

# Site Security Target - Lite

# AUSTRIACARD

Version 1.1

2022-06-22

# Site Security Target – Lite, Austria Card Vienna

## Table of Contents

Table of Contents .....	2
1 Document Introduction .....	4
1.1 SST Reference.....	4
2 SST Introduction.....	4
3 Site Reference .....	4
3.1 Site Description .....	4
3.1.1 Physical Scope.....	4
3.1.2 Logical Scope.....	5
4 Conformance Claim.....	5
5 Security Problem Definition .....	6
5.1 Assets .....	6
5.2 Threats.....	6
5.3 Organizational Security Policies .....	7
5.4 Assumptions.....	8
6 Security Objectives.....	9
6.1 Security Objectives Rationale.....	11
7 Extended Assurance Components Definition.....	13
8 Security Assurance Requirements .....	13
8.1 Application Notes and Refinements.....	13
8.1.1 CM Capabilities (ALC_CMC.4).....	13
8.1.2 CM Scope (ALC_CMS.5) .....	13
8.1.3 Delivery (ALC_DEL.1).....	14
8.1.4 Development Security (ALC_DVS.2).....	14
8.1.5 Life-cycle Definition (ALC_LCD.1).....	14
8.1.6 Tools and Techniques (ALC_TAT.2) .....	14
8.1.7 Flaw Remediation (ALC_FLR.3).....	14
8.2 Security Requirements Rationale .....	15
8.2.1 Dependencies .....	15

8.2.2	Mapping .....	15
9	Site Summary Specification .....	23
9.1	Preconditions required by the Site .....	23
9.2	Services of the Site .....	24
9.3	Objectives Rationale .....	24
9.4	Assurance Measure Rationale .....	27
9.4.1	O.Config_IT-env .....	27
9.4.2	O.LifeCycle-Doc .....	28
9.4.3	O.Physical-Access .....	29
9.4.4	O.Security-Control .....	29
9.4.5	O.Alarm-Response .....	29
9.4.6	O.Internal-Monitor .....	29
9.4.7	O.Maintain-Security .....	29
9.4.8	O.Network-Separation .....	29
9.4.9	O.Logical-Access .....	30
9.4.10	O.Logical-Operation .....	30
9.4.11	O.Config-Items .....	30
9.4.12	O.Config-Process .....	30
9.4.13	O.Staff-Engagement .....	31
9.4.14	O.Zero-Balance .....	31
9.4.15	O.Flaw-Remediation-Monitor .....	31
9.4.16	O.Flaw-Remediation-External .....	32
9.4.17	O.Transport .....	32
9.4.18	O.Data-Transfer .....	32
9.5	Mapping of the Evaluation Documentation .....	32
10	References .....	33
10.1	Literature .....	33
10.2	Definitions .....	34
10.3	List of Abbreviations .....	34
10.4	Revision History .....	34

## 1 Document Introduction

### 1.1 SST Reference

Title:	Site Security Target – Lite, Austria Card Vienna
Version:	1.1
Date:	2022-06-22
Company:	Austria Card
Name of Site:	AUSTRIA CARD - Plastikkarten und Ausweissysteme Gesellschaft m.b.H., Vienna (short name Austria Card Vienna)
EAL:	SARs taken from EAL5 augmented with ALC_DVS.2 and ALC_FLR.3

## 2 SST Introduction

The chapters Document Introduction to References of this document are based on the Eurosmart Site Security Target Template [1] with adaptations such that it fits the site.

## 3 Site Reference

The site is located at:

Austria Card, Lamezanstrasse 4-8, 1230 Vienna, Austria

Only parts of the building are within the scope of this SST located in the ground and first floor. The areas within the scope of the evaluation are given in Section 3.

### 3.1 Site Description

#### 3.1.1 Physical Scope

The following stations (facility/building/site) of the site, specified in the Site Reference, are in the scope of the SST:

- Reception
- Security Office
- Development Environment
- Server Rooms hosting the CM-system, Backups, Firewall, CCTV, Alarm- and Access Control, and
- Shipment and Reception areas for physical goods,

The location(s) listed above contain security areas with restricted access under control of Austria Card where only authorized persons can enter.

Only authorized employee are entitled to access sensitive information like physical samples, source code, libraries, tools, and documentation. To enforce such access restriction, a combination of physical, procedural, personnel and logical measures have been installed.

### 3.1.2 Logical Scope

The following life-cycle phase as defined in the Protection Profile (PP) [2], and also defined in a similar way in the referred PPs [3] to [10] which is subject of the SST:

- Phase 1: IC Embedded Software Development.

The following services and/or processes provided by Austria Card are in the scope of the site evaluation process:

- Secure software development,
- Testing (debugging, functional verification),
- Documentation,
- Secure management and handling of transport, authentication and key protection<sup>1</sup> keys for smartcards and similar devices,
- Secure delivery and reception of code, tools, documentation, keys and other data.

## 4 Conformance Claim

This SST is conformant with Common Criteria (CC) 3.1 Rev. 5:

- Common Criteria for Information Technology Security Evaluation: Part 1: Introduction and general model, Version 3.1, Revision 5, 2017-04, CCMB-2017-04-001
- Common Criteria for Information Technology Security Evaluation: Part 3: Security assurance components, Version 3.1, Revision 5, 2017-04, CCMB-2017-04-003

For the evaluation, the following methodology will be used:

- Common Methodology for Information Technology Security Evaluation: Evaluation Methodology, Version 3.1, Revision 5, 2017-04, CCMB-2017-04-004

The SST is CC Part 3 conformant.

The evaluation of the site comprises the following Security Assurance Components (SAR):

- ALC\_CMC.4,
- ALC\_CMS.5,
- ALC\_DEL.1,
- ALC\_DVS.2,
- ALC\_FLR.3,
- ALC\_LCD.1,
- ALC\_TAT.2<sup>2</sup>.

---

<sup>1</sup> e.g. keys for protection of integrity and confidentiality of (pre-)personalization keys

<sup>2</sup> The site does not contribute to the aspect ALC\_TAT. The aspect has been claimed in order to ensure the assessment of related items during the evaluation process and to support the reuse of the evaluation results in a product evaluation accordingly.

The chosen assurance components are derived from the assurance level EAL5 augmented with ALC\_DVS.2 and ALC\_FLR.3 of the assurance class 'Life-cycle Support'. For the assessment of the security measures attackers with **high attack potential** are assumed. Therefore, this site supports product evaluations up to EAL5 augmented with ALC\_DVS.2 and ALC\_FLR.3 and AVA\_VAN.5.

## 5 Security Problem Definition

The Security Problem Definition comprises security problems derived from threats against the assets handled by the site.

### 5.1 Assets

This section describes the assets together with their default<sup>3</sup> asset classification according to JIL [16] handled at the site. They can be grouped within the following categories:

- Physical security objects:  
The site has physical security objects (samples, printed documents, etc.) in relation to developed TOEs. Both, the integrity and the confidentiality of these must be protected - default asset classification is Critical.
- Development data:  
The site has access to (and optionally copies thereof) electronic development data (source code, IC dedicated software for ROM or Flash memories, libraries, functional specifications, etc.) in relation to developed TOEs. Both, the integrity and the confidentiality of these electronic data must be protected - default asset classification is Critical.  
Transport keys for encryption of developed software - default asset classification is Very Critical.  
Authentication keys for authentication at flashloaders - default asset classification is Very Critical.  
Key protection keys - default asset classification is Very Critical.
- Development Tools:  
To perform its development activities the site uses tools to compile source code and libraries. The integrity of these tools must be protected - default asset classification is Restricted.

