# 3GPP TSG CN Plenary Meeting #26 8<sup>th</sup> – 10<sup>th</sup> December 2004 Athens, Greece.

Source:	TSG CN WG4
Title:	Corrections on Diameter Coordination
Agenda item:	9.1
Document for:	APPROVAL

Spec	CR	Rev	Doc-2nd-Level N4-040	Phase	Subject	Cat	Ver_C
29.230	006		1337	Rel-6	Inclusion of missing Cx AVPs	F	6.1.0
29.230	011		1547	Rel-6	Gq interface allocations	С	6.1.0
29.230	009	1	1580	Rel-6	Addition of Gmb interface	F	6.1.0
29.230	012		1603	Rel-6	Addition of Gx interface	С	6.1.0
29.230	010	1	1654	Rel-6	Documenting the Reuse of the 3GPP specific application identifier of Ro for Re on the Charging Interfaces	С	6.1.0

N4-041337

Seoul, KOREA. 15<sup>th</sup> to 19<sup>th</sup> November 2004.

	CHANC	GE REQU	IEST	•	C	R-Form-v7.1
ж	29.230 CR 006	жrev	<b>-</b> #	Current version:	6.1.0	ж
For <mark>HEL</mark>	P on using this form, see bottom of	this page or lo	ok at th	e pop-up text over	the X syr	nbols.

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

Title:	ж	Inclusion of missing Cx AVPs		
Source:	Ħ	Cn4		
Work item code	<b>.</b> ԳР	IMS CCP2	Data: 9	01/11/2004
	. ~	IWIS-CCR2	Date. #	01/11/2004
Category:	ж	F	Release: ೫	Rel-6
		Use one of the following categories:	Use <u>one</u> of	the following releases:
		F (correction)	Ph2	(GSM Phase 2)
		A (corresponds to a correction in an earlier release)	R96	(Release 1996)
		<b>B</b> (addition of feature),	R97	(Release 1997)
		C (functional modification of feature)	R98	(Release 1998)
		<b>D</b> (editorial modification)	R99	(Release 1999)
		Detailed explanations of the above categories can	Rel-4	(Release 4)
		be found in 3GPP TR 21.900.	Rel-5	(Release 5)
			Rel-6	(Release 6)
			Rel-7	(Release 7)

Reason for change: अ	AVP's associated with the introduction of 'Features' are not included in 29.230
Summary of change: ೫	AVP's that are missing are added.
	Also, note to implementor – the merged cell containing '29.229' in the table in section 7.1 needs to have the cell aligned with AVP 627 merged in to it.
Consequences if # not approved:	Record of AVP's used for Cx interface is incomplete
Clauses affected: #	7.1
Other specs अ affected:	Y       N         X       Other core specifications         X       Test specifications         X       O&M Specifications
Other comments: ೫	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

# 7.1 3GPP specific AVP codes

AVP Code	Attribute Name	Data Type	Specified in the 3GPP TS
	AVP codes from 1 to 255 are reserved for backward	Is compatibility with 3	I 3GPP RADIUS Vendor
	ttributes (See TS 29.061 [13])	100	
Note: The	AVP codes from 256 to 299 are reserved for future i	use.	20.224 [6]
Noto: Tho	AVP codes from 300 to 399 are reserved for TS 29.	224	29.234 [6]
Note. The	AVP codes nom 300 to 399 are reserved for 13 29.	234	29.109 [7]
Noto: Tho	AVP codes from 400 to 499 are reserved for TS 29.	100	29.109[7]
		103	29.209 [8]
Note: The	AVP codes from 500 to 599 are reserved for TS 29.	200	29.209 [0]
600	Visited-Network-Identifier	OctetString	
601	Public-Identity	UTF8String	
602	Server-Name	UTF8String	
603	Server-Capabilities	Grouped	
604	Mandatory-Capability	Unsigned32	
605	Optional-Capability	Unsigned32	
606	User-Data	OctetString	
607	SIP-Number-Auth-Items	Unsigned32	
608	SIP-Authentication-Scheme	UTF8String	
609	SIP-Authenticate	OctetString	
610	SIP-Authorization	OctetString	
611	SIP-Authentication-Context	OctetString	
612	SIP-Auth-Data-Item	Grouped	
613	SIP-Item-Number	Unsigned32	
614	Server-Assignment-Type	Enumerated	
615	Deregistration-Reason	Grouped	
616	Reason-Code	Enumerated	
617	Reason-Info	UTF8String	
618	Charging-Information	Grouped	
619	Primary-Event-Charging-Function-Name	DiameterURI	
620	Secondary-Event-Charging-Function-Name	DiameterURI	
621	Primary-Charging-Collection-Function-Name	DiameterURI	
622	Secondary-Charging-Collection-Function-Name	DiameterURI	
623	User-Authorization-Type	Enumerated	
624	User-Data-Already-Available	Enumerated	
625	Confidentiality-Key	OctetString	
626	Integrity-Key	OctetString	
627	User-Data-Request-Type	Enumerated	
628	Supported-Features	Grouped	
629	Feature-List-ID	Unsigned32	
630	Feature-List	Unsigned32	
631	Supported-Applications	Grouped	
	AVP codes from 628 to 699 are reserved for TS 29.		
700	User-Identity	Grouped	
701	MSISDN	OctetString	
702	User-Data	OctetString	
703	Data-Reference	Enumerated	1
704	Service-Indication	OctetString	1
705	Subs-Req-Type	Enumerated	1
706	Requested-Domain	Enumerated	1
707	Current-Location	Enumerated	1
708	Identity-Set	Enumerated	1
Note: The	AVP codes from 709 to799 are reserved for TS 29.3	329.	
			32.299 [5]

Note: The AVP codes from 800 to 899 are reserved for TS 32.299

N4-041547

Seoul, KOREA. 15<sup>th</sup> to 19<sup>th</sup> November 2004.

