

**Source:** SA1  
**Title:** CRs to 22.002 on Restructuring of 22.002  
**Document for:** Approval  
**Agenda Item:** 7.1.3

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Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New
22.002	011		Rel-4	Restructuring of 22.002	D	4.0.0	4.1.0
22.002	012		Rel-4	Restructuring of tables in section 3.1	D	4.0.0	4.1.0

## CHANGE REQUEST

⌘ **TS 22.002** **CR** **011** ⌘ rev **-** ⌘ **Current vers** **4.0.0** ⌘

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**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Removal of outdated and unneeded notes, alignment of table's layout		
<b>Source:</b>	⌘ SA1		
<b>Work item code:</b>	⌘ CS Bearers in UMTS	<b>Date:</b>	⌘ 16.02.01
<b>Category:</b>	⌘ <b>D</b>	<b>Release:</b>	⌘ REL-4
	Use <u>one</u> of the following categories: <b>F</b> (essential 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)		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)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900.		

<b>Reason for change:</b>	⌘ CN3 proposed to restructure the document and to correct and adapt it to UMTS capabilities to avoid inconsistencies with 27.001, 23.910 and 29.007 which arose in the past. This CR belongs to a set of CRs that tidy up the document accordingly.
<b>Summary of change:</b>	⌘ <ul style="list-style-type: none"> <li>• <b>Removal of old notes</b> Notes that indicate which services were already defined in GSM phase 2 are deleted. Some notes in table 2 could be replaced by concrete information.</li> <li>• <b>Removal of the term "bit transparent"</b> The table for the bit transparent services has been incorporated in the table for synchronous services for digital interworking (the term "bit transparent" was however not defined anywhere). Further, the indication that the rate adaptation for 56 kbit/s is only needed in a 64 kbit/s environment is obvious and need not to be mentioned explicitly. It was deleted. This is also valid for a note saying that 64 kbit/s is not applicable in a 56 kbit/s environment.</li> <li>• <b>Alignment of the table's structure</b> All of the tables in section 3.1 got the same layout.</li> </ul>
<b>Consequences if not approved:</b>	⌘

<b>Clauses affected:</b>	⌘ 3, 3.1 and all subsections	
<b>Other specs affected:</b>	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘
<b>Other comments:</b>	⌘	

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

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[http://www.3gpp.org/3G\\_Specs/CRs.htm](http://www.3gpp.org/3G_Specs/CRs.htm). Below is a brief summary:

- 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://www.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

## 3 Bearer Services

This clause provides a list of the existing Bearer Services and indicates the values for each attribute in the minimal set.

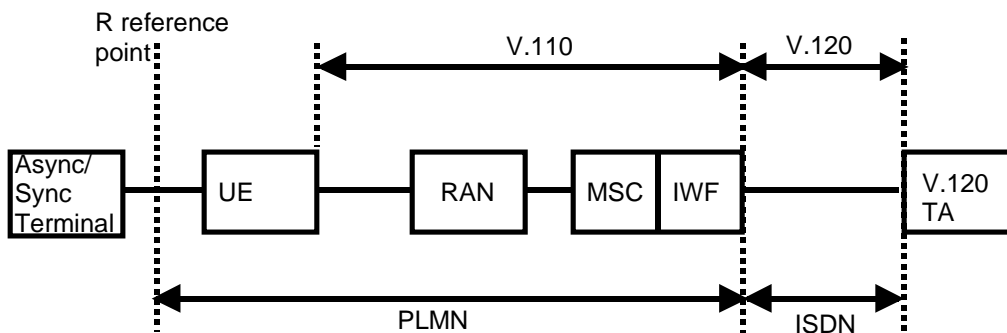
The following attributes have the same value for all Bearer Services. Their values are as follows:

Information Transfer Mode:	"Circuit";
Information Transfer Rate:	Not applicable (note 1);
Establishment of Communication:	"Demand";
Symmetry:	"Bi-directional Symmetric";
Communication Configuration:	"Point to point".

NOTE 1: The Information Transfer Rate attribute is not applicable because it depends on the reference point assumed in the PLMN, transit or terminating network.

All asynchronous NT Bearer Services may support data compression to enhance user data throughput.

NT Bearer Services 20 may support V.120 interworking, enabling data terminals connected to an UE to interwork with V.120 [12] terminal adapters on the ISDN as shown in the figure 2 below.



