COE Platform Certification Program Overview November 2003

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Program Principles

- Clear and well-defined:
  - certification policy
  - processes for achieving and maintaining certification
  - based on industry best practice.

- Conformance requirements drawn from DISA Common Operating Environment Cross Application Platform Compliance Criteria

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Trademark License Agreement

- Vendor guarantee of conformance to specifications.
  - Vendor 'Warrants & Represents'
- This guarantee ensures that:
  - Products conform to a specification
  - Products remain conformant throughout the life of the product's registration
  - Any non-conformance will be fixed in a timely manner

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Background

- DISA ceased taking new applications for the existing COE platform certification program in 4Q 2002
- The Open Group has added certification for COE platforms to the existing Open Brand program
- DISA is not funding The Open Group to do this
  - Neither development nor operation
  - Development and operation to be funded by applicants

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Objectives of the Program

- For Procurement:
  - Assurance of COE Platform conformance and interoperability
  - Level of assurance matched to the needs of the particular application
  - Meet at least same levels of assurance as DISA program
- For Vendors:
  - Reduce costs & risks of getting certified

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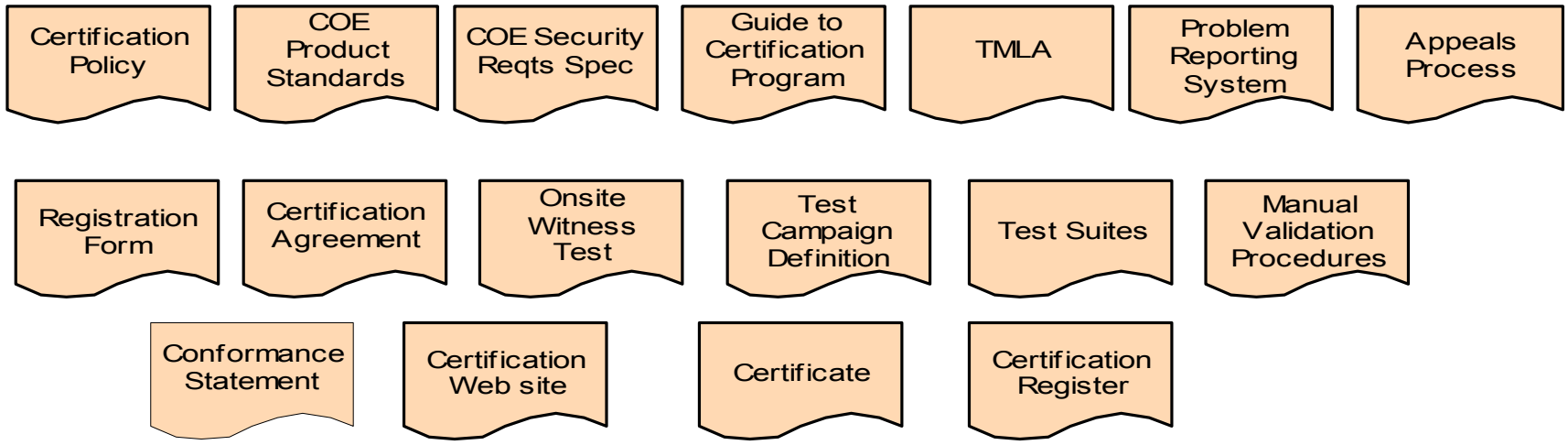
Program Elements