### 5.2 Threats

T.Smart-Theft	An attacker tries to access sensitive areas of the site or equipment for manipulation or theft of assets: (1) physical security objects, (2) development data, (3) development tools. The attacker has sufficient time to investigate the site outside the controlled boundary. For the attack the use of standard equipment for burglary is considered.
T.Rugged-Theft	An attacker with specialized equipment for burglary, who may be paid to perform the attack, tries to access sensitive areas or equipment and manipulate or steal assets.

## Site Security Target – Lite, Austria Card Vienna

T.Computer-Net	<p>A possibly paid hacker with substantial expertise using standard equipment attempts to remotely access sensitive network segments to get access to</p> <ol style="list-style-type: none"><li>(1) development data with the intention to violate confidentiality and possibly integrity</li><li>(2) development computers with the intention to modify the development process.</li></ol>
T.Accident-Change	<p>An employee, contractor or student trainee may exchange samples or software of different clients during development/qualification by accident.</p>
T.Unauthorised-Staff	<p>Employees or subcontractors not authorized to get access to assets violating the confidentiality and possibly the integrity of products.</p>
T.Staff-Collusion	<p>An attacker tries to get access to assets by getting support from one employee through extortion or bribery.</p>
T.Attack-Transport	<p>An attacker tries to get access to shipped physical security objects when shipped in or out of the site. The target is to compromise confidential information or violate the integrity of the products during the stated internal shipment and/or the external delivery process to allow a modification, cloning or the retrieval of confidential information after further production steps. Confidential information comprises design data, client data like code, data (including and/or transport and authentication keys) and/or classified product documentation.</p>

### 5.3 Organizational Security Policies

P.Config_IT-env	<p>In addition to the used software on development workstations and servers, the site uses configuration management systems for file versioning and problem tracking. For file versioning, the team members are assigned to project specific, centralized repositories to support proper management of multiple products and the site internal procedures. The team members are requested to use only project related IT equipment with the provided tools.</p>
P.LifeCycle-Doc	<p>The site follows the life cycle documentation that describes:</p> <ol style="list-style-type: none"><li>(1) Description of configuration management systems and their usage;</li><li>(2) A configuration items list;</li><li>(3) Site security;</li><li>(4) The development process;</li><li>(5) The development tools.</li></ol>
P.Flaw-Remediation	<p>The site is in charge of security flaw remediation.</p>

The procedures in place within the site must show how flaw remediation is managed giving assurance on the following topics:

(1) acceptance and acting upon all reports of security flaws and requests for corrections to those flaws.

(2) flaw remediation guidance to address the TOE users.

P.Organise-Product

Additionally, specifications, necessary for the development flow may come from the client for dedicated and specialized software development processes. For keys, relevant for the life cycle or configuration data, security, appropriate measures must be in place. This includes the requirement that the site shall be able to handle in a way that knowledge of sensitive keys shall be split to at least two different persons (as an option, if requested). Furthermore, technical measures like cryptography, separation of network, split access permission and secure storage shall be implemented for this kind of data.

## 5.4 Assumptions

A.Product-Setup

The site participates in the development of products. To define the participation of the site in the development while maintaining quality, for each product the client has to manage the activities to be performed by the site, the specifications of the input for the site and the acceptance of the results by the client. In addition the client may define dedicated classification levels for all assets<sup>3</sup>.

The client has to define the product depending development tools and documentation, make them accessible (or support the site getting access to the tools and documentation from a third party), and has to support the site if necessary.

A.Shipment

The client is responsible for defining the secure packaging and delivery procedures for physical security objects, according to their classification, the necessary addresses for delivery are part of the project setup.

For delivery of development data and tools an appropriately secure communication, according to their classification, has to be established, which includes key exchange and, if required, definition of encryption/signature method. This is part of the project setup.

A.Transport-keys

Any kind of cryptographic keys used to protect software during the transport from developer to the client are not usable in the operational phase, i.e. they cannot be used by end users for any purpose.

---

<sup>3</sup> The site applies a default classification for each asset type (see 5.1) when not defined explicitly by the client.



## 6 Security Objectives

O.Config_IT-env	In addition to the used software on development workstations and servers, the site uses configuration management systems for file versioning and problem tracking. For file versioning, unique repositories are used to support proper management of multiple products and the site internal procedures. Only project related tools and IT equipment is used.
O.LifeCycle-Doc	The site follows the life cycle documentation that describes: (1) Description of configuration management systems and their usage; (2) A configuration items list; (3) Site security; (4) The development process; and (5) The development tools.
O.Physical-Access	The combination of physical partitioning between the different access control levels together with technical and organisational security measures allows a sufficient separation of employees to enforce the “need to know” principle. The access control shall support the limitation for the access to these areas including the identification and rejection of unauthorised people. The access control measures ensure that only registered employees can access restricted areas. When certain types of assets are handled outside of the restricted areas additional technical (two factor authentication, hardware seals) and additional organizational measures (work instructions) are applied to control access to the assets.
O.Security-Control	Assigned personnel of the site or guards operate the systems for access control and surveillance and respond to alarms. Technical security measures like motion sensors and similar kind of sensors support the enforcement of the access control. These personnel are also responsible for registering and ensuring escort of visitors, contractors and suppliers. The site has established dedicated work instructions that ensures protection of assets.
O.Alarm-Response	The technical and organisational security measures ensure that an alarm is generated before an unauthorised person gets access to any asset. After the alarm is triggered the unauthorised person still has to overcome further security measures. The reaction time of the employees and/or guards is short enough to prevent a successful attack.
O.Internal-Monitor	The site performs security management meetings at least every six months. The security management meetings are used to review security incidents, to verify that maintenance measures are applied

and to reconsider the assessment of risks and security measures. Furthermore, an internal audit is performed every year to control the application of the security measures.

- O.Maintain-Security Technical security measures are maintained regularly to ensure correct operation. The logging of sensitive systems is checked regularly. This comprises the access control system to ensure that only authorised employees have access to sensitive areas as well as computer/network systems to ensure that they are configured as required to ensure the protection of the networks and computer systems.
- O.Network-Separation The development network of the site exists within the secured areas of the site only. It is connected only to:  
(1) the development workstations;  
(2) Additional equipment (e.g. a printer).
- O.Logical-Access The site enforces a logical separation between the internal network and the internet including a firewall. The security measures ensure that only defined services and defined connections are accepted on the internal network. The internal network is appropriately separated to prevent interference between the different environments (office and development environments). Access to the development network and associated systems is restricted to authorized employees working in the related area or involved in the configuration tasks of the used environment. Every user of an IT system has his/her own user account and password. Transport, authentication keys, key protection keys and other specialized sensitive data for development, transport or authentication can be generated and stored securely at the development site.
- O.Logical-Operation Development workstations enforce that every user authenticates using a password and has a unique user ID. For certain types of development workstations multifactor authentication is mandatory.
- O.Config-Items The site has a configuration management system that manages products and parts used. A unique internal identification is assigned to each product to uniquely identify configuration items and allow an assignment to a client. Also, the internal procedures and guidance are covered by the configuration management.
- O.Config-Process The site controls its services and/or processes using a configuration management plan. The configuration management is controlled by tools and procedures for the development, for the management of flaws and optimizations of the process flow as well as for the documentation that describes the services and/or processes provided by a site.

## Site Security Target – Lite, Austria Card Vienna

O.Staff-Engagement	All employees who have access to assets are checked regarding security concerns and have to sign a non-disclosure agreement. Furthermore, all employees are trained and qualified for their job.
O.Zero-Balance	The site ensures that all physical assets are separated and traced. Automated control and/or two employee's acknowledgements during hand over is applied for functional and defective material.
O.Flaw-Remediation-Monitor	All security flaw discovered by development teams or raised by the TOE user must be monitored and managed.
O.Flaw-Remediation-External	Corrections and guidance on corrective actions for Security flaw with consequences for TOE users are provided to TOE users.
O.Transport	The recipient of a physical security objects is identified by the assigned address. The shipment procedure is applied to the physical asset. The address for shipment can only be changed by a controlled process. The packaging is part of the defined process and applied as agreed with the client. For every sensitive physical asset, the protection measures against manipulation are defined.
O.Data-Transfer	Sensitive electronic assets (development data or tools in electronic form) are protected with cryptographic algorithms to ensure confidentiality and integrity. The associated transport keys must be assigned to individuals to ensure that only authorized employees are able to extract these assets. Keys for authentication are securely exchanged and they are sufficiently protected. Data and keys are securely imported / exported, and therefore ensuring integrity and confidentiality.

