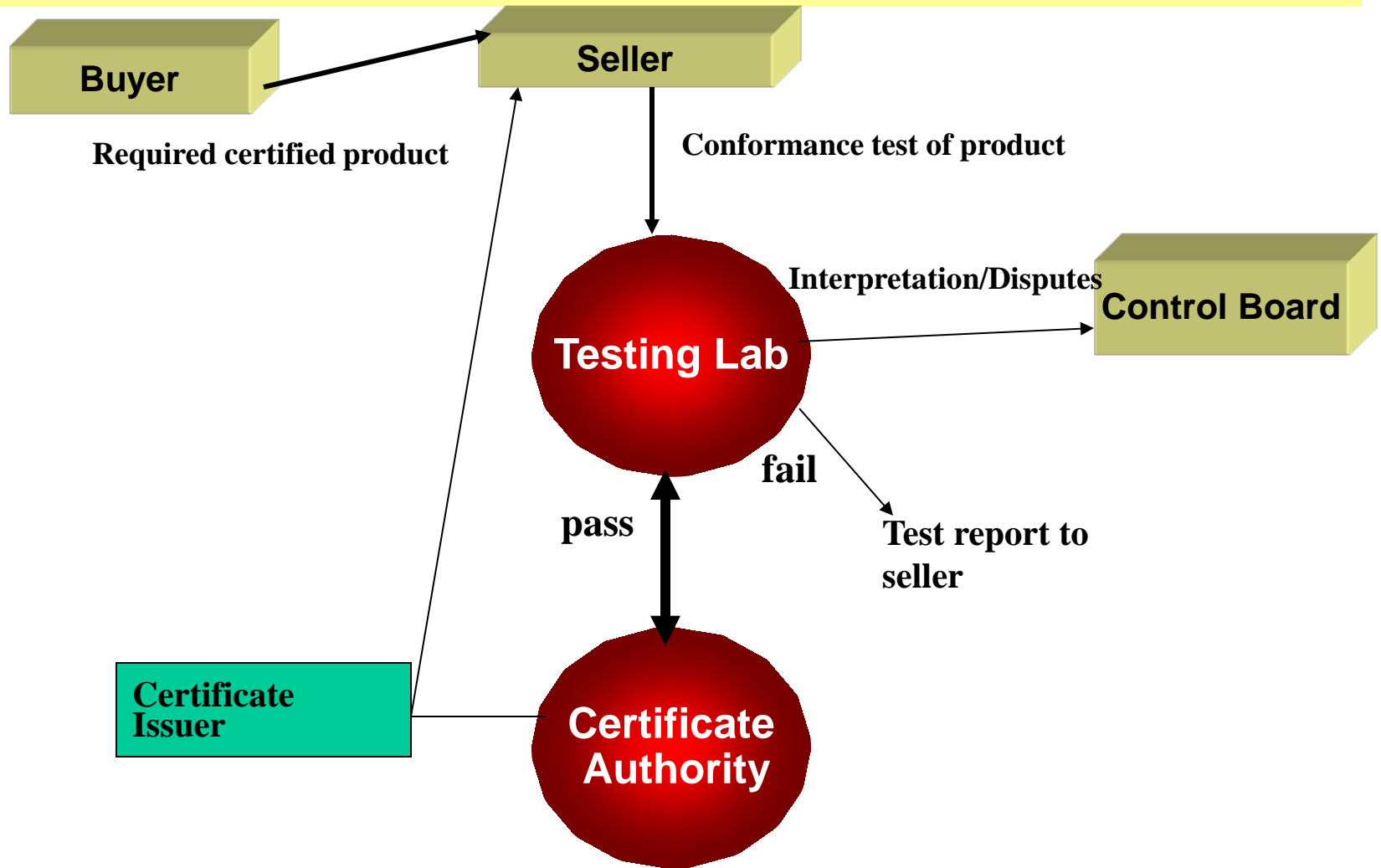Conformance clause

Conformance Test Suite

Conformance test suite includes:

- - test assertions with expected results,
- - test data and programs,
- - test harnesses.

Procedures for testing include:

- - instructions for test setup and a process guide
- - instructions for manual actions
- - instructions to handle failures

Proposed Validation & Certification Process for GSC

Buyer

Seller

Required certified product

Conformance test of product

Testing Lab

Interpretation/Disputes

Control Board

fail

pass

Test report to seller

Certificate Issuer

Certificate Authority

Functions of GSC Testing Laboratory

- Conducts conformance testing in accordance with prescribed procedures

- Prepares test results

- Maintains changes to test suite and testing procedures

- Provides feedback to control board on problems and improvements

- Interfaces with the GSC implementers

- Establishes appropriate fees

Functions of Certification Authority

- Establishes/maintains GSC Conformance test program policies and procedures

- Approves the test suites

- Establishes criteria for testing lab

- Determines criteria for conformance

- Develops/maintains procedures for testing lab to follow in order to award certificate

Functions of Certificate Issuer

- Issues certificate of validation if conformance is indicated

- Periodically publishes registry of validated products

Functions of GSC Control Board

- Resolves questions concerning interpretation of test suites and test procedures

- Ensures resolution of technical problems

- Arbitrates disputes between Testing Laboratory and their clients concerning GSC conformance testing

- Maintains records of all queries and resolutions.

Open Issues

- Requirements for Conformance
  - (e.g. Pass All, Partial Pass, …)
- Level of Conformance
  - (e.g. Profiles, Level 1, Level 2, …)
- Renewal of Certification
- Retesting Requirements

Roadmap of Conformance Test Program for GSC

- GSC Interoperability Specification with stable definition of conformance clauses

- Test suite and test procedures delivered

- Identify test laboratory to conduct the test and notify vendors of results

- Establish policies and procedures for certifications

Availability of GSC Test Suite

- The Test suite and test procedures will be available on the Web.

- Smart card vendors and non-GSC vendors can conduct self-testing.

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