Security Target

ST introduction

The reference of this ST is **"MIFARE DESFire EV2 in JCOP 4 R1.00 SecureBox on N7121 Security Target"** version **1.8**, date 26-08-2019.

TOE

The TOE is **an open platform** implementing the MIFARE specification **[MIFARE-DES-EV2]** and the access control in the MIFARE services.
See PP for details.

TOE reference

The TOE is referred to as **"MIFARE DESFire EV2 in JCOP 4 R1.00 SecureBox on N7121"**, and is named and uniquely identified using the GetVersion command as follows:

Field	Value
VendorID	**0x04**
HWMajorVersion	**0x42**
HWMinorVersion,	**0x00**
SWMajorVersion	**0x02**
SWMinorVersion	**0x00**
SW Sub-Type	**0x06**
BatchNo[4]	**0x0E**

In addition, the Platform ID is retrieved using the GET DATA – IDENTIFY command with tag 0x80CA. The 0x03 tag is returning the Platform build ID as specified in [JCOP-UGM]:

Field	Value
Platform build ID	**4A33523333531303146413945530343030DD0984593B0048EF**

TOE overview

The TOE consists of the following:

TOE component	Identification	Form of delivery	Certfication identifier	Date of certificate issue
NXP Secure Smart Card Controller N7121 with IC Ded. SW and CL	**Implicitly, according to "TOE reference"**	**wafer**	**BSI-DSZ-CC-1040-2019**	**14 June 2019**
JCOP 4 P71	**Implicitly, according to "TOE reference"**	**Embedded in the above**	**NSCIB-CC-180212**	**23 July 2019**
MIFARE DESFire EV2 in JCOP 4 R1.00 P71 SecureBox	**see "TOE reference"**	**Embedded in the above**	**MF-1800004-01**	**Subject to this certification**

Only (pre-)personalisation guidance is provided. No operational guidance other than the MIFARE specifications is provided.

Conformance claims

This ST claims strict compliance to **[MIFARE DESFIRE PP]** (called "PP" in the remainder of this document) under Common Criteria version 3.1, revision 5.
Exactly the SFRs of the PP are included by reference, no omissions nor additions have been made. The ST is therefore CC Part 2 conformant.
The assurance package is **EAL4 augmented with AVA_VAN.5 and ALC_DVS.2**. The ST is therefore CC Part 3 conformant.
The rationale behind this claim is the requirement that the MIFARE security evaluation scheme requires compliance to this PP for this TOE type (MIFARE products).

Security Problem Definition

See PP.

Objectives

See PP.

Extended components definition

There are no extended components, see PP.

Security Requirements

Security Functional Requirements

See PP. Note that the PP has no open operations.

Security Assurance Requirements

See section "Conformance claims".

Rationale

See PP.

TOE Summary Specification

The TOE implements the SFRs by access control to the MIFARE services in accordance to the MIFARE specification, sufficiently hardened to counter attackers at AVA_VAN.5 level.

References

[MIFARE DESFIRE PP] MIFARE DESFire Protection profile v0.4
[MIFARE-DES-EV2]   MIFARE DESFire EV2 – Functionality of Implementation on N7121, Rev. 3.0, 5 December 2018
[JCOP-UGM] JCOP 4 P71 – User manual for JCOP 4 P71, User Guidance and Administrator Manual, Rev. 3.7 - 20190531