

GlobalPlatform Compliance, Certification, and Composition Model

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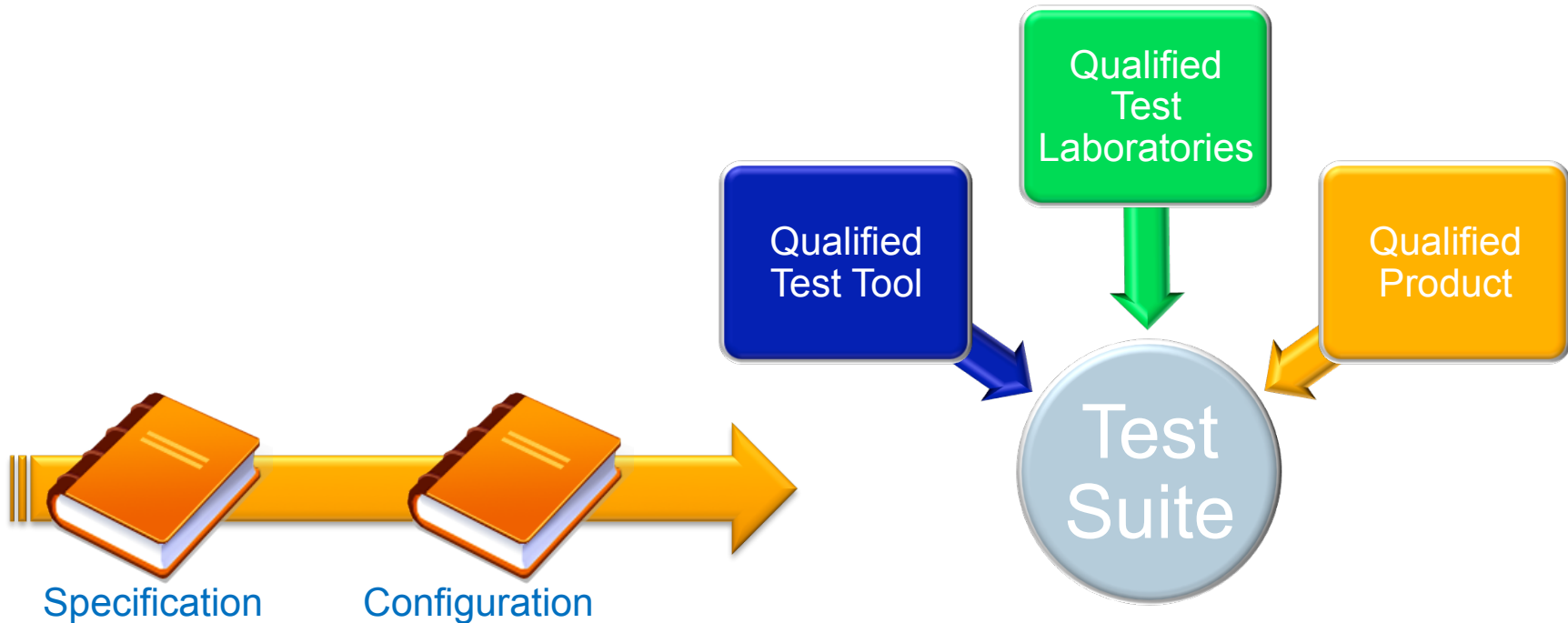
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Security and Compliance are Tied Together



- The GlobalPlatform compliance program provides a common core interoperable solution
- An eco-system built around:



- The Compliance Program based on:
 - **Market Focus Scope:** each market to have its own GlobalPlatform Card Compliance Program Configuration (vs. addressing the full specification)
 - UICC configuration
 - UICC Configuration Contactless extension
 - 2.1.1 Mapping Guidelines
 - Common Implementation Configuration
 - Secure Element Configuration
 - ID Configuration
 - **Compliance delivery format:** Test suite with a test tool environment adaptation layer definition

- In addition to this Compliance Program, GlobalPlatform created an **ecosystem** for Participating and Full Members
 - **Test tool** suppliers qualified by GlobalPlatform
 - GlobalPlatform facilitates Test Fests and publish the results of the interoperability outcome of the card and test tool
 - **Test Labs** qualified by GlobalPlatform
 - GlobalPlatform qualifies test labs based on the level of knowledge in GlobalPlatform technology (specification and configurations)
 - **Products** may go through either Self-Testing or the Test Fest process

Card Compliance Overview

Authorized Organization



Evolution Request

Compliance Secretariat

Card Spec WG



Spec Configuration

Card Compliance WG



Coverage Test Suite

Test Suite Development



Test Suite

Test Suite Maintenance

Test Fest

Qualified ?

