

SYSTEM TEST RESULTS FOR BSC3i SW RELEASE  
S10.5 ED

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**SUMMARY OF REVISIONS**

<b>VERSION</b>	<b>DATE</b>	<b>EDITOR</b>	<b>CHANGES</b>
0.0-1	12 Feb. 03	V Välimaa	First Draft
1.0-0	03 Mar .03	V Välimaa	Approved. Pronto status updated.

## **1. SUMMARY**

These tests are performed according to SYSTEM TEST PLAN FOR BSCS SW RELEASE S10.5 ED. The overall situation of the system testing can be seen in table 1.

Some test cases are not possible to be completed (state not possible), due to unavailable hardware or software in other network elements.

## 2. ABSTRACT

Test places: BSC laboratory, Espoo

Test personnel: Harjuautti Pertti, Huhta Sami, Jantola Matti, Kertesz Levente, Kinnunen Jani, Kinnunen Petri, Sepsi Zsolt, Seppälä Juho, Suihkonen Kimmo and Välimaa Ville.

Test days: 14.11.2002 - 27.2.2003

Table number 1. Overview of all test cases

<b>State</b>	<b>Number</b>	<b>%</b>
OK	98	98
Not OK	2	2
Not possible/ Not applicable	12	-
Not tested	0	0
Total	112	100

Used environment:

Nokia MSCi SW M11

Nokia HLRI SW M11

Nokia NMS SW OSS3.1

Nokia SMSC SW SC5B

Nokia SGSN SW SG2.45

Nokia GGSN SW GGN2.4.2

Nokia BTS SW CX3.3pre, DF6.0-1

Used mobile stations: AMR, E-OTD and (E)GPRS mobile phones

### **3. RESULTS IN DETAIL**

Used test abbreviations:

OK = passed  
NOK = failed  
NA = not applicable  
NP = not possible  
NT = not tested

#### **3.1. RESULTS BY TEST CASE CATALOG**

##### **Switchovers**

OK STS0002B0005 BCSU switchover during a BTS downloading  
OK STS0002B0004 BCSU switchover during a TRX  
reconfiguration  
OK STS0002B0001 Controlled switchover of MCMU

##### **Link failures**

OK STS0005B0006 Abis-link failure, short disturbance  
OK STS0005B0007 Abis-if link failure, long disturbance  
OK STS0500B0018 PCM line fault

##### **Transmission Q3**

OK STS0527B0001 Abis signalling link upload  
OK STS0800B0001 AC25 OSI link failure  
OK STS0710B0002 BSS configuration retrieval to NMS/2000  
NA STS0812B0001 Controlled online interface between BSC and  
NMS/2000  
OK STS0710B0001 Management of trunk reservation treshold  
tables from NMS/2000  
OK STS0704O0002 Management Support for Radio Network  
parameters through Q3  
OK STS0513B0003 Separate Q3 updating from local printout  
OK STS0812B0002 Start event to NMS/2000, when measurement is  
started using MML

##### **BTS HW database**

OK STS0012B0001 BCF HW database management  
OK STS0605O0001 BTS HW Database Modification on BSC

##### **BTS Hardware tests and recovery**

OK STS0501B0022 BTS site reset

- OK STS0702B0001 Preferred BCCH TRX
- OK STS0702O0003 Save calls by forced handover prior to cell recovery
- OK STS0603B0002 TRX-link control in PCM fault

### **BTS Alarm handling**

- OK STS0013B0001 BCF maintenance mode
- OK STS0500B0015 BTS alarm handling
- OK STS0908B0002 Filtering for BTS alarms

### **BTS Radio network management**

- OK STS0500B0016 BCCH-TRX local block
- OK STS0500B0017 BCCH-TRX reconfiguration
- OK STS0606B0002 Modify and output BCF site type
- OK STS0601B0001 RNW background parameter handling
- OK STS0500B0029 TRX channel type modification

