
Source: SA5 (Telecom Management)
Title: Rel-6 CR 32.641/2/3 Add enhancement for support of both FDD and TDD modes
Document for: Decision
Agenda Item: 7.5.3

Doc-1st-Level	Spec	CR	R	Phase	Subject	Cat	Vers.	Doc-2nd-L	Workitem
SP-040129	32.641	002	-	Rel-6	Add enhancement for support of both FDD and TDD modes	B	5.0.0	S5-038682	OAM-NIM
SP-040129	32.642	019	-	Rel-6	Addition of new attributes for support of both FDD and TDD modes	B	5.3.0	S5-048179	OAM-NIM
SP-040129	32.643	007	-	Rel-6	Enhancement of CORBA SS for support of both FDD and TDD modes	B	5.2.0	S5-048180	OAM-NIM

CHANGE REQUEST

⌘ **32.641 CR 002** ⌘ rev **-** ⌘ Current version: **5.0.0** ⌘

For [HELP](#) on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Add enhancement for support of both FDD and TDD modes		
Source:	⌘ SA5 CATT (luoyunzhong@datangmobile.cn)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 27/02/2004
Category:	⌘ B	Release:	⌘ Rel-6
	<i>Use one of the following categories:</i> F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		<i>Use one of the following releases:</i> 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ Release 6 enhancement to support for both FDD and TDD modes.		
Summary of change:	⌘ Add new requirements for support of both FDD and TDD modes		
Consequences if not approved:	⌘		

Clauses affected:	⌘ 3.2 and 4.										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other core specifications Test specifications O&M Specifications	⌘ Rel-6 32.642/3/4/5
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input checked="" type="checkbox"/>	<input type="checkbox"/>										
Other comments:	⌘ Parent to Rel-6 CRs 32.642/3 in S5-048179/180. The now missing Rel-6 CRs for the other Solution Sets 32.644/5 (CMIP, XML) will be submitted to a future SA plenary.										

How to create CRs using this form:

Change in Clause 3.2

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

CM	Configuration Management
FDD	Frequency Division Duplex
GSM	Global System for Mobile communication
IRP	Integration Reference Point
IS	Information Service (see [1])
ITU-T	International Telecommunication Union, Telecommunication Standardisation Sector
MIM	Management Information Model
MO	Managed Object
MOC	Managed Object Class
NE	Network Element
NR	Network Resource
NRM	Network Resource Model
OS	Operations System
QoS	Quality of Service
RNC	Radio Network Controller
TDD	Time Division Duplex
UMTS	Universal Mobile Telecommunications System
UTRAN	Universal Terrestrial Radio Access Network

End of Changes in Clause 3.2

Change in Clause 4

4 Requirements

The following general and high-level requirements apply for the present IRP:

- A. IRP-related requirements in 3GPP TS 32.101: "3G Telecom Management principles and high level requirements" [1].
- B. IRP-related requirements in 3GPP TS 32.102: "3G Telecom Management architecture" [2].
- C. IRP-related requirements in 3GPP TS 32.600: "3G Configuration Management: Concept and High-level Requirements" [3].

In addition to the above, the following more specific requirements apply:

1. The Network Resource Model defined by this IRP shall contain UTRAN specific MOCs and related definitions, supporting UTRAN Network entities, [which shall include FDD and TDD mode aspects](#).
2. The Network Resource Model defined by this IRP shall support management of UMTS-GSM Inter-system handover.

End of Changes in Clause 4 End of Document

CHANGE REQUEST

⌘ **32.642 CR 019** ⌘ rev **-** ⌘ Current version: **5.3.0** ⌘

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Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Addition of new attributes for support of both FDD and TDD modes		
Source:	⌘ SA5 (CATT luoyunzhong@datangmobile.cn)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 27/02/2004
Category:	⌘ B	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ Release 6 enhancement to support both FDD and TDD modes.		
Summary of change:	⌘ Addition of new optional attributes for support of TDD modes; specific FDD existing attributes are changed to optional.		
Consequences if not approved:	⌘		

Clauses affected:	⌘ 2, 3.2, 6.3.3, 6.3.5, 6.3.6, and 6.5.1.										
Other specs Affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other core specifications	⌘
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
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<input checked="" type="checkbox"/>	<input type="checkbox"/>										
		Test specifications									
		O&M Specifications	Rel-6 32.643/4/5								
Other comments:	⌘ Child to Rel-6 CR 32.641 in S5-038682. Parent to Rel-6 CR 32.643 in S5-048180. The now missing Rel-6 CRs for the other Solution Sets 32.644/5 (CMIP, XML) will be submitted to a future SA plenary.										