Qualified ?

Test Report

Good Claim?

Publication of Qualified Test Tools

- Qualified Test Tools

Publication of Qualified Test Lab

- Qualified Test Labs

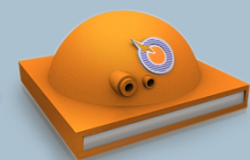
Publication of Test Claims

- Qualify Cards
- Self-Tested Cards

GlobalPlatform Members



Test Tools



Test Labs

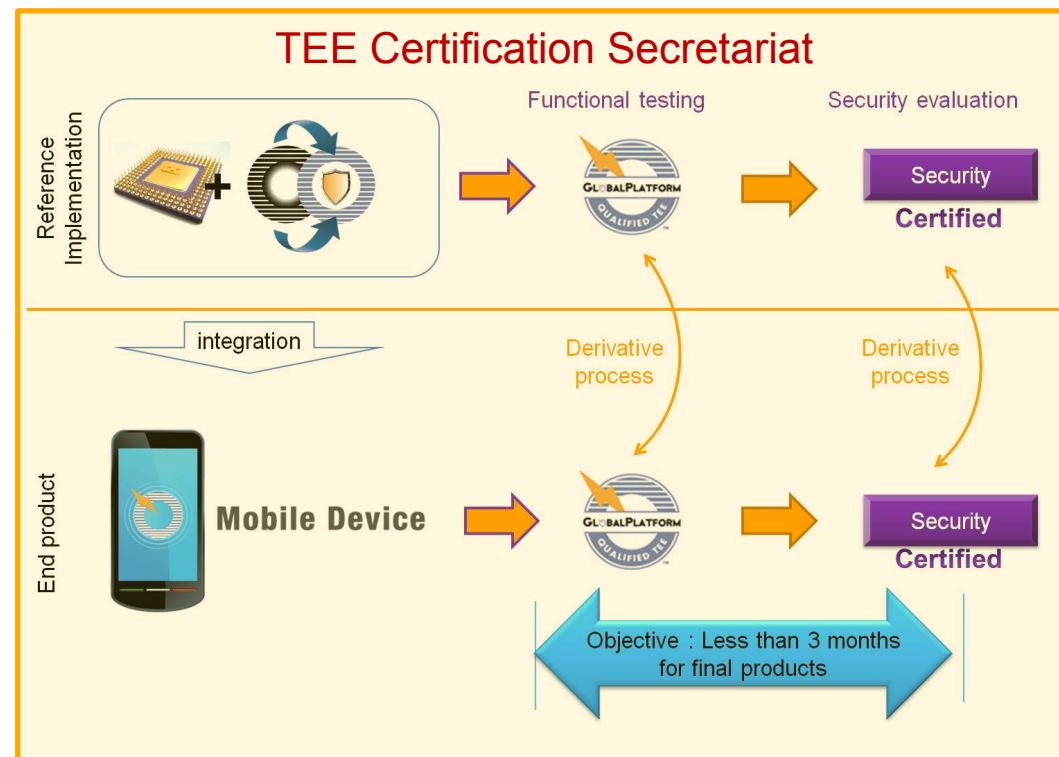
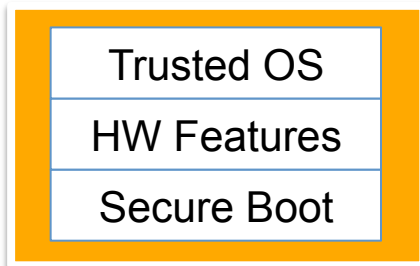


Product Vendor

TEE Certification

- Multi-market recognized certification scheme
 - Adapted to a heterogeneous set of market requirements
 - Facilitate procurement rules (e.g. Common Criteria (CC) based)
- Two phase process
 - Certification of the TEE in a reference board implementing the complete architecture
 - Second phase on the final device

Evaluation Scope:



Public Workspace

<http://globalplatform.org/compliance.asp>

*Qualified Products:
Cards, SEs, TEE...!*

Qualified Labs

Qualified Test Tools

Compliance

- Program Updates
- Qualified Products
- Test Laboratories
- Test Tools
- Self-Tested Products
- How to Participate
- Industry Benefits
- Operations Bulletins

GlobalPlatform is committed to ensuring the long-term interoperability of embedded applications on secure chip technology by developing an open and thoroughly evaluated compliance ecosystem with qualified product, test tool suppliers and laboratories.