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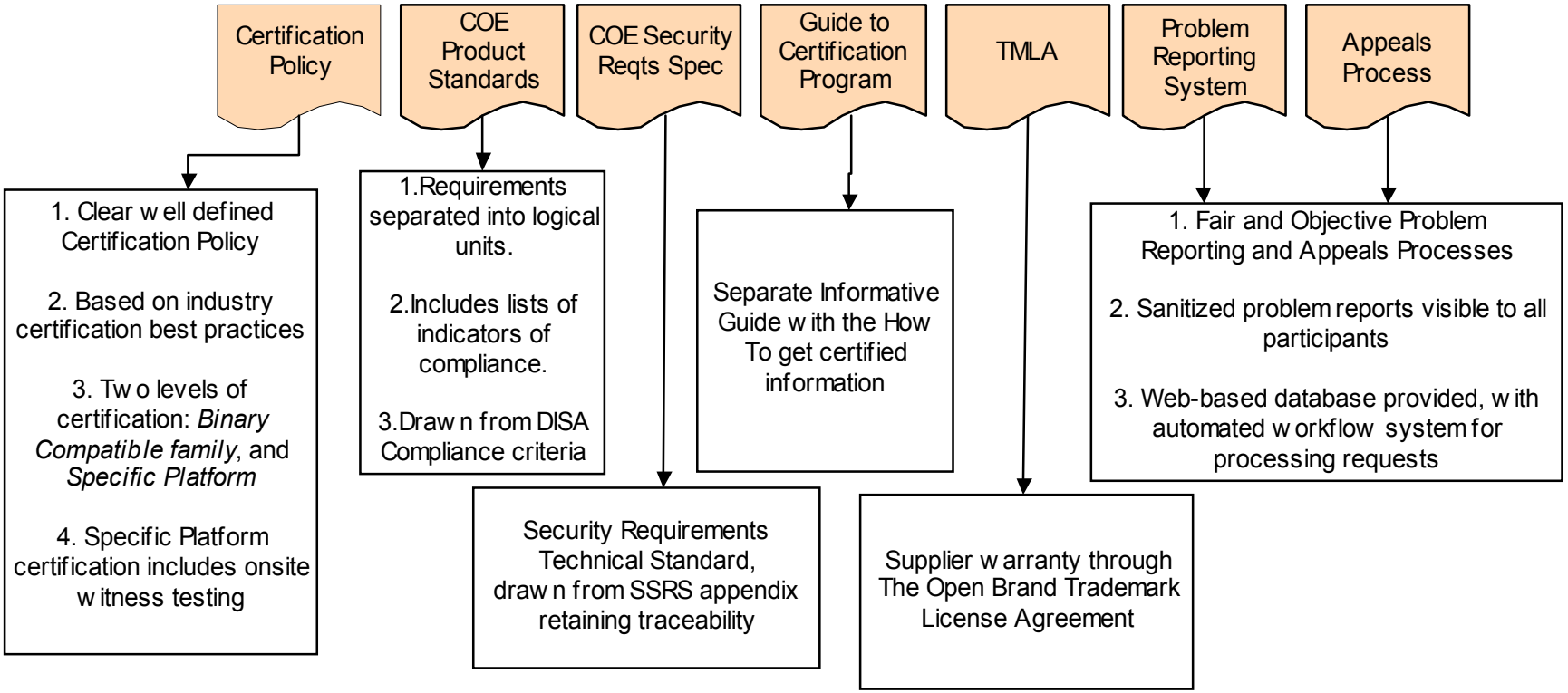
Elements (1)



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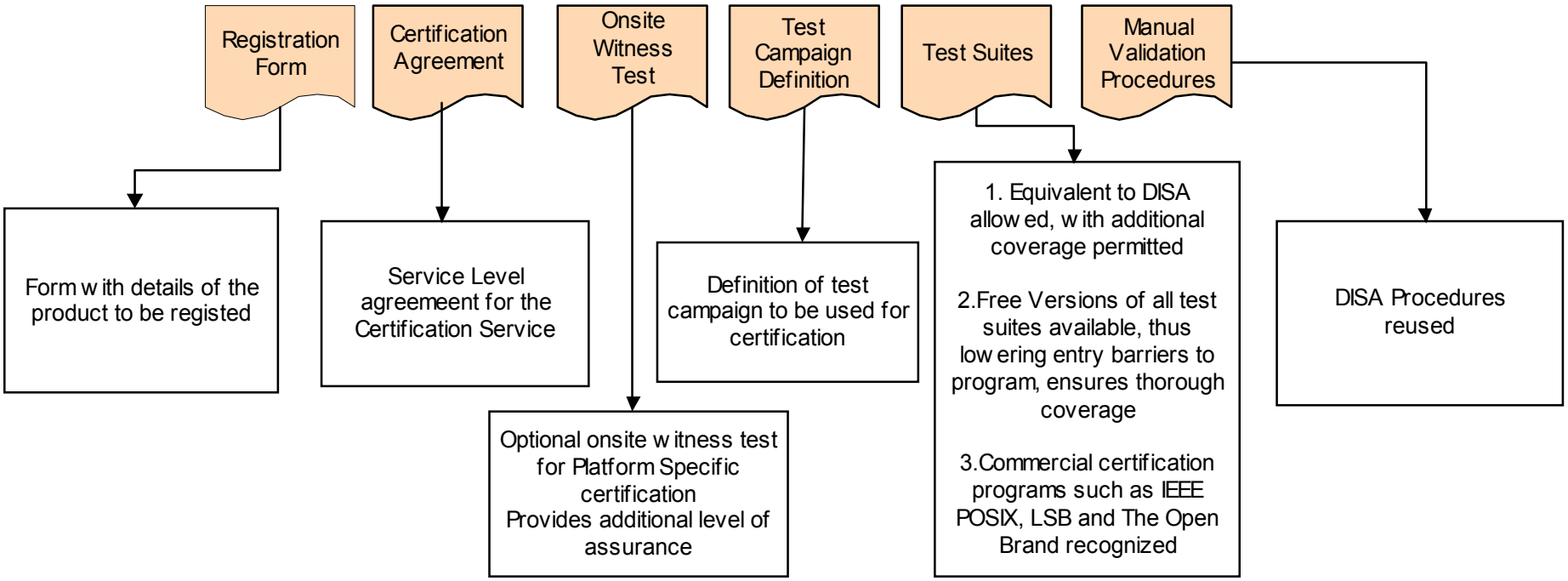
Elements (2)