Change in Clause 2

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".
- [2] 3GPP TS 32.102: "Telecommunication management; Architecture".
- [3] 3GPP TS 23.003: "Numbering, addressing and identification".
- [4] 3GPP TS 25.401: "UTRAN Overall Description"
- [5] 3GPP TS 25.433: "UTRAN Iub Interface NBAP Signalling"
- [6] 3GPP TS 25.423: "UTRAN Iur Interface RNSAP Signalling"
- [7] ITU-T Recommendation X.710 (1991): "Common Management Information Service Definition for CCITT Applications".
- [8] 3GPP TS 32.672: "Telecommunication management; Configuration Management (CM); State Management Integration Reference Point (IRP): Information Service (IS)".
- [9] 3GPP TS 25.331: "Radio Resource Control (RRC) protocol specification".
- [10] [3GPP TS 25.101: " User Equipment \(UE\) radio transmission and reception \(FDD\)"](#) ~~Void~~
- [11] 3GPP TS 32.111-2: "Telecommunication management; Fault Management; Part 2: Alarm Integration Reference Point (IRP): Information Service (IS)".
- [12] [3GPP TS 25.102: " User Equipment \(UE\) radio transmission and reception \(TDD\)"](#) ~~Void~~
- [13] 3GPP TS 32.300: "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".
- [14] 3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".
- [15] 3GPP TS 23.002: "Network Architecture".
- [16] 3GPP TS 32.622: "Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Network Resource Model (NRM)".
- [17] 3GPP TS 32.602: "Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP) Information Service (IS)".
- [18] 3GPP TS 32.612: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Information Service (IS)".

End of Change in Clause 2

Change in Clause 3.2

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

CIM	Common Information Model
DN	Distinguished Name (see 3GPP TS 32.300 [13])
EM	Element Manager
FDD	Frequency Division Duplex
FM	Fault Management
IOC	Information Object Class
IRP	Integration Reference Point
Iub	Interface between RNC and Node B
Mcps	Mega-chips per second
ME	Managed Element
MIM	Management Information Model
MO	Managed Object
NE	Network Element
NM	Network Manager
NR	Network Resource
NRM	Network Resource Model
PM	Performance Management
RDN	Relative Distinguished Name (see 3GPP TS 32.300 [13])
RNC	Radio Network Controller
TDD	Time Division Duplex
TMN	Telecommunications Management Network
UML	Unified Modelling Language
UMTS	Universal Mobile Telecommunications System
UTRA	Universal Terrestrial Radio Access
UTRAN	Universal UMTS Terrestrial Radio Access Network

End of Change in Clause 3.2

Change in Clause 6.3.3

6.3.3 UtranCell

6.3.3.1 Definition

This IOC represents a radio cell controlled by the RNC. For more information about radio cells, see 3GPP TS 23.002 [15].

[The cell may be an FDD mode cell, a 1.28 Mcps TDD mode cell or a 3.84 Mcps TDD mode cell.](#)

6.3.3.2 Attributes

Table 6.5: Attributes of UtranCell

Attribute name	Visibility	Support Qualifier	Read Qualifier	Write Qualifier
utranCellId	+	M	M	-
userLabel	+	M	M	M
cld	+	M	M	M
localCellId	+	M	M	M
uarfcnUI	+	M O	M	M
uarfcnDI	+	O M	M	M
primaryScramblingCode	+	O M	M	M
primaryCpichPower	+	O M	M	M
maximumTransmissionPower	+	M	M	M
primarySchPower	+	O M	M	M
secondarySchPower	+	O M	M	M
bchPower	+	O M	M	M
<u>cellMode</u>	<u>±</u>	<u>M</u>	<u>M</u>	<u>-</u>
<u>uarfcn</u>	<u>±</u>	<u>O</u>	<u>M</u>	<u>M</u>
<u>cellParameterId</u>	<u>±</u>	<u>O</u>	<u>M</u>	<u>M</u>
<u>primaryCpchPower</u>	<u>±</u>	<u>O</u>	<u>M</u>	<u>M</u>
<u>dwPchPower</u>	<u>±</u>	<u>O</u>	<u>M</u>	<u>M</u>
<u>timeSlotList</u>	<u>±</u>	<u>O</u>	<u>M</u>	<u>M</u>
<u>schPower</u>	<u>±</u>	<u>O</u>	<u>M</u>	<u>M</u>
lac	+	M	M	M
rac	+	M	M	M
rac	+	M	M	M
uraList	+	M	M	M
utranCell-lubLink	+	M	M	-

Table 6.6: Additional attributes of UtranCell for the support of the State Management IRP

Attribute Name	Support Qualifier	READ	WRITE
operationalState	O	M	-

NOTE: No state propagation shall be implied.

