



# Requirement of Testing Laboratories

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## Content

- Product Evaluation by CCTL
  - Security Features tested in CC Evaluation
  - CC Testing and Evaluation Techniques and Approach
- CCTL Lab – Various requirements for Empanelment
  - Management requirements
  - Technical requirements
  - Scheme specific requirements

## Product Evaluation by CCTL

### Security Features tested in CC Evaluation

Security features to be tested may include but are not limited to the following:

1. **Identification and authentication**
2. **Security audit (audit trail)**
3. **Implementation of Cryptographic services**
4. **Secure transport of information**
5. **Management of security functions, data and management role.**
6. **Protection of security functions**
7. **fault tolerance, priority of service, resource allocation, Fail-safe, Self-test**
8. **Physical protection (tamper detection/prevention)**

3

## Product Evaluation by CCTL

### CC Testing and Evaluation Techniques

- **Documentation Analysis** for
  - Security **functional** and **assurance** requirements ,
  - Product functional specification,
  - Architecture, Design and implementation details
- **Testing**
  - **Security Functions of the product**
- **Vulnerability Analysis**
- **Site Visit and Assessment**
  - **Development environment,**
  - **Tests conducted** by the developer for coverage and depth ,
  - **Configuration management system** used for development of the product
  - **Product delivery procedure and**
  - **Product guidance documents** to be used by users and administrators

4

## Product Evaluation by CCTL

### Testing Approach by CCTL

Addresses the following:

- **Complete coverage of the security features** of the product
- **Test plans** clearly identifying the
  - features to be tested,
  - equipment and resources to be used,
  - pre-processing and post-processing necessary for the test etc.
- **Test procedures in details** , Alternative Test approach, if any, with the approval of CB
- **Expected result and Actual result** of the Tests.

5

## CCTL Lab – Various requirements for Empanelment

1. **Management Requirements**
2. **Technical Requirements**
3. **CC Scheme Specific Requirements**

6

## 1. Management Requirements

- **Management System meets ISO/IEC 17025.**
- Additionally, Management requirements .
  - **Organization**
  - **Management system**
  - **Document control** – from ISO/IEC 17025 requirement only.
  - **Review of requests, tenders and contracts**
  - **Subcontracting of Evaluation activities**
  - **Service to the customer** from ISO/IEC 17025 requirement only.
  - **Complaints** from ISO/IEC 17025 requirement only.
  - **Control of nonconforming testing and/or calibration work**
  - **Improvement** from ISO/IEC 17025 requirement only.
  - **Corrective action** from ISO/IEC 17025 requirement only.
  - **Preventive action** from ISO/IEC 17025 requirement only.
  - **Control of records**
  - **Internal audits**
  - **Management reviews**

7

## 2. Technical Requirements

- **Quality Manual**  
Process, Procedure describing CCRA requirements, CC Scheme special requirements, ISO/IEC 17025 requirements.
- **Personnel**  
**Adequate, Qualified Personnel** and experience in development/testing of IT security product.  
**Organisation structure with positions, training records** and resumes for responsible supervisory personnel and laboratory staff members.  
Document the policies and procedures (training program) governing the **competence** to conduct a Common Criteria evaluation.  
A **quality manager** who has overall responsibility for the management system, the quality system, and maintenance of the management system documents.

8

## 2. Technical Requirements

- **Physical and environmental conditions**
  - **Facilities** for security evaluation, staff training, record keeping, document storage, and software storage.
  - **Protect the proprietary customer equipment, materials and information** from all.
  - Laboratories shall have systems (e.g., firewall, intrusion detection) in place to protect internal systems from untrusted external entities.
  - **Isolated Test Facility**  
For multiple simultaneous evaluations.
  - The soft copies of the evaluation evidences and objects shall be encrypted while transmission and storage.
- **Test and calibration methods and method validation**
- **Equipment**
- **Measurement traceability**
- **Handling of test and calibration items**
- **Assuring the quality of test and calibration results**
- **Reporting the results**

9

## 3. CC Scheme Specific Requirements

Laboratory must comply with the Evaluation operational requirements

1. **Scheme Related Work: CB to be kept informed.**
2. **Registration for evaluation and Certification Services:** The evaluation and certification **projects shall only be registered through CB.**
3. **Evaluation Tasks:** To partition work into **discrete tasks** for the purposes of planning and reporting. A task must be **uniquely identified** throughout its life-time.

10

### 3. CC Scheme Specific Requirements

4. **Supply of Documentation to the CB:**  
in encrypted softcopy format, either on suitable removable media or through secure repository or through secure email.
5. **Task Initiation:**  
The CCTL shall communicate CB when it is ready to perform an evaluation task.
6. **Task Confidentiality:**  
Confidentiality to be maintained and the same is agreed upon through an agreement with the developer or sponsor and also the evaluators.
7. **Evaluation Work Plan (EWP):**  
Agree their Evaluation Work Plan at the Task Startup Meeting to communicate task specific details of the evaluation process to CB.

11

### 3. CC Scheme Specific Requirements

8. **Task Startup Meeting:** The CCTL must attend a Task Startup Meeting between CCTL, CB, Sponsor/Developer.
9. **Deliverables List: CCTL to ensure that** Sponsor/developer has contractually agreed to supply deliverables appropriate to the scope of evaluation and target assurance level.
10. **Security Target Review:**  
Carry out the formal evaluation of the Security Target

12

### 3. CC Scheme Specific Requirements

11. **Evaluation Process:**

- **Document review** of product and development process documentations,
- **Independent testing** of TOE
- **Vulnerability analysis** based on evaluation evidences like Functional Specification document, Design document, Guidance Document, delivery procedure etc.

12. **Evaluation Progress Reviews:**

CB shall review all ongoing evaluation projects once in a year.

13. **Task Records:**

Systematic record of all information is maintained.

13

### 3. CC Scheme Specific Requirements

14. **Observation Reports:**

*ORs to draw attention of the developer or sponsor to deficiencies of the evaluation objects as and when they are discovered,*

15. **Evaluation Work Sheets :**

*Evaluators shall document their evaluation results in the form of work sheets addressing the requirements of CEM, to be presented for validation.*

16. **Evaluation Technical Report ETR:**

*The CCTL to produce final ETR giving sufficient justifications for verdicts and conclusions.*

14

### 3. CC Scheme Specific Requirements

17. **Test records:**

Ensure scripts for penetration tests and additional implementation tests are recorded in sufficient detail to allow. *repeatability and reproducibility*

18. **Closure:**

When the CCTL has completed the evaluation work and the Certification Report has been agreed and issued, the CCTL can close down the project.

In the closure process, CCTL shall archive or dispose of all material supplied for the evaluation as defined by CB and decided in initial meeting with the developer/sponsor.

19. Adequate records shall be retained by both the CCTL to ensure the reproducibility and repeatability of the task.

15

Questions?

16



*Thank You*

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