	(	CHANGE	REQ	UE	ST	•	C	R-Form-v7.1
ж	29.230 CR	011	жrev	-	ж	Current version:	6.1.0	ж
For <mark>HE</mark>	<b>LP</b> on using this form, see	e bottom of this	s page or	look a	at th	e pop-up text over	the X syr	nbols.

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

Title:	ж	Gq interface allocations		
Source:	ж	CN4		
Work item code	:H	TEI6	<i>Date:</i> ೫	16/11/2004
Category:	Ħ	C	Release: भ	
		Use one of the following categories:		the following releases:
		F (correction)	Ph2	(GSM Phase 2)
		A (corresponds to a correction in an earlier releas	e) R96	(Release 1996)
		<b>B</b> (addition of feature),	R97	(Release 1997)
		<b>C</b> (functional modification of feature)	R98	(Release 1998)
		<b>D</b> (editorial modification)	R99	(Release 1999)
		Detailed explanations of the above categories can	Rel-4	(Release 4)
		be found in 3GPP <u>TR 21.900</u> .	Rel-5	(Release 5)
			Rel-6	(Release 6)
			Rel-7	(Release 7)

Reason for change:	# To keep 3GPP Diameter allocations up-to-date according to CN3 LS (N4-
U U	041253, N3-040531)
	041200, 100 040001)
Summary of change:	# 3GPP AVPs and result-codes allocated in 29.209 are added.
Consequences if	# 3GPP Diameter allocations are not up-to-date.
not approved:	
Clauses affected:	<mark>郑</mark> 7.1, 8.1.4
	YN
Other specs	#     X     Other core specifications     #
affected:	X Test specifications
anecieu.	
	X O&M Specifications
Other comments:	<mark>೫</mark>

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

# 7.1 3GPP specific AVP codes

AVP Code	Attribute Name	Data Type	Specified in the 3GPP TS
	AVP codes from 1 to 255 are reserved for backwa	ards compatibility with 3	I BGPP RADIUS Vend
	ttributes (See TS 29.061 [13])		
Note: The	AVP codes from 256 to 299 are reserved for futur	e use.	
			29.234 [6]
Note: The	AVP codes from 300 to 399 are reserved for TS 2	9.234	
Lata Tha		0.400	29.109 [7]
	AVP codes from 400 to 499 are reserved for TS 2		
<u>500</u> 501	Abort-Cause Access-Network-Charging-Address	Enumerated Address	
<u>502</u> 503	Access-Network-Charging-Identifier Access-Network-Charging-Identifier-Value	Grouped	
<u>503</u> 504	AF-Application-Identifier	OctetString OctetString	
<u>504</u> 505	AF-Charging-Identifier	OctetString	
<u>505</u> 506	Authorization-Token	OctetString	
<u>500</u>	Flow-Description	IPFilterRule	
<u>508</u>	Flow-Grouping	Grouped	
<u>500</u>	Flow-Number	Unsigned32	1
<u>510</u>	Flows	Grouped	
<u>510</u> 511	Flow-Status	Enumerated	
<u>512</u>	Flow-Usage	Enumerated	
513	Gq-Specific-Action	Enumerated	
514	Max-Requested-Bandwidth	Unsigned32	
515	Max-Requested-Bandwidth-DL	Unsigned32	
516	Max-Requested-Bandwidth-UL	Unsigned32	
517	Media-Component-Description	Grouped	
<u>518</u>	Media-Component-Number	Unsigned32	
519	Media-Sub-Component AVP	Grouped	
520	Media-Type	Enumerated	
521	RR-Bandwidth	Unsigned32	
522	RS-Bandwidth	Unsigned32	
523	SIP-Forking-Indication	Enumerated	
	AVP codes from 52400 to 599 are reserved for T		1
<del>600</del>	Visited-Network-Identifier	OctetString	
<del>601</del>	Public-Identity	UTF8String	
<del>602</del>	Server-Name	UTF8String	
<del>603</del>	Server-Capabilities	Grouped	
<del>604</del>	Mandatory-Capability	Unsigned32	
<del>605</del>	Optional-Capability	Unsigned32	
<del>606</del>	User-Data	OctetString	
<del>607</del>	SIP-Number-Auth-Items	Unsigned32	
<del>608</del>	SIP-Authentication-Scheme	UTF8String	
<del>609</del>	SIP-Authenticate	OctetString	
<del>610</del>	SIP-Authorization	OctetString	
<del>611</del>	SIP-Authentication-Context	OctetString	
<del>612</del>	SIP-Auth-Data-Item	Grouped	
<del>613</del>	SIP-Item-Number	Unsigned32	
<del>614</del>	Server-Assignment-Type	Enumerated	
<del>615</del>	Deregistration-Reason	Grouped	
<del>616</del>	Reason-Code	Enumerated	
<del>617</del>	Reason-Info	UTF8String	
	Charging-Information	Grouped	1
618 619	Primary Event-Charging-Function-Name	DiameterURI	-