**Figure 2: Model of V.120 Interworking**

Table 2 contains the list of the Bearer Services and the values for the remaining attributes in the minimal set.

**Table 2**

Bearer Service Number	Bearer Service Name	Access Structure	Access Rate	Information Transfer Capability	QOS Attribute	Notes
20	Asynchronous General Bearer Service	Asynch	note 1	note 4 3.1 kHz , UDI, RDI	note 4 NT / T	See note 4
30	Synchronous General Bearer Service	Synch	note 2	note 2 3.1 kHz , UDI, RDI	note 2 T	See note 4
Note 1: This General Bearer is independent of any nominal rate. It is elaborated in more detail in subclause 3.1						

~~NOTE 1: This General Bearer is independent of any nominal rate. It is elaborated in more detail in subclause 3.1~~

~~NOTE 2: BS 30 is only available in transparent mode. In addition please refer to subclause 3.1.~~

### 3.1 General bearer service user data characteristics

The tables below describe the characteristics of the General Bearer Services. The indicated fixed network user rates are possible, but support of General Bearer Service does not imply support of all rates.

#### 3.1.1 3,1 kHz Audio

Fixed Network User Rate	Access Structure	Information Transfer Capability	Rate Adaptation	QoS attributes	Note
0.3 kbit/s	Asynch	3,1 kHz	-	NT or T	Note <del>2 and</del> 4
1.2 kbit/s	Asynch, Synch	3,1 kHz	-	NT or T	Notes 1, <del>2</del> 4 and 6
2.4 kbit/s	Asynch, Synch	3,1 kHz	-	NT or T	Note <del>2</del> 4 and 6
4.8 kbit/s	Asynch, Synch	3,1 kHz	-	NT or T	Note <del>2</del> 4 and 6
9.6 kbit/s	Asynch, Synch	3,1 kHz	-	NT or T	Note 5 and 6
14.4 kbit/s	Asynch, Synch	3,1 kHz	-	NT or T	Note 5 and 6
19.2 kbit/s	Asynch, Synch	3,1 kHz	-	NT or T	Note 5 and 6
28.8 kbit/s	Asynch, Synch	3,1 kHz	-	NT or T	Note 6
	Asynch	3,1 kHz	-	NT	Note 3

NOTE 1: Not applicable to synchronous NT service.

~~NOTE 2: These services are also supported by the GSM Phase 2 Specifications.~~

NOTE 3: This is used with high speed modems such as V.90 (56kbit/s). Modem type = 'Autobauding Type 1' is selected. FNUR has no meaning in this case.

NOTE 4: In case of UTRAN the FNURs 300, 1200, 2400 and 4800 bit/s towards the fixed network can be provided only in Async non-transparent (NT) mode with modem type = 'Autobauding Type 1' is selected.

NOTE 5: In case of UTRAN the FNURs 9.6, 14.4 and 19.2 kbit/s towards the fixed network shall be provided only in non-transparent (NT) mode.

NOTE 6: NT is not applicable for synchronous services.

#### 3.1.2 V.110 UDI

Fixed Network User Rate	Access Structure	Information Transfer Capability	User Information Layer 4 protocol Rate Adaptation	QoS Attribute	Notes
0.3 kbit/s	Asynch	<u>UDI</u>	V.110	NT or T	Note <del>2 and</del> 3
1.2 kbit/s	Asynch, Synch	<u>UDI</u>	V.110	NT or T	Note 1, <del>2-3</del> and 5
2.4 kbit/s	Asynch, Synch	<u>UDI</u>	V.110	NT or T	Note <del>2-3</del> and 5
4.8 kbit/s	Asynch, Synch	<u>UDI</u>	V.110	NT or T	Note <del>2-3</del> and 5
9.6 kbit/s	Asynch, Synch	<u>UDI</u>	V.110	NT or T	Note <del>2-4</del> and 5
14.4 kbit/s	Asynch, Synch	<u>UDI</u>	V.110	NT or T	Note 4 and 5
19.2 kbit/s	Asynch, Synch	<u>UDI</u>	V.110	NT or T	Note 4 and 5
28.8 kbit/s	Asynch, Synch	<u>UDI</u>	V.110	NT or T	Note 5
38.4 kbit/s	Asynch, Synch	<u>UDI</u>	V.110	NT or T	Note 4 and 5
48 kbit/s	Synch	<u>UDI</u>	V.110	T	
56 kbit/s	Synch	<u>UDI</u>	V.110	T (in a 64 kbit/s environment)	
<u>56 kbit/s</u>	<u>Synch</u>	<u>RDI</u>	-	<u>T</u>	
<u>64 kbit/s</u>	<u>Synch</u>	<u>UDI</u>	-	<u>T</u>	

NOTE 1: Not applicable to synchronous NT service.