### 6.1 Security Objectives Rationale

Threat	Security Objective(s)	Rationale
T.Smart-Theft	O.LifeCycle-Doc O.Physical-Access O.Security-Control O.Alarm-Response O.Internal-Monitor O.Maintain-Security	The combination of structural, technical and organizational measures detects unauthorised access and allows for appropriate response on the threat.
T.Rugged-Theft	O.LifeCycle-Doc O.Physical-Access O.Security-Control O.Alarm-Response O.Internal-Monitor O.Maintain-Security	The combination of structural, technical and organizational measures detects unauthorised access and allows for appropriate response on the threat.
T.Computer-Net	O.Config_IT-env O.LifeCycle-Doc O.Physical-Access O.Internal-Monitor O.Maintain-Security	The development network is not connected to anything that an attacker could use to set up a remote connection.

Threat	Security Objective(s)	Rationale
	O.Network-Separation O.Logical-Access O.Logical-Operation O.Staff-Engagement O.Data-Transfer.	For data transfers dedicated procedures exist that allow for secure communication and import/export of data.
T.Accident-Change	O.Config_IT-env O.Network-Separation O.Logical-Access O.Logical-Operation O.Config-Items O.Staff-Engagement O.Zero-Balance	A strict separation of data from different clients is applied. All employees are trained regarding handling of secure objects. Zero balancing and tracing of single items further enables to detect such errors.
T.Unauthorised-Staff	O.Config_IT-env O.Physical-Access O.Security-Control O.Alarm-Response O.Internal-Monitor O.Maintain-Security O.Network-Separation O.Logical-Access O.Logical-Operation O.Staff-Engagement	Physical and logical access control prohibits unauthorized access to assets.
T.Staff-Collusion	O.Config_IT-env O.LifeCycle-Doc O.Physical-Access O.Internal-Monitor O.Maintain-Security O.Staff-Engagement	The application of internal security measures combined with the hiring policies that restrict hiring to trustworthy employees limits unauthorized access to assets.
T.Attack-Transport	O.LifeCycle-Doc O.Staff-Engagement O.Zero-Balance O.Transport O.Data-Transfer.	The shipment method and the organizational measures ensure that integrity changes of shipped objects are detected and appropriately responded upon.

Table 1: Mapping between Threats and Security Objectives

OSP	Security Objective(s)	Rationale
P.Config_IT-env	O.Config_IT-env O.Config-Process	The Security Objective directly enforces the OSP.
P.LifeCycle-Doc	O.LifeCycle-Doc	The Security Objective directly enforces the OSP.
P.Flaw-Remediation	O.Flaw-Remediation-Monitor O.Flaw-Remediation-External	The Security Objectives directly enforces the OSP.
P.Organise-Product	O.Logical-Access O.Transport O.Data-Transfer	The Security Objectives directly enforces the OSP.

Table 2: Mapping between OSPs and Security Objectives

## 7 Extended Assurance Components Definition

No extended components are defined in this Security Target.

## 8 Security Assurance Requirements

The security assurance requirements selected for the site shall support evaluations according to the assurance level EAL5 augmented with ALC\_DVS.2 and ALC\_FLR.3. These security assurance include the augmentations defined in the PP [2].

The Security Assurance Requirements are:

- ALC\_CMC.4,
- ALC\_CMS.5,
- ALC\_DEL.1,
- ALC\_DVS.2,
- ALC\_FLR.3,
- ALC\_LCD.1, and
- ALC\_TAT.2.

The Security Assurance Requirements listed above fulfill the requirements of [15] because hierarchically higher components than the defined minimum site requirements (ALC\_CMC.3, ALC\_CMS.3, ALC\_DVS.1, see section 3.2.3 of [15]) are used in this Site Security Target.

### 8.1 Application Notes and Refinements

The description of the site certification process [15] includes specific application notes. The main item is that a product that is considered as intended TOE is not available during the evaluation. Since the term “TOE” is not applicable in the Site Security Target, the associated processes for the handling of products, or “intended TOEs” are in the scope of this Site Security Target and are described in this document. These processes are subject of the evaluation of the site.

#### 8.1.1 CM Capabilities (ALC\_CMC.4)

Refer to subsection ‘Application Notes for Site Certification’ in [15] 5.1 ‘Application Notes for ALC\_CMC’.

Note: Due to the PP refinements in [2] for ALC\_CMS (see below) not being applicable those for ALC\_CMC are also not applicable.

#### 8.1.2 CM Scope (ALC\_CMS.5)

Refer to subsection ‘Application Notes for Site Certification’ in [15] 5.2 ‘Application Notes for ALC\_CMS’.

Note: Due to these application notes the refinements from the PP [2] (see Section 6.2.1.3) are not applicable.

### **8.1.3 Delivery (ALC\_DEL.1)**

The CC assurance components of the family ALC\_DEL (Delivery) refer to the external delivery of (i) the TOE or parts of it (ii) to the consumer or consumer's site. The CC assurance component ALC\_DEL.1 requires procedures and technical measures to maintain the confidentiality and integrity of the product. The means to detect modifications and prevent any compromise of the Initialization Data and/or Configuration Data may include supplements of the Security IC Embedded Software.

The Security IC Embedded Software is designed in Phase 1 and embedded into the Security IC in Phase 3 or in later phases of the Security IC product life-cycle.

The developer of the Security IC Embedded Software must apply protection to ensure the security of the Security IC Embedded Software. This relates to providing the IC Embedded Software itself or any authentication data required to enable the download of software. This includes the delivery (exchange) procedures for Phase 1.

The client is responsible for secure handling after delivery.

As already outlined in the application notes of the PP [2] the external delivery of the TOE may require additional transfers between the product manufacturer and the client or consumer. These do not address the internal deliveries between sites involved in the life-cycle of the intended TOE. Since the assurance component ALC\_DEL only applicable to the external delivery to the consumer, the component cannot be used for internal shipment. Internal shipment is covered by ALC\_DVS.

Also, refer to subsection 'Application Notes for Site Certification' in [15] 5.3 'Application Notes for ALC\_DEL'.

### **8.1.4 Development Security (ALC\_DVS.2)**

Refer to subsection 'Application Notes for Site Certification' in [15] 5.4 'Application Notes for ALC\_DVS'.

### **8.1.5 Life-cycle Definition (ALC\_LCD.1)**

Refer to subsection 'Application Notes for Site Certification' in [15] 5.6 'Application Notes for ALC\_LCD'.

Refer to 'Application Note 26' in 6.2.1.2 'Refinements regarding Development Security (ALC\_DVS)' in the PP [2] (application note 27).

### **8.1.6 Tools and Techniques (ALC\_TAT.2)**

Refer to subsection 'Application Notes for Site Certification' in [15] 5.7 'Application Notes for ALC\_TAT'. Since the used tools and techniques are well defined upfront by the client (see A.Product-Setup) they are TOE specific and cannot be seen as product type specific as stipulated by [15]. Therefore ALC\_TAT is not applicable for this SST.

### **8.1.7 Flaw Remediation (ALC\_FLR.3)**

Refer to subsection 'Application Notes for Site Certification' in [15] 5.5 'Application Notes for ALC\_FLR'.

