

UL Mobile eUICC Profile Tester

Overview

UL Mobile eUICC Profile Tester is a tool for testing and managing embedded SIM (eUICC) profiles. This serves as the perfect tool for anyone in the GSMA M2M and Consumer industry who wants to test eUICC profile management and verify the resultant SIM profiles without needing a Subscription Manager, device or mobile network.

Benefits

UL Mobile eUICC Profile Tester can test the complete eUICC profile management life cycle. It allows you to create a card profile from scratch, load profiles onto an eUICC, and enable and delete profiles. It includes a simple wizard interface for performing profile tasks. This allows you to manage and test profiles without needing to develop any test scripts.

Features

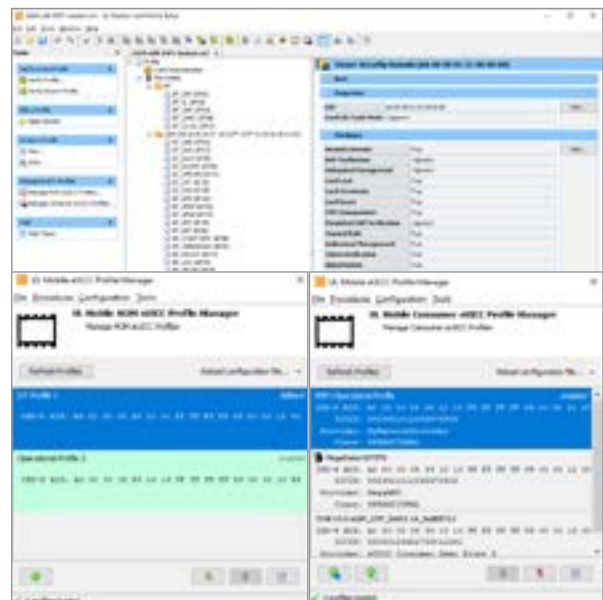
UL Mobile eUICC Profile Tester provides you with a platform for performing the following tasks:

- Remote profile life cycle management – loading, enabling, disabling and deleting profiles via secure channels SCP03, SCP03t, SCP80 and SCP81.
- Simulation of GSMA's M2M and Consumer architecture – SM-DP, SM-SR, SM-DP+ and LPA.
- Profile verification – Read and verify enabled profiles on an eUICC from UL XML or ASN.1 and generate detailed reports highlighting any profile issues.



Key benefits

- Remote eUICC profile management.
- Simulating GSMA subscription model architecture.
- Support for multiple secure interfaces to communicate with and test the eUICC via SCP02, SCP03, SCP03t, SCP80 and SCP81.
- Support for Trusted Connectivity Alliance (TCA) eUICC Profile Package Interoperable Format, including 5G Profile Elements.
- Support for GSMA M2M ES5, ES6 and ES8 and Consumer ES10x, ES6 and ES8+ interfaces.
- Testing of SIM and enabled eSIM profiles using UL Solutions' proprietary XML and TCA's ASN.1 formats.
- Provides an LPA simulator for downloading profiles from a real SM-DP+.
- Scan profiles to UL XML, edit the profile and convert to ASN.1 format.



Specifications

OTA interface and protocol support

- ETSI TS 102 225 and 3GPP 31.115 for SMS notification and profile management.
- ETSI TS 102 226 for profile management.
- ETSI TS 102 223 for low-level BIP support of profile management.
- IETF Transport Layer Security Protocol v1.2 for LPad-SM-DP+ communication.

Multiple Secure Channel support

- Simulation of the GSMA Architecture for M2M and Consumer eUICCs to send data via secure channels to the eUICC:
 - M2M
 - SCP80 via ES5 interface.
 - GlobalPlatform Amendment B SCP81 via ES5 interface.
 - SCP03 and SCP03t via ES8 interface.
 - Consumer
 - TLS via ES9+ interface.
 - SCP03t via ES8+ interface.
- Profile verification via GlobalPlatform SCP02, SCP03, SCP80 and SCP81.

TCA eUICC Profile Package Interoperable Format

- Full support of Trusted Connectivity Alliance (ex-SIMalliance) eUICC Profile Package – Interoperable Format Technical specification.
- Verification of ASN.1 syntax against different TCA eUICC Profile Package versions.

GSMA architecture simulation

- Combined simulation of GSMA M2M Subscription Manager Data Preparation (SM-DP) and Subscription Manager - Secure Routing (SM-SR).
- Simulation of ISO, 3GPP and ETSI-compliant devices.
- Simulation of GSMA Consumer Subscription Manager - Data Preparation+ (SM-DP+).
- Simulation of GSMA Consumer device and Local Profile Assistant device (LPAd).

Profile Management procedures

- M2M – Profile Download and Installation, Profile Enabling, Profile Disabling, Profile and ISD-P Deletion, Master Delete and Default Notification (SMS and HTTPS) procedures.
- Consumer – Remote Provisioning, Local Profile Management, Local eUICC Management, eUICC Initialization and Notifications procedures

Profile Generation

- Scan SIM or eSIMs to create test profiles in UL Solutions' proprietary XML input format.
- Edit the XML profile visually via the GUI then convert it to TCA ASN.1 formats.
- Visualize TCA ASN.1 formatted profiles.
- Convert ASN.1 to DER and vice versa.

Profile verification

- Profile verification using UL Solutions' proprietary XML input format and TCA ASN.1 input formats.
- Generation of ISO7816 C-APDUs based on input profiles and analysis of the R-APDUs to verify whether the SIM or enabled eSIM profile is built as expected.
- Detailed reports highlighting profile differences: file presence, file contents, File Control Parameters (FCP), Security Domain presence and SCP keyset verification.
- Support for 3GPP Release 16, including 5G updates to the file system.
- Powerful SIM profile conformance to ETSI and 3GPP specifications: ETSI 102 221, 3GPP 31.102 and 3GPP 31.103.

UL Remote Android Reader

UL Remote Android Reader is an Android application that allows users to read and verify UICC card content or enabled eUICC profiles when they cannot access or remove the UICC or eUICC. It acts as a proxy for sending commands from UL Mobile eUICC Profile Tester running on the test PC to UL Remote Android Reader installed on the Android device. It runs on Android v4.4 (KitKat) and above and can serve as an additional companion tool.

Hardware

UL Mobile eUICC Profile Tester runs in combination with different types of test hardware, depending on your testing requirements — either PC/SC reader, National Instruments Corporation MP65 or TC3.

For more information, visit [UL.com/eUICC-PT](https://www.ul.com/eUICC-PT)



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