~~NOTE 2: These services are also supported by the GSM Phase 2 Specifications.~~

NOTE 3: In case of UTRAN the user rates 300, 1200, 2400 and 4800 bit/s towards the fixed network can be provided only for mobile terminated calls and only in Async non-transparent (NT) mode.

NOTE 4: In case of UTRAN the FNURs 9.6, 14.4, 19.2 and 38.4 kbit/s towards the fixed network shall be provided only in non-transparent (NT) mode.

NOTE 5: NT is not applicable for synchronous services.

### 3.1.3 Void

### 3.1.4 V.120

Fixed Network User Rate	Access Structure	Information Transfer Capability	Rate Adaptation User Information Layer 1 protocol	QoS Attribute	Notes
1.2 kbit/s	Asynch	UDI / RDI	V.120	NT	Note 3
2.4 kbit/s	Asynch	UDI / RDI	V.120	NT	Note 3
4.8 kbit/s	Asynch	UDI / RDI	V.120	NT	Note 3
9.6 kbit/s	Asynch	UDI / RDI	V.120	NT	
14.4 kbit/s	Asynch	UDI / RDI	V.120	NT	
19.2 kbit/s	Asynch	UDI / RDI	V.120	NT	
28.8 kbit/s	Asynch	UDI / RDI	V.120	NT	Note 1
38.4 kbit/s	Asynch	UDI / RDI	V.120	NT	
48 kbit/s	Asynch	UDI / RDI	V.120	NT	
56 kbit/s	Asynch	UDI	V.120	NT	Note 2

NOTE 1: Requires a new code point in V.120 specification to be defined.

~~NOTE 2: Not applicable in a 56 kbit/s environment.~~

NOTE 3: In case of UTRAN the user rates 1200, 2400 and 4800 bit/s toward the fixed network can be provided only for asynchronous non-transparent (NT) mobile terminated calls.

### 3.1.5 Bit Transparent Modevoid

Fixed Network User Rate	Access Structure	User Information Layer 1 protocol	QoS Attribute	Notes
56 kbit/s	Synch	Bit transparent	T (RDI) (in a 56 kbit/s environment)	
64 kbit/s	Synch	Bit transparent	T (UDI) (in a 64 kbit/s environment)	

### 3.1.6 PIAFS

Fixed Network User Rate	Access Structure	Information Transfer Capability	Rate Adaptation User Information Layer 1 protocol	QoS Attribute	Notes
32 kbit/s	Asynch	UDI	PIAFS	NT	
64 kbit/s	Asynch	UDI	PIAFS	NT	

### 3.1.7 Frame Tunnelling Mode

Fixed Network User Rate	Access Structure	Information Transfer Capability	Rate Adaptation User Information Layer 1 protocol	QoS Attribute	Notes
56kbit/s	Asynch	RDI	X.31 flag stuffing	NT	
64 kbit/s	Asynch	UDI	X.31 flag stuffing	NT	Note1

NOTE1: ~~Not applicable in a 56kbit/s environment.~~

### 3.1.8 Multimedia Call

Fixed Network User Rate	Access Structure	Information Transfer Capability	Rate Adaptation User Information Layer 1 protocol	QoS Attribute	Notes
28.8 kbit/s	Synch	3.1kHz Audio	H.223 & H.245	T	
32.0 kbit/s	Synch	UDI	H.223 & H.245	T	
33.6 kbit/s	Synch	3.1kHz Audio	H.223 & H.245	T	Note
56 kbit/s	Synch	RDI	H.223 & H.245	T	
64 kbit/s	Synch	UDI	H.223 & H.245	T	

NOTE: 33.6kbit/s FNURs is applicable only for UTRAN.