Table 6.7: Notifications of UtranCell

Name	Qualifier	Notes
notifyAckStateChanged	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyAttributeValueChange	O	
notifyChangedAlarm	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyClearedAlarm	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyNewAlarm	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyObjectCreation	O	
notifyObjectDeletion	O	
notifyComments	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyAlarmListRebuilt	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyPotentialFaultyAlarmList	See Alarm IRP (3GPP TS 32.111-2 [11])	

6.3.3.3 Attribute Constraints

The following optional attributes shall be supported for corresponding modes as described below.

For FDD mode only: [uarfcnUI](#), [uarfcnDI](#), [primaryScramblingCode](#), [primaryCpichPower](#), [primarySchPower](#), [secondSchPower](#), [bchPower](#);

For 1.28 Mcps TDD mode only: [uarfcn](#), [cellParameterId](#), [primaryCpchPower](#), [timeSlotList](#), [dwPchPower](#);

For 3.84 Mcps TDD mode only: [uarfcn](#), [cellParameterId](#), [primaryCpchPower](#), [timeSlotList](#), [schPower](#).

End of Change in Clause 6.3.3

Change in Clause 6.3.5

6.3.5 UtranRelation

6.3.5.1 Definition

The "UtranRelation" IOC contains radio network related parameters for the relation to the "UtranCell" or "ExternalUtranCell" IOC. [The UtranCell and the ExternalUtranCell may be an FDD mode cell, a 1.28 Mcps TDD mode cell or a 3.84 Mcps TDD mode cell.](#)

NOTE: In handover relation terms, the cell containing the UTRAN Relation object is the source cell for the handover. The cell referred to in the UTRAN relation object is the target cell for the handover. This defines a one-way handover relation where the direction is *from* source cell *to* target cell.

6.3.5.2 Attributes

Table 6.10: Attributes of UtranRelation

Attribute name	Visibility	Support Qualifier	Read Qualifier	Write Qualifier
utranRelationId	+	M	M	-
adjacentCell	+	M	M	M
cellMode	+	M	M	-
uarfcnUl	+	O	M	-
uarfcnDl	+	O	M	-
primaryScramblingCode	+	O	M	-
primaryCpichPower	+	O	M	-
lac	+	O	M	-
uarfcn	+	O	M	-
cellParameterId	+	O	M	-
primaryCpchPower	+	O	M	-

Table 6.11: Notifications of UtranRelation

Name	Qualifier	Notes
notifyAttributeValueChange	O	
notifyObjectCreation	O	
notifyObjectDeletion	O	

6.3.5.3 Attribute constraints

[The optional attributes should be included as described below according to each mode, only when the EM can not guarantee consistency](#) ~~The optionally attributes uarfcnUl, uarfcnDl, primaryScramblingCode, primaryCpichPower and lac shall be included, if the EM does not guarantee consistency~~ between the cell definition and what is broadcast on system information. Otherwise they shall not be included.

[The attributes for FDD mode are: uarfcnUl, uarfcnDl, primaryScramblingCode, primaryCpichPower, lac.](#)

[The attributes for 1.28 Mcps TDD mode and 3.84 Mcps TDD are: uarfcn, cellParameterId, primaryCpchPower, lac.](#)

End of Change in Clause 6.3.5

Change in Clause 6.3.6

6.3.6 ExternalUtranCell

6.3.6.1 Definition

This IOC represents a radio cell controlled by another IRPAgent. This IOC has necessary attributes for inter-system [and intra-system](#) handover. [The external cell may be an FDD mode cell or a TDD mode cell](#). It contains a subset of the attributes of related IOCs controlled by another IRPAgent. The way to maintain consistency between the attribute values of these two IOCs is outside the scope of this document.

6.3.6.2 Attributes

Table 6.12: Attributes of ExternalUtranCell

Attribute name	Visibility	Support Qualifier	Read Qualifier	Write Qualifier
externalUtranCellId	+	M	M	-
userLabel	+	M	M	M
cld	+	M	M	M
mcc	+	M	M	M
mnc	+	M	M	M
rnclId	+	M	M	M
cellMode	+	M	M	-
uarfcnUI	+	O	M	M
uarfcnDI	+	O	M	M
primaryScramblingCode	+	O	M	M
primaryCpichPower	+	O	M	M
uarfcn	+	O	M	M
cellParameterId	+	O	M	M
primaryCcpchPower	+	O	M	M
lac	+	M	M	M
rac	+	M	M	M