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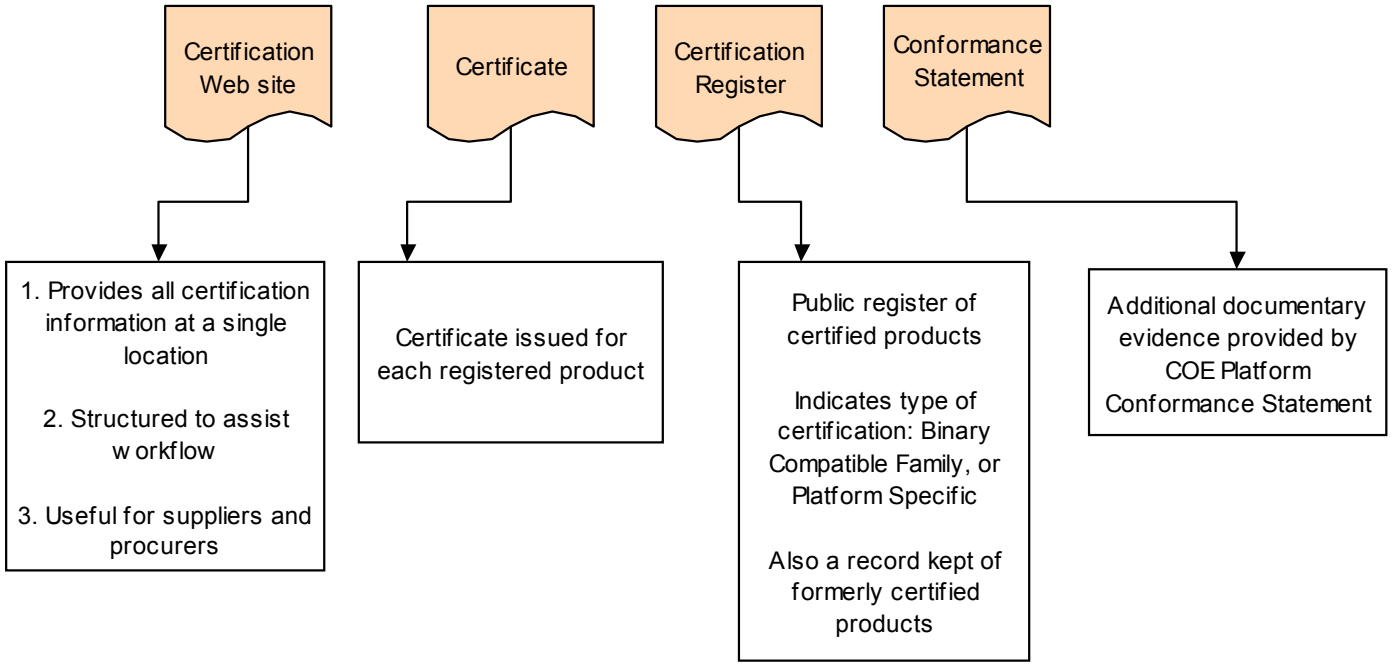
Elements (3)