The GlobalPlatform Compliance Program evaluates the functional behavior of a product against the requirements outlined by GlobalPlatform Configurations and associated specifications to achieve market interoperability.

GlobalPlatform Product Qualification
A product must be submitted to a GlobalPlatform **qualified laboratory** and competently perform a number of tests to achieve GlobalPlatform qualification. The laboratory will send its test report against the requirements outlined by GlobalPlatform Configurations and associated specifications to achieve market interoperability.

GlobalPlatform Self Testing and Product Qualification Processes
Read **GlobalPlatform Self Testing and Product Qualification Processes** to understand the procedures to be completed by a product manufacturer to certify a product. The document also explains the respective responsibilities between product vendor, test tool supplier, test laboratory and GlobalPlatform.

GlobalPlatform Laboratory Qualification
To achieve qualified status, GlobalPlatform member laboratories must successfully meet the criteria set forth by GlobalPlatform and use GlobalPlatform qualified test tools. A test laboratory must also have the expertise to confirm a product's compliance to GlobalPlatform Configurations, and can offer third party validation that is neutral and results that are verifiable.

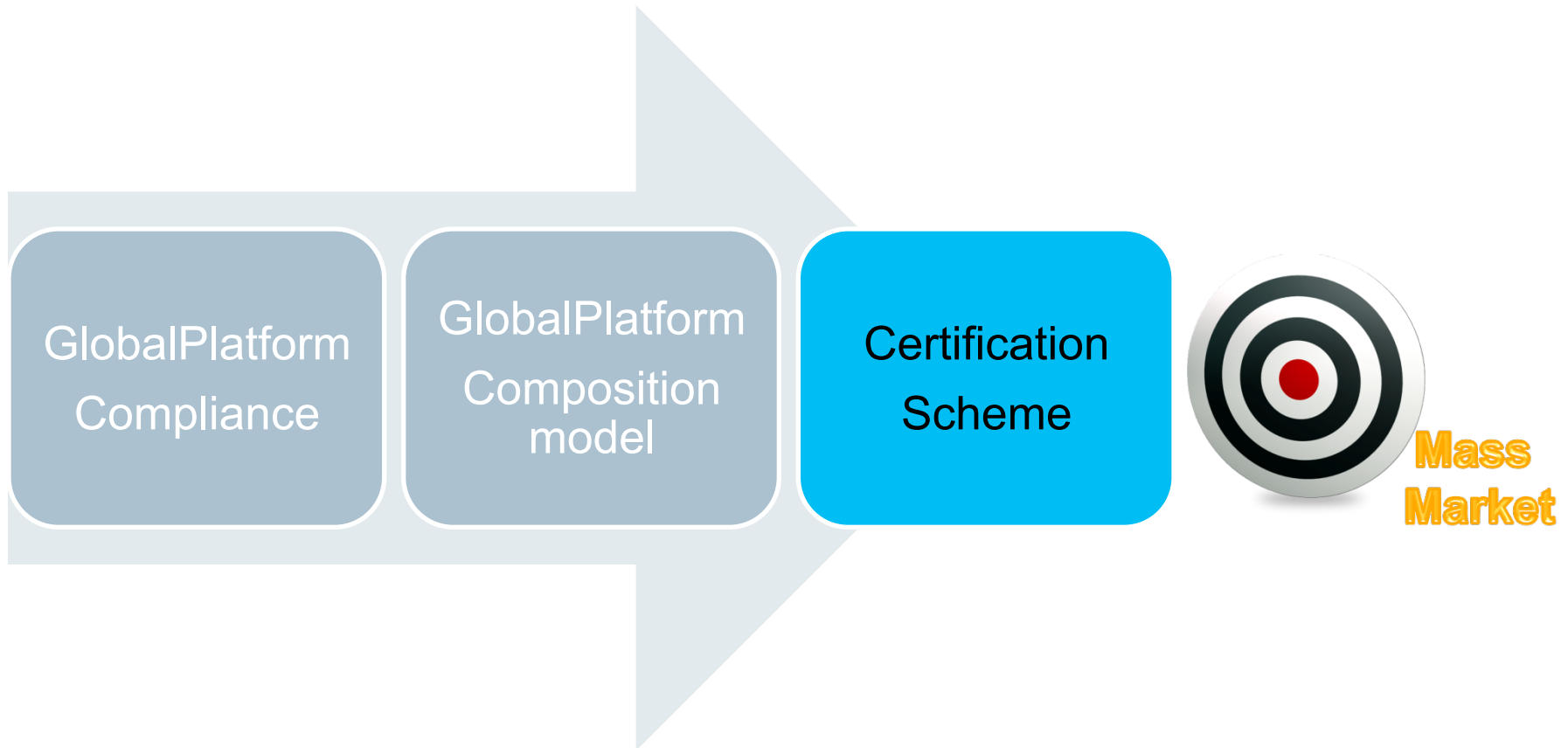
GlobalPlatform Test Tool Qualification
To achieve GlobalPlatform qualified status, test tools should support GlobalPlatform's functional requirements, and competently performed the test suite on a number of products during a GlobalPlatform **TestFest**.

