Telelaboratoriet

TETRA SwMI Interoperability Certificate

2 September 2002

Motorola

Telelaboratoriet (TDC Mobil A/S) has witnessed that the Motorola infrastructure is operating in accordance with

TTR 001-02 v1.0.1 (Aug 2001), TETRA Interoperability Profile (TIP) version 3 Part 2: Short Data Service

for the following features:

Features	Tested (Yes/No)
• MS to MS SDS types 1-3	No
• MS to Group SDS types 1-3	No
• MS to MS SDS type 4 without using SDS-TL	No
• MS to Group SDS type 4 without using SDS-TL	No
• MS to MS SDS type 4 using SDS-TL	Yes
• MS to Group SDS type 4 using SDS-TL	No

The tests have been performed on Motorola DIMETRA R4.0.002 infrastructure during the period 27th-28th September and 1st-2th October 2001 with Ambassador switch: Hardware BLN7022A39, software: Q201, and Site Controller: Hardware 0.1.4, software: R04.00.17.

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

Authorised IOP test engineer — Telelaboratoriet, TDC Mobil A/S

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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 Short Data Service. 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

The tests performed on 27th-28th September and 1th-2th October 2001 were performed using the following terminals:

Manufacturer		Terminal Type		Software/Hardware Release No.
Motorola[1]		-		-
Nokia		THR 850		SW: 2.16-0 HW: JL1-11
Marconi/OTE		PUMA T1		SW: 2.1.M HW: 02.01
Marconi/OTE		PUMA T2		SW: TB23814F HW: 774-0162/01.01
Sepura		SRM1000		SW: 4313-327-73043 HW: MS1TT00T20C0000
Sepura		SRP1000		SW: 4313-327-72142 HW: PS3TT001T30000B

Additional information about the tests performed

The tests were performed in the 380-400 MHz band. The SwMI was operating with the following configuration:

MCC	238
MNC	1
Colour code	41
LA20 (Høje Tåstrup) carrier frequency (BS Tx)	393.6125 MHz
LA24 (Høje Tåstrup) carrier frequency (BS Tx)	393.5375 MHz
PSTN gateway	43488011
Subscriber classes	$FFFF_{16}$

Test Results

The table indicates whether or not tests addressing a specific requirement of the TIP specification have been performed, whether or the 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

[1] Terminals in their native system have not been targeted by IOP tests.

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 SwMI.
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 SwMI and the terminals indicated in the table. 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.

Tests performed during the period 27th-28th September and 1th-2th October 2001

Abbreviations:

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

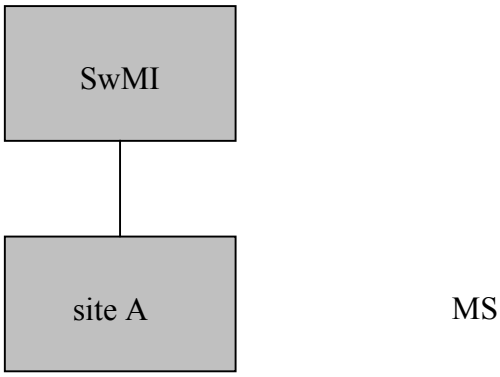
Motorola SwMI	Nokia THR 850	Marconi/OTE PUMA T1	Marconi/OTE PUMA T2	Sepura SRM1000	Sepura SRP1000
7 User defined data type 1, 2 and 3 (Test case Number index)					
7 Type 1	NTA	NTA	NTA	NTA	NTA
7 Type 2	NTA	NTA	NTA	NTA	NTA
7 Type 3 (5.1)	N/A	N/A	N/A	N/A	N/A
8 User defined data type 4 without SDS-TL	NTA	NTA	NTA	NTA	NTA
8.1 User defined data type 4 with SDS-TL					
8.1.2 MS to MS, Standard Report	NTA	NTA	NTA	NTA	NTA
8.1.2 MS to MS, Standard Report with Store and Forward	NTA	NTA	NTA	NTA	NTA
8.1.3 MS to MS, Short Report	NTA	NTA	NTA	NTA	NTA
8.2 Text messaging					
8.2.1.4 No acknowledgement requested (5.3)	N/A	N/A	N/A	N/A	N/A
8.2.1.4 MS to MS, Standard report (5.2)	F[1]	F[1,2]	F[1,2]	P	P
8.2.2 MS to MS, Short report (5.2)	-	-	-	-	-

Comments:

1) The text message is transferred correctly, but the MS does not receive the delivery report.
   The destination MS sends back a delivery report to the SwMI, but due to a faulty configuration in the SwMI, the SwMI is unable to send the delivery report further to the MS.
2) The expected length of the text message is 120 characters long, but the originating MS is only able to transfer 28 character (first fragment of the text message) to the destination MS. The SwMI is permitted to use more than one slot grant when granting the requested uplink slots for the further fragments. This means of resource allocation is not supported by 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.