<del>621</del>	Primary-Charging-Collection-Function-Name	<b>DiameterURI</b>	
<del>622</del>	Secondary-Charging-Collection-Function-Name	<b>DiameterURI</b>	
<del>623</del>	User-Authorization-Type	Enumerated	
<del>624</del>	User-Data-Already-Available	Enumerated	
<del>625</del>	Confidentiality-Key	OctetString	
<del>626</del>	Integrity-Key	OctetString	
<del>627</del>	User-Data-Request-Type	Enumerated	
lote: The	AVP codes from 628 to 699 are reserved for TS 29.	<del>229.</del>	
<del>700</del>	User-Identity	Grouped	
<del>701</del>	MSISDN	OctetString	
<del>702</del>	User-Data	OctetString	
<del>703</del>	Data-Reference	Enumerated	
<del>704</del>	Service-Indication	OctetString	
<del>705</del>	Subs-Req-Type	Enumerated	
<del>706</del>	Requested-Domain	Enumerated	
<del>707</del>	Current-Location	Enumerated	
<del>708</del>	Identity-Set	Enumerated	
	AVP codes from 709 to799 are reserved for TS 29.3	329.	
lote: The			

\*\*\* Next Modification \*\*\*

## 8.1.4 Permanent Failures

The Permanent Failure result codes shall use the values from 5001 to 5999 in the Experimental Result-Code AVP. The reserved 3GPP specific Permanent Failure result codes are presented in the following table.

Experimental Result Code	Result text	Specified in the T
<del>5001</del>	DIAMETER_ERROR_USER_UNKNOWN	
<del>5002</del>	DIAMETER_ERROR_IDENTITIES_DONT_MATCH	
<del>5003</del>	DIAMETER_ERROR_IDENTITY_NOT_REGISTERED	
<del>5004</del>	DIAMETER_ERROR_ROAMING_NOT_ALLOWED	
<del>5005</del>	DIAMETER_ERROR_IDENTITY_ALREADY_REGISTERED	
<del>5006</del>	DIAMETER_ERROR_AUTH_SCHEME_NOT_SUPPORTED	
<del>5007</del>	DIAMETER_ERROR_IN_ASSIGNMENT_TYPE	
<del>5008</del>	DIAMETER_ERROR_TOO_MUCH_DATA	
<del>5009</del>	DIAMETER_ERROR_NOT_SUPPORTED_USER_DATA	]
<del>5010</del>	DIAMETER_MISSING_USER_ID	
Note: The Expe	primental Result Codes from 5011 to 5020 are reserved for the T	<del>S 29.229.</del>
		<del>32.299 [5]</del>
Note: The Expe	primental Result Codes from 5021 to 5040 are reserved for the T	<del>S 32.299.</del>
•	primental Result Codes from 5021 to 5040 are reserved for the Tr primental Result Codes from 5041 to 5060 are reserved for the Tr	<del>S 32.299.</del> <del>29.234 [6]</del>
•		<del>S 32.299.</del> <del>29.234 [6]</del>
Note: The Expe	rimental Result Codes from 5041 to 5060 are reserved for the T	<del>S 32.299.</del> <del>29.234 [6]</del>
Note: The Expe 5061 5062	erimental Result Codes from 5041 to 5060 are reserved for the Ta GQ_INVALID_SERVICE_INFORMATION	<del>S 32.299.</del> <del>29.234 [6]</del> <del>S 29.234.</del>
Note: The Expe 5061 5062	erimental Result Codes from 5041 to 5060 are reserved for the T GQ_INVALID_SERVICE_INFORMATION GQ_FILTER_RESTRICTIONS	<del>S 32.209.</del> <del>29.234 [6]</del> S <del>29.234.</del>
Note: The Expe 5061 5062 Note: The Expe	Primental Result Codes from 5041 to 5060 are reserved for the T GQ_INVALID_SERVICE_INFORMATION GQ_FILTER_RESTRICTIONS Primental Result Codes from 506 <u>3</u> 1 to 5080 are reserved for the T	<del>S 32.209.</del> <del>29.234 [6]</del> S <del>29.234.</del>
Note: The Expe <u>5061</u> <u>5062</u> Note: The Expe <del>5100</del>	erimental Result Codes from 5041 to 5060 are reserved for the Ta <u>GQ_INVALID_SERVICE_INFORMATION</u> <u>GQ_FILTER_RESTRICTIONS</u> primental Result Codes from 506 <u>3</u> 1 to 5080 are reserved for the DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED	<del>S 32.299.</del> <del>29.234 [6]</del> <del>S 29.234.</del>
Note: The Expe <u>5061</u> <u>5062</u> Note: The Expe <u>5100</u> 5101	Primental Result Codes from 5041 to 5060 are reserved for the To GQ_INVALID_SERVICE_INFORMATION GQ_FILTER_RESTRICTIONS primental Result Codes from 506 <u>3</u> 1 to 5080 are reserved for the DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED DIAMETER_ERROR_OPERATION_NOT_ALLOWED	<del>S 32.299.</del> <del>29.234 [6]</del> <del>S 29.234.</del>
Note: The Expe <u>5061</u> <u>5062</u> Note: The Expe <u>5100</u> <u>5101</u> <u>5102</u>	primental Result Codes from 5041 to 5060 are reserved for the TS <u>GQ_INVALID_SERVICE_INFORMATION</u> <u>GQ_FILTER_RESTRICTIONS</u> primental Result Codes from 506 <u>3</u> 1 to 5080 are reserved for the DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED DIAMETER_ERROR_OPERATION_NOT_ALLOWED DIAMETER_ERROR_USER_DATA_CANNOT_BE_READ DIAMETER_ERROR_USER_DATA_CANNOT_BE_MODIFIE	<del>S 32.209.</del> <del>29.234 [6]</del> S <del>29.234.</del>
Note: The Expe <u>5061</u> <u>5062</u> Note: The Expe <u>5100</u> <u>5101</u> <u>5102</u> <u>5103</u>	primental Result Codes from 5041 to 5060 are reserved for the TS <u>GQ_INVALID_SERVICE_INFORMATION</u> <u>GQ_FILTER_RESTRICTIONS</u> primental Result Codes from 506 <u>3</u> 1 to 5080 are reserved for the DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED DIAMETER_ERROR_OPERATION_NOT_ALLOWED DIAMETER_ERROR_USER_DATA_CANNOT_BE_READ DIAMETER_ERROR_USER_DATA_CANNOT_BE_MODIFIE D	<del>S 32.209.</del> <del>29.234 [6]</del> S <del>29.234.</del>
Note: The Expe 5061 5062 Note: The Expe 5100 5101 5102 5103 5104 5105	Diverse Content of the terms of terms of the terms of te	<del>S 32.209.</del> 29.234 [6] S 29.234. TS 29.209.

