NP-050028

GPP TSG CN Plenary Meeting #27 9th – 11th March 2005 Tokyo, JAPAN.

Source:	TSG CN WG4
Title:	Corrections on OoBTC/TrFO
Agenda item:	7.7
Document for:	APPROVAL

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050156	23.153	087		Rel-4	Removal of AMR-WB codec	F	4.11.0
N4-050402	29.232	140	1	Rel-4	TFO activation without TFO Codec List	F	4.10.0
N4-050403	29.232	141	1	Rel-5	TFO activation without TFO Codec List	А	5.9.0
N4-050404	29.232	142	1	Rel-6	TFO activation without TFO Codec List	A	6.0.0
N4-050416	29.232	166		Rel-4	TFO procedure clarification	F	4.10.0
N4-050417	29.232	167		Rel-5	TFO procedure clarification	А	5.9.0
N4-050418	29.232	139	1	Rel-6	TFO procedure clarification	А	6.0.0
N4-050405	23.205	57		Rel-4	Solving contradiction for Release Cause in Release Bearer Procedure between stage 2 and stage 3	F	4.7.0
N4-050205	23.205	55		Rel-5	Solving contradiction for Release Cause in Release Bearer Procedure between stage 2 and stage 3	A	5.7.0
N4-050206	23.205	56		Rel-6	Solving contradiction for Release Cause in Release Bearer Procedure between stage 2 and stage 3	A	6.0.0

3GPP TSG-CN WG4 Meeting #26 Sydney, AUSTRALIA. 14th to 18th February 2005.

N4-050156

			CR-Form-v7						
	CHANGE REQUEST								
ж	23.153 CR 087	Current vers	^{sion:} <mark>4.11.0</mark> [#]						
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the <i>x</i> symbols.									
Proposed change affects: UICC apps# ME Radio Access Network Core Network X									
itle:	Removal of AMR-WB codec								
Source:	€ CN4								
<i>Vork item code:</i>	f OoBTC	<i>Date:</i> ೫	27/01/2005						
Category:	 F Use <u>one</u> of the following categories: <i>F</i> (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 <u>TR 21.900</u>. 	Release: ¥ Use <u>one</u> of Ph2 8) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6 Rel-7	Rel-4 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)						

Reason for change: ೫	Essential correction Apparently, instead of the Rel-4 version of CR 079 (N4-041701) the Rel-5 version CR 080 (N4-041702) was implemented. As a consequence, the specification now contains requirements related to the AMR-WB codec which is not part of Rel-4. Furthermore, it needs to be clarified that in a certain case it is a requirement for the MGW, not a recommendation, to coordinate the rate control requests.
Summary of change: ೫	The paragraph related to the AMR-WB codec, which are only applicable to Rel-5, are removed. Minor editorial correction in subclause 3.1.
Consequences if भ not approved:	Inconsistent specification.

Clauses affected:	<mark>ቼ 3.1, 5.3</mark>
0//	
Other specs	X Other core specifications
affected:	X Dest specifications
Other comments:	Corrections to later releases are not needed, since the error is only contained in the Rel-4 version.

How to create CRs using this form:

- 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.

3.1 Definitions

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

Codec: device to encode information from its original representation into an encoded form and to decode encoded information into its original representation

5.3 Media Gateway Control for Codec Handling

The general handling of MGW control procedures are detailed in [8]. Specific handling related to the control of the speech encoding is detailed in Figure. 5.3/1. The terms context, termination, streams and stream properties are described in the ITU-T H.248 "Media Gateway Control Protocol" [13].



Figure 5.3/1. MGW control for speech codec

The handling of transcoding between one codec type (media stream property applied at one termination) and another codec type (media stream property at other termination) is a function of the MGW. The media stream property for Audio Codec Type is defined in Annex C of the ITU-T MGW control protocol, H.248.

If TFO-incompatible codec types are applied at different terminations of the same context, the MGW shall insert a transcoder. For the definition of TFO-compatibility between 3GPP codec types and codec configurations see [10], clauses 11 and 12.

Between codecs of the AMR codec family, the MGW need not insert a transcoder, if the codec types are TFOcompatible according to [10], table 11-1, and

- the codecs use the same ACS; or
- the ACSs are TFO-compatible and the use of codec modes is restricted to a common subset of the ACSs by means of maximum rate control. In this case the MGW shallould coordinate the rate control request.

Between codecs of the AMR WB codec family, the MGW need not insert a transcoder, if

- the codecs use the same ACS; or
- the use of codec modes is restricted to a common subset of the ACSs by means of maximum rate control. In thiscase should coordinate the rate control request.