## 8.2 Security Requirements Rationale

### 8.2.1 Dependencies

For the selected SARs, the following dependencies are defined according to [13]:

- ALC\_CMC.4: ALC\_CMS.1, ALC\_DVS.2, ALC\_LCD.1
- ALC\_CMS.5: None
- ALC\_DEL.1: None
- ALC\_DVS.2: None
- ALC\_FLR.3: None
- ALC\_LCD.1: None
- ALC\_TAT.2: ADV\_IMP.1

The following dependencies are not (completely) fulfilled:

- ALC\_LCD.1: This dependency is only partly fulfilled as the site does not represent the entire development environment. This is in-line with and further explained in [15].
- ADV\_IMP.1: This dependency is not fulfilled as there is no specific TOE. This is in-line with and further explained in [15].

### 8.2.2 Mapping

SAR	Security Objective(s)	Rationale
ALC_CMC.4.1C: The CM documentation shall show that a process is in place to ensure an appropriate and consistent labeling.	O.Config_IT-env O.LifeCycle-Doc O.Config-Items	Appropriate and consistent labeling is ensured through the application of the CM-Plan (O.LifeCycle-Doc) and the use of the configuration management systems (O.Config_IT-env). The configuration management system manages all TOE relating hardware, software and information (O.Config-Items).
ALC_CMC.4.2C: The CM documentation shall describe the method used to uniquely identify the configuration items.	O.LifeCycle-Doc O.Config-Items O.Config-Process	The method used to uniquely identify the configuration items is described in the CM Plan (O.LifeCycle-Doc). Each item gets an internal unique identification for identification (O.Config-Items). The configuration items are tracked throughout the life-cycle of the TOE (O.Config-Process).
ALC_CMC.4.3C: The CM system shall uniquely identify all configuration items.	O.Config_IT-env O.LifeCycle-Doc O.Config-Items	Unique identification of all CIs is realized by performing the CM activities in accordance with the CM-Plan (O.LifeCycle-Doc) using the Configuration

SAR	Security Objective(s)	Rationale
		management systems (O.Config_IT-env). Each item gets an internal unique identification for identification (O.Config-Items).
ALC_CMC.4.4C: The CM system shall provide automated measures such that only authorized changes are made to the configuration items.	O.Config_IT-env O.LifeCycle-Doc O.Logical-Access O.Logical-Operation O.Config-Items O.Config-Process	The configuration management systems (O.Con-fig_IT-env) used according to the CM-Plan (O.LifeCy-cle-Doc) enforces auto-mated measures such that only authorized changes are made to the configuration items. Only authorized changes can be made to the CM system (O.Logical-Access). An authentication is necessary to get access to the system (O.Logical-Operation). The configuration management system manages all TOE relating hardware, software and information (O.Config-Items). The configuration items are tracked throughout the life-cycle of the TOE (O.Config-Process).
ALC_CMC.4.5C: The CM system shall support the production of the product by automated means.	O.Config_IT-env O.LifeCycle-Doc O.Config-Process O.Zero-Balance	The software on the development computers (O.Con-fig_IT-env) supports auto-mated production of products when used in accordance with the CM-Plan (O.LifeCycle-Doc). The configuration items are tracked throughout the life-cycle of the TOE (O.Config-Process). The zero balancing prevents an unnoticed loss of secure objects by dedicated internal processes (O.Zero-Balance).
ALC_CMC.4.6C: The CM documentation shall include a CM plan.	O.LifeCycle-Doc O.Config-Process	The life cycle documentation (O.LifeCycle-Doc) includes a CM-Plan. The procedures may be detailed in the CM plan (O.Config-Process).
ALC_CMC.4.7C: The CM plan shall describe how the CM system is used for the development of the product.	O.LifeCycle-Doc O.Config-Process	The life cycle documentation (O.LifeCycle-Doc) de-scribes how the CM system is used for the development of the product.



SAR	Security Objective(s)	Rationale
		The procedures may be detailed in the CM plan (O.Config-Process).
ALC_CMC.4.8C: The CM plan shall describe the procedures used to accept modified or newly created configuration items (as part of the product).	O.LifeCycle-Doc O.Config-Process	The acceptance procedures for modified or newly created configuration items are described in the CM-Plan (O.LifeCycle-Doc). The configuration items are tracked throughout the life-cycle of the TOE. The procedures may be detailed in the CM plan (O.Config-Process).
ALC_CMC.4.9C: The evidence shall demonstrate that all configuration items are being maintained under the CM system.	O.LifeCycle-Doc O.Config-Items O.Config-Process O.Zero-Balance	All configuration items are listed in the CI-list (O.LifeCycle-Doc). This is also described in the developer documentation (O.LifeCycle-Doc). The configuration items are tracked throughout the life-cycle of the TOE (O.Config-Process). Each item gets an internal unique identification for identification (O.Config-Items). The contributed zero balancing prevents an unnoticed loss of secure objects by dedicated internal processes (O.Zero-Balance).
ALC_CMC.4.10C: The evidence shall demonstrate that the CM system is being operated in accordance with the CM plan.	O.Config_IT-env O.LifeCycle-Doc O.Config-Items O.Config-Process	The CI-list (O.LifeCycle-Doc is generated from the configuration management systems (O.Config_IT-env). This is also described in the developer documentation (O.LifeCycle-Doc). The configuration items are tracked throughout the life-cycle of the TOE. Each item gets an internal unique identification for identification (O.Config-Items). The procedures may be detailed in the CM plan (O.Config-Process).

Table 3: Rationale for ALC\_CMC.4

SAR	Security Objective(s)	Rationale
<p>ALC_CMS.5.1C: The configuration list includes the following: the intended TOE itself; the evaluation evidence required by the SARs in the SST; the parts that comprise the intended TOE; the implementation representation; security flaws; and development tools and related information. The CM documentation shall include a CM plan.</p>	<p>O.Config_IT-env O.LifeCycle-Doc O.Config-Items O.Config-Process</p>	<p>The life cycle documentation (O.LifeCycle-Doc) includes a CM-Plan and a CI-List with the items required by ALC_CMS.5.1C. This is generated from the configuration management systems (O.Config_IT-env). The developer documentation contains all necessary and TOE relating information (O.LifeCycle-Doc). The configuration items are tracked throughout the life-cycle of the TOE. Each item gets an internal unique identification for identification (O.Config-Items). The procedures may be detailed in the CM plan (O.Config-Process).</p>
<p>ALC_CMS.5.2C: The configuration list shall uniquely identify the configuration items.</p>	<p>O.Config_IT-env O.LifeCycle-Doc O.Config-Items</p>	<p>Unique identification of all CIs is realized by performing the CM activities in accordance with the CM-Plan (O.LifeCycle-Doc) using the Configuration management systems (O.Config_IT-env). Each item gets an internal unique identification for identification (O.Config-Items).</p>
<p>ALC_CMS.5.3C: For each configuration item, the configuration list shall indicate the developer/subcontractor of the item.</p>	<p>O.Config_IT-env O.LifeCycle-Doc O.Config-Items</p>	<p>The CI-List (O.LifeCycle-Doc) indicates the developer / subcontractor for each configuration items as described in the CM-Plan (O.LifeCycle-Doc). All items are managed by the CM system (O.Config_IT-env). Each item gets an internal unique identification for identification (O.Config-Items).</p>

Table 4: Rationale for ALC\_CMS.5

SAR	Security Objective(s)	Rationale
<p>ALC_DEL.1.1C: The delivery documentation shall describe all procedures that are necessary to maintain security when distributing versions of the intended TOE to the consumer.</p>	<p>O.LifeCycle-Doc, O.Transport, O.Data-Transfer.</p>	<p>The development security documentation (O.LifeCycle-Doc) describes all measures which have to be considered by delivering the Embedded Software.</p> <p>The definition of the secure transport procedures for physical security objects and development data and tools ensure confidentiality and integrity of all transported assets.</p>