Table 6.13: Notifications of ExternalUtranCell

Name	Qualifier	Notes
notifyAttributeValueChange	O	
notifyObjectCreation	O	
notifyObjectDeletion	O	

[6.3.6.3 Attribute constraints](#)

[The following optional attributes shall be supported for corresponding modes as described below.](#)

[For FDD mode only: uarfcnUI, uarfcnDI, primaryScramblingCode, primaryCpichPower;](#)

[For 1.28 Mcps TDD mode and 3.84 Mcps TDD mode: uarfcn, cellParameterId, primaryCcpchPower.](#)

End of Change in Clause 6.3.6

Change in Clause 6.5.1

6.5.1 Definition and legal values

The following table defines the attributes that are present in several Information Object Classes (IOCs) of the present document.

Table 6.18: Attributes

Attribute Name	Definition	Legal Values
adjacentCell	It carries the DN of the UtranCell or the ExternalUtranCell.	
bchPower	The power of the broadcast channel in the FDD mode cell (Ref. 3GPP TS 25.433 [5]).	Type: Numeric value Range: (-35..+15 dB) Steps of 0.1dB
cellMode	An attribute that identifies the cell mode.	Type: Enumerated value Range: ("FDD mode", "1.28McpsTDD mode", "3.84McpsTDD mode")
cellParameterId	For IOCs UtranCell and ExternalUtranCell , this attribute identifies unambiguously the TDD mode cell (see ref. TS 25.433 [5]): <ul style="list-style-type: none"> ◆ 3.84 Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset ◆ 1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes For IOC UtranRelation , this parameter will be broadcast in the system information of associated cell . The associated cell can be: <ul style="list-style-type: none"> ● another UTRAN TDD cell (1.28 Mcps TDD or 3.84 Mcps TDD) ● the external UTRAN TDD cell (1.28 Mcps TDD or 3.84 Mcps TDD). 	Type: Integral numeric value Range: (0...127)
cld	The attribute is the identifier of a cell in one RNC (Ref. 3GPP TS 25.401 [4]), 3GPP TS 25.433 [5]).	Type: Integral numeric value Range: (0...65535)
dwPchPower	DwPCH Power is the power that shall be used for transmitting the DwPCH in a 1.28 Mcps TDD cell. (Ref. 3 GPP TS 25.433 [5]).	Type: Numeric value Range: (-15...+40 dBm) Steps of 0.1dB
externalUtranCellId	An attribute whose "name+value" can be used as an RDN when naming an instance of the object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance.	
iubLinkId	An attribute whose "name+value" can be used as an RDN when naming an instance of the object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance.	
lac	IOCs UtranCell and ExternalUtranCell : Location Area Code, LAC (Ref. 3GPP TS 23.003 [3]). IOC UtranRelation : Location Area Code, LAC (Ref. 3GPP TS 23.003 [3]), for another UTRAN cell or the external UTRAN Cell that is broadcast in the system information in the Cell.	Type: Integral numeric value Range: (1.. 65533, 65535)
localCellId	Local Cell id is used to uniquely identify the set of resources defined in a Node B to support a cell (as defined by a Cid Ref. 3GPP TS 25.401 [4]), 3GPP TS 25.433 [5]). It must be unique in Node B at a minimum, but may be unique in UTRAN. It can be used to tie the cell in the RNC to a specific set of resources in the Node B.	Type: Integral numeric value Range: (0...268435455)
maximumTransmissionPower	The maximum transmission power of a cell. It is the maximum power for all downlink channels added together, that is allowed to be used simultaneously in a cell. (Ref. 3GPP TS 25.433 [5]).	Type: Numeric value Range: (0,..50 dBm) Steps of 0.1 dB
mcc	Mobile Country Code, MCC (part of the PLMN Id, Ref. 3GPP TS 23.003 [3]).	
mnc	Mobile Network Code, MNC (part of the PLMN Id, Ref. 3GPP TS 23.003 [3]).	
primaryCpchPower	IOCs UtranCell and ExternalUtranCell: The power of the primary CCPCH channel in the TDD cell (Ref. 3 GPP TS 25.433 [5]). IOC UtranRelation:	Type: Numeric value Range: (-15...+40 dBm...) Steps of 0.1dB