3GPP TSG-CN WG4 Meeting #26 Sydney, Australia, 14th to 18th February 2005

N4-050205

CHANGE REQUEST										
ж	23.2	2 <mark>05</mark> CF	R <mark>055</mark>	жr	ev	- *	Current ver	sion:	5.7.0	ж
For <u>HELP</u> on u	For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the <i>X</i> symbols.									
Proposed change affects: UICC apps# ME Radio Access Network Core Network X										
Title: ೫	Solv 2 an	ing contra d stage 3	diction for	Release (Cause ir	n Relea	ise Bearer Pi	rocedu	ire betwe	en stage
Source: ೫	CN4									
Work item code: ଝ	TEI4						<i>Date:</i> ଖ	8 <mark>31/(</mark>	01/2005	
Category: ₩	A Use <u>or</u> F A B C D D Detaile be fou	ne of the fo (correction (correspo (addition (functiona) (editorial ed explana nd in 3GPl	ollowing cate on) onds to a co of feature), al modification modification tions of the P <u>TR 21.900</u>	egories: rrection in a ion of featur n) above cate <u>2</u> .	an earlie re) gories c	<i>r releas</i> a	Release: # Use <u>one</u> o Ph2 e) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6 Rel-7	f the fol (GSM (Relea (Relea (Relea (Relea (Relea (Relea (Relea (Relea	-5 llowing rele 1 Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4) ase 5) ase 6) ase 7)	ases:
Reason for change: # Stage 2 specification (23.205) specifies that the Release Cause information element in the Release Bearer procedure is mandatory. Stage 3 specification (29.232 clause 14.2.8.1 Release Bearer) refers to the corresponding BICC procedure in Q.1950 (clause 7.1.7.1 Release). The Release Cause is defined in the Generic Bearer Connection package (Clause A.6.3.3) and consists of 3 different parameters (GeneralCause, FailureCause and Reset indication) . Clause A.6.5 Procedures define that these parameters are optional ("The MGC may optionally include a GeneralCause, FailureCause or Reset indication. "). Additional the detailed coding of the values of one of these parameters (FailureCause) is nowhere defined. To resolve this contradiction we propose to mark the support for the Release Cause information element in the 23.205 Release Bearer procedure also as optional. ESSENTIAL CORPECTION								tion ation C efined in of 3) . MGC n. "). Dose to 05		
Summary of chang	ye:	Marking I optional.	Release Ca	ause infor	mation	elemen	t in clause 10	6.2.9 R	elease B	earer as
Consequences if not approved:	Ħ	Contradio problems	ctional info	rmation in	the spe	cificatio	ons may lead	d to inte	erworking	
Clauses affected:	¥ -	16.2.9								
Other specs affected:	ж	r N X Oth X Tes	er core sp st specifica	ecification tions	s a	£				

	X O&M Specifications	
Other comments:	 	
Other comments.	<u>መ</u>	

How to create CRs using this form:

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- 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.

16.2.9 Release Bearer

This procedure is used to release the bearer.

Table 16.10: Procedures between (G)MSC server and MGW: Release Bearer

Procedure	Initiated	Information element name	Information element required	Information element description
Release Bearer	(G)MSC-S	Context	М	This information element indicates the context for the bearer termination.
		Bearer Termination	М	This information element indicates the bearer termination for the bearer to be released.
		Bearer Release Request	М	This information element requests release of a bearer.
		Release Cause	₩ <u>O</u>	This information element indicates the cause of a bearer release.
Release Bearer Ack	MGW	Context	М	This information element indicates the context where the command was executed.
		Bearer Termination	M	This information element indicates the bearer termination where the command was executed.

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N4-050206

CHANGE REQUEST										
ж	23.2	<mark>05</mark> CR	056	ж rev	- #	Current vers	sion: 6.	0.0	ж	
For <u>HELP</u> on u	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 a	ops#	ME	Radio /	Access Netwo	rk <mark>C</mark> C	ore Ne	twork X	
Title: ೫	Solvir 2 and	ng contradio I stage 3	ction for Re	lease Caus	e in Rele	ase Bearer Pr	ocedure b	oetwee	en stage	
Source: ж	CN4									
Work item code: ℜ	TEI4					Date: ೫	<mark>31/01/2</mark>	005		
Category: ⊮	A Use <u>on</u> F A B C D Detaile be foun	<u>e</u> of the follo (correction) (correspond (addition of (functional r (editorial mo d explanatio d in 3GPP <u>1</u>	wing categor ls to a correct feature), modification (odification) ns of the abo (R 21.900.	ries: ction in an ea of feature) ove categorie	rlier releas s can	Release: # Use <u>one</u> of Ph2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6 Rel-7	Rel-6 the followi (GSM Pha (Release (Release (Release (Release (Release (Release (Release	ng rele ase 2) 1996) 1997) 1998) 1999) 4) 5) 6) 7)	ases:	
Reason for change: # Stage 2 specification (23.205) specifies that the Release Cause information element in the Release Bearer procedure is mandatory. Stage 3 specification (29.232 clause 14.2.8.1 Release Bearer) refers to the corresponding BICC procedure in Q.1950 (clause 7.1.7.1 Release). The Release Cause is defined in the Generic Bearer Connection package (Clause A.6.3.3) and consists of 3 different parameters (GeneralCause, FailureCause and Reset indication) . Clause A.6.5 Procedures define that these parameters are optional ("The MGC may optionally include a GeneralCause, FailureCause or Reset indication. "). Additional the detailed coding of the values of one of these parameters (FailureCause) is nowhere defined. To resolve this contradiction we propose to mark the support for the Release Cause information element in the 23.205 Release Bearer procedure also as optional. ESSENITIAL CORPECTION								ion ation C efined in f 3). e MGC n. "). pose to 05		
Summary of chang	ge: ೫ ۱	Marking Re optional.	lease Caus	e informatic	n elemer	nt in clause 16	5.2.9 Rele	ase B	earer as	
Consequences if not approved:) ¥ 	Contradictio problems.	onal informa	ation in the s	specificat	ions may lead	to interwo	orking		
Clauses affected:	₩	16.2.9								
Other specs affected:	¥ پ	N X Other X Test s	core specif	fications	ж					

	X O&M Specifications	
Other comments:	 	
Other comments.	<u>መ</u>	

How to create CRs using this form:

- 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.
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		Bearer Release Request	М	This information element requests release of a bearer.
		Release Cause	₩ <u>O</u>	This information element indicates the cause of a bearer release.
Release Bearer Ack	MGW	Context	М	This information element indicates the context where the command was executed.
		Bearer Termination	M	This information element indicates the bearer termination where the command was executed.

3GPP TSG-CN WG4 Meeting #26 Sydney, AUSTRALIA. 14th to 18th February 2005.

N4-050402

Revision of N4-050103

CHANGE REQUEST								
ж	29.232	CR <mark>140</mark>	ж геv	1	ж	Current version: 4.10.0 [#]		
For <mark>HEI</mark>	For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the <i>X</i> symbols.							