Table 5: Rationale for ALC\_DEL.1

SAR	Security Objective(s)	Rationale
<p>ALC_DVS.2.1C: The development security documentation shall describe all the physical, procedural, personnel, and other security measures that are necessary to protect the confidentiality and integrity of the intended TOE design and implementation in its development environment.</p>	<p>O.LifeCycle-Doc O.Physical-Access O.Security-Control O.Alarm-Response O.Internal-Monitor O.Maintain-Security O.Network-Separation O.Logical-Access O.Logical-Operation O.Staff-Engagement</p>	<p>The development security documentation (O.LifeCycle-Doc) describes the physical (O.Physical-Access, O.Security-Control, O.Alarm-Response), procedural (O.Internal-Monitor, O.Maintain-Security), personnel (O.Staff-Engagement), and other (O.Network-Separation, O.Logical-Access, O.Logical-Operation) security measures that are necessary to protect the confidentiality and integrity of the TOE design and implementation in its development environment.</p>
<p>ALC_DVS.2.2C: The development security documentation shall justify that the security measures provide the necessary level of protection to maintain the confidentiality and integrity of the intended TOE.</p>	<p>O.LifeCycle-Doc O.Zero-Balance</p>	<p>The development security documentation (O.LifeCycle-Doc) justifies the security measures provide the necessary level of protection to maintain the confidentiality and integrity of the TOE. The contributed zero balancing prevents an unnoticed loss of secure objects by dedicated internal processes (O.Zero-Balance).</p>

Table 6: Rationale for ALC\_DVS.2

SAR	Security Objective(s)	Rationale
ALC_LCD.1.1C: The life-cycle definition documentation shall describe the model used to develop and maintain the intended TOE.	O.LifeCycle-Doc O.Config-Process	The model used to develop the TOE is described in the life cycle documentation (O.LifeCycle-Doc). The configuration items are tracked throughout the life-cycle of the TOE (O.Config-Process).
ALC_LCD.1.2C: The life-cycle model shall provide for the necessary control over the development and maintenance of the intended TOE.	O.LifeCycle-Doc O.Config-Process O.Zero-Balance	The life cycle model as described in the life cycle documentation (O.LifeCycle-Doc) provides for the necessary control over the development and maintenance of the TOE. The configuration items are tracked throughout the life-cycle of the TOE (O.Config-Process). The contributed zero balancing prevents an unnoticed loss of the TOE and TOE components by dedicated internal processes (O.Zero-Balance).

Table 7: Rationale for ALC\_LCD.1

SAR	Security Objective(s)	Rationale
ALC_TAT.2.1C: Each development tool used for implementation shall be well-defined.	O.LifeCycle-Doc	The life cycle documentation (O.LifeCycle-Doc) shows that the development tools used for implementation are well-defined.
ALC_TAT.2.2.C: The documentation of each development tool shall unambiguously define the meaning of all statements as well as all conventions and directives used in the implementation.	O.LifeCycle-Doc	The life cycle documentation (O.LifeCycle-Doc) together with the documentation of the development tools unambiguously defines the meaning of all statements as well as all conventions and directives used in the implementation.
ALC_TAT.2.3C: The documentation of each development tool shall unambiguously define the meaning of all implementation-dependent options.	O.LifeCycle-Doc	The life cycle documentation (O.LifeCycle-Doc) together with the documentation of the development tools unambiguously defines the meaning of all implementation-dependent options.

Table 8: Rationale for ALC\_TAT.2

SAR	Security Objective(s)	Rationale
<p>ALC_FLR.3.1C: The flaw remediation procedures documentation shall describe the procedures used to track all reported security flaws in each release of the TOE.</p>	<p>O.LifeCycle-Doc</p>	<p>The life cycle documentation (O.LifeCycle-Doc) together with the documentation of the development tools unambiguously defines flaw remediation procedures.</p>
<p>ALC_FLR.3.2C: The flaw remediation procedures shall require that a description of the nature and effect of each security flaw be provided, as well as the status of finding a correction to that flaw.</p>	<p>O.FlawnRemediation-Monitor O.FlawnRemediation-External</p>	<p>The monitoring of flaws (O.FlawnRemediation-Monitor) lead to a monitoring and management of each discovered flaw. If this flaw was relevant for the TOE user, corrections and guidance of corrective actions are provided to the TOE user (O.FlawnRemediation-External).</p>
<p>ALC_FLR.3.3C: The flaw remediation procedures shall require that corrective actions be identified for each of the security flaws.</p>	<p>O.FlawnRemediation-Monitor O.FlawnRemediation-External</p>	<p>The monitoring of flaws (O.FlawnRemediation-Monitor) lead to a monitoring and management of each discovered flaw. If this flaw was relevant for the TOE user, corrections and guidance of corrective actions are provided to the TOE user (O.FlawnRemediation-External).</p>
<p>ALC_FLR.3.4C: The flaw remediation procedures documentation shall describe the methods used to provide flaw information, corrections and guidance on corrective actions to TOE users.</p>	<p>O.FlawnRemediation-Monitor O.FlawnRemediation-External</p>	<p>The monitoring of flaws (O.FlawnRemediation-Monitor) lead to a monitoring and management of each discovered flaw. If this flaw was relevant for the TOE user, corrections and guidance of corrective actions are provided to the TOE user (O.FlawnRemediation-External).</p>
<p>ALC_FLR.3.5C: The flaw remediation procedures shall describe a means by which the developer receives from TOE users reports and enquiries of suspected security flaws in the TOE.</p>	<p>O.FlawnRemediation-External</p>	<p>For all TOE user relevant flaws, guidance and corrections are provided to the TOE user (O.FlawnRemediation-External).</p>
<p>ALC_FLR.3.6C: The flaw remediation procedures shall include a</p>	<p>O.FlawnRemediation-Monitor</p>	<p>All security flaws are distributed automatically by using a</p>

SAR	Security Objective(s)	Rationale
<p>procedure requiring timely response and the automatic distribution of security flaw reports and the associated corrections to registered users who might be affected by the security flaw.</p>		<p>management system (O.Flaw-Remediation-Monitor).</p>
<p>ALC_FLR.3.7C: The procedures for processing reported security flaws shall ensure that any reported flaws are remediated and the remediation procedures issued to TOE users.</p>	<p>O.Flaw-Remediation-Monitor O.Flaw-Remediation-External</p>	<p>The monitoring of flaws (O.Flaw-Remediation-Monitor) lead to a monitoring and management of each discovered flaw. If this flaw was relevant for the TOE user, corrections and guidance of corrective actions are provided to the TOE user (O.Flaw-Remediation-External).</p>
<p>ALC_FLR.3.8C: The procedures for processing reported security flaws shall provide safeguards that any corrections to these security flaws do not introduce any new flaws.</p>	<p>O.Flaw-Remediation-External</p>	<p>Each corrective action is documented and evaluated by the developer for functionality and side effects (O.Flaw-Remediation-External).</p>
<p>ALC_FLR.3.9C: The flaw remediation guidance shall describe a means by which TOE users report to the developer any suspected security flaws in the TOE.</p>	<p>O.Flaw-Remediation-External</p>	<p>For all TOE user relevant flaws, guidance and corrections are provided to the TOE user (O.Flaw-Remediation-External).</p>
<p>ALC_FLR.3.10C The flaw remediation guidance shall describe a means by which TOE users may register with the developer, to be eligible to receive security flaw reports and corrections.</p>	<p>O.Flaw-Remediation-External</p>	<p>All relating TOE users get informed about security flaws and corrective actions by the developer (O.Flaw-Remediation-External).</p>
<p>ALC_FLR.3.11C: The flaw remediation guidance shall identify the specific points of contact for all reports and enquiries about security issues involving the TOE.</p>	<p>O.Flaw-Remediation-Monitor O.Flaw-Remediation-External</p>	<p>The monitoring of flaws (O.Flaw-Remediation-Monitor) lead to a monitoring and management of each discovered flaw. If this flaw was relevant for the TOE user, corrections and guidance of corrective actions are provided</p>

SAR	Security Objective(s)	Rationale
		to the TOE user (O.Flaw-Remediation-External).

