

SECURITY CERTIFICATION SCHEME V3.0 FOR MIFARE® PRODUCTS



SMART APPLICATION OF
COMMON CRITERIA



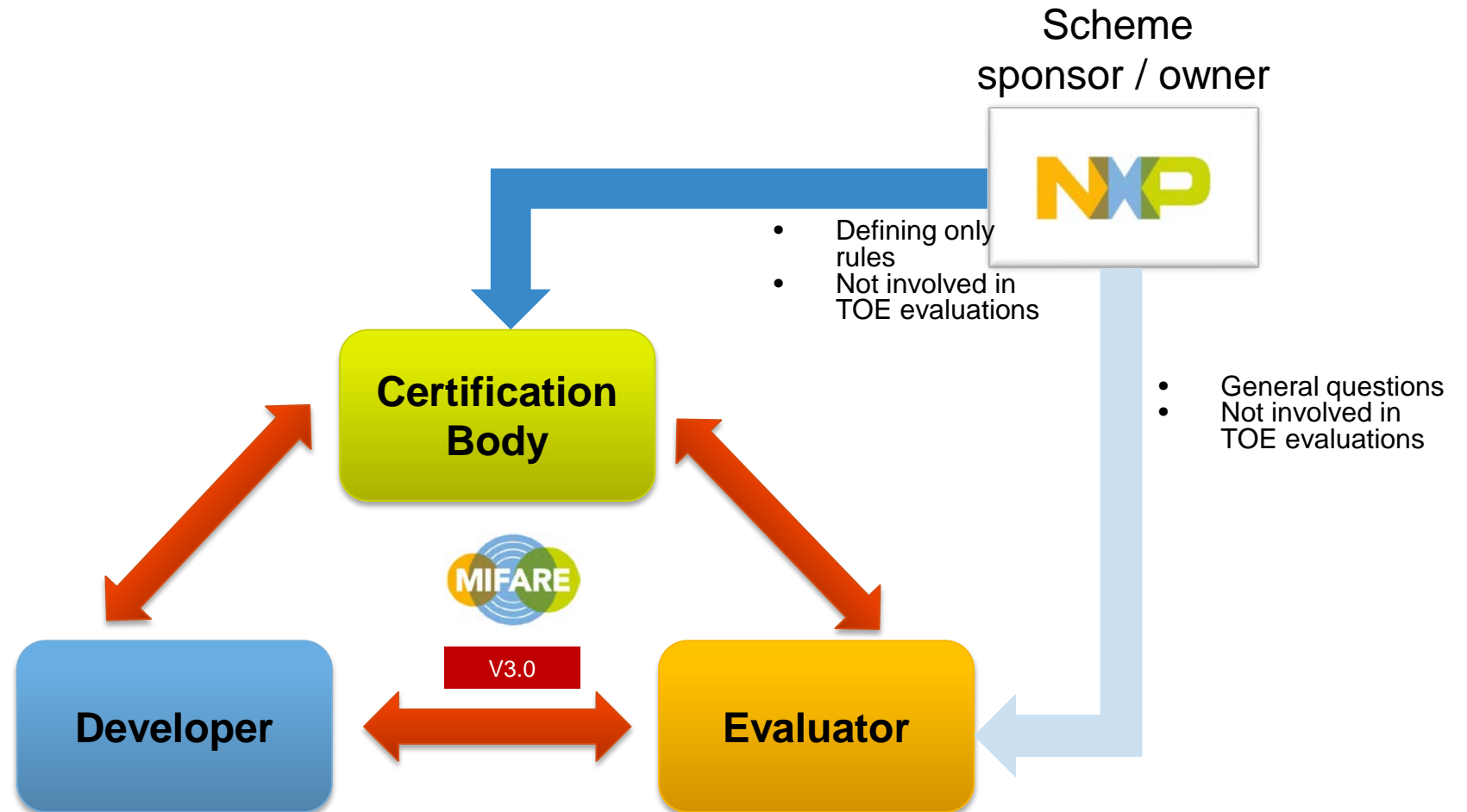
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THE SCHEME SETUP

