

COMMON CRITERIA SECURITY EVALUATION



▶ Who is this for?

Software products, embedded products, network devices developers and manufacturers

▶ What are the deliverables?

Evaluation Technical Report (ETR), base for CC certificate



▶ What is the result?

International recognition of security capabilities in the evaluated product

IN CONTROL WITH SECURA

Secura has worked in information security and privacy for nearly two decades. This is why we uniquely understand the challenges that you face like no one else and would be delighted to help you address your information security matters efficiently and thoroughly. We work in the areas of people, processes and technology. For our customers we offer a range of security testing services varying in depth and scope.

What is Common Criteria?

Common Criteria is one of the most well-known and internationally recognized methodologies for the evaluation and certification of IT products. Under Common Criteria, multiple types of products can be evaluated, including both software and embedded solutions. An issued Common Criteria certificate is **internationally recognized across multiple continents**, including large markets such as most EU states, USA, Asia, Australia, etc.

Secura can support with Common Criteria evaluations under the **Dutch Common Criteria scheme (NSCIB)**. The support can take place throughout the whole process of the evaluation, starting from a preparatory stage, continuing with the evaluation itself and of course supporting the full certification process.

Scope of Evaluation

The **TOE (Target of Evaluation)** in a Common Criteria assessment can be a wide variety of **software and hardware products**, as summarized in the table below.

Product Category	Examples
Access Control Devices and Systems	VPN, file encryption, Access control systems, etc.
Boundary Protection Devices and Systems	Data diodes, VPN gateways, Intrusion detection systems, etc.
Data protection	Data encryption tools, Data erasure tools, Data storage tools, etc.
Databases	Database software and applications
Detection devices and systems	Antivirus software, etc.
Smart cards and similar devices	Secure ICs, JavaCards, transportation/access cards, etc.
Key management systems	Secure key management tools
Mobility	Mobile applications
Multi-function devices	Printers, copy machines, etc.
Network and network related devices and systems	Routers, switches, access points, etc.
Operating systems	Operating systems for various use cases
Other devices and systems	IoT products, medical devices and systems, ICS products, smart meters, etc.
Products for digital signatures	Secure signature tools
Trusted computing	Roots of trust, secure firmware, etc.



Common Criteria Evaluation

The main process steps related to a CC evaluation, as well as the involved stakeholders are summarized in the diagram below. The Overseers of the NSCIB scheme are NLNCSA, TUV Rheinland and TrustCB.



A Common Criteria evaluation can be executed on multiple levels, also named **EALs (Evaluation Assurance Level)**. The EALs are providing an increasing level of assurance (depth) of the evaluation. While a lower EAL evaluation (for example EAL 1-2) will investigate on a high level the security of the product and the maturity of its documentation, a higher EAL evaluation (for example higher than EAL 4) will require an extensive assessment, including source code review, site visits and in-depth penetration testing. The effort associated with vulnerability assessment and conducted penetration testing on the product is also increasing with increasing EAL.

Before the actual evaluation starts, a **Security Target (ST)** is produced to align the expectations between the Sponsor, the Evaluation Laboratory and the Overseer Body. This ST includes the security features to be tested, and the conditions under which the tests are performed.

When the ST, together with the Application Form, are delivered to the scheme, the next step is to perform the investigation. There are several main goals of the evaluation performed by the Evaluation Laboratory.

- ▶ To evaluate whether the product adheres to the security specification in the ST.
- ▶ Whether the security features of the product are effective, and protect against attackers with low and medium attack potential.

- ▶ Whether the associated product documentation is complete, correct and not misleading.
- ▶ Whether the product development life-cycle is secure

Secura takes care of collecting the required documentation and performs document analysis as well as required testing on the product. The specifics of the conducted testing depend strongly on the type of product evaluated, and are fully aligned with the security features claimed in the Security Target.

The product evaluation process follows a structure consisting of the following steps:

1. Security Target analysis
2. Product documentation analysis
3. Product guidance analysis
4. Vulnerability assessment and penetration testing
5. Drafting of the final Evaluation Technical Report (ETR)

At the end of the evaluation, Secura generates the **Evaluation Technical Report (ETR)**, including the evaluation results and conclusions. This document is finally shared with the certification body under the Dutch CC Scheme. Furthermore, Secura supports the certification process, leading in the end to the Certificate of Conformity for your product.

Insight Into Your Security

Secura has worked in information security and privacy for nearly two decades. By leveraging our experience and expertise, we are a strong partner to address your information security matters efficiently and thoroughly. Secura is your partner through the whole evaluation and certification process.

Step by step, we can:

- ▶ Guide you through the preparation of required documentation.
- ▶ Perform the required document review and testing on the evaluation product.
- ▶ Deliver a pre-validation if required.
- ▶ Execute the formal Common Criteria evaluation process.

By partnering with Secura for your Common Criteria evaluation, you have the guarantee of obtaining support during the whole process.

The Common Criteria certificate for your product is a demonstration of its security capabilities. Obtaining the certificate could lead to a considerable market advantage for manufacturers, and differentiation from competing products aiming at the same markets.

Would you like to know more about Common Criteria evaluations?

Contact us today to discuss our services in more detail and find out which service fits your product best.



Interested?

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