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**Source:** SA1  
**Title:** CRs to 21.905 on various subjects (Rel-6)  
**Document for:** Approval  
**Agenda Item:** 7.1.3

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Meet	Doc. No.	Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	Doc. SA1
SP-22	SP-030694	21.905	053	-	Rel-6	F	Terminology additions for IP-CAN and IP-CAN bearer	6.4.0	6.5.0	S1-031145
SP-22	SP-030694	21.905	054	-	Rel-6	F	Modified base station definition	6.4.0	6.5.0	S1-031311

CR-Form-v7	<b>CHANGE REQUEST</b>
⌘ <b>21.905 CR 053</b> ⌘ rev <b>-</b> ⌘ Current version: <b>6.4.0</b> ⌘	

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

<b>Title:</b>	⌘ Terminology additions for IP-CAN and IP-CAN bearer		
<b>Source:</b>	⌘ SA1 (QUALCOMM)		
<b>Work item code:</b>	⌘ TEI6	<b>Date:</b>	⌘ 16/10/2003
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="http://www.3gpp.org/Specs/tr21/21900">TR 21.900</a> .	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)	

<b>Reason for change:</b>	⌘ The terms "IP-CAN" and "IP-CAN bearer" have been used in specifications by multiple working groups (e.g. SA2 and CN1). These terms should be added to TS 21.905 to ensure they are used consistently in 3GPP specifications.
<b>Summary of change:</b>	⌘ Add descriptions for "IP-CAN" and "IP-CAN bearer".
<b>Consequences if not approved:</b>	⌘ Lack of definitions for "IP-CAN" and "IP-CAN bearer" in TS 21.905.

<b>Clauses affected:</b>	⌘ 3												
<b>Other specs affected:</b>	<table style="border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 20px; text-align: center;">N</td> <td style="border: 1px solid black; width: 20px; text-align: center;">N</td> <td style="padding-left: 10px;">Other core specifications</td> <td style="width: 20px;">⌘</td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">N</td> <td style="border: 1px solid black; text-align: center;">N</td> <td style="padding-left: 10px;">Test specifications</td> <td></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">N</td> <td style="border: 1px solid black; text-align: center;">N</td> <td style="padding-left: 10px;">O&amp;M Specifications</td> <td></td> </tr> </table>	N	N	Other core specifications	⌘	N	N	Test specifications		N	N	O&M Specifications	
N	N	Other core specifications	⌘										
N	N	Test specifications											
N	N	O&M Specifications											
<b>Other comments:</b>	⌘ None												

**How to create CRs using this form:**

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- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

**\*\*\* 1st Change \*\*\***

**IC Card:** A card holding an Integrated Circuit containing subscriber, end user, authentication and/or application data for one or more applications.

**IC card SIM:** Obsolete term for ID-1 SIM.

**ICS proforma:** A document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS.

**ID-000 SIM:** A UICC having the form on an ID-000 card (see ISO 7816-1 [24]) that contains a SIM application.

**ID-1 SIM:** A UICC having the format of an ID-1 card (see ISO 7816-1 [24]) that contains a SIM.

**Idle mode:** The state of UE switched on but which does not have any established RRC connection.

**Implementation capability:** A capability that relates to a particular technical domain. Examples: a spreading factor of 128 (in the domain of the physical layer); the A5 algorithm; a 64 bit key length (in the domain of security); a power output of 21 dBm (in the domain of transmitter performance); support of AMR Codec (in the domain of the Codec); support of CHV1 (in the domain of the USIM).

**Implementation Conformance Statement (ICS):** A statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented. The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

**Information Data Rate:** Rate of the user information, which must be transmitted over the Air Interface. For example, output rate of the voice codec.

**Initial paging information:** This information indicates if the UE needs to continue to read more paging information and eventually receive a page message.

**Initial paging occasion:** The paging occasion the UE uses as starting point for its paging DRX cycle.

**Integrity:** (in the context of security) The avoidance of unauthorised modification of information.

**Inter-cell handover:** A handover between different cells. An inter-cell handover requires network connections to be altered.

**Inter PLMN handover:** Handover between different PLMNs, ie having different MCC-MNC.

**Inter system handover:** Handover between networks using different radiosystems , e.g. UMTS – GSM.

**Interactive service:** A service which provides the means for bi-directional exchange of information between users. Interactive services are divided into three classes of services: conversational services, messaging services and retrieval services (source: ITU-T I.113).

**Interface:** The common boundary between two associated systems (source: ITU-T I.112).

**International Mobile Station Equipment Identity (IMEI):** An "International Mobile Station Equipment Identity" is a unique number which shall be allocated to each individual mobile station equipment in the PLMN and shall be unconditionally implemented by the MS manufacturer.