Table 9: Rationale for ALC\_FLR.3

## 9 Site Summary Specification

### 9.1 Preconditions required by the Site

The site performs development and test services for secure IC embedded software. In order to perform these services in a secure way, the client of the site needs to support the security processes of the site. The following description summarizes the preconditions clients have to fulfil to ensure the security measures of the site in order to protect its assets.

Precondition	Assumption
<p>For each project setup, the client needs to agree on the activities to be performed by the site, the specifications of the input for the site and the acceptance of the results from the site.</p> <p>The client has to provide and support tools and their documentation which are needed to develop software for this dedicated client. The amount and description of these tools must be defined and communicated by the client.</p> <p>Further, for each project setup, the client may either a) explicitly define the classification for each asset type depending on his security requirements and in consultation with the site<sup>4</sup> or b) accept the default classification<sup>5</sup> by not providing his own definition.</p>	A.Product-Setup
<p>In case of physical shipment of security relevant items between the client and the site, the client needs to agree about the shipment details and procedures.</p> <p>To be able to exchange development data and tools securely it is necessary to establish a secure channel. Therefore, the types of encryption and signature have to be agreed upon and the necessary keys have to be exchanged.</p>	A.Shipment
<p>In case of transport, the developed software will be encrypted by using dedicated transport keys. Also for authentication at platforms (e.g. by flash loader) TOE keys are in use. The keys have to be shared with the opposite communication partner in a secure way. If requested by the client the knowledge of sensitive keys can be split in at least two parts and separately transferred to at least two different persons.</p>	A.Transport-keys

<sup>4</sup> A template is provided by the site

<sup>5</sup> See 5.1 for all asset types and assigned default levels

Table 10: Mapping of preconditions to assumptions

## 9.2 Services of the Site

The following services and/or processes provided by Austria Card are in the scope of the site evaluation process:

- IC Embedded Software Development and testing (Phase 1).

as defined in the Protection Profile [2] and also defined in a similar way in the referred PPs [3] to [10].

Development and handling of assets is performed according to their classification. The site provides development according to the asset classification and restricted access under control of Austria Card. Secure areas, which are established by a combination of physical, procedural, personnel and logical measures, allowing only authorized employee access to assets like physical samples, source code, libraries, tools, keys and documentation.

Development comprises the specification of embedded operating systems- and application products, the source code of embedded software, the test specifications and the related test vectors and the creation of development related documents. Some of the data sheet and application note material is also produced at this site.

Validation comprises the execution of the tests foreseen by the test specification using the defined test vectors.

The site is also used to generate and setup cryptographic keys used to protect the developed software during transport and for authentication at platforms (e.g. via flash loader).

The secure management and handling of keys and the secure delivery and reception of code, tools, documentation, keys and other data are services, is offered by the site.

## 9.3 Objectives Rationale

The following rationale provides a justification that shows that all threats and OSPs are effectively addressed by the Security Objectives:

O.Config\_IT-env: The site uses strict versioning and project separated management of project relating information. This directly addresses the OSP P.Config\_IT-env. Further, the threats T.Computer-Net, T.Accident-Change, T.Unauthorised-Staff and T.Staff-Collusion can be prevented.

O.LifeCycle-Doc: Dedicated documents exist for the site which defines the use and the management of the configuration management systems, the configuration item list, the site security, the development process and the development tools. The site follows the procedures and instructions of these documents. This directly addresses the OSP P.LifeCycle-Doc. Further, the threats T. Smart-Theft, T.Rugged-Theft, T.Computer-Net, T.StaffCollusion and T.Attack-Transport can be prevented.



## Site Security Target – Lite, Austria Card Vienna

- O.Physical-Access: The site implements a “need to know” principle by separation measures using a combination of physical partitioning together with technical and organisational security measures. The access control measures support the enforcement of the separation and the “need to know” principle. The handling of assets is restricted to separates security areas. By the combination of these measures the threats T.Smart-Theft, T.Rugged-Theft, T.Computer-Net, T.Unauthorised-Staff and T.Staff-Collusion can be prevented.
- O.Security-Control: The site is using dedicated personnel for guard services. These personnel are responsible for operation of the access control systems, for the enforcement of the access control, for the surveillance of the technical alarm sensors and the responses to incidents and for the escort of visitors. This helps to prevent the threats T.Smart-Theft, T.Rugged-Theft and T.Unauthorised-Staff.
- O.Alarm-Response: In case of an access attempt to an asset by an unauthorized person the site has an alarm system in place. After the alarm is triggered the unauthorized person still has to overcome further security measures. The reaction time of the employees and/or guards is short enough to prevent a successful attack. This helps to prevent the threats T.Smart-Theft, T.Rugged-Theft and T.Unauthorised-Staff.
- O.Internal-Monitor: The established security measures of the site are regularly reviewed by security management meetings and internal audits. This helps to prevent the threats T.Smart-Theft, T.Rugged-Theft, T.Unauthorised-Staff and T.Staff-Collusion.
- O.Maintain-Security: Technical security measures are maintained regularly. This ensures that the systems are working correctly and are configured as required to ensure the protection of the networks and computer systems. In addition all employees are trained regularly. Hence, this helps to prevent the threats T.Smart-Theft, T.Rugged-Theft, T.Computer-Net, T.Unauthorised-Staff and T.Staff-Collusion.
- O.Network-Separation: The development networks of the site are located in a dedicated secured area. These networks are connected only to dedicated trustworthy systems. The networks as well as the CM system implement separation based on asset classifications which allows additionally separation of critical

(strictly confidential) assets and above from lower classified assets. This prevents the threats T.Computer-Net, T.Accident-Change and T.Unauthorised-Staff.

O.Logical-Access:

The development network is strictly separated from the other internal networks and the internet by using a firewall. The different projects inside the developer network are separated by logical directory structure. The access to the different project information is protected by user account and password. By considering the “need-to-know” principle, only authorized person have access to the project relating information. Each user has his/her own user account and password. Based on their classification assets are in addition only processed in the according logical security area with regard to the implemented access security measures (e.g. asset storage in dedicated container secured by multifactor-authentication). This prevents the threats T.Computer-Net, T.Accident-Change and T.Unauthorised-Staff.

O.Logical-Operation:

The used workstations for development purposes are using authentication measures for the users of these systems. Authentication may include multifactor authentication depending on the type of the development workstation. Hence the threats T.Computer-Net, T.Accident-Change and T.Unauthorised-Staff is prevented.

O.Config-Items:

A configuration management system is in use which manages all TOE relating hardware, software and information. Each item gets an internal unique identification for identification. The threat T.Accident-Change is prevented and the security policy P.Config\_IT-env is fulfilled.

O.Config-Process:

The configuration items are tracked throughout the life-cycle of the TOE. The procedures may be detailed in the CM plan. The threat T.Unauthorised-Staff is prevented and the security policy P.Config\_IT-env is fulfilled.

O.Staff-Engagement:

The site has established personnel security measures: All employees who have access to assets are checked regarding security concerns and have to sign a non-disclosure agreement. Furthermore, all employees are trained and qualified for their job. This helps to prevent the threats T.Computer-Net, T.Accident-Change, T.Unauthorised-Staff, T.Staff-Collusion and T-Attack-Transport.

