



Joint Interpretation Library

Evaluation methodology for product series

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1 **Scope and purpose**

- 1 The Common Criteria (CC) methodology allows developers and sponsors to evaluate the security of their products. In this context, some developers or sponsors might need to evaluate a Product series instead of a single product.
- 2 This application note describes the specifics of a CC evaluation, when the Target of Evaluation (TOE) is a Product series.

2 Terms and definitions

Product series	A Product series is a set of products by a developer, built upon the same functional basis, in order to address the same security needs. However, their design, hardware, firmware or software may vary from a product to another. These differences may come from a different underlying hardware or platform, or may consist in additional functions due to different requirements in scope or performance.
Reference TOE	The product chosen by the developer (or sponsor) as the most representative of the Product series . This Reference TOE will be the main target of the evaluation activities.
Other declared products	All the products that belong to the Product series , except the Reference TOE .
Reference evaluation	The results of the evaluation activities for the Reference TOE .

3 Prerequisites

3.1 Differential Analysis Report (DAR)

- 3 In order to distinguish between different products within a Product series, the developer must produce a document called Differential Analysis Report (DAR). This document identifies the shared features, and differences, between the considered products and how these differences may affect to the security objectives and SFRs declared in the applicable Security Target.
- 4 The contents expected in this document are very similar to those in the Impact Analysis Report required by procedure [AC].

3.2 Selection of the Reference TOE

- 5 The developer must select, within the Product series, a Reference TOE.
- 6 If no single TOE is representative of the whole series, the developer should either chose several **Reference TOEs** in order to cover the whole series, or restrict the scope of the series.

3.3 Testing Reuse Rationale (TRR)

- 7 The developer must produce a rationale describing its strategy for reusing test results of the **Reference TOE(s)**, based upon the DAR. This *Testing Reuse Rationale* (TRR) justifies how a sample of tests can be executed on a sample of products, in order to ascertain the security behavior of all the products within the **Product series** declared in the applicable Security Target.
- 8 This document also contains the rationale for the selection of the **Reference TOE(s)**.

3.4 Deliverables

- 9 The developer must provide the whole **Product series**, i.e. the **Reference TOE** and the **Other declared products**. At any moment during the evaluation, the ITSEF may require the access to any product belonging to the series. The ITSEF independently decides on which product(s) they want to execute a given test, and justifies their choice in the ETR.

4 Application of the evaluation methodology

4.1 Step 1: Applying to an evaluation for a Product series

- 10 The developer submits a request for evaluation, along with the elements required by section 3.
- 11 The ITSEF establishes an evaluation plan specifying the expected workload for the ATE and AVA evaluation activities, based upon the TRR provided by the developer. The contents of the DAR are also taken into account by the ITSEF in order to define the workload for the ADV, AGD and ALC evaluation activities.

Remark: The ITSEF and Certification Body may challenge the selection of **Reference TOE(s)** at any moment during the evaluation, and may require additional workload to be allocated, in order to perform further tests on the **Product series**.

In that case, the sponsor may restrict the scope of the evaluation to the **Reference TOE(s)** only.

4.2 Step 2: Reference evaluation

- 12 The ITSEF performs the evaluation activities on the **Reference TOE(s)** according to the selected evaluation criteria, and according to the targeted evaluation assurance level.

4.3 Step 3: Evaluation of the other declared products

- 13 Additionally to the **Reference evaluation**, the ITSEF must evaluate the following requirements:
- 14 **ASE**
The evaluator shall ensure that the Security Target clearly identifies the **Product series**, and the products that belong to this series.
- 15 **ADV**
The evaluator shall ensure that the DAR is complete and correct.
- 16 **AGD**
The evaluator shall ensure that the whole **Product series** is addressed by the AGD_OPE and AGD_PRE classes.
- 17 **ALC**
The evaluator shall ensure that each product within the **Product series** is uniquely and unambiguously identified.
- 18 The evaluator shall check that all **Product series** components and any unique identifiers declared in the security target and associated with them, are consistent with the identifier(s) assigned to the Product series evaluated in work units related to ALC_CMC.x.1C and the configuration list evaluated in work units related to

ALC_CMS.x.2C.

- 19 The evaluator shall verify whether the lifecycle of the **Reference TOE(s)** also applies to the **Other declared products**. Any deviation in the lifecycle shall require additional evaluation activities.
- 20 **ATE
FUN, COV, DPT**
Based upon the developer rationale, the evaluator shall ensure that the Reference TOE(s) selected by the developer is (are) representative of the whole Product series.
- 21 Based upon the DAR and the TRR, the evaluator shall ensure all the SFR enforcing subsystems, modules and TSFIs that may differ between different products have been separately tested and that all the **Product series** meets the security objectives declared in the applicable security target.
- 22 The evaluator shall eventually give a formal agreement on the TRR.
- 23 **ATE_IND**
The evaluator shall perform this activity according to the TRR.
- 24 However, the evaluator may perform additional tests, which are not required by the TRR. Depending on the results of these tests, the evaluator may question the relevance and completeness of the DAR.
- 25 **AVA**
The evaluator shall perform this activity according to the TRR, in order to optimize the penetration testing workload.
- 26 The evaluator shall perform dedicated tests on the **Other declared products** if the DAR or the results in the ATE or ADV evaluation activities suggests a possible difference in behavior between different products.

4.4 Step 4: Certification

- 27 A single certificate will be issued for the whole **Product series**, so as to avoid issuing multiple certificates.

5 **References**

[AC] *Assurance Continuity: CCRA Requirements, Version 2.1, 2012-06-01* June 2012