### Table 8.1.4: 3GPP specific Permanent Failure result codes

N4-041580

Seoul, KOREA. 15<sup>th</sup> to 19<sup>th</sup> November 2004.

	CHANGE REQUEST					R-Form-v7.1		
æ	29.230 CR	009	жrev	1	ж	Current version:	6.1.0	ж
For <mark>H</mark>	ELP on using this form, see	e bottom of this	s page or l	look	at th	e pop-up text over	the	nbols.

E Radio Access Network Core Network X
E 🦰 Radio Access Network 📃 Core Network 🚺

Title:	ж	Addition of Gmb interface		
Source:	ж	CN4		
Work item code	<b>.</b> എ	7 4	Data: 9	19/11/2004
work nem code	. ~	7.4	Date. #	19/11/2004
Category:	ж	F	Release: ೫	Rel-6
		Use one of the following categories:	Use <u>one</u> of	the following releases:
		F (correction)	Ph2	(GSM Phase 2)
		A (corresponds to a correction in an earlier release,	) R96	(Release 1996)
		<b>B</b> (addition of feature),	R97	(Release 1997)
		C (functional modification of feature)	R98	(Release 1998)
		<b>D</b> (editorial modification)		(Release 1999)
		Detailed explanations of the above categories can	Rel-4	(Release 4)
		be found in 3GPP <u>TR 21.900</u> .	Rel-5	(Release 5)
			Rel-6	(Release 6)
			Rel-7	(Release 7)

Reason for change: #	CN3 has requested range codes for Gmb interface (part of TS 29.061)
_	
Summary of change: भ्र	A range of AVP, experimental error codes for permanent failures codes is reserved. Also a placeholder for the application-id is created
Consequences if #	Missing one 3GPP diameter application from 29.230
not approved:	
Clauses affected: #	4.1, 7.1, 8.1.4
Other specs अ affected:	X Test specifications
	X O&M Specifications
Other comments: #	
Other comments: #	

How to create CRs using this form: Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

#### \*\*\*\*\*\*\*\* FIRST MODIFIED CLAUSE \*\*\*\*\*\*\*

## 4.1 3GPP specific application identifiers

The 3GPP specific application identifiers allocated by IANA are listed in the following table.

#### Table 4.1: 3GPP specific application identifiers

Application identifier	Application	3GPP TS
16777216	3GPP Cx/Px	29.228 [1] and 29.229 [2]
16777217	3GPP Sh/Ph	29.328 [3] and 29.329 [4]

Editors note: The following applications are under development and they don't have the application id yet.

3GPP Wx	29.234 [6]
3GPP Zn	29.109 [7]
3GPP Zh	29.109 [7]
3GPP Gq	29.209 [8]
<u>3GPP Gmb</u>	<u>29.061 [13]</u>

