

COMPRION



COMPRION SIMfony

COMBINED HANDSET TESTING
IN 2G, 3G AND LTE NETWORK ENVIRONMENTS

COMPRION SIMfony Family

COMPRION SIMfony is a system for combined handset testing. Combined handset testing means that besides the UICC interface, the air interface is also involved. The SIMfony solution consists of a Smart Card simulator and a network simulator. Both COMPRION card simulators, IT³ Platform (first choice for test platforms validated at GCF and PTCRB) or alternatively IT³ Prove! for pre-conformance testing, can be used. The network simulator depends

on the network standard that the mobile under test supports:

GSM/W-CDMA/TD-SCDMA:

Anritsu MD8470A

CDMA2000:

Spirent AirAccess C2K

LTE:

R&S®CMW500

The Smart Card and network simulators work seamlessly together; all procedures and tests are synchronised and controlled using the IT³ GUI. As the operator only needs to interact with the Smart Card simulator and the device under test, his work load is reduced to a manageable amount.

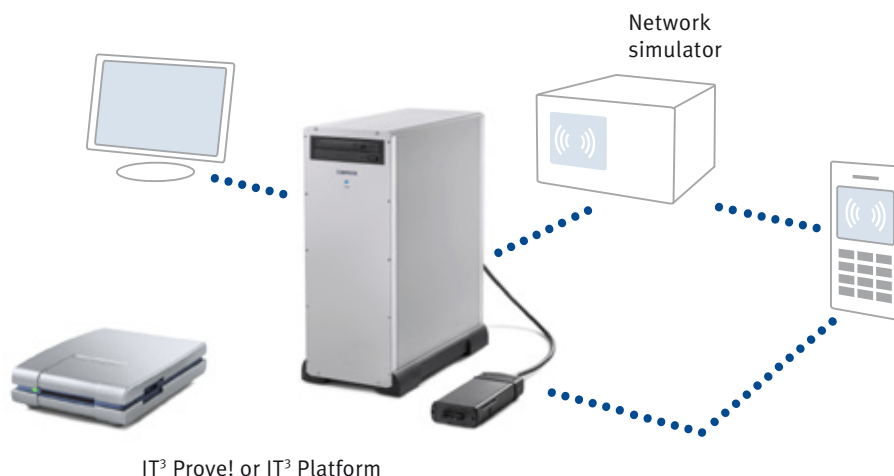
Use Case

■ Conformance testing (based on IT³ Platform)

Designed to work as a validated conformance test platform COMPRION SIMfony is registered at GCF and PTCRB from the very beginning for (U)SIM and (U)SAT testing according to ETSI/3GPP standards for certification.

■ Pre-conformance & development testing (based on IT³ Prove!)

Covering the same complete range of testing as the IT³ Platform, it is the right choice for pre-conformance testing.



Test setup

COMPRION's card simulator IT³ Platform or alternatively IT³ Prove! is the central element within the combined handset test ensemble.

The network and card simulation are controlled and synchronised by the IT³ Platform/IT³ Prove!.

The Benefits

Convenient test case management

The integrated Test Case Manager offers a convenient user interface to create individual configurations for our test suites with regards to the terminal capabilities. It is also possible to configure parameters on the network side (PICS/PIXIT). The optional Test Case Manager Pro allows identifying those tests that are relevant for the device under test.