## CHANGE REQUEST

⌘ **TS 22.002** **CR** **012** ⌘ rev **-** ⌘ **Current vers** **4.0.0** ⌘

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**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Restructuring of tables in section 3.1		
<b>Source:</b>	⌘ SA1		
<b>Work item code:</b>	⌘ CS Bearers in UMTS	<b>Date:</b>	⌘ 16.02.01
<b>Category:</b>	⌘ <b>D</b>	<b>Release:</b>	⌘ REL-4
	Use <u>one</u> of the following categories: <b>F</b> (essential 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)		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)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900.		

<b>Reason for change:</b>	⌘ CN3 proposed to restructure the document and to correct and adapt it to UMTS capabilities to avoid inconsistencies with 27.001, 23.910 and 29.007 which arose in the past. This CR belongs to a set of CRs that tidy up the document accordingly.
<b>Summary of change:</b>	⌘ <ul style="list-style-type: none"> <li>• <b>Restructuring the tables in section 3.1</b> The tables were structured according to the interworking scenarios towards the fixed network (User information layer 1 protocol). It is more appropriate to structure the tables according to the defined services. With this the presentation of information becomes clearer.</li> </ul>
<b>Consequences if not approved:</b>	⌘

<b>Clauses affected:</b>	⌘ 3.1 and subsections	
<b>Other specs affected:</b>	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘
<b>Other comments:</b>	⌘ In order to show the changes in each section, the original tables have been duplicated. Further simplification is possible by combining equal notes and by combining both of the tables in section 3.1.1.2.2.	

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## 3.1 General bearer service user data characteristics

The tables below describe the characteristics of the General Bearer Services. The indicated fixed network user rates are possible, but support of General Bearer Service does not imply support of all rates.

### 3.1.1 ~~3,1 kHz Audio~~ BS 20 (asynchronous services)

#### 3.1.1.1 BS 20 T (transparent asynchronous services)

##### 3.1.1.1.1 BS 20 transparent in regular mode for analogue interworking

Fixed Network User Rate	Access Structure	Information Transfer Capability	QoS attributes	Note
0.3 kbit/s	Asynch	3,1 kHz	<del>NT or T</del>	Note 2 and 4
1.2 kbit/s	<del>Asynch, Synch</del>	3,1 kHz	<del>NT or T</del>	<del>Notes 4, 2 4 and 6</del>
2.4 kbit/s	<del>Asynch, Synch</del>	3,1 kHz	<del>NT or T</del>	<del>Note 2 4 and 6</del>
4.8 kbit/s	<del>Asynch, Synch</del>	3,1 kHz	<del>NT or T</del>	<del>Note 2 4 and 6</del>
9.6 kbit/s	<del>Asynch, Synch</del>	3,1 kHz	<del>NT or T</del>	<del>Note 5 and 6</del>
14.4 kbit/s	<del>Asynch, Synch</del>	3,1 kHz	<del>NT or T</del>	<del>Note 5 and 6</del>
19.2 kbit/s	<del>Asynch, Synch</del>	3,1 kHz	<del>NT or T</del>	<del>Note 5 and 6</del>
28.8 kbit/s	<del>Asynch, Synch</del>	3,1 kHz	<del>NT or T</del>	<del>Note 6</del>
	Asynch	3,1 kHz	NT	Note 3

~~NOTE 1: Not applicable to synchronous NT service.~~

NOTE 2: These services are also supported by the GSM Phase 2 Specifications.

~~NOTE 3: This is used with high speed modems such as V.90 (56kbit/s). Modem type = 'Autobauding Type 1' is selected. FNUR has no meaning in this case.~~

NOTE 4: ~~In case of UTRAN the FNURs 300, 1200, 2400 and 4800 bit/s towards the fixed network can be provided only in Async non-transparent (NT) mode with modem type = 'Autobauding Type 1' is selected. Only applicable in GSM~~

NOTE 5: ~~Only applicable in GSM~~ ~~In case of UTRAN the FNURs 9.6, 14.4 and 19.2 kbit/s towards the fixed network shall be provided only in non-transparent (NT) mode.~~