Attribute Name	Definition	Legal Values
	The power of the primary CCPCH channel in the TDD cell (Ref. 3 GPP TS 25.433 [5]), for another UTRAN TDD cell or the external UTRAN TDD Cell that is broadcast in the system information in the Cell.	
nodeBFunctionId	An attribute whose "name+value" can be used as an RDN when naming an instance of the object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance.	
primaryCpichPower	IOCs UtranCell and ExternalUtranCell : The power of the primary CPICH channel in the FDD mode cell (Ref. 3GPP TS 25.433 [5]). IOC UtranRelation : The power of the primary CPICH channel in the FDD mode cell (Ref. 3GPP TS 25.433 [5]), for another UTRAN FDD mode cell or the external UTRAN FDD mode c Cell that is broadcast in the system information in the c Cell.	Type: Numeric value Range: (-10,...,50 dBm) Steps of 0.1 dB
primarySchPower	The power of the primary synchronisation channel in the FDD mode cell, DL Power (Ref. 3GPP TS 25.433 [5]).	Type: Numeric value Range: (-35..+15 dB) Steps of 0.1dB
primaryScramblingCode	IOCs UtranCell and ExternalUtranCell : The primary DL scrambling code used by the FDD mode cell (Ref. 3GPP TS 25.433 [5]). IOC UtranRelation : The primary DL scrambling code used by the FDD mode cell (Ref. 3GPP TS 25.433 [5]), for another UTRAN FDD mode cell or the external UTRAN FDD mode c Cell that is broadcast in the system information in the c cell.	Type: Integral numeric value Range: (0 – 511)
rac	Routing Area Code, RAC (Ref. 3GPP TS 23.003 [3]).	Type: Integral numeric value Range: (0..255)
rncFunctionId	An attribute whose "name+value" can be used as an RDN when naming an instance of the object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance.	
rnclId	IOC ExternalUtranCell : Unique RNC ID for the associated RNC (Ref. 3GPP TS 23.003 [3]). IOC RncFunction : Unique RNC ID (Ref. 3GPP TS 23.003 [3]).	
sac	Service Area Code, SAC (Ref. 3GPP TS 23.003 [3]).	Type: Integral numeric value Range: (0.. 65535)
schPower	The power of the synchronisation channel in 3.84 Mcps TDD cell (Ref. 3GPP TS 25.433 [5]).	Type: Numeric Value Range: (-35...15 dB) Steps of 0.1dB
secondarySchPower	The power of the secondary synchronisation channel in the cell, DL Power (Ref. 3GPP TS 25.433 [5]).	Type: Numeric value Range: (-35..+15 dB) Steps of 0.1dB
timeSlotList	This attribute defines the time slot configuration information in the TDD cell. It is a list which contains 7 (for 1.28 Mcps TDD cell) or 15 (for 3.84 Mcps TDD cell) items. Within each item there are three parts: timeSlotId, timeSlotDirection, timeSlotStatus (Ref. 3GPP TS 25.433 [5]).	timeSlotId : when applied to 1.28 Mcps TDD cell: Type: Integral numeric value Range: (0...6); when applied to 3.84 Mcps TDD cell: Type: Integral numeric value Rang: (0...14); timeSlotDirection : Type: Enumerated value Range: (UI, DI); timeSlotStatus : Type: Enumerated value Range: (Active, Not active)
uarfcn	IOCs UtranCell and ExternalUtranCell : The UTRA absolute Radio Frequency Channel number for TDD mode cell, UARFCN (ref. 3 GPP TS 25.433 [5]). The channel number corresponds to a frequency in the TDD	Type : Integral numeric Value For 3.84Mcps TDD Range: (9512-9588), (10062-10113) or (9262-9538), (9662-9938) or (9562-9638)