Proposed change affects: UICC apps#



Title:	ж	TFO activation without TFO Codec List		
Source:	Ħ	CN4		
Work item code:	: X	OoBTC	<i>Date:</i> ೫	24/01/2005
Category:	ж	F	Release: ೫	Rel-4
		Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier releas B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u> .	Use <u>one</u> of Ph2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6 Rel-7	the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)

Reason for change: ೫	TFO activation may be activated without a TFO codec list (section 14.2.31). However this scenario needs to be clarified in the TFO package, particularly after the TFO clarifications CRs approved at the last CN4 meeting which did not mention this option. This is an essential correction.			
Summary of change: Ж	It is precised in the TFO package that a TFO activation without a TFO codec list shall be considered as equivalent to a TFO activation with a TFO codec list containing a single codec configuration set to the same value as at the opposing MGW termination. The TFO Activation procedure is also corrected to reflect that the TFO Codec List may be optionally provided.			
Consequences if % not approved:	Possible interoperability issues between MSC Server and MGW of different vendors.			
Clauses affected: ೫	14.2.31, 15.1.3			
Other specs 第 affected:	Y N X Other core specifications X Test specifications X O&M Specifications			
Other comments: ೫				

How to create CRs using this form:

- 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.

14.2.31 TFO Activation

When the procedure "TFO activation" is required the following procedure is initiated:

The MGC sends a MOD.req command with the following information.

1 MOD.req (TFO activation)

Address Information	Control information	Bearer information
	Transaction ID = z	
	Context ID = c1	
	Termination ID = bearer1	
	Tfoenable = Off / value	
	If TFO codec list:	
	Property= codeclist	

When the processing of command (1) is complete, the MGW initiates the following procedure.

2 MOD.resp (TFO activation)

MGW to MGC

Address Information	Control information	Bearer information
	Transaction ID = z	
	Context ID = c1	
	TerminationID=bearer1	

15.1.3 TFO package

The addition of text encoding for the TFO codec list is for further study.

PackageID: threegtfoc (0x0031)

Version: 1

Extends: None

This package defines events and properties for Tandem Free Operation (TFO) control. TFO uses inband signalling and procedures for Transcoders to enable compressed speech to be maintained between a tandem pair of transcoders. This package allows an MGW which has inserted a transcoder to support TFO.

15.1.3.1 Properties

TFO Activity Control

PropertyID: tfoenable (0x0001)

Description: Defines if TFO is enabled or not.

Type: Enumeration

Possible Values:

"On" (0x0001): TFO is enabled, TFO protocol is supported

"Off" (0x0002): TFO is not enabled, TFO protocol is not initiated or terminated

Defined in: Local Control descriptor

Characteristics: Read/Write

TFO Codec List

PropertyID: codeclist (0x0002)

Description: List of codecs for use in TFO protocol, the Local Used Codec (see 3GPP TS 28.062 [5]) is always the first entry in the list. The MSC Server may enable TFO without providing a TFO Codec List ; in this case, the MGW shall behave as if it had received a TFO Codec List composed of the selected codec of the opposing termination within the Context.

Type: Octet string

Possible Values:

List of codec types; each entry:

As defined in Q.765.5, for single codec information (Figure 14/Q.765.5), where the Codec Information is defined either in Q.765.5 or in another specification for the given Organisation Identifier.

Defined in: Local Control descriptor

Characteristics: Read/Write

15.1.3.2 Events

Optimal Codec Event

EventID: codec_modify (0x0010)

Description:

The event is used to notify the MGC that TFO negotiation has resulted in an optimal codec type being proposed.

EventsDescriptor Parameters: None

ObservedEventsDescriptor Parameters:

Optimal Codec Type

ParameterID: optimalcodec (0x0011)

Description: indicates which is the proposed codec type for TFO

Type: Octet string

Possible Values:

Codec Type:

As defined in Q.765.5, for single codec information (Figure 14/Q.765.5), where the Codec Information is defined either in Q.765.5 or in another specification for the given Organisation Identifier.

Codec List Event

EventID: distant codec_list (0x0012)

Description: The event is used to notify the MGC of the distant TFO partner's supported codec list..

EventsDescriptor Parameters: None

ObservedEventsDescriptor Parameters:

Distant Codec List

ParameterID: distlist(0x0013)

Description: indicates the codec list for TFO

Type: Octet string

Possible Values:

List of codecs of type Codec Type:

- As defined in Q.765.5, for single codec information (Figure 14/Q.765.5), where the Codec Information is defined either in Q.765.5 or in another specification for the given Organisation Identifier.
- The first Codec Type in the list is the Distant Used Codec, received from the distant TFO partner (see 3GPP TS 28.062 [5]).
- 15.1.3.3 Signals

None

15.1.3.4 Statistics

None

15.1.3.5 Procedures

For the procedures for TFO see 3GPP TS 28.062 [5].

The use of the properties in this package is applicable only when the MGW Termination to which the package properties are applied has the media stream property for Codec Type set to ITU-T G.711 (see Annex C of ITU-T Recommendation H.248). Furthermore, the package properties are applicable only if the Codec Type property of the media stream at the opposing MGW Termination within the Context is not set to ITU G.711.

3GPP TSG-CN WG4 Meeting #26 Sydney, AUSTRALIA. 14th to 18th February 2005

N4-050403

Revision of N4-050104

CHANGE REQUEST							CR-Form-v7.1	
ж	29.232	CR <mark>141</mark>	ж геv	1	ж	Current version:	5.9.0	ж
For <mark>HE</mark>	For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the # symbols.							