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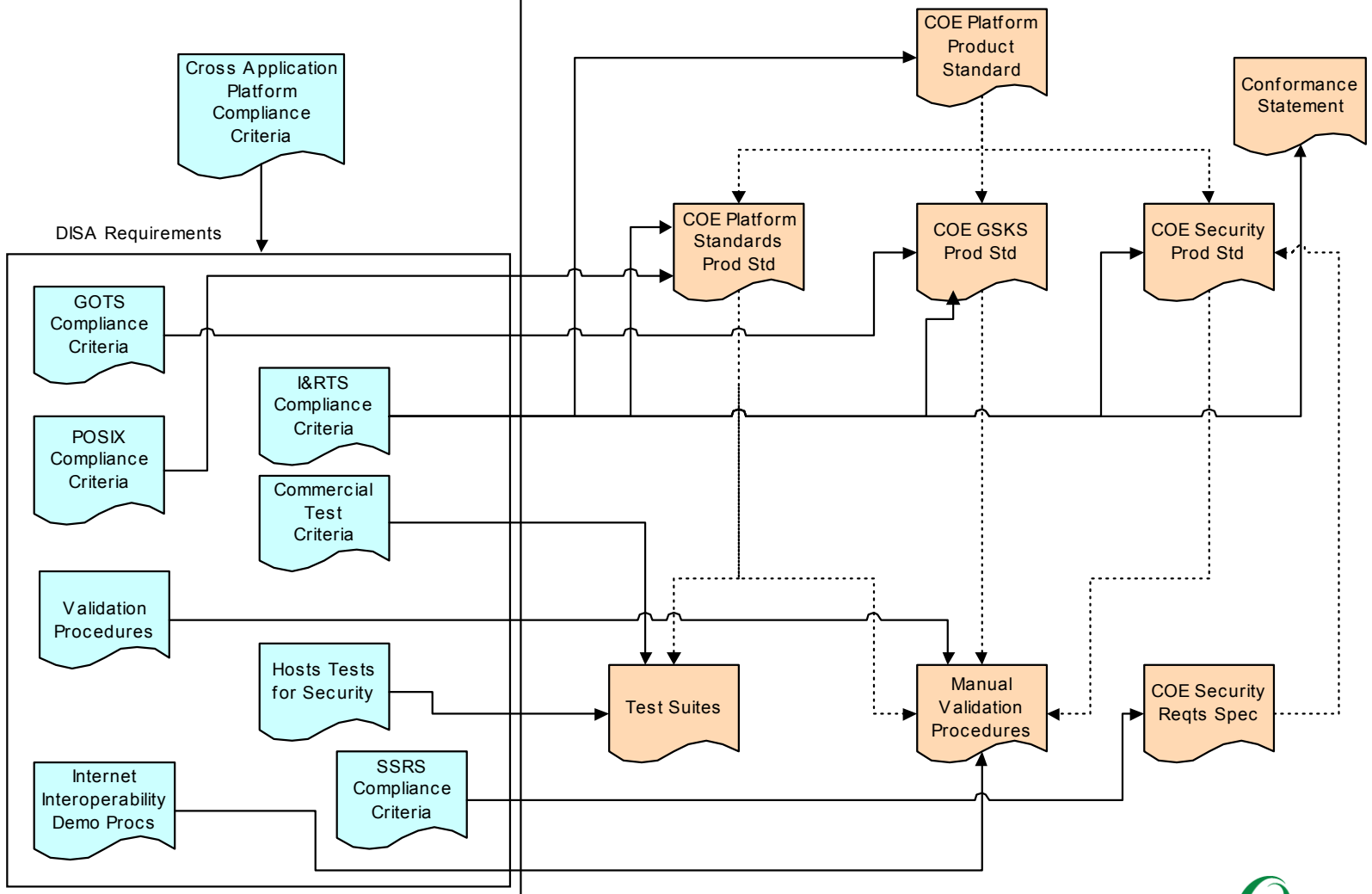
Mapping –POSIX Compliance Criteria (DISA to The Open Group)



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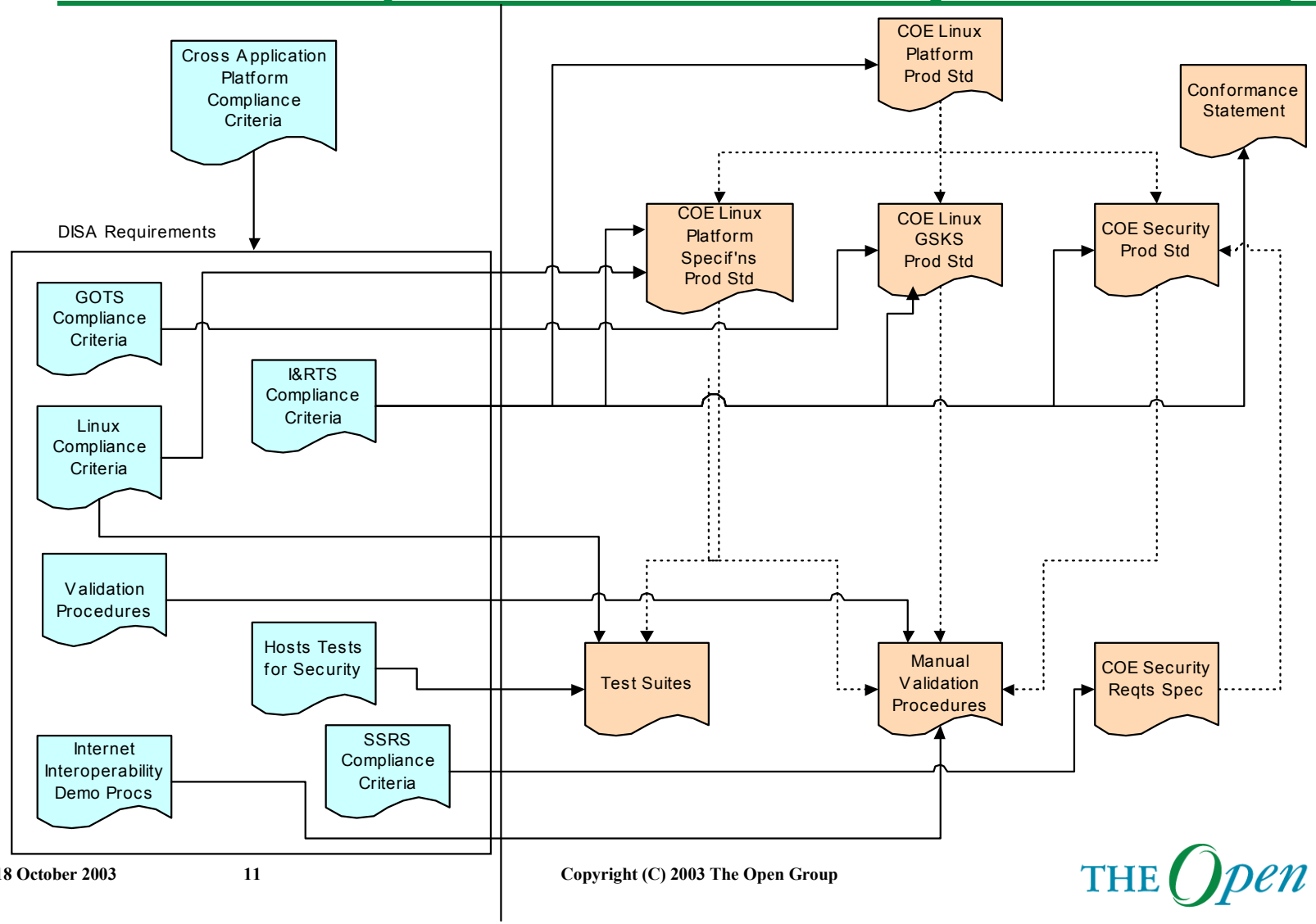
Mapping –Linux Compliance Criteria (DISA to The Open Group)