O.Zero-Balance:	The site execute zero balancing to monitor that no secure object gets lost onsite or during transport. Therefore the amount of incoming and outgoing objects is managed and monitored by the CM system. This helps to prevent the threat T.Attack-Transport.
O.Flaw-Remediation-Monitor:	If any kind of flaw is discovered during development or test processes, defined procedures to monitor the flaw and inform the client are executed. This addresses the OSP P.Flaw-Remediation.
O.Flaw-Remediation-External:	In case a flaw remediation has to be executed, all necessary information to enhance the guidance or to prevent the flaw is provided to the client. This addresses the OSP P.Flaw-Remediation.
O.Transport	All necessary information regarding the transport has to be shared during the project setup with the client. All received objects are entered in the configuration management system for traceability. This helps to prevent the threat T.Attack-Transport.
O.Data-Transfer	For secure data transfer, transport and authentication keys are handed over to the client. All secure information is transferred in encrypted form. The client gets informed if a new release is available. If requested by the client the transfer keys are conducted by split the relating key in at least two parts which are transferred to at least two different persons. Furthermore, technical measures like cryptography, separation of network, split access permission and secure storage shall be implemented for this kind of data. This helps to prevent the threats T.Computer-Net, T.Attack-Transport and addresses the OSP P.Organise-Product.

## 9.4 Assurance Measure Rationale

### 9.4.1 O.Config\_IT-env

ALC\_CMC.4.1C: requires a documented process ensuring an appropriate and consistent labeling of the products.

ALC\_CMC.4.3C requires that the CM system uniquely identifies all configuration items.

ALC\_CMC.4.4C requires that the CM system provides automated measures so that only authorized changes are made to the configuration items. The configuration list required by ALC\_CMC.4.5C requires that the CM system supports the production by automated means.

ALC\_CMC.4.10C requires that the evidence shall demonstrate that the CM system is operated in accordance with the CM plan.

ALC\_CMS.5.1C shall include the evaluation evidence for the fulfillment of the SARs, development tools and related information.

ALC\_CMS.5.2C addresses the same requirement as ALC\_CMC.4.3C.

ALC\_CMS.5.3C requires that the developer of each TSF relevant configuration item is indicated in the configuration list.

The objective meets the set of Security Assurance Requirements.

#### **9.4.2 O.LifeCycle-Doc**

ALC\_CMC.4.1C: requires a documented process ensuring an appropriate and consistent labeling of the products.

ALC\_CMC.4.2C requires a CM documentation that describes the method used to uniquely identify the configuration items.

ALC\_CMC.4.3C requires a unique identification of all configuration items by the CM system.

ALC\_CMC.4.4C requires that the CM system provides automated measures so that only authorized changes are made to the configuration items.

ALC\_CMC.4.5C requires that the CM system supports the production by automated means.

ALC\_CMC.4.6C requires a CM documentation that includes a CM plan.

ALC\_CMC.4.7C requires that the CM plan describes how the CM system is used for the development (production) of the TOE.

ALC\_CMC.4.8C requires the description of the procedures used to accept modified or newly created configuration items as part of the TOE.

ALC\_CMC.4.9C requests evidence to demonstrate that all configuration items are being maintained under the CM system.

ALC\_CMC.4.10C requires that the evidence shall demonstrate that the CM system is operated in accordance with the CM plan.

ALC\_CMS.5.1C shall include the evaluation evidence for the fulfillment of the SARs, development tools and related information.

ALC\_CMS.5.2C requires that the CL uniquely identify the configuration items.

ALC\_CMS.5.3C requires that for each configuration item, the configuration list indicates the developer/subcontractor of the item.

ALC\_DVS.2.1C requires that the development security documentation describes all the physical, procedural, personnel, and other security measures that are necessary to protect the confidentiality and integrity of the TOE design and implementation in its development environment.

ALC\_DVS.2.2C requires that the development security documentation justifies that the security measures provide the necessary level of protection to maintain the confidentiality and integrity of the TOE.

ALC\_LCD.1.1C requires that the life-cycle definition documentation describes the model used to develop and maintain the TOE.

ALC\_LCD.1.2C requires that the life-cycle model provides for the necessary control over the development and maintenance of the TOE.

All these content elements of the mentioned SARs require dedicated content of the CM documentation and the configuration list, properties of the CM system, content of the development security documentation and of the life-cycle documentation.

ALC\_FLR.3.1C requires a documentation of the procedures how to track all reported security flaws in each release of the TOE.

Thereby these SARs are suitable to meet the security objective.

#### **9.4.3 O.Physical-Access**

ALC\_DVS.2.1C requires the developer to describe all physical security measures that are necessary to protect the integrity and confidentiality of the product design and implementation in its development environment. Thereby this Security Assurance Requirement contributes to meet the objective.

#### **9.4.4 O.Security-Control**

ALC\_DVS.2.1C requires that the developer shall describe all personnel, procedural and other security measures that are necessary to protect the confidentiality and integrity of the product design and implementation including the initialization in its development environment. Thereby this Security Assurance Requirement contributes to meet the objective.

#### **9.4.5 O.Alarm-Response**

ALC\_DVS.2.1C requires that the developer shall describe all personnel, procedural and other security measures that are necessary to protect the confidentiality and integrity of the TOE design and implementation including the initialization in its development environment. Thereby this objective contributes to meet the Security Assurance Requirement.

#### **9.4.6 O.Internal-Monitor**

ALC\_DVS.2.2C: The development security documentation shall justify that the security measures provide the necessary level of protection to maintain the confidentiality and integrity of the product. Thereby this Security Assurance Requirement contributes to meet the objective.

#### **9.4.7 O.Maintain-Security**

ALC\_DVS.2.1 requires that the developer shall describe all personnel, procedural and other security measures that are necessary to protect the confidentiality and integrity of the product design and implementation. Thereby this Security Assurance Requirement contributes to meet the objective.

#### **9.4.8 O.Network-Separation**

ALC\_DVS.2.1C requires that the development security documentation describes all the physical, procedural, personnel, and other security measures that are necessary to protect the confidentiality and integrity of the TOE design and implementation in its development environment. Thereby this SAR is suitable to meet the security objective.

#### **9.4.9 O.Logical-Access**

ALC\_DVS.2.1C requires that the developer shall describe all personnel, procedural and other security measures that are necessary to protect the confidentiality and integrity of the product design and implementation including the initialization in its development environment. ALC\_CMC.4.4C requires that only authorized changes are made to the configuration items.

Thereby these Security Assurance Requirements contribute to meet the objective.

#### **9.4.10 O.Logical-Operation**

ALC\_DVS.2.1C requires that the developer shall describe all personnel, procedural and other security measures that are necessary to protect the confidentiality and integrity of the TOE design and implementation including the initialization in its development environment.

ALC\_CMC.4.4C requires that only authorized changes are made to the configuration items. Thereby these Security Assurance Requirements contribute to meet the objective.

#### **9.4.11 O.Config-Items**

ALC\_CMC.4.1C requires a documented process ensuring an appropriate and consistent labelling of the products. A method used to uniquely identify the configuration items is required by ALC\_CMC.4.2C.

ALC\_CMC.4.3C requires that the CM system uniquely identifies all configuration items.

ALC\_CMC.4.4C requires that the CM system provides automated measures so that only authorized changes are made to the configuration items. Further

ALC\_CMC.4.9C requires that the evidence shall demonstrate that all configuration items are being maintained under the CM plan.

ALC\_CMC.4.10C requires the evidence to demonstrate that the CM system is being operated in accordance with the CM plan.

ALC\_CMS.5.1C requires that the configuration list shall include the evaluation evidence for the fulfilment of the SARs, development tools and related information.

ALC\_CMS.5.2C addresses the same requirement as ALC\_CMC.4.3C.

ALC\_CMS.5.3C requires for each TSF relevant configuration item, that the configuration list indicated the developer of the item.

Thereby these Security Assurance Requirements contribute to meet the objective.

#### **9.4.12 O.Config-Process**

ALC\_CMC.4.2C requires a CM documentation that describes the method used to uniquely identify the configuration items.