#### \*\*\*\*\*\*\* NEXT MODIFIED CLAUSE \*\*\*\*\*\*\*

## 7.1 3GPP specific AVP codes

Specific Attri           Note: The A           600           V           601           P           602           603           604           M           605           606           607           608           609           610	VP codes from 1 to 255 are reserved for backward ibutes (See TS 29.061 [13]) VP codes from 256 to 299 are reserved for future u VP codes from 300 to 399 are reserved for TS 29.2 VP codes from 400 to 499 are reserved for TS 29.2 VP codes from 500 to 599 are reserved for TS 29.2 /isited-Network-Identifier Public-Identity Server-Name Server-Capabilities Mandatory-Capability Deptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	USE. 234 234 109 209 OctetString UTF8String UTF8String UTF8String UTF8String UTF8String UTF8String UTF8String UTF8String Unsigned32 Unsigned32 Unsigned32	3GPP RADIUS Vendoi 29.234 [6] 29.109 [7] 29.209 [8]
Note: The A           600         V           601         P           602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	VP codes from 256 to 299 are reserved for future u VP codes from 300 to 399 are reserved for TS 29.2 VP codes from 400 to 499 are reserved for TS 29.2 VP codes from 500 to 599 are reserved for TS 29.2 Visited-Network-Identifier Public-Identity Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	234 234 109 209 OctetString UTF8String UTF8String UTF8String UTF8String UTF8String UTF8String Unsigned32 Unsigned32 OctetString Unsigned32	29.109 [7]
Note: The A           Note: The A           Note: The A           Mote: The A           600         V           601         P           602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	VP codes from 300 to 399 are reserved for TS 29.2 VP codes from 400 to 499 are reserved for TS 29.2 VP codes from 500 to 599 are reserved for TS 29.2 Visited-Network-Identifier Public-Identity Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	234 234 109 209 OctetString UTF8String UTF8String UTF8String UTF8String UTF8String UTF8String Unsigned32 Unsigned32 OctetString Unsigned32	29.109 [7]
Note: The A           Note: The A           600         V           601         P           602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	VP codes from 400 to 499 are reserved for TS 29. VP codes from 500 to 599 are reserved for TS 29.2 /isited-Network-Identifier Public-Identity Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	109 209 UTF8String UTF8String UTF8String Grouped Unsigned32 Unsigned32 OctetString Unsigned32	29.109 [7]
Note: The A           Note: The A           600         V           601         P           602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	VP codes from 400 to 499 are reserved for TS 29. VP codes from 500 to 599 are reserved for TS 29.2 /isited-Network-Identifier Public-Identity Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	109 209 UTF8String UTF8String UTF8String Grouped Unsigned32 Unsigned32 OctetString Unsigned32	
Note: The AV           600         V           601         P           602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	VP codes from 500 to 599 are reserved for TS 29.2 /isited-Network-Identifier Public-Identity Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	209 OctetString UTF8String UTF8String Grouped Unsigned32 Unsigned32 OctetString Unsigned32	
Note: The AV           600         V           601         P           602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	VP codes from 500 to 599 are reserved for TS 29.2 /isited-Network-Identifier Public-Identity Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	209 OctetString UTF8String UTF8String Grouped Unsigned32 Unsigned32 OctetString Unsigned32	29.209 [8]
600         V           601         P           602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	/isited-Network-Identifier Public-Identity Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	OctetString UTF8String Grouped Unsigned32 Unsigned32 OctetString Unsigned32	29.209 [8]
600         V           601         P           602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	/isited-Network-Identifier Public-Identity Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	OctetString UTF8String Grouped Unsigned32 Unsigned32 OctetString Unsigned32	
601         P           602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	Public-Identity Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	UTF8String UTF8String Grouped Unsigned32 Unsigned32 OctetString Unsigned32	
602         S           603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	Server-Name Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	UTF8String Grouped Unsigned32 Unsigned32 OctetString Unsigned32	
603         S           604         M           605         O           606         U           607         S           608         S           609         S           610         S	Server-Capabilities Mandatory-Capability Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	Grouped Unsigned32 Unsigned32 OctetString Unsigned32	
604         M           605         O           606         U           607         S           608         S           609         S           610         S	Vandatory-Capability Optional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	Unsigned32 Unsigned32 OctetString Unsigned32	•
605         O           606         U           607         S           608         S           609         S           610         S	Dptional-Capability Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	Unsigned32 OctetString Unsigned32	
606         U           607         S           608         S           609         S           610         S	Jser-Data SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	OctetString Unsigned32	
607 S 608 S 609 S 610 S	SIP-Number-Auth-Items SIP-Authentication-Scheme SIP-Authenticate	Unsigned32	
608 S 609 S 610 S	SIP-Authentication-Scheme SIP-Authenticate		1
609 S 610 S	SIP-Authenticate		
610 S		UTF8String	
		OctetString	
611 IS	SIP-Authorization	OctetString	
	SIP-Authentication-Context	OctetString	
	SIP-Auth-Data-Item	Grouped	
	SIP-Item-Number	Unsigned32	
	Server-Assignment-Type	Enumerated	
	Deregistration-Reason	Grouped	
	Reason-Code	Enumerated	
	Reason-Info	UTF8String	
	Charging-Information	Grouped	
	Primary-Event-Charging-Function-Name	DiameterURI	
	Secondary-Event-Charging-Function-Name	DiameterURI	
	Primary-Charging-Collection-Function-Name	DiameterURI	
	Secondary-Charging-Collection-Function-Name	DiameterURI	
	Jser-Authorization-Type	Enumerated	
	Jser-Data-Already-Available	Enumerated	
	Confidentiality-Key	OctetString	
	ntegrity-Key	OctetString	
	Jser-Data-Request-Type	Enumerated	
	VP codes from 628 to 699 are reserved for TS 29.2		
	Jser-Identity	Grouped	
	ASISDN	OctetString	
	Jser-Data	OctetString	
	Data-Reference	Enumerated	
	Service-Indication	OctetString	
	Subs-Req-Type	Enumerated	
	Requested-Domain	Enumerated	
	Current-Location	Enumerated	
	dentity-Set	Enumerated	
Note: The A	VP codes from 709 to799 are reserved for TS 29.3	329.	
			32.299 [5]
Note: The A	VP codes from 800 to 899 are reserved for TS 32.2	299	
	VP codes from 9007 to 999 are reserved for TS 29		<u>29.061 [13]</u>