Self-Testing Products
Vendors can self-test products by purchasing a **GlobalPlatform qualified test tool**. To understand this procedure further and the responsibilities of the product manufacturer read **GlobalPlatform Self Testing and Product Qualification Processes**.

GlobalPlatform acts as registration authority for all qualification claims. It has launched a dedicated compliance secretariat which manages the issuance of the compliance trademark to test tools and laboratories, as well as oversee product certification. For an overview of the secretariat's role and the processes implemented by GlobalPlatform to manage this program, download **An Introduction to GlobalPlatform Compliance Secretariat**. To contact this body for further information, please contact secretariat@globalplatform.org. Other useful legal materials that apply to this process include:

- Consulting Services License Agreement
- Test Materials License Agreement
- Qualification and Listing Agreement for Product Vendors
- Qualification and Listing Agreement for Labs and Test Tool Vendors
- Self-Tested Product Listing Agreement
- Non-Conformance Investigation Agreement
- Trademark License Agreement
- GlobalPlatform Supported Configuration Option (SCO) Form
- GlobalPlatform Supported Configuration Option (SCO) for TEE Products Form
- GlobalPlatform TestFest

Helping a New Complete Solution



- Today's deployment of value added services requires... **security certification**
 - Payment, digital signature, health card, eID card, ..
- Current certifications are incompatible with **business requirements** of new use cases and not efficient when:
 - Card and application are not owned by the same actors
 - Different life cycles (i.e. deploying application in already deployed card)
 - Different certification approaches
 - Different issuers
 - Deploying one certified application into various certified platforms
 - We should facilitate the composition of a certified application on other certified platforms

- Need for a composition model allowing
 - A **fast** deployment of mobile services
 - In a **multi-actors** ecosystem: application providers, platform issuers, product issuers, system providers
 - For **multi-sectors**: payment, mobile communication, transport, identity
 - Management of **heterogeneous** set of applications
- Security certification of the SE using
 - Existing security schemes: Common Criteria, EMVCo
 - Avoid the creation of a **new** certification scheme
 - Maintaining the **level of security** of the products

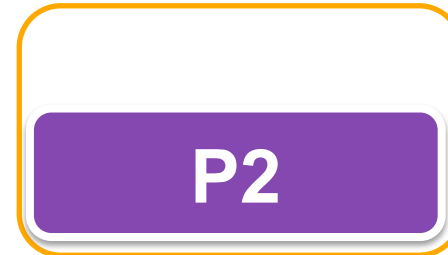
- The composition model describes a process to:
 - allow a fast deployment of mobile services on certified Secure Elements
 - enable application deployment on platforms while maintaining the security level required by the application issuers.
 - combine applications, sensitive or basic, with certified open platforms

Methodology (introduction)

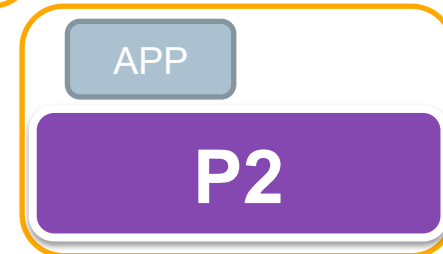
- An application APP has been already certified on Platform P1



- A platform P2 has been certified as open



- Build a product made of App and P2 and certify it by (GP) composition using previous certified building blocks
- The GlobalPlatform Composition model
 - Lists all the activities to be performed during evaluation
 - Identifies the required inputs for the task evaluation
 - Identifies all available information from the previous evaluation
 - Proposes a reuse and provide the rational for this reuse