**International mobile user number (IMUN):** The International Mobile User Number is a diallable number allocated to a 3GPP System user.

**Interference Signal Code Power (ISCP):** Given only interference power is received, the average power of the received signal after despreading and combining.

**Interpreter:** A software program that simulates a hypothetical computer by performing the operations defined by the instructions of this computer.(see also 'byte code' and 'virtual machine').

**Interworking WLAN (I-WLAN):** A WLAN that interworks with a 3GPP system.

**Intra-cell handover:** A handover within one sector or between different sectors of the same cell. An intra-cell handover does not require network connections to be altered.

**Intra PLMN handover:** Handover within the same network, ie having the same MCC-MNC regardless of radio access system. Note: this includes the case of UMTS <->GSM handover where MCC-MNC are the same in both cases.

**IP-Connectivity Access Network (IP-CAN):** The collection of network entities and interfaces that provides the underlying IP transport connectivity between the UE and the IMS entities. An example of an "IP-Connectivity Access Network" is GPRS.

**IP-Connectivity Access Network bearer (IP-CAN bearer):** The data communications bearer provided by the IP-Connectivity Access Network. When using GPRS, the IP-Connectivity Access Network bearers are provided by PDP Contexts.

**IRP Information Model:** An IRP Information Model consists of an IRP Information Service and a Network Resource Model (see below for definitions of IRP Information Service and Network Resource Model).

**IRP Information Service:** An IRP Information Service describes the information flow and support objects for a certain functional area, e.g. the alarm information service in the fault management area. As an example of support objects, for the Alarm IRP there is the alarm record and alarm list.

**IRP Solution Set:** An IRP Solution Set is a mapping of the IRP Information Service to one of several technologies (CORBA/IDL, SNMP/SMI, CMIP/GDMO, etc.). An IRP Information Service can be mapped to several different IRP Solution Sets. Different technology selections may be done for different IRPs.

**Inter System Change:** a change of radio access between different radio access technologies such as GSM and UMTS.

**IMS SIM (ISIM):** An application residing on the UICC that provides access to IP Multimedia Services.

**Iu:** Interconnection point between an RNC or a BSC and a 3G Core Network. It is also considered as a reference point.

**Iu-flex:** Routing functionality for intra domain connection of RAN nodes to multiple CN nodes.

**Iu mode:** mode of operation of the MS when connected to the Core Network via GERAN or UTRAN and the Iu interface.

**Iub:** Interface between an RNC and a Node B.

**Iur:** A logical interface between two RNC. Whilst logically representing a point to point link between RNC, the physical realisation may not be a point to point link.

**\*\*\* 2nd Change \*\*\***

I

I-Block	Information Block
I-ETS	Interim European Telecommunications Standard
I/O	Input/Output
I	Information frames (RLP)
IA	Incoming Access (closed user group SS)
IAM	Initial Address Message
IC	Integrated Circuit
	Interlock Code (CUG SS)
IC(pref)	Interlock Code of the preferential CUG
ICB	Incoming Calls Barred (within the CUG)
ICC	Integrated Circuit Card
ICCID	Integrated Circuit Card IDentification
ICGW	Incoming Call Gateway
ICI	Incoming Call Information
ICM	In-Call Modification
ICMP	Internet Control Message Protocol
ICT	Incoming Call Timer
ID	Identifier

IDL	Interface Definition Language
IDN	Integrated Digital Network
IDNNS	Intra Domain NAS Node Selector
IE	Information Element
IEC	International Electrotechnical Commission
IED	Information Element Data
IEI	Information Element Identifier
IEIDL	Information Element Identifier Data Length
IETF	Internet Engineering Task Force
IF	Infrastructure
IFD	Interface Device
IFS	Information Field Sizes
IFSC	Information Field Size for the UICC
IFSD	Information Field Size for the Terminal
IHOSS	Internet Hosted Octet Stream Service
IOP	Internet Inter-ORB Protocol
IK	Integrity key
IM	Intermodulation
	IP Multimedia
IMA	Inverse Multiplexing on ATM
IMEI	International Mobile Equipment Identity
IMGI	International mobile group identity
IMPI	IP Multimedia Private Identity
IMPU	IP Multimedia PUBlic identity
IMS	IP Multimedia Subsystem
IMSI	International Mobile Subscriber Identity
IMT-2000	International Mobile Telecommunications 2000
IMUN	International Mobile User Number
IN	Intelligent Network
	Interrogating Node
INAP	Intelligent Network Application Part
INF	INformation field
IP	Internet Protocol
<a href="#">IP-CAN</a>	<a href="#">IP-Connectivity Access Network</a>
IP-M	IP Multicast
IPv4	Internet Protocol Version 4
IPv6	Internet Protocol Version 6
IR	Infrared
IRP	Integration Reference Point
ISC	International Switching Centre
ISCP	Interference Signal Code Power
ISDN	Integrated Services Digital Network
ISIM	IM Services Identity Module
ISO	International Organisation for Standardisation
ISP	Internet Service Provider
ISUP	ISDN User Part
ITC	Information Transfer Capability
ITU	International Telecommunication Union
IUI	International USIM Identifier
IUT	Implementation Under Test
IWF	InterWorking Function
I-WLAN	Interworking WLAN
IWMSC	InterWorking MSC
IWU	Inter Working Unit