#### \*\*\*\*\*\*\* NEXT MODIFIED CLAUSE \*\*\*\*\*\*\*

## 8.1.4 Permanent Failures

The Permanent Failure result codes shall use the values from 5001 to 5999 in the Experimental Result-Code AVP. The reserved 3GPP specific Permanent Failure result codes are presented in the following table.

Experimental Result Code	Result text	Specified in the TS
<del>5001</del>	DIAMETER_ERROR_USER_UNKNOWN	
<del>5002</del>	DIAMETER_ERROR_IDENTITIES_DONT_MATCH	
<del>5003</del>	DIAMETER_ERROR_IDENTITY_NOT_REGISTERED	
<del>5004</del>	DIAMETER_ERROR_ROAMING_NOT_ALLOWED	
<del>5005</del>	DIAMETER_ERROR_IDENTITY_ALREADY_REGISTERED	
<del>5006</del>	DIAMETER_ERROR_AUTH_SCHEME_NOT_SUPPORTED	
<del>5007</del>	DIAMETER_ERROR_IN_ASSIGNMENT_TYPE	
<del>5008</del>	DIAMETER_ERROR_TOO_MUCH_DATA	
<del>5009</del>	DIAMETER_ERROR_NOT_SUPPORTED_USER_DATA	
<del>5010</del>	DIAMETER_MISSING_USER_ID	
Note: The Expe	rimental Result Codes from 5011 to 5020 are reserved for the T	<del>S 29.229.</del>
		<del>32.299 [5]</del>
Note: The Expe	rimental Result Codes from 5021 to 5040 are reserved for the T	<del>S 32.299.</del>
		<del>29.234 [6]</del>
Note: The Expe	rimental Result Codes from 5041 to 5060 are reserved for the T	<del>S 29.234.</del>
		<del>29.209 [8]</del>
Note: The Expe	rimental Result Codes from 5061 to 5080 are reserved for the T	<del>S 29.209.</del>
<del>5100</del>	DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED	
<del>5101</del>	DIAMETER_ERROR_OPERATION_NOT_ALLOWED	
<del>5102</del>	DIAMETER_ERROR_USER_DATA_CANNOT_BE_READ	
<del>5103</del>	DIAMETER_ERROR_USER_DATA_CANNOT_BE_MODIFIE	
<del>5104</del>	DIAMETER_ERROR_USER_DATA_CANNOT_BE_NOTIFIED	
<del>5105</del>	DIAMETER_ERROR_TRANSPARENT_DATA	
Note: The Expe	rimental Result Codes from 5106 to 5119 are reserved for the T	<del>S 29.329.</del>
		29.061 [13]
Note: The Expe	rimental Result Codes from 51204 to 5139 are reserved for the	TS 29.061
		<del>29.109 [7]</del>

#### Table 8.1.4: 3GPP specific Permanent Failure result codes

\*\*\*\*\*\*\*\* END OF MODIFIED CLAUSE \*\*\*\*\*\*\*

N4-041603

Seoul, KOREA. 15<sup>th</sup> to 19<sup>th</sup> November 2004.

	CHANGE REQUEST							
ж	29.230 CR	012	жrev	-	Ħ	Current version:	6.1.0	ж
For <mark>HI</mark>	ELP on using this form, see	e bottom of this	s page or	look	at th	e pop-up text over	the X syr	nbols.

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

Title:	ж	Addition of Gx interface		
Source:	ж	CN4		
Work item code	<b>:</b> Ж	TEI6	Date:	17/11/2004
_				
Category:	ж	C	Release: ೫	
		Use one of the following categories:		the following releases:
		F (correction)	Ph2	(GSM Phase 2)
		A (corresponds to a correction in an earlier relea	se) R96	(Release 1996)
		<b>B</b> (addition of feature),	R97	(Release 1997)
		C (functional modification of feature)	R98	(Release 1998)
		<b>D</b> (editorial modification)	R99	(Release 1999)
		Detailed explanations of the above categories can	Rel-4	(Release 4)
		be found in 3GPP TR 21.900.	Rel-5	(Release 5)
			Rel-6	(Release 6)
			Rel-7	(Release 7)

Reason for change:	CN3 LS on Assignment of the Diameter codes and identifiers for the Rel-6 Gx interface (N4-041583, N3-040818).
Summary of change:	Range of new 3GPP AVP-codes and result-codes are allocated. Placeholders for application-ids are created.
Consequences if not approved:	3GPP Diameter allocations may overlap and cause interoperability problems.
Clauses affected:	第 4.1, 7.1, 8.1.4
Other specs affected:	Y       N         X       Other core specifications       %         X       Test specifications       %         X       O&M Specifications
Other comments:	¥

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at

http://www.3gpp.org/specs/CR.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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

## 3GPP specific application identifiers

The 3GPP specific application identifiers allocated by IANA are listed in the following table.