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COE Platform Certification

The details

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Certification Policy

- Defines policies to be followed in the creation and operation of the program
  - Defines everything a supplier needs to know to achieve and maintain certification for a product
  - Defines checks and balances
  - Defines process to address problems & issues during the certification process
- Policy is broad enough to cover future certification needs

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Elements of Certification Policy

- What types of product(s) the program addresses
- Obligations on suppliers of certified products
- Achieving and maintaining certification
  - For a product family
  - For specific platforms (option)
- What is covered in a particular certification
- Duration of certification & renewal
- Re-test / re-certification requirements
- Test Suite revision processes
- Processes to handle problems & interpretations
- Confidentiality Policy & Appeals Process

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Product Types

- Two product types supported as defined by the *COE Cross Application Platform Compliance Criteria*
  - POSIX Application Platform
  - Linux Application Platform

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Certification Process - Roles

- Specification Authority
  - Specification owner – responsible for developing, maintaining and interpreting the specification(s)
- Certification Authority (CA)
  - Manages the day-to-day operations of the certification program
  - Ensures quality, fairness and integrity
- Test Suite Maintenance Authority (TSMA)
  - Maintain the test suites

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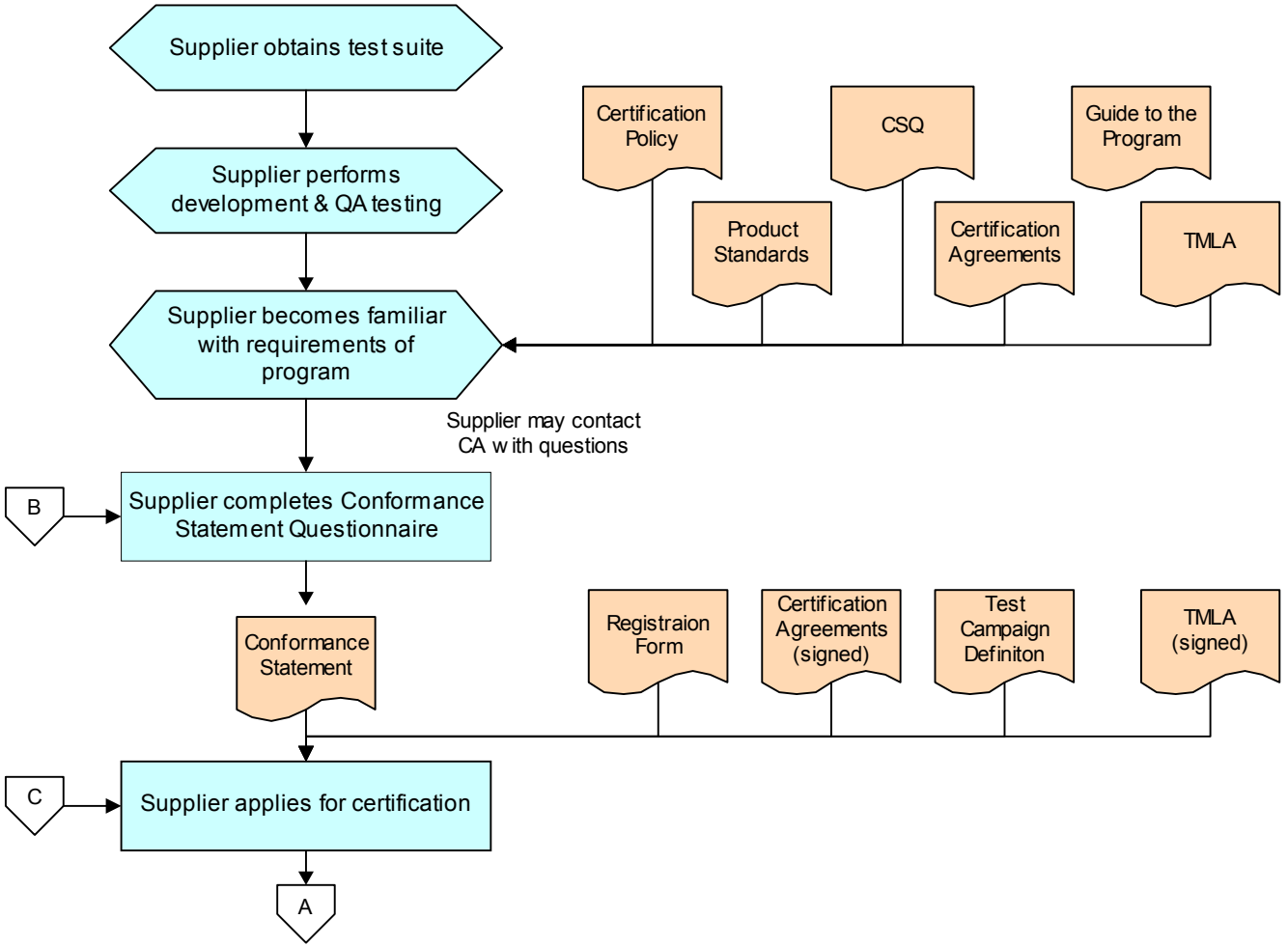
Certification Process (1)



