

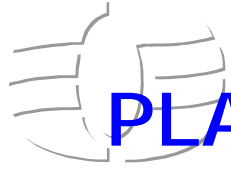
JAPAN SECURITY CONFERENCE

USING COMMON CRITERIA FOR SITE EVALUATION

TOKYO, 29-30 March 2001

NEC

Smart Card Application Center
J. LE BIHAN - 29-30/03/01



PLAN OF PRESENTATION

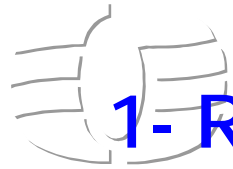
1- REASONS AND GOALS

2- DIFFICULTIES & SOLUTIONS

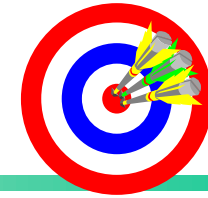
3- METHODS

4- SECURITY TARGET

5- RESULTS & CONCLUSIONS

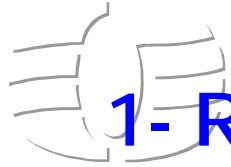


1- REASONS & GOALS

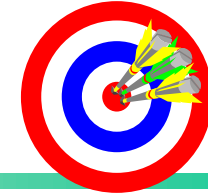


1.1- IMPLEMENT “ON-SITE SECURITY”.

- “Physical Environmental” Security.
 - > Access control, Secure storage, ...
- “Information System” Security.
 - > Configuration, Firewall, Access control, ...
- Security Policies, Procedures and Practices.
 - > Security Management, Security Measures.
- Training & Education.

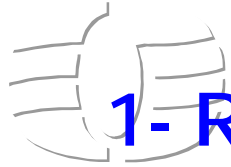


1- REASONS & GOALS

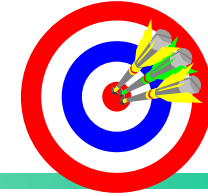


1.2- OFFICIALLY RECOGNIZED SECURITY.

- **Compliance to recognized Standards.**
 - > **Common Criteria (CC).**
- **Compliance to “Recommendations” used by the Industry .**
 - > **Protection Profile (PP/9806).**
- **Conducted under Official Certification Scheme.**
- **Possibly Certified Activity after Evaluation.**

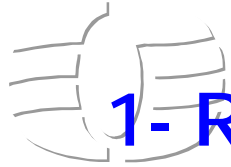


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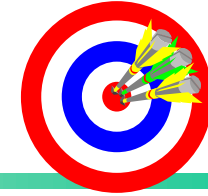


1.3- KNOWLEDGE & EDUCATION ON COMMON CRITERIA.

- Deploy the aim and scope of the CC Standard to employees.
- Training to the security requirements and measures.
- Learning processes during the evaluation phase.

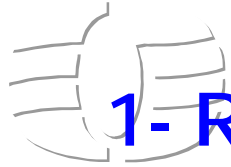


1- REASONS & GOALS

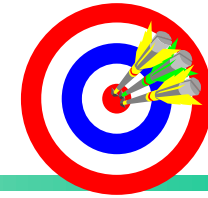


1.4- CHALLENGING THE SECURITY & CONTINUOUS IMPROVEMENT.

- Identification of what need to be secured & of the Threats.
- Implementation of a “Security System”.
- Maintenance Program.

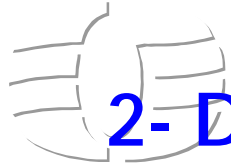


1- REASONS & GOALS



1.5- RECOGNITION OF EMPLOYEES WORK.

- Reporting during evaluation process.
- Audits.
- Certification.
- Recognition from Management.
- Recognition from CUSTOMERS.



2- DIFFICULTIES & SOLUTIONS

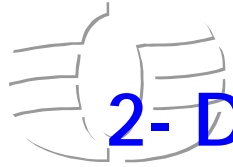


2.1- TOE SELECTION & SECURITY TARGET

- TOE is a “physical” feature: “Development Environment”.
- Common Criteria are applicable to Information Technology.
- Environment of the TOE is the Environment of the “Development Environment”.