Application identifier	Application	3GPP TS
16777216	3GPP Cx/Px	29.228 [1] and 29.229 [2]
16777217	3GPP Sh/Ph	29.328 [3] and 29.329 [4]

Editors note: The following applications are under development and they don't have the application id yet.

3GPP Wx	29.234 [6]
3GPP Zn	29.109 [7]
3GPP Zh	29.109 [7]
3GPP Gq	29.209 [8]
<u>3GPP Gx</u>	<u>29.210 [TBD]</u>
<u>3GPP Gx over Gy</u>	29.210 [TBD]

\*\*\* Next Modification \*\*\*

# 7.1 3GPP specific AVP codes

AVP Code	Attribute Name	Data Type	Specified in the 3GPP TS
	AVP codes from 1 to 255 are reserved for backward	ds compatibility with 3	I 3GPP RADIUS Vendor
	ttributes (See TS 29.061 [13])		
Note: The	AVP codes from 256 to 299 are reserved for future	use.	1
			29.234 [6]
Note: The	AVP codes from 300 to 399 are reserved for TS 29.	234	1
			29.109 [7]
Note: The	AVP codes from 400 to 499 are reserved for TS 29.	109	
			29.209 [8]
	AVP codes from 500 to 599 are reserved for TS 29.		1
600	Visited-Network-Identifier	OctetString	-
601	Public-Identity	UTF8String	-
602	Server-Name	UTF8String	-
603	Server-Capabilities	Grouped	-
604	Mandatory-Capability	Unsigned32	
605	Optional-Capability	Unsigned32	-
606	User-Data	OctetString	
607	SIP-Number-Auth-Items	Unsigned32	-
608	SIP-Authentication-Scheme	UTF8String	-
609	SIP-Authenticate	OctetString	-
610	SIP-Authorization	OctetString	-
611	SIP-Authentication-Context	OctetString	
612	SIP-Auth-Data-Item	Grouped	
613	SIP-Item-Number	Unsigned32	
614	Server-Assignment-Type	Enumerated	
615	Deregistration-Reason	Grouped	
616	Reason-Code	Enumerated	
617	Reason-Info	UTF8String	
618	Charging-Information	Grouped	
619	Primary-Event-Charging-Function-Name	DiameterURI	
620	Secondary-Event-Charging-Function-Name	DiameterURI	
621	Primary-Charging-Collection-Function-Name	DiameterURI	
622	Secondary-Charging-Collection-Function-Name	DiameterURI	
623	User-Authorization-Type	Enumerated	
624	User-Data-Already-Available	Enumerated	
625	Confidentiality-Key	OctetString	
626	Integrity-Key	OctetString	
627	User-Data-Request-Type	Enumerated	
Note: The	AVP codes from 628 to 699 are reserved for TS 29.		
700	User-Identity	Grouped	
701	MSISDN	OctetString	1
702	User-Data	OctetString	1
703	Data-Reference	Enumerated	1
704	Service-Indication	OctetString	1
705	Subs-Reg-Type	Enumerated	1
706	Requested-Domain	Enumerated	1
707	Current-Location	Enumerated	1
708	Identity-Set	Enumerated	1
	AVP codes from 709 to799 are reserved for TS 29.3		1
			32.299 [5]
Note: The	AVP codes from 800 to 899 are reserved for TS 32.	299	
			29.210 [TBD]
Note: The	AVP codes from 1000 to 1099 are reserved for TS 2	29 210	

ļ

\*\*\* Next Modification \*\*\*

## 8.1.4 Permanent Failures

The Permanent Failure result codes shall use the values from 5001 to 5999 in the Experimental-Result-Code AVP. The reserved 3GPP specific Permanent Failure result codes are presented in the following table.

Experimental Result Code	Result text	Specified in the TS
5001	DIAMETER_ERROR_USER_UNKNOWN	
5002	DIAMETER_ERROR_IDENTITIES_DONT_MATCH	
5003	DIAMETER_ERROR_IDENTITY_NOT_REGISTERED	
5004	DIAMETER_ERROR_ROAMING_NOT_ALLOWED	
5005	DIAMETER_ERROR_IDENTITY_ALREADY_REGISTERED	
5006	DIAMETER_ERROR_AUTH_SCHEME_NOT_SUPPORTED	
5007	DIAMETER_ERROR_IN_ASSIGNMENT_TYPE	
5008	DIAMETER_ERROR_TOO_MUCH_DATA	
5009	DIAMETER_ERROR_NOT_SUPPORTED_USER_DATA	
5010	DIAMETER_MISSING_USER_ID	
Note: The Expe	rimental Result Codes from 5011 to 5020 are reserved for the TS	S 29.229.
		32.299 [5]
Note: The Expe	rimental Result Codes from 5021 to 5040 are reserved for the TS	S 32.299.
		29.234 [6]
Note: The Expe	rimental Result Codes from 5041 to 5060 are reserved for the TS	S 29.234.
		29.209 [8]
Note: The Expe	rimental Result Codes from 5061 to 5080 are reserved for the TS	S 29.209.
5100	DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED	
5101	DIAMETER_ERROR_OPERATION_NOT_ALLOWED	
5102	DIAMETER_ERROR_USER_DATA_CANNOT_BE_READ	
5103	DIAMETER_ERROR_USER_DATA_CANNOT_BE_MODIFIE D	
5104	DIAMETER_ERROR_USER_DATA_CANNOT_BE_NOTIFIED	
5105	DIAMETER_ERROR_TRANSPARENT_DATA OUT_OF_SYNC	
Note: The Expe	rimental Result Codes from 5106 to 5119 are reserved for the T	S 29.329.
		29.210 [TBD]
Note: The Expe	rimental Result Codes from 5140 to 5159 are reserved for the T	<u>S 29.210.</u>
		29.109 [7]
Note: The Expe	rimental Result Codes from 5400 to 5419 are reserved for the T	S 29.109.