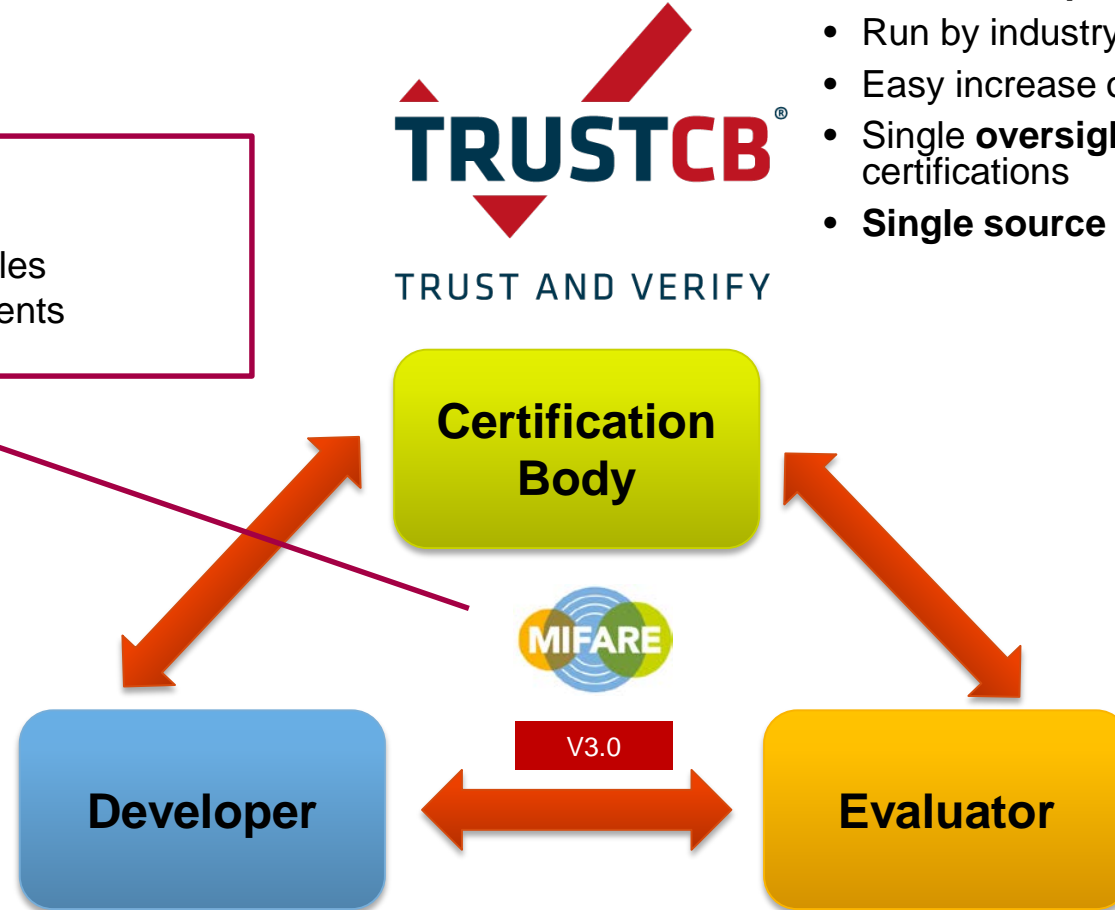
Security Certification scheme set up **V3.0** for MIFARE products



MIFARE security evaluation scheme setup **V3.0**

Scheme Process

- Uses Common Criteria
- Products covered in Protection Profiles
- Highly optimized evidence requirements



TrustCB

- Private **independent** body
- Run by industry expert **Wouter Slegers**
- Easy increase of bandwidth in case of higher demand
- Single **oversight entity** for all MIFARE product certifications
- **Single source** for scheme and process questions



COMMON CRITERIA BASED SCHEME FOR MIFARE PRODUCT CERTIFICATIONS



Security Evaluation scheme V3.0 for MIFARE products

- The previously proprietary evaluation process was replaced by a Common Criteria (CC) based process
- Security claims for MIFARE implementations must be based on either
 - the **Protection Profile for MIFARE Plus® EV0/EV1**
 - the **Protection Profile for MIFARE® DESFire® EV1/EV2**
- Protection Profiles:
 - **EAL4** augmented with **ALC_DVS.2** and **AVA_VAN.5**
 - Require strict conformance
 - Protection Profiles are available via the Trust CB website [4]

The generic Common Criteria requirements have been optimized to the MIFARE product use-case

- All TOE invariant aspects are **pre-approved** on scheme level
- Typical implementation types are proposed and result in **lean evidence requirements**
- The focus remains on implementation security → Hence, on ADV_IMP and AVA

Scheme V2.0 vs. V3.0 comparison

Security Certification scheme V2.0	Traditional CC	Security Certification scheme V3.0		
		Already performed at scheme level	Verification of variable part only	Examination
Scheme rules	ASE		X	
Specification	ADV_FSP	X		
	AGD_OPE	X		
	AGD_PRE		X	
Design description (verbal/presented)	ADV_ARC		X	
	ADV_TDS		X	
Source code review	ADV_IMP			X
	ADV_COMP			X
Compliance testing	ATE	X		
Vulnerability analysis	AVA			X
Process	ALC		X	

References

- [1] Security Certification scheme V3.0
- [2] MIFARE DESFire Protection Profile
- [3] MIFARE Plus Protection Profile
- [4] MIFARE ST template
- [4] <https://www.trustcb.com/>



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