Attribute Name	Definition	Legal Values
	<p>band, for uplink and downlink transmission (ref. 3GPP TS 25.102 [X12]).</p> <p>IOC UtranRelation: The UTRA absolute Radio Frequency Channel number for TDD mode cell, UARFCN (ref. 3 GPP TS 25.433 [5]), for another UTRAN TDD mode cell or the external UTRAN TDD mode Cell that is broadcast in the system information in the Cell.</p>	<p>For 1.28Mcps TDD Range: (9504-9596), (10054-10121), or (9254-9546), (9654-9946) or (9554-9646).</p>
uarfcnDl	<p>IOCs UtranCell and ExternalUtranCell: The DL UTRA absolute Radio Frequency Channel number for FDD mode cell, UARFCN (Ref. 3GPP TS 25.433 [5]). IOC UtranRelation: The channel number should correspond to a frequency in FDD the downlink band, range 2110 MHz – 2170 MHz, or 1930 MHz – 1990 MHz for ITU Region 2. (Ref. 3GPP TS 25.101 [10]).</p> <p>The DL UTRA absolute Radio Frequency Channel number for FDD mode cell, UARFCN (Ref. 3GPP TS 25.433 [5]), for another UTRAN FDD mode cell or the external UTRAN FDD mode cCell that is broadcast in the system information in the Cell.</p>	<p>The channel number should correspond to a frequency in the downlink band, range 2110 MHz – 2170 MHz, or 1930 MHz – 1990 MHz for ITU Region 2. (Ref. 3GPP TS 25.101).</p> <p>Type: Integral numeric value Range: (10562 - 10838) or (9662 – 9938)</p>
uarfcnUl	<p>IOCs UtranCell and ExternalUtranCell: The UL UTRA absolute Radio Frequency Channel number for FDD mode cell, UARFCN (Ref. 3GPP TS 25.433 [5]). IOC UtranRelation: The channel number should correspond to a frequency in the FDD uplink band, range 1920 MHz – 1980 MHz, or 1850 MHz - 1910 MHz for ITU Region 2. (Ref. 3GPP TS 25.101 [10]).</p> <p>The UL UTRA absolute Radio Frequency Channel number for FDD mode cell, UARFCN (Ref. 3GPP TS 25.433 [5]) for another UTRAN FDD mode cell or the external UTRAN FDD mode cCell, that is broadcast in the system information in the Cell.</p>	<p>The channel number should correspond to a frequency in the uplink band, range 1920 MHz – 1980 MHz, or 1850 MHz – 1910 MHz for ITU Region 2. (Ref. 3GPP TS 25.101)</p> <p>Type: Integral numeric value Range: (9612 - 9888) or (9262 – 9538)</p>
uraList	<p>A list of UTRAN Registration Area, URA (Ref. 3GPP TS 25.331 (subclause 10.3.10)[9]), that a UtranCell can belong to.</p>	<p>Type: A list of Integral numeric values Range: (0..65535) for each integral numeric value.</p>
userLabel	<p>A user-friendly (and user assigned) name of the associated object. Inherited from ManagedFunction.</p>	
utranCellId	<p>An attribute whose "name+value" can be used as an RDN when naming an instance of the object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance.</p>	
utranRelationId	<p>An attribute whose "name+value" can be used as an RDN when naming an instance of the object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance.</p>	

End of Change in Clause 6.5.1
End of the document

CHANGE REQUEST

⌘ **32.643 CR 007** ⌘ rev **-** ⌘ Current version: **5.2.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Enhancement of CORBA SS for support of both FDD and TDD modes		
Source:	⌘ SA5 CATT (luoyunzhong@datangmobile.cn)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 27/02/2004
Category:	⌘ B	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ Release 6 enhancement to support for both FDD and TDD modes.
Summary of change:	⌘ Add IDL definition for support of both FDD and TDD modes according to 32.642.
Consequences if not approved:	⌘

Clauses affected:	⌘ 1, 5.2.2, 5.2.5, 5.2.6 and Annex A						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
Other comments:	⌘ Child/Granchild to Rel-6 CRs 32.642/1 in S5-048179/S5-038682. The now missing Rel-6 CRs for the other Solution Sets 32.644/5 (CMIP, XML) will be submitted to a future SA plenary.						

Change in Clause 1

1 Scope

The purpose of this UTRAN Network Resources IRP: CORBA Solution Set is to define the mapping of the IRP information model (see 3GPP TS 32.642 [4]) to the protocol specific details necessary for implementation of this IRP in a CORBA/IDL environment.

This Solution Set specification is related to 3GPP TS 32.642 V~~5.3.X~~6.0.X.

End of Change in Clause 1

Change in Clause 5.2.2

5.2.2 IOC UtranCell

Table 5.2: Mapping from NRM IOC UtranCell attributes and associations to SS equivalent MOC UtranCell attributes