### **Statistics**

- OK STS1015B0008 S10.5 failure counters

### **GPRS & EGPRS**

- OK STS1009O0001 GPRS: Creation of PBCCH/PCCCH
- OK STS1009O0003 GPRS: Deletion of PBCCH/PCCCH
- OK STS0912O0002 GPRS: Abis-if link failure
- OK STS0908O0001 GPRS: BCSU HW configuration Management
- OK STS0915O0001 GPRS: BCSU switchover
- OK STS0915O0004 GPRS: Bearer channel failure
- OK STS0908O0005 GPRS: Controlled restart of BCSU
- OK STS0915O0002 GPRS: Creation of Gb-interface
- NA STS1003B0001 GPRS: Creation of NS-VC (static and dynamic configuration)
- OK STS0915O0003 GPRS: Deletion of Gb-interface
- NA STS1003B0002 GPRS: Deletion of NS-VC (static and dynamic configuration)
- OK STS0908O0003 GPRS: ET HW configuration management
- OK STS0908O0004 GPRS: Fault in PCU of BCSU
- OK STS1003B0003 GPRS: Gb line fault
- NA STS1003B0005 GPRS: Gb over IP measurement
- OK STS0912O0001 GPRS: GPRS call
- NA STS1003B0004 GPRS: Modification of NS-VC (dynamic and static configuration)
- OK STS0908O0006 GPRS: Power breakdown of the whole system

- OK STS0914O0004 GPRS: Routing area update of intra BCSU and inter BCSU STS0908O0002 GPRS: State changes and diagnostics
- OK STS0909O0003 GPRS: Statistics
- OK STS0909O0004 GPRS: New counters for old measurements
- OK STS0914O0001 GPRS: Successful downgrade
- OK STS0914O0002 GPRS: Successful upgrade
- OK STS0914O0003 GPRS: Successful upgrade, when additional TSL is needed
- OK STS1009B5001 GPRS: Logical PCU handling
- OK STS1009O0004 GPRS: Measurement for PBCCH/PCCCH
- OK STS1009B0005 GPRS: Measurement for QoS
- OK STS1009O0002 GPRS: Modification of PBCCH/PCCCH
- OK STS1009B0004 GPRS: Priority Based Scheduling in BSC (GPRS QoS Phase 1)
- OK STS1006O0003 EGPRS: Deleting of Dynamic Abis Pool(DAP)
- OK STS1006O0001 EGPRS: Creation of Dynamic Abis Pool(DAP)
- NOK STS1009O0009 EGPRS: Access to non-BCCH BTS
- NP STS1009O0006 EGPRS: BB hopping with BCCH / MPBCCH
- OK STS1009O0011 EGPRS: BTS load based allocation
- NP STS1009O0012 EGPRS: Cell Re-selection criteria C31
- NP STS1009O0013 EGPRS: Cell Re-selection criteria C32
- OK STS1009O0010 EGPRS: CS call with EGPRS territory downgrade and upgrade
- NP STS1009O0008 EGPRS: Direct access to non-BCCH GPRS BTS
- OK STS1009O0014 EGPRS: Link Adaptation in Acknowledged mode with Retransmission
- NOK STS1009O0015 EGPRS: Link Adaptation in Unacknowledged mode
- OK STS1009O0005 EGPRS: PS and CS paging with BCCH / MPBCCH
- OK STS1009O0007 EGPRS: RF hopping with BCCH / MPBCCH
- OK STS1006O0004 EGPRS: Measurement for Dynamic Abis Pool(DAP)
- OK STS1006O0002 EGPRS: Modifying of Dynamic Abis Pool (DAP)
- OK STS1006O0011 EGPRS: DynAbis usage with two PCMs for one BTS
- OK STS1006O0007 EGPRS: DynAbis mismatch between BTS and BSC
- NA STS1006O0010 EGPRS: Trying to activate EGPRS to BTS which SW or HW doesn't support it
- OK STS1006O0005 EGPRS: Fault in one PCM when two in use
- OK STS1006O0008 EGPRS: Modifying dynamic Abis configuration
- OK STS1006O0006 EGPRS: DAP in BSC but not in BTS and vice versa

- NOK STS1006O0009 EGPRS: Dynamic abis loop test
- OK STS1009O0020 EGPRS: SMS in EGPRS
- OK STS1009O0017 EGPRS: Measurement for EDGE
- OK STS1006O0018 EGPRS: MCMU and BCSU switchovers
- OK STS1006O0019 EGPRS: Unit restarts
- OK STS1009O0022 EGPRS: GPRS and EGPRS TBF multiplexing
- OK STS1009O0021 EGPRS: Fault of synchronization in edge TRX