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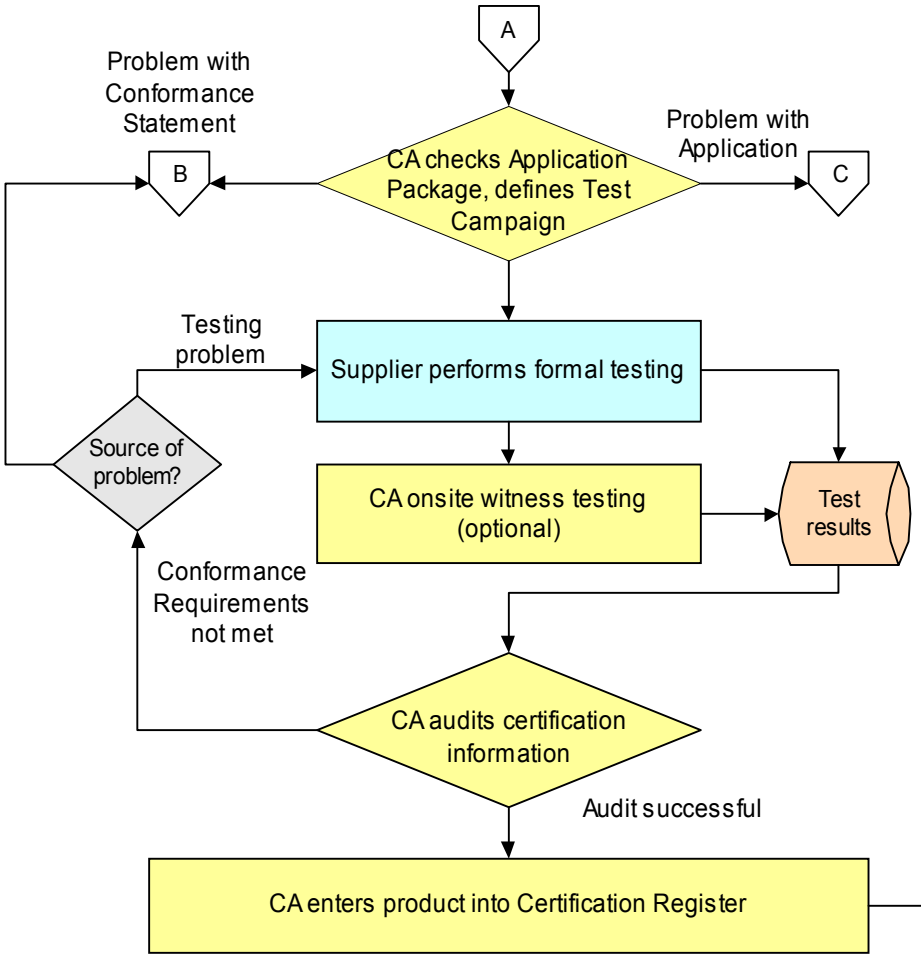
Certification Process (2)



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Product Standards

- Define the Conformance Requirements
  - Define what a conforming product must do to be compliant
    - Also defines what it must not do to be considered compliant
  - Separate document for each product type or grouping of functionality
  - Provides mapping between products and the Common Operating Environment Platform Compliance documents and their underlying specifications
- Define the testing requirements

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COE Product Standards (1)