Proposed change affects: UICC apps#



Title:	ж	TFO activation without TFO Codec List			
Source:	Ж	CN4			
Work item code:	:Ж	OoBTC		Date: ೫	24/01/2005
Category:	Ħ	A	Rel	ease: ೫	Rel-5
		Use one of the following categories:	Us	se <u>one</u> of	the following releases:
		F (correction)		Ph2	(GSM Phase 2)
		A (corresponds to a correction in an earlier relea	ise)	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		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	TFO activation may be activated without a TFO codec list (section 14.2.31). However this scenario needs to be clarified in the TFO package, particularly after the TFO clarifications CRs approved at the last CN4 meeting which did not mention this option. This is an essential correction.				
Summary of change: ₩	It is precised in the TFO package that a TFO activation without a TFO codec list shall be considered as equivalent to a TFO activation with a TFO codec list containing a single codec configuration set to the same value as at the opposing MGW termination. The TFO Activation procedure is also corrected to reflect that the TFO Codec List may be optionally provided.				
• * *					
Consequences if #	Possible interoperability issues between MSC Server and MGW of different				
not approved:	vendors.				
Clauses affected: #	14 2 31 15 1 3				
Other specs % affected:	Y N X Other core specifications X Test specifications X O&M Specifications				
Other comments: ೫					

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- 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.

14.2.31 TFO Activation

When the procedure "TFO activation" is required the following procedure is initiated:

The MGC sends a ADD.req, MOD.req or MOV.req command with the following information.

1 ADD.req/MOD.req/MOV.req (TFO activation) MGC to MGW

Address Information	Control information	Bearer information
	Transaction ID = z	
	Context ID = c1	
	Termination ID = bearer1	
	Tfoenable = Off / value	
	If TFO codec list:	
	Property= codeclist	

When the processing of command (1) is complete, the MGW initiates the following procedure.

2 ADD.resp/MOD.resp/MOV.resp (TFO activation) MGW to MGC

Address Information	Control information	Bearer information
	Transaction ID = z	
	Context ID = c1	
	TerminationID=bearer1	

15.1.3 TFO package

The addition of text encoding for the TFO codec list is for further study.

PackageID:	threegtfoc (0x0031)
Version:	1
Extends:	None

This package defines events and properties for Tandem Free Operation (TFO) control. TFO uses inband signalling and procedures for Transcoders to enable compressed speech to be maintained between a tandem pair of transcoders. This package allows an MGW which has inserted a transcoder to support TFO.

15.1.3.1 Properties

TFO Activity Control:

PropertyID: tfoenable (0x0001).

Description: Defines if TFO is enabled or not.

Type: Enumeration.

Possible Values:

- "On" (0x0001): TFO is enabled, TFO protocol is supported.
- "Off" (0x0002): TFO is not enabled, TFO protocol is not initiated or terminated.

Defined in: Local Control descriptor.

Characteristics: Read/Write.

TFO Codec List:

PropertyID: codeclist (0x0002).

Description: List of codecs for use in TFO protocol, the Local Used Codec (see 3GPP TS 28.062 [5]) is always the first entry in the list. The MSC Server may enable TFO without providing a TFO Codec List ; in this case,

the MGW shall behave as if it had received a TFO Codec List composed of the selected codec of the opposing termination within the Context.

Type: Octet string.

Possible Values:

- List of codec types; each entry:
 - As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].

Defined in: Local Control descriptor.

Characteristics: Read/Write.

15.1.3.2 Events

Optimal Codec Event:

EventID: codec_modify (0x0010).

Description: The event is used to notify the MGC that TFO negotiation has resulted in an optimal codec type being proposed.

EventsDescriptor Parameters: None.

ObservedEventsDescriptor Parameters:

- Optimal Codec Type.
 - ParameterID: optimalcodec (0x0011).
 - Description: indicates which is the proposed codec type for TFO.
 - Type: Octet string.
 - Possible Values:
- Codec Type: As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].

Codec List Event:

EventID: distant codec_list (0x0012).

Description: The event is used to notify the MGC of the distant TFO partner's supported codec list.

EventsDescriptor Parameters: None.

ObservedEventsDescriptor Parameters:

- Distant Codec List:
 - ParameterID: distlist(0x0013).
 - Description: indicates the codec list for TFO.
 - Type: Octet string.
 - Possible Values:

- List of codecs of type Codec Type: As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].
 - The first Codec Type in the list is the Distant Used Codec, received from the distant TFO partner (see 3GPP TS 28.062 [5]).

15.1.3.3 Signals

None.

15.1.3.4 Statistics

None.

15.1.3.5 Procedures

For the procedures for TFO see 3GPP TS 28.062 [5].

The use of the properties in this package is applicable only when the MGW Termination to which the package properties are applied has the media stream property for Codec Type set to ITU-T Recommendation G.711 [25] (see annex C of ITU-T Recommendation H.248 [10]). Furthermore, the package properties are applicable only if the Codec Type property of the media stream at the opposing MGW-Termination within the Context is not set to ITU-T

Recommendation G.711 [25].

3GPP TSG-CN WG4 Meeting #26 Sydney, AUSTRALIA. 14th to 18th February 2005.

N4-050404

Revision of N4-050105

CHANGE REQUEST								
ж	29.232	CR <mark>142</mark>	ំដ ev	1	ж	Current version:	6.0.0	ж
For <u>HEL</u>	. <u>P</u> on using this for	m, see bottom of	f this page or i	look a	t the	e pop-up text over	r the	nbols.



Title:	ж	TFO activation without TFO Codec List		
Source:	Ħ	CN4		
Work item code:	:Ж	OoBTC	Date: ೫	24/01/2005
		-		
Category:	Ж	A	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	e) 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	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: ೫	TFO activation may be activated without a TFO codec list (section 14.2.31). However this scenario needs to be clarified in the TFO package, particularly after the TFO clarifications CRs approved at the last CN4 meeting which did not mention this option. This is an essential correction.
Summary of change: ₩	It is precised in the TFO package that a TFO activation without a TFO codec list shall be considered as equivalent to a TFO activation with a TFO codec list containing a single codec configuration set to the same value as at the opposing MGW termination. The TFO Activation procedure is also corrected to reflect that the TFO Codec List may be optionally provided.
• • • •	
Consequences if #	Possible interoperability issues between MSC Server and MGW of different
not approved:	vendors.
Clauses affected: #	14.2.31, 15.1.3
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:

- 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.