### **Adaptive Multirate Codec, AMR**

- OK STS1001O0001 Activating Adaptive Multirate Codec (AMR) Feature
- OK STS1001O0002 AMR call, MOC and MTC
- OK STS1001O0003 AMR call, Intra cell hand over
- OK STS1001O0004 AMR call, Inter cell hand over
- OK STS1001O0005 AMR call, Inter cell hand over between AMR and normal cell
- OK STS1001O0006 AMR measurements
- OK STS1001O0007 Spontaneous packing and unpacking of AMR calls
- OK STS1001O0008 Deactivating Adaptive Multirate Codec (AMR) Feature

### **Location Services, LCS**

- OK STS1010O0008 Emergency call E911
- OK STS1010O0003 Mobile Originated-Location Request (MO-LR)
- OK STS1010O0014 Mobile Originated-Location Request (MO-LR) during data call
- OK STS1010O0004 Mobile Originated-Location Request (MO-LR) during normal call
- OK STS1010O0007 Mobile Originated-Location Request (MO-LR) while HO STS1010O0006 Mobile Originated-Location Request (MO-LR) while receiving SMS
- OK STS1010O0009 Transferring RIT transfer table, BCSU and MCMU switchover

### **Multi BCF Control, Common BCCH**

- OK STS1003O0005 Initial assignment on non-BCCH layer
- OK STS1003O0001 Initial SDCCH allocation in SEGMENT environment (BB and RF hopping used)
- OK STS1003O0003 Modification of BTSLoadInSEG parameter, handover for balancing load
- OK STS1003O0002 SDCCH channel triggering, SDCCH handover
- NP STS1003O0004 Self-regulation of NonBcchLayerOffset parameter (RF hopping is used)

OK STS1003O0006 Power optimization in Common BCCH environment

**Wireless priority service, WPS**

OK STS1007O0001 Testing the queuing for a WPS user  
 OK STS1007O0002 Activating, deactivating and testing the supervision of access class control in WPS  
 OK STS1007O0003 Queuing and directed retry  
 OK STS1007O0004 Testing the queuing for a non-WPS user

**ANSI specific test cases**

OK STS0704B0001 Three digit Mobile Network Code

**3.2 ADDITIONAL CASES**

**4. PROBLEM REPORTS**

Table number 2. Problem reports.  
 Status:

OK = Corrected  
 SOL = Solved, waiting for implementation/verification  
 INV = Investigating  
 NEW = Waiting for investigation

Id	Explanation	Status
P815146	Abis loop test is not succeed when it is tried to do to dynamic Abis pool subtimeslots	INV
P977146	PSW territory is not stable after changing NBL value of BCCH BTS in multi-BCF configuration.	INV

### 5. REASON WHY CASES ARE NOT IN OK –STATE

STS0812B0001 Controlled online interface between BSC and NMS/2000	NA
This case solved compatibility problems between BSC and earlier NMS versions (T10)	
STS1003B0001 GPRS: Creation of NS-VC (static and dynamic configuration)	NA
Gb over IP not implemented	
STS1003B0002 GPRS: Deletion of NS-VC (static and dynamic configuration)	NA
Gb over IP not implemented	
STS1003B0005 GPRS: Gb over IP measurement	NA
Gb over IP not implemented	
STS1003B0004 GPRS: Modification of NS-VC (dynamic and static configuration)	NA
Gb over IP not implemented	
STS1009O0009 EGPRS: Access to non-BCCH BTS	NOK
Pronto P977146	
STS1009O0006 EGPRS: BB hopping with BCCH / MPBCCH	NP
PBCCH will be delivered as a CD	
STS1009O0012 EGPRS: Cell Re-selection criteria C31	NP
PBCCH will be delivered as a CD	
STS1009O0013 EGPRS: Cell Re-selection criteria C32	NP
PBCCH will be delivered as a CD	
STS1009O0008 EGPRS: Direct access to non-BCCH GPRS BTS	NP
Not implemented to BSC	
STS1009O0014 EGPRS: Link Adaptation in Acknowledged mode with Retransmission	OK
Not possible in System testing, this is verified in IT phase.	
STS1009O0015 EGPRS: Link Adaptation in Unacknowledged mode	NP
MS does not support unack RLC mode	
STS1006O0010 EGPRS: Trying to activate EGPRS to BTS which SW or HW doesn't support it	NA
Implementation changed in BSC	

STS1006O0009 EGPRS: Dynamic abis loop test	NOK
Pronto P815146	
STS1003O0004 Self-regulation of NonBcchLayerOffset parameter (RF hopping is used)	NP
OSS version does not support AutoBSS functionality	