NOTE 6: ~~NT is not applicable for synchronous services.~~

### 3.1.23.1.1.2 BS 20 transparent in regular mode for digital interworking V.110 UDI

Fixed Network User Rate	Access Structure	User Information Layer 1 protocol	QoS Attribute	Notes
0.3 kbit/s	Asynch	V.110	<del>NT or T</del>	Note 2 and 3
1.2 kbit/s	Asynch, <del>Synch</del>	V.110	<del>NT or T</del>	Note 4, 2 3 and 5
2.4 kbit/s	Asynch, <del>Synch</del>	V.110	<del>NT or T</del>	Note 2, 3 and 5
4.8 kbit/s	Asynch, <del>Synch</del>	V.110	<del>NT or T</del>	Note 2, 3 and 5
9.6 kbit/s	Asynch, <del>Synch</del>	V.110	<del>NT or T</del>	Note 2, 4 and 5
14.4 kbit/s	Asynch, <del>Synch</del>	V.110	<del>NT or T</del>	Note 4 and 5
19.2 kbit/s	Asynch, <del>Synch</del>	V.110	<del>NT or T</del>	Note 4 and 5
28.8 kbit/s	Asynch, <del>Synch</del>	V.110	<del>NT or T</del>	Note 5
38.4 kbit/s	Asynch, <del>Synch</del>	V.110	<del>NT or T</del>	Note 4 and 5
<del>48 kbit/s</del>	<del>Synch</del>	<del>V.110</del>	<del>T</del>	
56 kbit/s	Synch	V.110	T (in a 64 kbit/s environment)	

NOTE 1: ~~Not applicable to synchronous NT service.~~

NOTE 2: These services are also supported by the GSM Phase 2 Specifications.

NOTE 3: ~~Only applicable in GSM~~In case of UTRAN the user rates 300, 1200, 2400 and 4800 bit/s towards the fixed network can be provided only for mobile terminated calls and only in Async non transparent (NT) mode.

NOTE 4: ~~Only applicable in GSM~~In case of UTRAN the FNURs 9.6, 14.4, 19.2 and 38.4 kbit/s towards the fixed network shall be provided only in non transparent (NT) mode.

NOTE 5: ~~NT is not applicable for synchronous services.~~

### 3.1.1.2 BS 20 NT (non-transparent asynchronous services)

#### 3.1.1.2.1 BS 20 non-transparent in regular mode for analogue interworking

Fixed Network User Rate	Access Structure	Information Transfer Capability	QoS attributes	Note
0.3 kbit/s	Asynch	3,1 kHz	<del>NT or T</del>	Note 2 and 4
1.2 kbit/s	Asynch, <del>Synch</del>	3,1 kHz	<del>NT or T</del>	Notes 4, 2 4 and 6
2.4 kbit/s	Asynch, <del>Synch</del>	3,1 kHz	<del>NT or T</del>	Note 2 4 and 6
4.8 kbit/s	Asynch, <del>Synch</del>	3,1 kHz	<del>NT or T</del>	Note 2 4 and 6
9.6 kbit/s	Asynch, <del>Synch</del>	3,1 kHz	<del>NT or T</del>	Note 5 and 6
14.4 kbit/s	Asynch, <del>Synch</del>	3,1 kHz	<del>NT or T</del>	Note 5 and 6
19.2 kbit/s	Asynch, <del>Synch</del>	3,1 kHz	<del>NT or T</del>	Note 5 and 6
28.8 kbit/s	Asynch, <del>Synch</del>	3,1 kHz	<del>NT or T</del>	Note 6
	Asynch	3,1 kHz	NT	Note 3

NOTE 1: ~~Not applicable to synchronous NT service.~~

NOTE 2: These services are also supported by the GSM Phase 2 Specifications.

NOTE 3: This is used with high speed modems such as V.90 (56kbit/s). Modem type = 'Autobauding Type 1' is selected. FNUR has no meaning in this case.

NOTE 4: In case of UTRAN the FNURs 300, 1200, 2400 and 4800 bit/s towards the fixed network can be provided only in Async non transparent (NT) mode with modem type = 'Autobauding Type 1' is selected.

NOTE 5: In case of UTRAN the FNURs 9.6, 14.4 and 19.2 kbit/s towards the fixed network shall be provided only in non-transparent (NT) mode.

NOTE 6: NT is not applicable for synchronous services.