NRM Associations/Attributes of IOC UtranCell in 3GPP TS 32.642 [4]	SS Attributes	SS Type	Support Qualifier	Read	Write
utranCellId	utranCellId	string	M	M	—
userLabel	userLabel	string	M	M	M
cld	cld	long	M	M	M
localCellId	localCellId	long	M	M	M
uarfcnUI	uarfcnUI	long	OM	M	M
uarfcnDI	uarfcnDI	long	OM	M	M
primaryScramblingCode	primaryScramblingCode	long	OM	M	M
primaryCpichPower	primaryCpichPower	long	OM	M	M
maximumTransmissionPower	maximumTransmissionPower	long	M	M	M
primarySchPower	primarySchPower	long	OM	M	M
secondarySchPower	secondarySchPower	long	OM	M	M
bchPower	bchPower	long	OM	M	M
lac	lac	long	M	M	M
rac	rac	long	M	M	M
sac	sac	long	M	M	M
uraList	uraList	List of long	M	M	M
AssociatedWith/ utranCell-lubLink	utranCelllubLink	GenericNRIRPSystem::AttributeTypes::MOReference	M	M	-
cellMode	cellMode	GenericNRMAAttributeTypes::cellModeEnumType	<u>M</u>	<u>M</u>	-
uarfcn	uarfcn	long	<u>O</u>	<u>M</u>	<u>M</u>
cellParameterId	cellParameterId	long	<u>O</u>	<u>M</u>	<u>M</u>
primaryCpichPower	primaryCpichPower	long	<u>O</u>	<u>M</u>	<u>M</u>
dwPchPower	dwPchPower	long	<u>O</u>	<u>M</u>	<u>M</u>
timeSlotList	timeSlotList	TDDNRMAAttributeTypes::TimeSlotListConfigStructType	<u>O</u>	<u>M</u>	<u>M</u>
schPower	schPower	long	<u>O</u>	<u>M</u>	<u>M</u>

Note: For all support qualifiers with the value “O”, see attribute constraints in 3GPP TS 32.642 [4].

End of Change in Clause 5.2.2

Change in Clause 5.2.5

5.2.5 IOC UtranRelation

Table 5.5: Mapping from NRM IOC UtranRelation attributes and associations to SS equivalent MOC UtranRelation attributes

NRM Attributes of IOC UtranRelation in 3GPP TS 32.642 [4]	SS Attributes	SS Type	Support Qualifier	Read	Write
utranRelationId	utranRelationId	string	M	M	-
adjacentCell	adjacentCell	string	M	M	M
cellMode	cellMode	GenericNRMAttributeType s::cellModeEnumType	M	M	-
uarfcnUI	uarfcnUI	long	O	M	-
uarfcnDI	uarfcnDI	long	O	M	-
primaryScramblingCode	primaryScramblingCode	long	O	M	-
primaryCpichPower	primaryCpichPower	long	O	M	-
lac	lac	long	O	M	-
uarfcn	uarfcn	long	O	M	-
cellParameterId	cellParameterId	long	O	M	-
primaryCpchPower	primaryCpchPower	long	O	M	-

Note: For all support qualifiers with the value "O", see attribute constraints in 3GPP TS 32.642 [4].

End of Change in Clause 5.2.5

Change in Clause 5.2.6

5.2.6 IOC ExternalUtranCell

Table 5.6: Mapping from NRM IOC ExternalUtranCell attributes and associations to SS equivalent MOC ExternalUtranCell attributes

NRM Attributes of IOC ExternalUtranCell in 3GPP TS 32.642 [4]	SS Attributes	SS Type	Support Qualifier	Read	Write
externalUtranCellId	externalUtranCellId	string	M	M	-
userLabel	userLabel	string	M	M	M
cid	cid	long	M	M	M
mcc	mcc	long	M	M	M
mnc	mnc	long	M	M	M
rnclId	rnclId	long	M	M	M
uarfcnUl	uarfcnUl	long	OM	M	M
uarfcnDI	uarfcnDI	long	OM	M	M
primaryScramblingCode	primaryScramblingCode	long	OM	M	M
primaryCpichPower	primaryCpichPower	long	OM	M	M
uarfcn	uarfcn	long	O	M	M
cellParameterId	cellParameterId	long	O	M	M
primaryCpichPower	primaryCpichPower	long	O	M	M
cellMode	cellMode	GenericNR MAttribute Types:: cellModeE numType	M	M	-
lac	lac	long	M	M	M
rac	rac	long	M	M	M

Note: For all support qualifiers with the value "O", see attribute constraints in 3GPP TS 32.642 [4].