14.2.31 TFO Activation

When the procedure "TFO activation" is required the following procedure is initiated:

The MGC sends a ADD.req, MOD.req or MOV.req command with the following information.

1 ADD.req/MOD.req/MOV.req (TFO activation) MGC to MGW

Address Information	Control information	Bearer information
	Transaction ID = z	
	Context ID = c1	
	Termination ID = bearer1	
	Tfoenable = Off / value	
	If TFO codec list:	
	Property= codeclist	

When the processing of command (1) is complete, the MGW initiates the following procedure.

2 ADD.resp/MOD.resp/MOV.resp (TFO activation) MGW to MGC

Address Information	Control information	Bearer information
	Transaction ID = z	
	Context ID = c1	
	TerminationID=bearer1	

15.1.3 TFO package

The addition of text encoding for the TFO codec list is for further study.

PackageID:	threegtfoc (0x0031)
Version:	1
Extends:	None

This package defines events and properties for Tandem Free Operation (TFO) control. TFO uses inband signalling and procedures for Transcoders to enable compressed speech to be maintained between a tandem pair of transcoders. This package allows an MGW which has inserted a transcoder to support TFO.

15.1.3.1 Properties

TFO Activity Control:

PropertyID: tfoenable (0x0001).

Description: Defines if TFO is enabled or not.

Type: Enumeration.

Possible Values:

- "On" (0x0001): TFO is enabled, TFO protocol is supported.
- "Off" (0x0002): TFO is not enabled, TFO protocol is not initiated or terminated.

Defined in: Local Control descriptor.

Characteristics: Read/Write.

TFO Codec List:

PropertyID: codeclist (0x0002).

Description: List of codecs for use in TFO protocol, the Local Used Codec (see 3GPP TS 28.062 [5]) is always the first entry in the list. <u>The MSC Server may enable TFO without providing a TFO Codec List ; in this case, the MGW shall behave as if it had received a TFO Codec List composed of the selected codec of the opposing termination within the Context.</u>

Type: Octet string.

Possible Values:

- List of codec types; each entry:
 - As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].

Defined in: Local Control descriptor.

Characteristics: Read/Write.

15.1.3.2 Events

Optimal Codec Event:

EventID: codec_modify (0x0010).

Description: The event is used to notify the MGC that TFO negotiation has resulted in an optimal codec type being proposed.

EventsDescriptor Parameters: None.

ObservedEventsDescriptor Parameters:

- Optimal Codec Type.
 - ParameterID: optimalcodec (0x0011).
 - Description: indicates which is the proposed codec type for TFO.
 - Type: Octet string.
 - Possible Values:
- Codec Type: As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].

Codec List Event:

EventID: distant codec_list (0x0012).

Description: The event is used to notify the MGC of the distant TFO partner's supported codec list.

EventsDescriptor Parameters: None.

ObservedEventsDescriptor Parameters:

- Distant Codec List:
 - ParameterID: distlist(0x0013).
 - Description: indicates the codec list for TFO.
 - Type: Octet string.

- Possible Values:
- List of codecs of type Codec Type: As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].
 - The first Codec Type in the list is the Distant Used Codec, received from the distant TFO partner (see 3GPP TS 28.062 [5]).

15.1.3.3 Signals

None.

15.1.3.4 Statistics

None.

15.1.3.5 Procedures

For the procedures for TFO see 3GPP TS 28.062 [5].

The use of the properties in this package is applicable only when the MGW Termination to which the package properties are applied has the media stream property for Codec Type set to ITU-T Recommendation G.711 [25] (see annex C of ITU-T Recommendation H.248 [10]). Furthermore, the package properties are applicable only if the Codec Type are property of the media stream at the opposing MGW Termination within the Context is not set to ITU-T.

Type property of the media stream at the opposing MGW-Termination within the Context is not set to ITU-T Recommendation G.711 [25].

3GPP TSG-CN WG4 Meeting #26 Sydney, Australia, 14th to 18th February 2005

N4-050405

			CHANG	GE REC	QUES	т		(CR-Form-v7.1
æ	23.2	<mark>05</mark> CR	057	ж ге v	- ^{\$}	€ Curren	t version:	4.7.0	ж
For <u>HELP</u> on u	ising thi	s form, se	e bottom of	f this page o	r look at	the pop-up	o text ove	r the ೫ syr	mbols.
Proposed change a	affects.	: UICC a	apps#	ME	Radic	Access N	etwork	Core Ne	etwork X
Title: %	Solvir 2 and	ng contrad I stage 3	iction for R	elease Cau	se in Rel	lease Bear	er Procec	dure betwe	en stage
Source: ೫	CN4								
Work item code: ℜ	TEI4					Da	<i>te:</i>	<mark>6/02/2005</mark>	
Category: ⊮	F Use <u>on</u> F A B C D Detaile be foun	e of the foll (correction, (correspon (addition o (functional (editorial n d explanatio d in 3GPP	owing categ) ds to a corre f feature), modificatior nodification) ons of the at <u>TR 21.900</u> .	ories: ection in an e n of feature) pove categori	arlier rele es can	Releas Use <u>c</u> Ph ase) RS RS RS RS RS RS RS RS RS RS RS RS RS R	56: Ж Re one 02 (GS 06 (Re) 07 (Re) 08 (Re) 09 (Re) 09 (Re) 09 (Re) 09 (Re) 09 (Re) 09 (Re) 09 (Re) 01-5 (Re)	el-4 following rel M Phase 2) lease 1996) lease 1997) lease 1998) lease 1999) lease 4) lease 5) lease 6) lease 7)	eases:
Reason for change	2: 36 (((((((((((((((((((Stage 2 sp element in (29.232 cla procedure the Generi different pa Clause A.6 may option Additional (FailureCa mark the s Release B ESSENTIA	ecification the Releas ause 14.2.8 in Q.1950 c Bearer C arameters (5.5 Procedu aally include the detailed use) is now upport for t earer proce	(23.205) sp be Bearer pr 3.1 Release (clause 7.1. onnection p GeneralCau ures define t a General d coding of t where define he Release edure also a CTION	ecifies th ocedure Bearer) 7.1 Rele ackage (use, Failu hat these Cause, F he value d. To res Cause in s optiona	at the Rele is mandate refers to the case). The Clause A. Clause A	ease Cau ory. Stage ne corresp Release 5.3.3) and and Rese ers are op se or Res f these pa contradicti element	se informa a 3 specific conding Blo Cause is d consists of t indication tional ("Th et indication arameters fon we prop in the 23.2	tion cation CC efined in of 3) . ne MGC nn. "). pose to 05
Summary of chang	ge: ፝ ዘ	Marking Ro optional.	elease Cau	ise informat	on elem	ent in clau	<mark>se 16.2.9</mark>	Release B	earer as
Consequences if not approved:) ¥ 	Contradicti problems.	onal inform	nation in the	specifica	ations may	lead to ir	nterworking]
Clauses affected:	` ₩ √	16.2.9							
Other specs affected:	H	X Othe	r core spec specificatio	cifications	ж				