- Organized as a hierarchy
- Two sets
  - POSIX Application Platform,
    - "The *COE Platform V1 Product Standard*"
  - Linux Application Platform
    - "The *COE Linux Platform V1 Product Standard*"

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COE Product Standards (2)

- *COE Platform V1*
  - Top-level foundation product standard for POSIX Application Platform
  - Three constituent product standards organized by subject area
    - *COE Platform Government-Supplied Kernel Source*
    - *COE Platform Security*
    - *COE Platform Standards*

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COE Product Standards (3)

- *COE Linux Platform V1*
  - Top-level foundation product standard for Linux Application Platform
  - Three constituent product standards organized by subject area
    - *COE Linux Platform Government-Supplied Kernel Source*
    - *COE Platform Security*
    - *COE Linux Platform Specifications*

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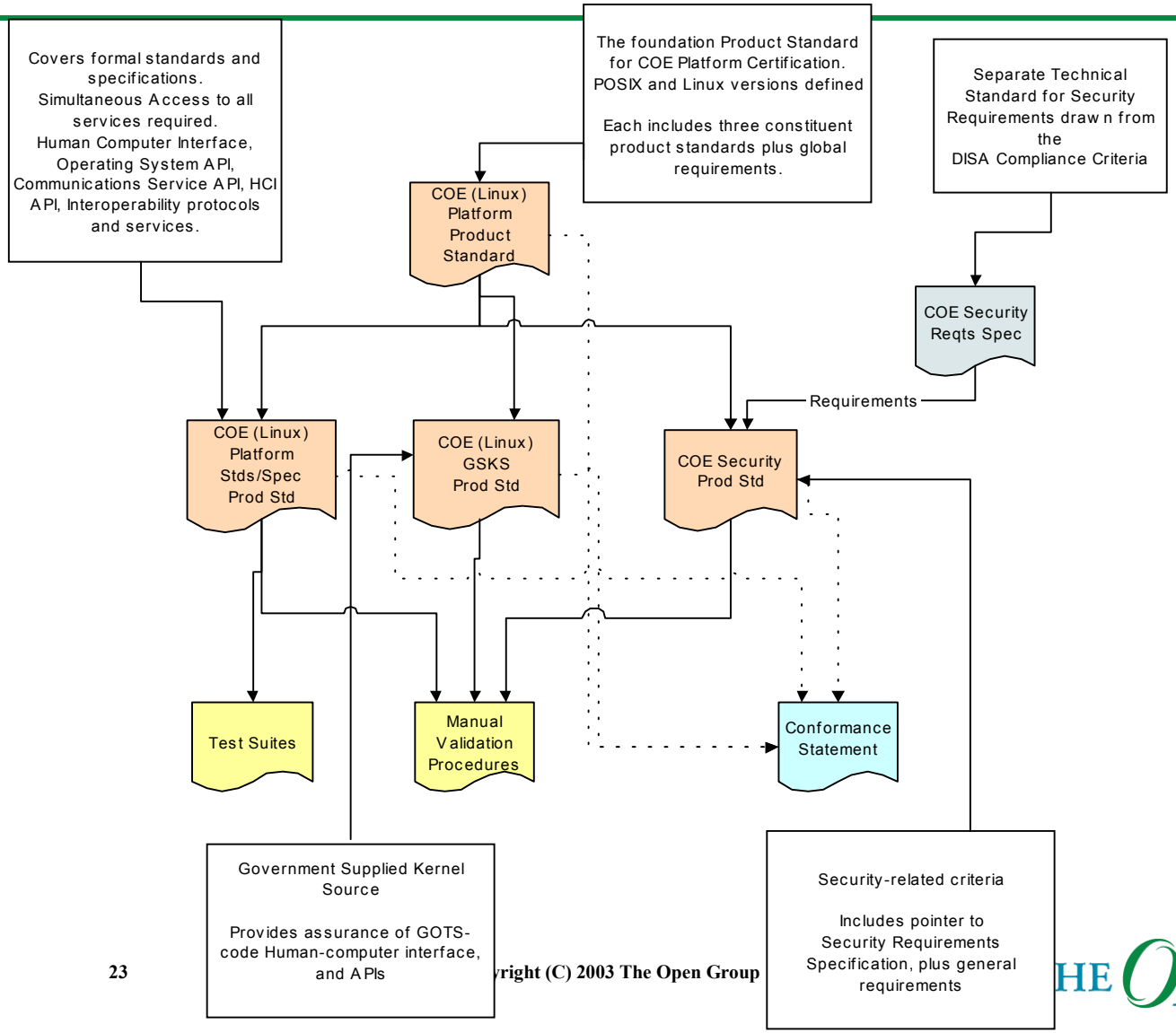
COE Product Standards (4)



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Test Methods/Test Suites

- Organized into three broad categories
  - GSKS Compliance Criteria
  - Internet Interoperability Compliance Criteria
  - Commercial Specification Criteria
- Requirements listed in the *Indicators of Compliance* section of each product standard