Log file handling

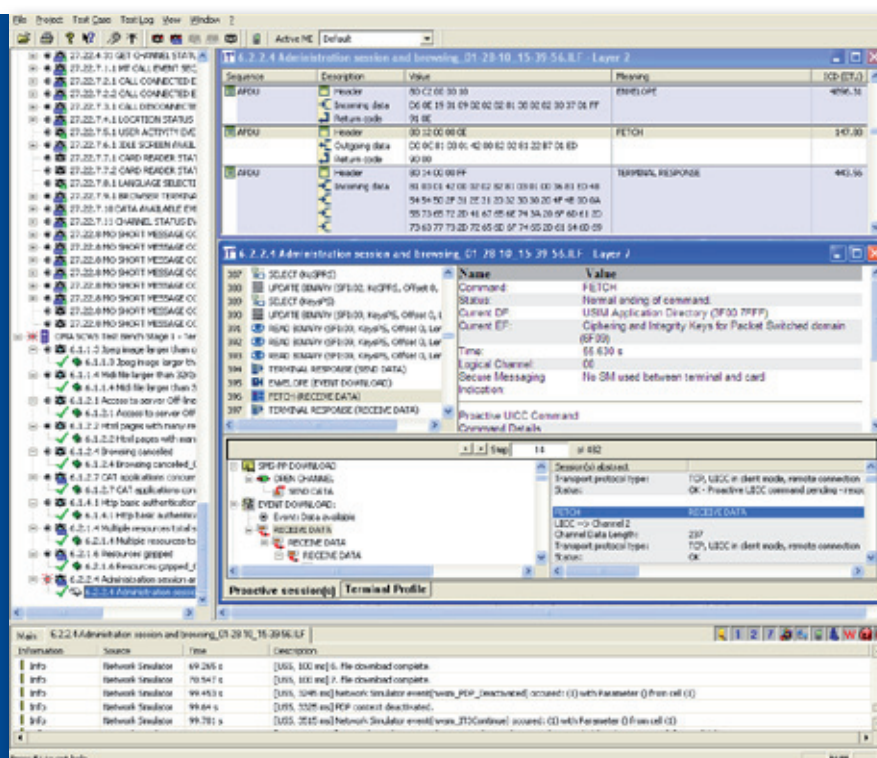
The verdicts produced by the respective network simulator are merged with the IT³ Platform/IT³ Prove! protocol which provides the overall test verdict. The test case result files, including those from the network simulator, are uploaded to the IT³ Platform/IT³ Prove!. The network simulator log files can be optionally viewed on the IT³ Platform/IT³ Prove! or can be converted to be viewed as HTML files.

Easy testing with one GUI

All procedures and tests are synchronised and controlled using the IT³ GUI.

As the whole SIMfony set-up is managed by IT³ Platform/IT³ Prove!, the operator just has to interact with the familiar IT³ GUI during test case execution and result analysis.

With its efficient error debugging capabilities, COMPRION SIMfony is fast, reliable and easy to use. Test results of the IT³ Platform/IT³ Prove! and the network simulator are summarised in the IT³ protocol file.



Test Case Packages for every requirement

W-CDMA/TD-SCDMA

- 3GPP TS 31.121 USIM
- 3GPP TS 31.124 USAT
- ETSI TS 102 230 UICC
- OMA ETS SCWS

GSM

- 3GPP TS 51.010-1 SIM
- 3GPP TS 51.010-4 SAT

CDMA2000

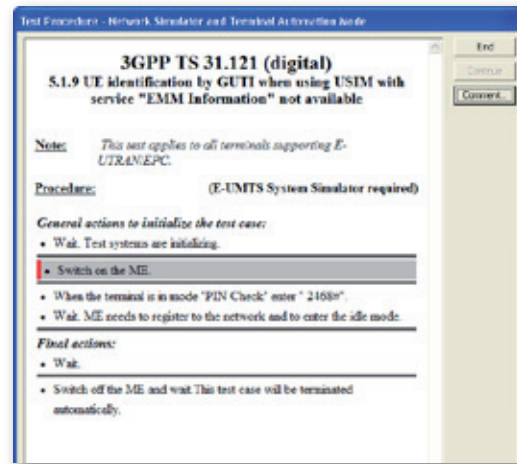
- Open Market Handset (OMH) tests based on OMH test plan version A, June 2009 also covering tests in C.S0048-A

LTE

- 3GPP TS 31.121 Rel-8 USIM
- 3GPP TS 31.124 Rel-8 USAT

COMPRION Terminal Automation: Cost-effective handset testing

Testing becomes even more efficient when the Device Under Test (DUT) is operated fully automated, as no operator is required for test execution. User equipment specific automation hardware or software need only be adapted once to the generic COMPRION terminal automation command set, in order to execute combined COMPRION SIMfony and IT³ stand alone tests in full automation mode, e.g. for regression testing. The additional benefit of this concept is that the complete test case maintenance is carried out only by COMPRION.