SOLUTIONS:

- TOE is the “Development Flow”: Production Flow,...
- “Development Flow” is using Information Technology.



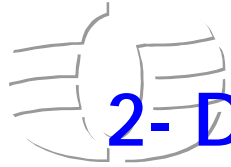
2- DIFFICULTIES & SOLUTIONS



2.1- TOE SELECTION & SECURITY TARGET

SOLUTIONS (Ct' d):

- TOE Environment is the environment in which the “Development Flow” is taking place.



2- DIFFICULTIES & SOLUTIONS

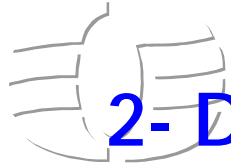


2.2- CC & INFORMATION TECHNOLOGY

- Common Criteria are applicable to Information Technology.
- Security Requirements dependencies.

SOLUTIONS:

- Keep focus on the evaluation goals: “Development Environment”.
- Clearly identify the IT of the TOE and its boundaries.
- Limit the list of selected Security Requirements only to those mandatory for the security.



2- DIFFICULTIES & SOLUTIONS

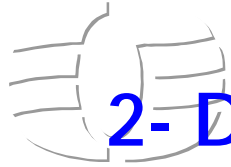


2.3- INFORMATION SYSTEM & NETWORKING

- Usually, the “IS” of “Development Environment” is huge.
- Usually, links to other networks exist.

SOLUTIONS:

- Clearly identify the IT of the TOE and its boundaries.
- Limit the application of CC to this part of the “IS”.
- Move other part of “IS” into the TOE Environment: Can be covered with Security Procedures.



2- DIFFICULTIES & SOLUTIONS

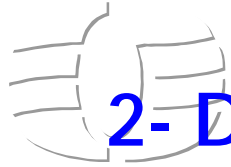


2.4- CC & ASSURANCE MEASURES

- Some Assurance Measures may be difficult to apply to a TOE that is of a “System” type (“Development Environment”).
Ex: ACM_CAP.1 Version Numbers.

SOLUTIONS:

- Partnership with Certification Body and with Evaluation Laboratory.
- Use the “concept” and methodology of the CC and not the “basic requests” from the CC wording.



2- DIFFICULTIES & SOLUTIONS

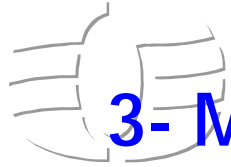


2.5- SUSTAINING A PRODUCT EVALUATION

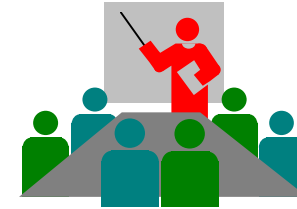
- Evaluation of a product issued from this “Development Environment” may be needed.
- Product Evaluation have security requirements to the Environment.

SOLUTIONS:

- Use existing Protection Profile, that product evaluation may claim for: PP/9806,...
- Validate and introduce the requirements on the Environment into the Security Target of the “Development Environment”.



3- METHODS



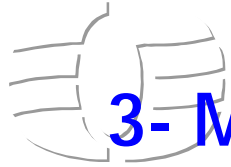
3.1- Implement Working Groups.

3.2- Train Working Groups:

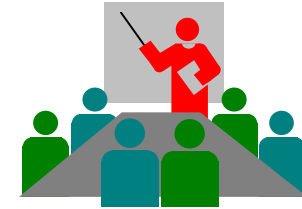
- To Common Criteria.**
- To Security.**

3.3 Write Security Target and Documentation:

- CC documentation.**
- “Company Documentation”.**



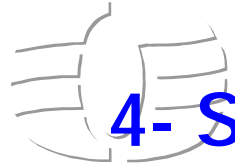
3- METHODS



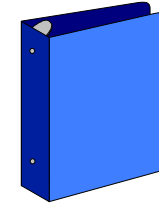
3.4 Implement Procedures:

- Policies.
- Specifications.
- Security Measures.

