Consumer Mobile Device Protection Profile – TS 103 732 series

Presented by: Davide Pratone, senior security standardization expert in Huawei and TS 103 732 series contributor.
Agenda

- TS 103 732 version 1
- The evolution to version 2
- The Protection Profile certification
- The use of the Consumer Mobile Device Protection Profile
- The next steps
- Conclusion
The first version of the Consumer Mobile Device Protection (CMDPP - TS 103 732 v1.1.1) has been approved by ETSI TC CYBER in November 2021.

ETSI issued a press release on the TS 103 732 v1.1.1 publication the 24th November 2021.

**ETSI releases first comprehensive global standard for securing smart phones**

The PP has been developed by ETSI TC CYBER thanks to the contribution of several companies and organizations:

- Huawei
- Sony
- SGS/Brightsight
- CAICT
- Samsung
- Oppo
- Google
- Eurosmart
- Anec
- BSI (DE)
- NCSC (UK)
The scope of the Comsumer Mobile Device Protection Profile (TS 103 732 v1.1.1) covers the following security features:

- Authentication of human user.
- Authentication of Trusted Peer Devices.
- Secure communication.
- Secure updating of TOE software.
- Secure updating of apps.
- Self-protection and integrity verification of the TOE.
- Protecting user data at different levels of security.
- Permission management of apps.
- Protection against tracking by app developers and advertisers.
- Protection against physical attacks.
- Security requirements for biometric authentication.

The CMDPP claims conformance to EAL2 augmented with ALC_FLR.3 (Flaw remediation).
The evolution to version 2

Why the need of a version 2?

- Common Criteria certification of the Protection Profile
- Introduction of the security requirements for more functionalities

Restructure the PP with a baseline of security requirements and use PP modules and configurations for specific set of functionalities

- TS 103 732-1 CMDPP base PP
- TS 103 732-2 Biometric PP module
- TS 103 932-1 CMDPP base and biometric configuration

- TS 103 732-3 Multi-User PP module
- TS 103 732-4 Preloaded Applications PP module
The evolution to version 2

The main change introduced in version 2 is the concept of modular Protection Profile:

- The TS 103 732-1 v2.1.1 is the base Consumer Mobile Device Protection Profile.
- Biometric security requirements have been moved to TS 103 732-2 v1.1.1.
- The TS 103 932-1 v1.1.1 is the Protection Profile configuration which join the base CMDPP with the Biometric PP module.

The ToE has been slightly modified clarifying the definition of preloaded and downloaded applications while the ToE environment has been better defined.

The security requirements have been updated following the PP evaluation to build a consistent security solution that answer to the threat model of consumer mobile devices.

The CMDPP claims conformance to EAL2 augmented with ALC_DVS_EXT.1 (developer's security measures) & ALC_FLR.3 (Flaw remediation).

Huawei, SGS/Brightsight, Dekra, Samsung, Oppo, Google, Eurosmart, Anec, Cadzow Communication, Eucomreg, Deutsche Telekom, BSI (DE) and NCSC (UK)
The Protection Profile certification

- How to certify an ETSI Protection Profile?
- ETSI had to define an internal procedure to perform the certification of a PP developed as an ETSI Technical Specification.
- It was decided to use the Specialist Task Force mechanism to fund the evaluation and certification activities.
- After the development and approval of the STF 646 Term of Reference ETSI launched a Call for Expertise and selected ANSSI as certification body and Thales ITSEF as the evaluation laboratory.
- Thales ITSEF completed the evaluation in June 2023 with a PASS verdict.
- The evaluation report has been delivered to ANSSI and ETSI on June 2023. The certifier has validated the evaluation report of Thales ITSEF on August 2023 without comments and the certification is now ongoing in order to finalize the certification process.
- ETSI TC CYBER approved the final version of the CMDPP deliverables and the STF 646 milestone A and B documents during ETSI TC CYBER #35 meeting.
- **Certified TS 103 732-1, TS 103 732-2 and TS 103 932-1 will be published in October**
The Protection Profile certification

1. Q3 2022
   STF 646 to certify
   TS 103 732
   approved

2. Q4 2022
   STF 646 to certify
   TS 103 732
   launched.
   TS 103 732-1
   TS 103 732-2
   TS 103 932-1
   frozen and ready for the evaluation.

3. Q2 2023
   STF 646 Milestone
   A Initial evaluation

4. Q3 2023
   STF 646 Milestone
   B ETSI Stable Draft
   posted within TC CYBER

5. Q4 2023
   STF 646 Milestone
   C ETSI Deliverable
   approved and STF closed.
   TS 103 732-1
   TS 103 732-2
   TS 103 932-1
   Certified and approved.
The use of the Consumer Mobile Device Protection Profile

The Consumer Mobile Device Protection Profile is a tool that can be used stand alone for the Common Criteria evaluation of the mobile devices such as smartphones, tablets and laptops. The ANSSI certification of the Protection Profile supports/allows the manufacturers to certify/evaluate the security provided by their mobile devices against a consistent and state of the art security baseline.

The Consumer Mobile Device Protection Profile is as a source of security requirements for the GSMA Mobile Device Certification scheme under development in GSMA in the FASG Device Security Group.

Within the Cyber Resilience Act framework, a certificate against the CMDPP might provide the presumption of conformity to the CRA security requirements for the consumer mobile devices (provided the CMDPP “translated” into an EUCC PP)

Car Connectivity Consortium refers the certified CMDPP as one security certification scheme for the smartphone OS and Digital Key Framework hosting a Digital Key application.
The next steps

- **Continuous evolution of TS 103 732 series** – modules related to Multi-User (TS 103 732-3) and preloaded applications (TS 103 732-4) security requirements are under development in ETSI TC CYBER but others can be added in the future.

- **Security Requirements for GSMA MDCert** – Thanks to the Collaboration Agreement between ETSI and GSMA, TC CYBER might address the need of additional security requirements coming from the GSMA MDCert development.

- **EUCC** – European Commission issued a draft EUCC Implementing Act for review; the “translation” of the CMDPP under the EUCC framework should be considered.

- **CRA security requirements coverage** – for the potential use of the CMDPP for the CRA presumption of conformity of the consumer mobile devices, ETSI TC CYBER may consider a work item dedicated to the gap analysis the CMDPP security requirements and the CRA security requirements.
Conclusion

- The CMDPP, developed in the TS 103 732 series, is a powerful tool to grant a common level of security in the consumer mobile devices.
- This is the first Protection Profile on Consumer Mobile Devices and it has been developed reflecting the common view of the mobile device industry.
- The CMDPP may become the reference for the mobile device cybersecurity baseline and used by other organisations.
- The CMDPP will be the first Protection Profile developed by ETSI certified against Common Criteria expanding the ETSI standards portfolio.
Any further questions?

Contact me:
davide.pratone@huawei.com