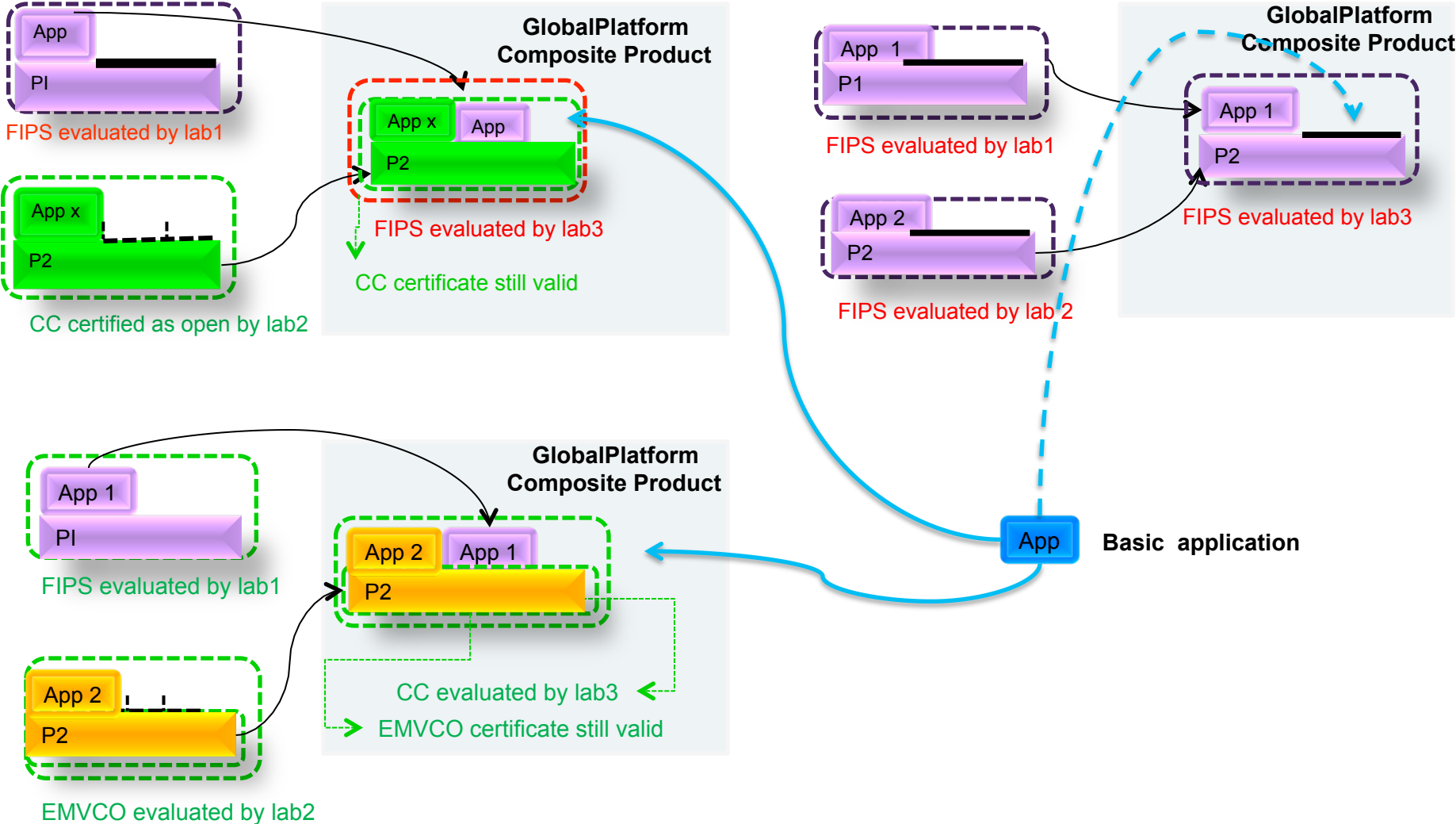


Reduce re-evaluation duration
to enable the deployment of applications on
platforms in the SE world.

- Maintain the security of the products already in the field
- Avoid re-evaluation of the platform when loading Basic applications with no security requirements
- Simplify and speed up testing processes for “already certified” and “already evaluated” applications when they are redeployed on other certified platforms.

To ensure **a cost effective time to market**
of mobile services

Potential New Uses Cases to Support FIPS 201 Application Loading in Certified SEs





Thank you!