<b>*** End of Changes ***</b>
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**TSG-SA WG1 #22**  
**Bangkok, Thailand, 27 - 31 October 2003**

**S1-031311**  
**Agenda Item:**

<small>CR-Form-v7</small>
<h2 style="margin: 0;">CHANGE REQUEST</h2>
⌘ <b>21.905 CR 054</b> ⌘ rev <b>-</b> ⌘ Current version: <b>6.4.0</b> ⌘

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

<b>Title:</b>	⌘ Modified base station definition		
<b>Source:</b>	⌘ SA1		
<b>Work item code:</b>	⌘ Vocabulary	<b>Date:</b>	⌘ 30/10/2003
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ REL-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		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)

<b>Reason for change:</b>	⌘ This change reflects a decision taken in TSG RAN4#18 which was confirmed by TSG GERAN to modify the base station definition in Vocabulary document TR21.905.
<b>Summary of change:</b>	⌘ Base station definition modified.
<b>Consequences if not approved:</b>	⌘

<b>Clauses affected:</b>	⌘ 3								
<b>Other specs Affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 2px 5px;">Y</td> <td style="padding: 2px 5px;">N</td> </tr> <tr> <td style="padding: 2px 5px;"> </td> <td style="padding: 2px 5px;">X</td> </tr> <tr> <td style="padding: 2px 5px;"> </td> <td style="padding: 2px 5px;">X</td> </tr> <tr> <td style="padding: 2px 5px;"> </td> <td style="padding: 2px 5px;">X</td> </tr> </table> Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘	Y	N		X		X		X
Y	N								
	X								
	X								
	X								
<b>Other comments:</b>	⌘								

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## 3 Terms and definitions

[...]

### B

**Base Station:** A base station is a network element in radio access network responsible for radio transmission and reception in one or more cells to or from the user equipment. A base station can have an integrated antenna or be connected to an antenna by feeder cables. In UTRAN it terminates the  $I_{ub}$  interface towards the RNC. In GERAN it terminates the Abis interface towards the BSC. ~~A base station is a macrocell, microcell or picocell site and consists of transmitters generating radio frequency electromagnetic energy and receivers in a cabin or cabinet. A base station is connected to antennas by feeder cables.~~

**Baseline capabilities:** Capabilities that are required for a service-less UE to operate within a network. The baseline capabilities for a UE include the capabilities to search for, synchronise with and register (with authentication) to a network. The negotiation of the UE and the network capabilities, as well as the maintenance and termination of the registration are also part of the required baseline capabilities.

**Base Station Controller:** This equipment in the BSS is in charge of controlling the use and the integrity of the radio resources.

**Base Station Subsystem:** Either a full network or only the access part of a GERAN offering the allocation, release and management of specific radio resources to establish means of connection between an MS and the GERAN. A Base Station Subsystem is responsible for the resources and transmission/reception in a set of cells.

**Baseline Implementation Capabilities:** Set of Implementation capabilities, in each technical domain, required to enable a UE to support the required Baseline capabilities.

**Basic OR** Basic Optimal Routing

**Basic telecommunication service:** This term is used as a common reference to both bearer services and teleservices.

**Bearer:** A information transmission path of defined capacity, delay and bit error rate, etc.

**Bearer capability:** A transmission function which the UE requests to the network.

**Bearer independent protocol:** (UICC) Mechanism by which the ME provides the (U)SIM applications on the UICC with access to the data bearers supported by the ME and the network.

**Bearer service:** A type of telecommunication service that provides the capability of transmission of signals between access points.

**Best effort QoS:** The lowest of all QoS traffic classes. If the guaranteed QoS cannot be delivered, the bearer network delivers the QoS which can also be called best effort QoS.

**Best effort service:** A service model which provides minimal performance guarantees, allowing an unspecified variance in the measured performance criteria.

**Billing:** A function whereby CDRs generated by the charging function are transformed into bills requiring payment.

**Broadcast:** A value of the service attribute "communication configuration", which denotes unidirectional distribution to all users (source: ITU-T I.113).

**Byte code:** (UICC) A hardware machine independent representation of a primitive computer operation that serves as an instruction to a software program called an interpreter or a virtual machine that simulates the hypothetical computer's central processing unit. code generated by a Java compiler and executed by the Java interpreter.

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