Table 8.1.4: 3GPP specific Permanent Failure result codes

3GPP TSG-CN WG4 Meeting #25 <i>041654</i>			N4-						
Seoul, KOREA. 15 <sup>th</sup> to 19 <sup>th</sup> November 2004. <i>041536</i>			Revision of <i>N4-</i>						
			CHANC	<b>GE RI</b>	EQU	ES1	r		CR-Form-v7.1
H	29	<mark>.230</mark>	CR <mark>010</mark>	жГ	ev	<mark>1</mark>	Current ver	sion: 6.1.0	ж
For <u>HELP</u> on	using	this for	m, see bottom of	this pag	e or loc	ok at th	ne pop-up tex	t over the	rmbols.
Proposed change	e affec	<i>ts:</i>	JICC apps#	М	E 🔜 R	Radio A	Access Netwo	rk Core N	letwork X
Title:			ting the Reuse of Interfaces	the 3GF	PP spec	cific ap	plication iden	tifier of Ro for	Re on the
Source:	€ CN	4							
Work item code:	₭ <mark>C</mark> Н	I					Date: ଖ	3 <u>18/11/2004</u>	
Category:	Deta	F (corr A (corr B (add C (fund D (edit ailed exp	the following categorection) responds to a correlition of feature), ctional modification orial modification) olanations of the ab 3GPP <u>TR 21.900</u> .	ection in a of featur	e)		Ph2	F the following re (GSM Phase 2 (Release 1996 (Release 1997 (Release 1998 (Release 1999 (Release 4) (Release 4) (Release 5) (Release 6) (Release 7)	) ) )
Reason for chang	<b>је:</b> Ж	as Ro	ently the 3GPP sp b is using the bas assigned value, as	e IETF I	dentifie	er for C	harging. The	interface Re c	an reuse
Summary of char	i <b>ge:</b>	Enter charg	Re for the alread ging.	dy assig	ned 3G	PP sp	ecific applicat	tion identifier fo	or
Consequences if not approved:	ж	Confr interf	usion over 3GPP aces.	specific	applica	ation ic	lentifier use fo	or the charging	
Clauses affected:	· ¥	4.1							
Other specs affected:	ж	YN X X X	Other core spec Test specificatio O&M Specificati	ns	s 7	e			

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

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

# 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 29.228: " IP Multimedia (IM) Subsystem Cx and Dx interfaces; Signalling flows and message contents".
- [2] 3GPP TS 29.229: " Cx and Dx interfaces based on the Diameter protocol; Protocol details".
- [3] 3GPP TS 29.328: " IP Multimedia (IM) Subsystem Sh interface; Signalling flows and message contents".
- [4] 3GPP TS 29.329: "Sh Interface based on the Diameter protocol; Protocol details".
- [5] 3GPP TS 32.299 "3GPP Diameter charging application".
- [6] 3GPP TS 29.234: "3GPP System to WLAN Interworking; Stage 3 Description".
- [7] 3GPP TS 29.109: "Generic Authentication Architecture (GAA); Zh and Zn Interfaces based on the Diameter protocol; Protocol details".
- [8] 3GPP TS 29.209: "Technical Specification Group Core Network; Policy control over Gq interface".
- [9] IETF RFC 3588: "Diameter Base Protocol".
- [10] IETF RFC 3589: "Diameter Command Codes for Third Generation Partnership Project (3GPP) Release 5".

[11]	IANA's Enterprise-Numbers: http://www.iana.org/assignments/enterprise-numbers
[12]	IANA's AAA parameters register: ftp://ftp.iana.org/assignments/aaa-parameters/
[13]	3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)".
[c]	<u>3GPP TS 32.299: "Telecommunication management; Charging management;</u> <u>Diameter charging applications".</u>

Next Modified section

# 4.1 3GPP specific application identifiers

The 3GPP specific application identifiers allocated by IANA are listed in the following table.

Table 4.1: 3GPP specific ap	pplication identifiers
-----------------------------	------------------------

Application identifier	Application	3GPP TS
16777216	3GPP Cx/Px	29.228 [1] and 29.229 [2]
16777217	3GPP Sh/Ph	29.328 [3] and 29.329 [4]
<u>16777218</u>	<u>3GPP Re</u>	<u>32.299 [c]</u>

Editors note: The following applications are under development and they don't have the application id yet.

3GPP Wx	29.234 [6]
3GPP Zn	29.109 [7]
3GPP Zh	29.109 [7]
3GPP Gq	29.209 [8]