End of Change in Clause 5.2.6

Annex A (normative): CORBA IDL, NRM Definitions

A.1 IDL specification (file name "UtranNetworkResourcesNRMDefs.idl")

```
#ifndef UtranNetworkResourcesNRMDefs_idl
#define UtranNetworkResourcesNRMDefs_idl

#pragma prefix "3gppsa5.org"

/**
 * This module defines constants for each MO class name and
 * the attribute names for each defined MO class.
 */
module UtranNetworkResourcesNRMDefs
{

    /**
     * Definitions for MO class RncFunction
     */
    interface RncFunction
    {
        const string CLASS = "RncFunction";

        // Attribute Names
        //
        const string rncFunctionId = "rncFunctionId";
        const string userLabel = "userLabel";
        const string mcc= "mcc";
        const string mnc= "mnc";
        const string rncId= "rncId";
    };

    /**
     * Definitions for MO class UtranCell
     */
    interface UtranCell
    {
        const string CLASS = "UtranCell";

        // Attribute Names
        //
        const string utranCellId = "utranCellId";
        const string userLabel = "userLabel";
        const string utranCellIubLink = "utranCellIubLink";
        const string cId= "cId";
        const string localCellId= "localCellId";
    };
};
```

```
const string uarfcnUl= "uarfcnUl";
const string uarfcnDl= "uarfcnDl";
const string primaryScramblingCode= "primaryScramblingCode";
const string primaryCpichPower= "primaryCpichPower";
const string maximumTransmissionPower= "maximumTransmissionPower";
const string primarySchPower= "primarySchPower";
const string secondarySchPower= "secondarySchPower";
const string bchPower= "bchPower";
const string cellMode = "cellMode";
const string uarfcn= "uarfcn";
const string cellParameterId= "cellParameterId";
const string primaryCcpchPower= "primaryCcpchPower";
const string dwPchPower= "dwPchPower";
const string timeSlotList= "timeSlotList";
const string schPower= "schPower";
const string lac= "lac";
const string rac= "rac";
const string sac= "sac";
const string uraList= "uraList";
```

```
};
```

```
/**
 * Definitions for MO class NodeBFunction
 */
interface NodeBFunction
{
    const string CLASS = "NodeBFunction";

    // Attribute Names
    //
    const string nodeBFunctionId = "nodeBFunctionId";
    const string userLabel = "userLabel";
    const string nodeBFunctionIubLink = "nodeBFunctionIubLink";
};
```

```
/**
 * Definitions for MO class IubLink
 */
interface IubLink
{
    const string CLASS = "IubLink";

    // Attribute Names
    //
    const string iubLinkId = "iubLinkId";
    const string userLabel = "userLabel";
    const string iubLinkNodeBFunction = "iubLinkNodeBFunction";
    const string iubLinkUtranCell = "iubLinkUtranCell";
};
```

```
};
```

```
/**
 * Definitions for MO class UtranRelation
 */
interface UtranRelation
{
```

```

const string CLASS = "UtranRelation";

// Attribute Names
//
const string utranRelationId = "utranRelationId";
const string adjacentCell = "adjacentCell";
const string uarfcnUl= "uarfcnUl";
const string uarfcnDl= "uarfcnDl";
const string primaryScramblingCode= "primaryScramblingCode";
const string primaryCpichPower= "primaryCpichPower";
const string cellMode = "cellMode";
const string uarfcn= "uarfcn";
const string cellParameterId= "cellParameterId";
const string primaryCcpchPower= "primaryCcpchPower";
const string lac= "lac";
};

/**
 * Definitions for MO class ExternalUtranCell
 */
interface ExternalUtranCell
{
    const string CLASS = "ExternalUtranCell";

    // Attribute Names
    //
    const string externalUtranCellId = "externalUtranCellId";
    const string userLabel = "userLabel";
    const string cId= "cId";
    const string mcc= "mcc";
    const string mnc= "mnc";
    const string rncId= "rncId";
    const string uarfcnUl= "uarfcnUl";
    const string uarfcnDl= "uarfcnDl";
    const string primaryScramblingCode= "primaryScramblingCode";
    const string primaryCpichPower= "primaryCpichPower";
    const string cellMode = "cellMode";
    const string uarfcn= "uarfcn";
    const string cellParameterId= "cellParameterId";
    const string primaryCcpchPower= "primaryCcpchPower";
    const string lac= "lac";
    const string rac= "rac";

};

/**
 * This module adds datatype definitions for both FDD and TDD mode
 * attributes used in the NRM which are not the basic datatypes
 * already defined in CORBA.
 */
module GenericNRMAAttributeTypes
{
    enum CellModeEnumType
    {
        FDDMode,
        3-84McpsTDDMode,
        1-28McpsTDDMode
    };
}

```

```

/**
 * This module adds datatype definitions for TDD mode attributes
 * used in the NRM which are not the basic datatypes already defined
 * in CORBA.
 */
module TDDNRMAAttributeTypes
{

    enum TimeSlotDirectionType
    {
        UL,
        DL
    };

    enum TimeSlotStatusType
    {
        Active,
        Not-Active
    };

    struct TimeSlotConfigStructType
    {
        short timeSlotId;
        TimeSlotDirectionType timeSlotDirection;
        TimeSlotStatusType timeSlotStatus;
    };

    typedef sequence<TimeSlotConfigStructType> TimeSlotListConfigStructType;

};

#endif

```

<p>End of Change in Clause Annex A End of the document</p>