The provision of automated measures such that only authorized changes are made to the configuration items as required by ALC\_CMC.4.4C.

ALC\_CMC.4.5C requires that the CM system supports the production by automated means.

ALC\_CMC.4.6C requires that the CM documentation includes a CM plan.

ALC\_CMC.4.7C requires that the CM plan describe how the CM system is used for the development of the TOE.

ALC\_CMC.4.8C requires the description of the procedures used to accept modified or newly created configuration items as part of the TOE.

ALC\_CMC.4.9C requests evidence to demonstrate that all configuration items are being maintained under the CM system.

ALC\_CMC.4.10C requires that the evidence shall demonstrate that the CM system is operated in accordance with the CM plan.

The configuration list required by ALC\_CMS.5.1C shall include the evaluation evidence for the fulfillment of the SARs, development tools and related information.

ALC\_LCD.1.1C requires that the life-cycle definition documentation describes the model used to develop and maintain the products.

ALC\_LCD.1.2C requires control over the development and maintenance of the TOE.

The objective meets the set of Security Assurance Requirements.

#### **9.4.13 O.Staff-Engagement**

ALC\_DVS.2.1C requires the description of personnel security measures that are necessary to protect the confidentiality and integrity of the product design and implementation in its development environment. Thereby this Security Assurance Requirement contributes to meet the objective.

#### **9.4.14 O.Zero-Balance**

ALC\_CMC.4.5C requires that the CM system supports the production of the TOE by automated means.

ALC\_CMC.4.9C requires evidence that all configuration items are being maintained under the CM system.

ALC\_DVS.2.2C requires security measures that are necessary to protect the confidentiality and integrity of the TOE.

ALC\_LCD.1.2C requires control over the development and maintenance of the TOE.

Thereby this objective is suitable to meet the Security Assurance Requirement

#### **9.4.15 O.Flaw-Remediation-Monitor**

ALC\_FLR.3.2C requires a description of the nature and effect of each security flaw and its status of finding and correction.

ALC\_FLR.3.3C requires that for each security flaw a corrective action is identified.

ALC\_FLR.3.4C requires a description of the methods to provide flaw information, corrections and guidance on corrective actions.

ALC\_FLR.3.6C requires a timely response and an automated distribution of security flaw reports and associated corrections to affected registered users.

ALC\_FLR.3.7C requires that any reported flaws are remediated and that the remediation procedures are issued to the TOE users.

ALC\_FLR.3.11C requires a that the guidance identify the specific points of contact for all reports and enquiries about security issues involving the TOE.

**9.4.16 O.Flaw-Remediation-External**

ALC\_FLR.3.2C requires a description of the nature and effect of each security flaw and its status of finding and correction.

ALC\_FLR.3.3C requires that for each security flaw a corrective action is identified.

ALC\_FLR.3.4C requires a description of the methods to provide flaw information, corrections and guidance on corrective actions.

ALC\_FLR.3.5C requires a description how the developer receives reports and enquiries of suspected security flaws from the user.

ALC\_FLR.3.7C requires that any reported flaws are remediated and that the remediation procedures are issued to the TOE users.

ALC\_FLR.3.8C requires that any corrections to a security flaw do not introduce any new flaws.

ALC\_FLR.3.9C requires a description in the guidance where the TOE user report any suspected security flaws in the TOE to the developer.

ALC\_FLR.3.10C requires a description in the guidance how TOE users can register by the developer to receive security flaw reports and corrections.

ALC\_FLR.3.11C requires that the guidance identify the specific points of contact for all reports and enquiries about security issues involving the TOE.

**9.4.17 O.Transport**

ALC\_DEL.1.1C requires that the delivery documentation describe all procedures that are necessary to maintain security during TOE distribution.

**9.4.18 O.Data-Transfer**

ALC\_DEL.1.1C requires that the delivery documentation describe all procedures that are necessary to maintain security during TOE distribution.

**9.5 Mapping of the Evaluation Documentation**

SAR	ALC documentation
ALC_CMC.4	Configuration Management System Documentation [17].
ALC_CMS.5	Configuration Management System Documentation [17].
ALC_DEL.1	Physical Security Documentation [18].
ALC_DVS.2	Physical Security Documentation [18].
ALC_LCD.1	Life Cycle Documentation [19].
ALC_TAT.2	Tools and Techniques Documentation [20].
ALC_FLR.3	Flaw Remediation Documentation [21].

Table 11: Mapping of SARs and Internal Documentation



## 10 References

### 10.1 Literature

- [1] Site Security Target Template, Version 1.0, published by Eurosmart, 2009-06-21.
- [2] Security IC Platform Protection Profile with Augmentation Packages, Version 1.0, BSI-CC-PP-0084-2014, Eurosmart, 2014.
- [3] Security IC Platform Protection Profile, Version 1.0, BSI-CC-PP-0035-2007, Eurosmart, 2007
- [4] Common Criteria Protection Profile, Machine Readable Travel Document with „ICAO Application“, Basic Access Control, Version 1.10, BSI-CC-PP-0055-2009.
- [5] Common Criteria Protection Profile, Machine Readable Travel Document with „ICAO Application“, Extended Access Control, Version 1.10, BSI-CC-PP-0056-2009.
- [6] Common Criteria Protection Profile, Machine Readable Travel Document using Standard Inspection Procedure with PACE (PACE\_PP), Version 1.0, BSI-CC-PP-0068-V2-2011.
- [7] Common Criteria Protection Profile, Protection profiles for secure signature creation device — Part 4: Extension for device with key generation and trusted channel to certificate generation application, Version 1.0.1, BSI-CC-PP-0071-2012.
- [8] Common Criteria Protection Profile, Protection profiles for secure signature creation device — Part 5: Extension for device with key generation and trusted channel to signature creation application, Version 1.0.1, BSI-CC-PP-0072-2012.
- [9] Common Criteria Protection Profile, Schutzprofil Smart Meter Gateway, Version 1.3, BSI-CC-PP-0073-2014.
- [10] Common Criteria Protection Profile, Protection profiles for secure signature creation device - Part 3: Device with key import, Version 1.0.2, BSI-CC-PP-0075-2012.
- [11] Common Criteria for Information Technology Security Evaluation: Part 1: Introduction and general model, Version 3.1, Revision 5, 2017-04, CCMB-2017-04-001
- [12] Common Criteria for Information Technology Security Evaluation: Part 2: Security functional requirements, Version 3.1, Revision 5, 2017-04, CCMB-2017-04-002
- [13] Common Criteria for Information Technology Security Evaluation: Part 3: Security assurance components, Version 3.1, Revision 5, 2017-04, CCMB-2017-04-003
- [14] Common Methodology for Information Technology Security Evaluation: Evaluation Methodology, Version 3.1, Revision 5, 2017-04, CCMB-2017-04-004
- [15] Supporting Document Guidance, Site Certification, October 2007, Version 1.0, Revision 1, CCDB-2007-11-001
- [16] Joint Interpretation Library, Application of Attack Potential to Smartcards and Similar Devices, Version 3.0, April 2019
- [17] Configuration Management System Documentation.

- [18] Physical Security Documentation.
- [19] Life Cycle Documentation.
- [20] Tools and Techniques Documentation.
- [21] Flaw Remediation Documentation.

## 10.2 Definitions

### 10.3 List of Abbreviations

SST Site Security Target

SSM Site Security Manual

PP Protection Profile

CC Common Criteria

SAR Security Assurance Requirement

Client The site providing the Site Security Target may operate as a subcontractor of the TOE manufacturer. The term “client” is used here to define this business connection. It is used instead of customer since the terms “customer” and “consumer” are reserved in CC. In this document, the terms “customer” and “consumer” are only used in the sense of the CC.

### 10.4 Revision History

Version	Changes
1.0	Initial version.
1.1	Adaptations in accordance with Security Target Version 3.2