	X O&M Specifications	
Other comments:	 	
Other comments.	<u>መ</u>	

How to create CRs using this form:

- 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.

16.2.9 Release Bearer

This procedure is used to release the bearer.

Table 16.10: Procedures between (G)MSC server and MGW: Release Bearer

Procedure	Initiated	Information element name	Information element required	Information element description
Release Bearer	(G)MSC-S	Context	М	This information element indicates the context for the bearer termination.
		Bearer Termination	М	This information element indicates the bearer termination for the bearer to be released.
		Bearer Release Request	М	This information element requests release of a bearer.
		Release Cause	₩ <u>O</u>	This information element indicates the cause of a bearer release.
Release Bearer Ack	MGW	Context	М	This information element indicates the context where the command was executed.
		Bearer Termination	M	This information element indicates the bearer termination where the command was executed.

3GPP TSG-CN WG4 Meeting #26 Sydney, AUSTRALIA. 14th to 18th February 2005.

N4-050416

		CR-Form-y7
		Γ
ж	29.232 CR 166 # rev - #	Current version: 4.10.0 [#]
For <mark>HELP</mark> on t	using this form, see bottom of this page or look at th	he pop-up text over the X symbols.
Proposed change	affects: UICC apps # ME Radio A	Access Network Core Network
<i>Title:</i> ាំ	TFO procedure clarification	
Source: ೫	⁸ Alcatel	
Work item code: भ	OoBTC	Date:
Category: ೫	 F 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 <u>TR 21.900</u>. 	Release: %Rel-4Use one Ph2(GSM Phase 2)se)R96(Release 1996)R97(Release 1997)R98(Release 1998)R99(Release 1999)Rel-4(Release 4)Rel-5(Release 5)Rel-6(Release 6)Rel-7(Release 7)
Posson for chang	a: 9 The current description of the TEO procedu	res in the TEO package let

Reason for change: #	The current description of the TFO procedures in the TFO package let ambiguities on the respective responsibilities of the MSC Server and the MGW. E.g. assuming that TFO is activated by the MSC-S on one G.711 termination when the other termination in the context is let's say AMR, it is unclear whether there is a mandatory requirement for the MSC-S to deactivate the TFO package on the G711 termination during a handover that would lead to replace the AMR termination by a new G711 termination, or whether it shall be assumed that the MGW is smart enough to deactivate TFO by its own (two G.711 terminations in the context). This is an essential correction.
Cummon of changes 90	It is clarified that the MCC Conversion required, to configure the TEO preparties
Summary of change: њ	consistently, e.g. it shall deactivate TFO in the aforementioned handover case, as specified in TS 28.062, Annex D 2.2 : "The Call Control Layer is responsible that TFO is properly terminated before handover, if the call configuration after handover is not longer TFO compatible."
_	
Consequences if 第 not approved:	Possible interoperability issues between MSC Server and MGW of different vendors.
Clauses affected: #	15.1.3
Other specs ж affected:	YNXOther core specifications#XTest specifications#XO&M Specifications•

Other comments: ೫

How to create CRs using this form:

- 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.

15.1.3 TFO package

The addition of text encoding for the TFO codec list is for further study.

PackageID: threegtfoc (0x0031)

Version: 1

Extends: None

This package defines events and properties for Tandem Free Operation (TFO) control. TFO uses inband signalling and procedures for Transcoders to enable compressed speech to be maintained between a tandem pair of transcoders. This package allows an MGW which has inserted a transcoder to support TFO.

15.1.3.1 Properties

TFO Activity Control

PropertyID: tfoenable (0x0001)

Description: Defines if TFO is enabled or not.

Type: Enumeration

Possible Values:

"On" (0x0001): TFO is enabled, TFO protocol is supported

"Off" (0x0002): TFO is not enabled, TFO protocol is not initiated or terminated

Defined in: Local Control descriptor

Characteristics: Read/Write

TFO Codec List

PropertyID: codeclist (0x0002)

Description: List of codecs for use in TFO protocol, the Local Used Codec (see 3GPP TS 28.062 [5]) is always the first entry in the list.

Type: Octet string

Possible Values:

List of codec types; each entry:

As defined in Q.765.5, for single codec information (Figure 14/Q.765.5), where the Codec Information is defined either in Q.765.5 or in another specification for the given Organisation Identifier.