3.5 Evaluate as per CC.



4- SECURITY TARGET



4.1- TOE & TOE ENVIRONMENT DESCRIPTION.

4.2- ASSETS:

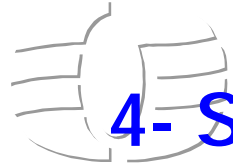
- From the TOE.**
- Used by the TOE.**

4.3- ASSUMPTIONS:

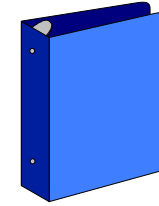
- + Assumptions for conformance to “Product PP”.**

4.4- THREATS:

- + Threats for conformance to “Product PP”.**



4- SECURITY TARGET



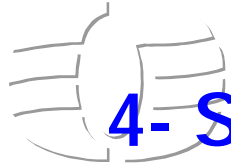
**4.5- ORGANIZATIONAL SECURITY POLICIES.
+ OSP' s for conformance to “Product PP”.**

4.6- SECURITY OBJECTIVES:

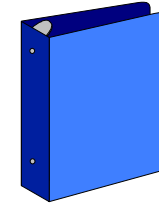
- IT Security Objectives for the TOE.**
 - Non-IT Security Objectives for the TOE.**
 - Security Objectives for the TOE Environment.**
- + Security Objectives for conformance to “Product PP”.**

4.7- SECURITY REQUIREMENTS:

- TOE IT Security Functional Requirements.**



4- SECURITY TARGET



4.7- SECURITY REQUIREMENTS (Ct' d):

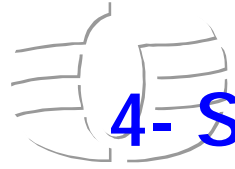
- **TOE NON-IT Security Requirements.**
- **TOE Environment Security Requirements.**

4.8- TOE IT ASSURANCE REQUIREMENTS:

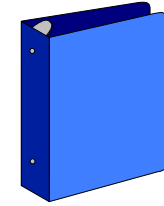
+ Augmentation (if claimed).

4.9- SUMMARY SPECIFICATION:

- **TOE Security Functions.**
- **TOE Assurance Measures.**
- **Non-IT Security Measures for the TOE.**
- **Security Measures for the TOE Environment.**

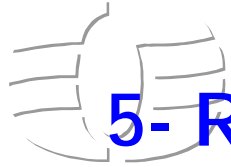


4- SECURITY TARGET



4.10- PP CLAIMS.

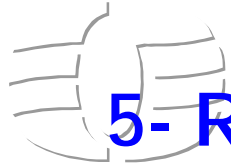
4.11- RATIONALE.



5- RESULTS & CONCLUSIONS



- 5.1- IT IS POSSIBLE TO USE CC FOR SITE OR ENVIRONMENT EVALUATION.**
- 5.2- AT THE CONDITION THAT “IT” IS AVAILABLE INSIDE THE TOE.**
- 5.3- NEED TO CAREFULLY SELECT THE TOE.**
- 5.4- KEEP FOCUS ON THE GOALS OF THE PROCESS » SITE, ENVIRONMENT.**
- 5.5- GOOD PROCESS FOR IMPLEMENTING & CHALLENGING SECURITY.**

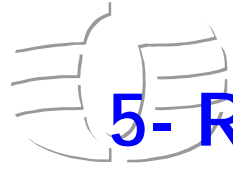


5- RESULTS & CONCLUSIONS



5.6- IS BETTER IF MAINTENANCE PROGRAM IS FORESEEN.

5.7- LIGHTENING ANY FUTURE EVALUATION ON PRODUCT.



5- RESULTS & CONCLUSIONS



SUCH PROJECT HAS BEEN PERFORMED FOR THE NEC SMARTCARD WAFER MANUFACTURING SITE - YAMAGUCHI JAPAN, IN COLLABORATION WITH FRENCH EVALUATION LABORATORY & FRENCH CERTIFICATION BODY!