### 3.1.1.2.2 BS 20 non-transparent in regular mode for digital interworking

Fixed Network User Rate	Access Structure	User Information Layer 1 protocol	QoS Attribute	Notes
0.3 kbit/s	Asynch	V.110	NT or T	Note 2 and 3
1.2 kbit/s	Asynch, Synch	V.110	NT or T	Note 1, 2, 3 and 5
2.4 kbit/s	Asynch, Synch	V.110	NT or T	Note 2, 3 and 5
4.8 kbit/s	Asynch, Synch	V.110	NT or T	Note 2, 3 and 5
9.6 kbit/s	Asynch, Synch	V.110	NT or T	Note 2, 4 and 5
14.4 kbit/s	Asynch, Synch	V.110	NT or T	Note 4 and 5
19.2 kbit/s	Asynch, Synch	V.110	NT or T	Note 4 and 5
28.8 kbit/s	Asynch, Synch	V.110	NT or T	Note 5
38.4 kbit/s	Asynch, Synch	V.110	NT or T	Note 4 and 5
48 kbit/s	Synch	V.110	T	
56 kbit/s	Synch	V.110	T (in a 64 kbit/s environment)	

NOTE 1: Not applicable to synchronous NT service.

NOTE 2: These services are also supported by the GSM Phase 2 Specifications.

NOTE 3: In case of UTRAN the user rates 300, 1200, 2400 and 4800 bit/s towards the fixed network can be provided only for mobile terminated calls and only in Async non-transparent (NT) mode.

NOTE 4: In case of UTRAN the FNURs 9.6, 14.4, 19.2 and 38.4 kbit/s towards the fixed network shall be provided only in non-transparent (NT) mode.

NOTE 5: NT is not applicable for synchronous services.

### 3.1.3 Void

### 3.1.4V.120

Fixed Network User Rate	Access Structure	User Information Layer 1 protocol	QoS Attribute	Notes
1.2 kbit/s	Asynch	V.120	NT	Note 3
2.4 kbit/s	Asynch	V.120	NT	Note 3
4.8 kbit/s	Asynch	V.120	NT	Note 3
9.6 kbit/s	Asynch	V.120	NT	
14.4 kbit/s	Asynch	V.120	NT	
19.2 kbit/s	Asynch	V.120	NT	
28.8 kbit/s	Asynch	V.120	NT	Note 1
38.4 kbit/s	Asynch	V.120	NT	
48 kbit/s	Asynch	V.120	NT	
56 kbit/s	Asynch	V.120	NT	Note 2

NOTE 1: Requires a new code point in V.120 specification to be defined.

NOTE 2: Not applicable in a 56 kbit/s environment.

NOTE 3: In case of UTRAN the user rates 1200, 2400 and 4800 bit/s toward the fixed network can be provided only for asynchronous non-transparent (NT) mobile terminated calls.

### 3.1.5 Bit Transparent Mode

Fixed Network User Rate	Access Structure	User Information Layer 1 protocol	QoS Attribute	Notes
56 kbit/s	Synch	Bit transparent	T (RDI) (in a 56 kbit/s environment)	
64 kbit/s	Synch	Bit transparent	T (UDI) (in a 64 kbit/s environment)	

#### 3.1.63.1.1.2.3 BS 20 non-transparent for PIAFS

Fixed Network User Rate	Access Structure	User Information Layer 1 protocol	QoS Attribute	Notes
32 kbit/s	Asynch	PIAFS	NT	
64 kbit/s	Asynch	PIAFS	NT	

#### 3.1.73.1.1.2.4 BS 20 non-transparent for Frame Tunnelling Mode

Fixed Network User Rate	Access Structure	User Information Layer 1 protocol	QoS Attribute	Notes
56kbit/s	Asynch	X.31 flag stuffing	NT	
64 kbit/s	Asynch	X.31 flag stuffing	NT	Note1

NOTE1: Not applicable in a 56kbit/s environment.

