



TETRA Terminal Interoperability Certificate

9 September 2002

Teltronic

Manufacturer	Terminal Type	Software/Hardware Release No.
Teltronic	MDT-400	SW: 01.02.01 HW: 01.03

Telelaboratoriet has witnessed that the Teltronic terminal is operating in accordance with

TTR 001-04 v1.0.0 (Nov 2000), TETRA Interoperability Profile (TIP) version 3 Part 4: Authentication.

for the following features:

Features	Tested (Yes/No)
• MS initiated location updating with authentication	Yes
• SwMI initiated location updating with authentication	No

The tests have been performed on 2 infrastructures. Details concerning the used infrastructures and the dates when the testing were performed can be found on page 2 of the certificate.

The test results for the tested features can be found in table 1 of this certificate.

Authorised IOP test engineer

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Telelaboratoriet (TDC Mobil A/S) has made every effort to ensure that tests have been made correctly, and in accordance with TIP V3 Authentication. Telelaboratoriet (TDC Mobil A/S) has no liability for the test results, or towards the manufacturers.

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Information about the equipment used for testing

Testing during the March 2001 IOP test session:

The tests were performed using the following infrastructures:

Manufacturer	Infrastructure	Software/Hardware Release No.	Dates of testing
Nokia	NTS 2.1	SW: DXT64: W2 2.17-0 CD2, TBS400: TBCPGM 5.23-0 HW: DXT 64	19-21 March 2001
Marconi/OTE	System Version 2.1.0	SW: TETRA_SCN_7_6_15. HW: SCN-T774-0117/01.	23 and 26–28 March 2001

Additional information about the tests performed

The tests were performed in low frequency band (380-400 MHz).

Test Results

Table 1 Test results from the March 2001 IOP test session:

The table indicates whether or not tests addressing a specific requirement of the TIP specification have been performed, whether or not the requirement is applicable for the combination of the SwMI and the terminal, and the result of the test if executed. Each entry of the table may take one of six values: -: No test performed, N/A: Not applicable, P: Pass, F: Fail, I: Inconclusive or NTA: No test case being available. NTA will only be allocated if both SwMI and terminal has indicated that they support (comply with) the corresponding feature (requirement); if either has indicated the feature (requirement) as not being supported then the entry will be N/A. In case of all entries of a row being N/A it should be assumed that this feature is not supported by the terminal.

The test results have been derived from examining the behaviour of a live system. The verdicts indicated are based on the log evaluation of the information exchange between the SwMIs and the terminal indicated in table 1. The verdicts reflect the fact that at the time of the IOP testing it was/was not possible to demonstrate a behaviour that was in accordance with the related requirement.



Table 1: Tests performed during the March 2001 test session

Abbreviations: -: Not performed.
 N/A: Not applicable
 P: Pass
 F: Fail
 I: Inconclusive
 NTA: No test case available

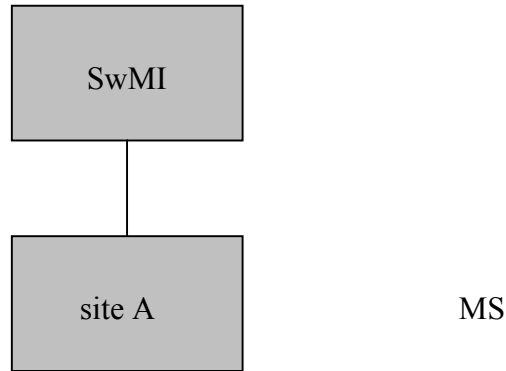
Teltronic MDT-400 Terminal	Marconi/OTE System Version 2.1.0	Nokia NTS 2.1
7 Authentication functions (Text case Number index)		
7.1 MS initiated location update with authentication, success (5.1)	P	P
7.1 MS initiated location update with authentication, failure (5.2)	P ¹	P ¹
7.1 MS initiated location update with authentication, roaming (5.3)	P	P
7.2 SwMI initiated location update with authentication, success	NTA	NTA
7.2 SwMI initiated location update with authentication, failure	NTA	NTA

Comments:

- 1) The authentication key in the SwMI is changed and the mismatch in the computation process leads to the result that the SwMI rejects the authentication of the MS.

Test setup description

All tests except the cell re-selection test are carried out on a single site system with one carrier using standard antenna configurations.



For the cell re-selection test, an additional site is activated and the roaming MS is connected to the system via RF cables as illustrated below.