Defined in: Local Control descriptor

Characteristics: Read/Write

15.1.3.2 Events

Optimal Codec Event

EventID: codec_modify (0x0010)

Description:

The event is used to notify the MGC that TFO negotiation has resulted in an optimal codec type being proposed.

EventsDescriptor Parameters: None

ObservedEventsDescriptor Parameters:

Optimal Codec Type

ParameterID: optimalcodec (0x0011)

Description: indicates which is the proposed codec type for TFO

Type: Octet string

Possible Values:

Codec Type:

As defined in Q.765.5, for single codec information (Figure 14/Q.765.5), where the Codec Information is defined either in Q.765.5 or in another specification for the given Organisation Identifier.

Codec List Event

EventID: distant codec_list (0x0012)

Description: The event is used to notify the MGC of the distant TFO partner's supported codec list..

EventsDescriptor Parameters: None

ObservedEventsDescriptor Parameters:

Distant Codec List

ParameterID: distlist(0x0013)

Description: indicates the codec list for TFO

Type: Octet string

Possible Values:

List of codecs of type Codec Type:

- As defined in Q.765.5, for single codec information (Figure 14/Q.765.5), where the Codec Information is defined either in Q.765.5 or in another specification for the given Organisation Identifier.
- The first Codec Type in the list is the Distant Used Codec, received from the distant TFO partner (see 3GPP TS 28.062 [5]).

15.1.3.3 Signals

None

15.1.3.4 Statistics

None

15.1.3.5 Procedures

For the procedures for TFO see 3GPP TS 28.062 [5].

To enable TFO, the MSC Server shall configure the properties of this package on a The use of the properties in this package is applicable only when the MGW Termination to which the package properties are applied has with the media stream property for Codec Type set to ITU-T Recommendation G.711 (see annex C of ITU-T Recommendation H.248); in this case, Furthermore, the package properties are applicable only if the Codec Type property of the media stream at the opposing MGW-Termination in the Context is shall not be set to ITU-T Recommendation G.711. The MSC Server shall properly terminate TFO if the call configuration becomes no longer TFO compatible or if the Codec Type property of the media stream at the opposing termination in the Context is reconfigured to G.711.

3GPP TSG-CN WG4 Meeting #26 Sydney, AUSTRALIA. 14th to 18th February 2005.

N4-050417

	CHANGE RI	EQUEST		CR∙	-Form-v7.1
¥	29.232 CR 167 #r	ev ^{% (}	Current vers	ion: 5.9.0	₩
For <u>HELP</u> on u	ising this form, see bottom of this pag	e or look at the	pop-up text	over the X symb	bols.
Proposed change	<i>affects:</i> UICC apps ೫ M	E Radio Acc	cess Networ	k Core Netv	work 🗙
Title: #	TFO procedure clarification				
Source: #	CN4				
Work item code: अ	OoBTC		<i>Date:</i> ೫	24/01/2005	
Category: ₩	 A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in a B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories be found in 3GPP <u>TR 21.900</u>. 	n earlier release) e) gories can	Release: 第 Use <u>one</u> of Ph2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6 Rel-7	Rel-5 the following relea (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)	ses:

Reason for change: ⊮	The current description of the TFO procedures in the TFO package let ambiguities on the respective responsibilities of the MSC Server and the MGW. E.g. assuming that TFO is activated by the MSC-S on one G.711 termination when the other termination in the context is let's say AMR, it is unclear whether there is a mandatory requirement for the MSC-S to deactivate the TFO package on the G711 termination during a handover that would lead to replace the AMR termination by a new G711 termination, or whether it shall be assumed that the MGW is smart enough to deactivate TFO by its own (two G.711 terminations in the context)
	This is an essential correction.
Summary of change: ₩	It is clarified that the MSC-Server is required to configure the TFO properties consistently, e.g. it shall deactivate TFO in the aforementioned handover case, as specified in TS 28.062, Annex D 2.2 : "The Call Control Layer is responsible that TFO is properly terminated before handover, if the call configuration after handover is not longer TFO compatible."
Consequences if % not approved:	Possible interoperability issues between MSC Server and MGW of different vendors.
Clauses affected: #	15.1.3
	ΥΝ

		Υ	Ν		
Other specs	ж		Χ	Other core specifications	ж
affected:			Χ	Test specifications	
			Χ	O&M Specifications	

Other comments: ೫

How to create CRs using this form:

- 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.

15.1.3 TFO package

The addition of text encoding for the TFO codec list is for further study.

PackageID:	threegtfoc (0x0031)		
Version:	1		
Extends:	None		

This package defines events and properties for Tandem Free Operation (TFO) control. TFO uses inband signalling and procedures for Transcoders to enable compressed speech to be maintained between a tandem pair of transcoders. This package allows an MGW which has inserted a transcoder to support TFO.

15.1.3.1 Properties

TFO Activity Control:

PropertyID: tfoenable (0x0001).

Description: Defines if TFO is enabled or not.

Type: Enumeration.

Possible Values:

- "On" (0x0001): TFO is enabled, TFO protocol is supported.
- "Off" (0x0002): TFO is not enabled, TFO protocol is not initiated or terminated.

Defined in: Local Control descriptor.

Characteristics: Read/Write.

TFO Codec List:

PropertyID: codeclist (0x0002).

Description: List of codecs for use in TFO protocol, the Local Used Codec (see 3GPP TS 28.062 [5]) is always the first entry in the list.

Type: Octet string.

Possible Values:

- List of codec types; each entry:
 - As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].

Defined in: Local Control descriptor.

Characteristics: Read/Write.

15.1.3.2 Events

Optimal Codec Event:

EventID: codec_modify (0x0010).

Description: The event is used to notify the MGC that TFO negotiation has resulted in an optimal codec type being proposed.

EventsDescriptor Parameters: None.

ObservedEventsDescriptor Parameters:

- Optimal Codec Type.
 - ParameterID: optimalcodec (0x0011).
 - Description: indicates which is the proposed codec type for TFO.
 - Type: Octet string.
 - Possible Values:
- Codec Type: As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].