## 3.1.2 BS 30 (synchronous services)

### 3.1.2.1 BS 30 T (transparent synchronous services)

#### 3.1.2.1.1 BS 30 transparent in regular mode for analogue interworking

Fixed Network User Rate	Access Structure	Information Transfer Capability	QoS attributes	Note
0.3 kbit/s	Asynch	3,1 kHz	NT or T	Note 2 and 4
1.2 kbit/s	Asynch, Synch	3,1 kHz	NT or T	Notes 4, 2 4 and 6
2.4 kbit/s	Asynch, Synch	3,1 kHz	NT or T	Note 2 4 and 6
4.8 kbit/s	Asynch, Synch	3,1 kHz	NT or T	Note 2 4 and 6
9.6 kbit/s	Asynch, Synch	3,1 kHz	NT or T	Note 5 and 6
14.4 kbit/s	Asynch, Synch	3,1 kHz	NT or T	Note 5 and 6
19.2 kbit/s	Asynch, Synch	3,1 kHz	NT or T	Note 5 and 6
28.8 kbit/s	Asynch, Synch	3,1 kHz	NT or T	Note 6
	Asynch	3,1 kHz	NT	Note 3

NOTE 1: Not applicable to synchronous NT service.

NOTE 2: These services are also supported by the GSM Phase 2 Specifications.

NOTE 3: This is used with high speed modems such as V.90 (56kbit/s). Modem type = 'Autobauding Type 1' is selected. FNUR has no meaning in this case.

NOTE 4: In case of UTRAN the FNURs 300, 1200, 2400 and 4800 bit/s towards the fixed network can be provided only in Async non transparent (NT) mode with modem type = 'Autobauding Type 1' is selected. Only applicable in GSM

NOTE 5: In case of UTRAN the FNURs 9.6, 14.4 and 19.2 kbit/s towards the fixed network shall be provided only in non transparent (NT) mode Only applicable in GSM.

NOTE 6: NT is not applicable for synchronous services.

### 3.1.2.1.2 BS 30 transparent in regular mode for digital interworking

Fixed Network User Rate	Access Structure	User Information Layer 1 protocol	QoS Attribute	Notes
0.3 kbit/s	Asynch	V.110	NT or T	Note 2 and 3
1.2 kbit/s	Asynch, Synch	V.110	NT or T	Note 1, 2 3 and 5
2.4 kbit/s	Asynch, Synch	V.110	NT or T	Note 2, 3 and 5
4.8 kbit/s	Asynch, Synch	V.110	NT or T	Note 2, 3 and 5
9.6 kbit/s	Asynch, Synch	V.110	NT or T	Note 2, 4 and 5
14.4 kbit/s	Asynch, Synch	V.110	NT or T	Note 4 and 5
19.2 kbit/s	Asynch, Synch	V.110	NT or T	Note 4 and 5
28.8 kbit/s	Asynch, Synch	V.110	NT or T	Note 5
38.4 kbit/s	Asynch, Synch	V.110	NT or T	Note 4 and 5
48 kbit/s	Synch	V.110	T	
56 kbit/s	Synch	V.110	T (in a 64 kbit/s environment)	

NOTE 1: Not applicable to synchronous NT service.

NOTE 2: These services are also supported by the GSM Phase 2 Specifications.

NOTE 3: In case of UTRAN the user rates 300, 1200, 2400 and 4800 bit/s towards the fixed network can be provided only for mobile terminated calls and only in Async non transparent (NT) mode. Only applicable in GSM

NOTE 4: In case of UTRAN the FNURs 9.6, 14.4, 19.2 and 38.4 kbit/s towards the fixed network shall be provided only in non transparent (NT) mode Only applicable in GSM.

NOTE 5: NT is not applicable for synchronous services.

Fixed Network User Rate	Access Structure	User Information Layer 1 protocol	QoS Attribute	Notes
56 kbit/s	Synch	Bit transparent	T (RDI) (in a 56 kbit/s environment)	
64 kbit/s	Synch	Bit transparent	T (UDI) (in a 64 kbit/s environment)	

## 3.1.83.1.2.1.3

## BS 30 transparent for Multimedia Call

Fixed Network User Rate	Access Structure	Information Transfer Capability	User Information Layer 1 protocol	QoS Attribute	Notes
28.8 kbit/s	Synch	3.1kHz Audio	H.223 & H.245	T	
32.0 kbit/s	Synch	UDI	H.223 & H.245	T	
33.6 kbit/s	Synch	3.1kHz Audio	H.223 & H.245	T	Note
56 kbit/s	Synch	RDI	H.223 & H.245	T	
64 kbit/s	Synch	UDI	H.223 & H.245	T	

NOTE: 33.6kbit/s FNURs is applicable only for UTRAN.