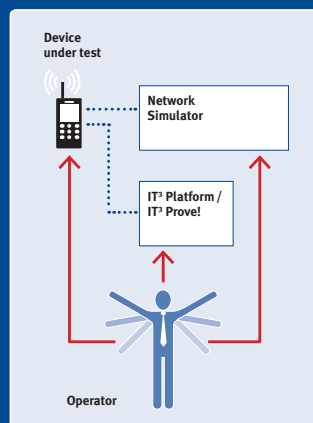


Terminal automation test run

Each step of the test will be executed automatically without any operator interaction

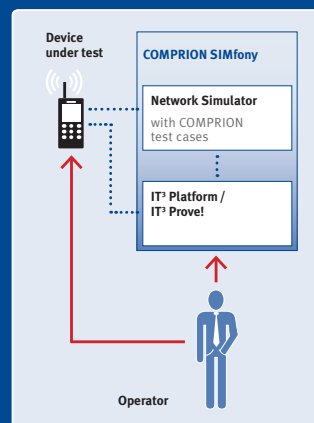
Without COMPRION SIMfony

Smart Card simulator, network simulator and the device under test have to be operated manually.



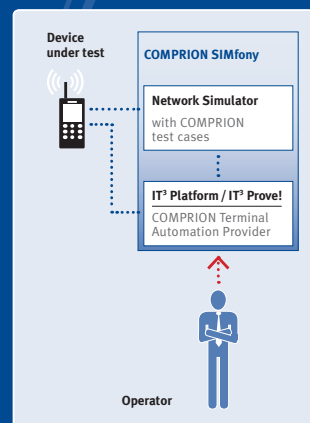
With COMPRION SIMfony

The operator only needs to interact with the Smart Card simulator, and the device under test.



With COMPRION SIMfony and additional ME automation

The operator only needs to start the test(s).



Decrease of: Average test time consumption / Workload / Error rate

Increase of: Productivity / Quality / Reproducibility of test processes

Batch Mode

Improvements to the batch mode now allow batch execution of all IT³ Platform/IT³ Prove! stand-alone and combined COMPRION SIMfony tests, regardless of which project the test case belongs to. For example, in combination with the COMPRION Terminal Automa-

tion, regression testing of all GCF and PTCRB relevant tests can be executed fully automated during overnight runs. Efficient debugging information about the full test process is offered even in terminal automation mode.

COMPRION SIMfony – The product family is growing

LTE

Network Simulator

Test Specifications

R&S®CMW500

LTE

- 3GPP TS 31.121 Rel-8 USIM
- 3GPP TS 31.124 Rel-8 USAT



CDMA2000

Network Simulator

Test Specifications

Spirent AirAccess C2K

CDMA2000

- Open Market Handset (OMH) tests based on OMH test plan version A, June 2009 also covering tests in C.S0048-A



Smart Card Simulator

IT³ Platform
for conformance testing



IT³ Prove!
for pre-conformance
testing



GSM, W-CDMA, TD-SCDMA

Network Simulator

Test Specifications

Anritsu MD8470A

GSM

- 3GPP TS 51.010-1 SIM
- 3GPP TS 51.010-4 SAT

W-CDMA/ TD-SCDMA

- 3GPP TS 31.121 USIM
- 3GPP TS 31.124 USAT
- ETSI TS 102 230 UICC
- OMA ETS SCWS



COMPRION – Test systems for all interfaces

Technology	Supported interfaces	Terminal Testing	Card Testing	Monitoring/ Interoperability
Contact	ISO/IEC 7816	IT ³ Platform 		IT ³ Move! 
		IT ³ Prove! 		
		COMPRION SIMfony - IT ³ Platform - IT ³ Prove! - Additional equipment	ICC Spectro	
Contactless	ISO/IEC 7816 ETSI TS 102 613 (SWP) ETSI TS 102 622 (HCI) ETSI TS 102 600 (USB)	Prove 2 	Spectro 2 	Move 2 
		CLT One 		CLT Move 

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