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Testing Requirements (1)

Product Standard	Test Suite / Indicator of Compliance
COE Platform Government-Supplied Kernel Source (GSKS) COE Linux Platform Government-Supplied Kernel Source (GSKS) **Applicability: POSIX, Linux**	•Validation Host Initial Validation Procedure •Candidate Platform Initial Validation Procedure •Kernel Overview Validation Procedure •Print Services Validation Procedure •Accounts and Profile Manager Validation Procedure •Segment Installation Validation Procedure •Remote Installation Validation Procedure •Developers Toolkit and Runtime Validation Procedure •Audit Log File Manager Validation Procedure
COE Platform Security **Applicability: POSIX, Linux**	•COE Automated Security Test Suite

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Testing Requirements (2)

Product Standard	Test Suite / Indicator of Compliance
COE Platform Standards **Applicability: POSIX**	•Either, an Open Brand Certificate for Commands and Utilities, or VSC5 or VSC5-lite •Either, a NIST/IEEE FIPS 151-2 certificate, or The Open Group Open Brand certificate for Internationalized System Calls and Libraries Extended, or Internationalized System Calls and Libraries Extended V2, or VSX-PCTS, or an LSB 1.2 or LSB 1.3 certificate Either, an Open Brand Certificate for the X Window System, or VSW5 •Either, an Open Brand Certificate for Motif, or VSM •An Open Brand certificate for Internet Server (optional) Network File System (NFS) Validation Procedure •World Wide Web (WWW) Interoperability Demonstration Validation Procedure •File Transfer Protocol (FTP) Interoperability Demonstration Validation Procedure •Simple Mail Transport Protocol (SMTP) Interoperability Demonstration Validation Procedure

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Testing Requirements (3)

Product Standard	Test Suite / Indicator of Compliance
COE Linux Platform Specifications **Applicability: Linux**	•An LSB 1.2 or LSB 1.3 certificate •Either, an Open Brand Certificate for the X Window System, or VSW5 or LSB-VSW4 •Network File System (NFS) Validation Procedure •World Wide Web (WWW) Interoperability Demonstration Validation Procedure •File Transfer Protocol (FTP) Interoperability Demonstration Validation Procedure •Simple Mail Transport Protocol (SMTP) Interoperability Demonstration Validation Procedure

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GSKS Validation and Security Functionality

- A set of written validation procedures for manual operation
  - Now organized as a single book
  - Derived from *Compliance Criteria* documentation
- Security Functionality validated by *Hosts* automated tests

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Internet Interoperability Compliance Criteria

- Written procedures to validate basic internet interoperability, included in manual validation procedures book
  - Ping
  - DNS
  - FTP
  - NFS
  - Email
  - WWW

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Product Registration (1)

- Initial Submission
  - Signed Trademark License Agreement (If applicable)
  - Completed COE Platform Conformance Statement
  - Completed Registration Form
  - Completed COE Platform Test Campaign Definition Form
  - Signed COE Platform Certification Agreement
  - Payment Details

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Product Registration (2)

- Once initial submission approved by the CA
  - Completed Candidate Platform template
  - Completed Validation Host template
  - Test Journals from automated test suites
  - Reports from Manual Validation Procedures
  - Cover letter detailing resolution of any test or validation procedures with references to granted problem reports

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Fee Summary

Product Family Certification Fee	$23,000 ($19,000 if referencing existing certifications in COE Platform Standards PS)
Specific Platform Certification Fee	$12,000 plus expenses for onsite witness test

For the full fee schedule please see
http://www.opengroup.org/openbrand/coe/docs/fees.html

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On Site Witness Testing (*optional)*

- Optional provision of On Site Witness Testing by auditors from The Open Group:
  - Up to 10 days onsite.
  - “Random” Witness test
- Adds a specific platform to the certified family
  - For procurements where higher level of assurance is required

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Program Summary

- Much more of the test campaign performed by the applicant
  - In house
  - Reduced waiting & testing time & cost
  - Fewer surprises
- Optional onsite witness test where required (e.g. by procurements)
  - Same level of assurance as DISA program

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Documentation

- Document the conformance and testing requirements in *Product Standards*
  - Derived from and mapped to DISA requirements
  - Plus C*onformance Statement* to capture implementation details
- Easier to understand conformance and testing requirements

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Other aspects

- Problem reports/interpretations process.
  - Transparent deterministic resolution.
- Certification valid for 36 months
- List of current certified products and former certified products

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Certification Web Site

- Provides all COE Platform certification information at a single location
- Structured to assist workflow
  - Certification Guide should be read first
- Useful for suppliers and procurers

http://www.opengroup.org/openbrand/coe/

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Summing Up

- Reduced vendor testing cost and uncertainty.
- Less duplicate certification
  - "Family" and "specific platform" certification.
  - More flexibility for both supply and procurement side.
- Best practice certification methods.
  - Meet specific government needs

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