Codec List Event:

EventID: distant codec_list (0x0012).

Description: The event is used to notify the MGC of the distant TFO partner's supported codec list.

EventsDescriptor Parameters: None.

ObservedEventsDescriptor Parameters:

- Distant Codec List:
 - ParameterID: distlist(0x0013).
 - Description: indicates the codec list for TFO.
 - Type: Octet string.
 - Possible Values:
- List of codecs of type Codec Type: As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].
 - The first Codec Type in the list is the Distant Used Codec, received from the distant TFO partner (see 3GPP TS 28.062 [5]).
- 15.1.3.3 Signals

None.

15.1.3.4 Statistics

None.

15.1.3.5 Procedures

For the procedures for TFO see 3GPP TS 28.062 [5].

To enable TFO, the MSC Server shall configure the properties of this package on a The use of the properties in this package is applicable only when the MGW Termination to which the package properties are applied has with the media stream property for Codec Type set to ITU-T Recommendation G.711 [25] (see annex C of ITU-T Recommendation H.248 [10]); in this case, Furthermore, the package properties are applicable only if the Codec Type property of the media stream at the opposing MGW Termination in the Context is shall not be set to ITU-T Recommendation G.711 [25]. The MSC Server shall properly terminate TFO if the call configuration becomes no longer TFO compatible or if the Codec Type property of the media stream at the opposing termination in the Context is reconfigured to G.711.

3GPP TSG-CN WG4 Meeting #26

N4-050418

Rel-6 Rel-7 (Release 5) (Release 6) (Release 7)

Sydney, AUST	RALIA. 14 th to 18 th February 2005.	Revision of N4-050101					
CHANGE REQUEST							
ж	29.232 CR 139 #rev 1 [#]	Current version: 6.0.0 [#]					
For <u>HELP</u> on	using this form, see bottom of this page or look at the	pop-up text over the X symbols.					
Proposed change affects: UICC apps% ME Radio Access Network Core Network X							
Title:	f TFO procedure clarification						
Source:	f CN4						
Work item code:	€ TEI6	Date: ೫ <mark>24/01/2005</mark>					
Category:	 A 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 <u>TR 21.900</u>. 	Release: # Rel-6 Use <u>one</u> of the following releases: Ph2 (GSM Phase 2)) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5)					

Reason for change: ೫	The current description of the TFO procedures in the TFO package let ambiguities on the respective responsibilities of the MSC Server and the MGW. E.g. assuming that TFO is activated by the MSC-S on one G.711 termination when the other termination in the context is let's say AMR, it is unclear whether there is a mandatory requirement for the MSC-S to deactivate the TFO package on the G711 termination during a handover that would lead to replace the AMR termination by a new G711 termination, or whether it shall be assumed that the MGW is smart enough to deactivate TFO by its own (two G.711 terminations in the context). This is an essential correction.
Summary of change: ೫	It is clarified that the MSC-Server is required to configure the TFO properties consistently, e.g. it shall deactivate TFO in the aforementioned handover case, as specified in TS 28.062, Annex D 2.2 : "The Call Control Layer is responsible that TFO is properly terminated before handover, if the call configuration after handover is not longer TFO compatible."
Consequences if # not approved:	Possible interoperability issues between MSC Server and MGW of different vendors.
Clauses offersted.	

Clauses allecteu.	ж 15:1.5				
	Y	Ν			
Other specs	Ħ	Х	Other core specifications	ж	
affected:		Χ	Test specifications		
		Χ	O&M Specifications		

Other comments: ೫

How to create CRs using this form:

- 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.

15.1.3 TFO package

The addition of text encoding for the TFO codec list is for further study.

PackageID:	threegtfoc (0x0031)		
Version:	1		
Extends:	None		

This package defines events and properties for Tandem Free Operation (TFO) control. TFO uses inband signalling and procedures for Transcoders to enable compressed speech to be maintained between a tandem pair of transcoders. This package allows an MGW which has inserted a transcoder to support TFO.

15.1.3.1 Properties

TFO Activity Control:

PropertyID: tfoenable (0x0001).

Description: Defines if TFO is enabled or not.

Type: Enumeration.

Possible Values:

- "On" (0x0001): TFO is enabled, TFO protocol is supported.
- "Off" (0x0002): TFO is not enabled, TFO protocol is not initiated or terminated.

Defined in: Local Control descriptor.

Characteristics: Read/Write.

TFO Codec List:

PropertyID: codeclist (0x0002).

Description: List of codecs for use in TFO protocol, the Local Used Codec (see 3GPP TS 28.062 [5]) is always the first entry in the list.

Type: Octet string.

Possible Values:

- List of codec types; each entry:
 - As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].

Defined in: Local Control descriptor.

Characteristics: Read/Write.

15.1.3.2 Events

Optimal Codec Event:

EventID: codec_modify (0x0010).

Description: The event is used to notify the MGC that TFO negotiation has resulted in an optimal codec type being proposed.

EventsDescriptor Parameters: None.

ObservedEventsDescriptor Parameters:

- Optimal Codec Type.
 - ParameterID: optimalcodec (0x0011).
 - Description: indicates which is the proposed codec type for TFO.
 - Type: Octet string.
 - Possible Values:
- Codec Type: As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].

Codec List Event:

EventID: distant codec_list (0x0012).

Description: The event is used to notify the MGC of the distant TFO partner's supported codec list.

EventsDescriptor Parameters: None.

ObservedEventsDescriptor Parameters:

- Distant Codec List:
 - ParameterID: distlist(0x0013).
 - Description: indicates the codec list for TFO.
 - Type: Octet string.
 - Possible Values:
- List of codecs of type Codec Type: As defined in ITU-T Recommendation Q.765.5 [24], for single codec information (figure 14/Q.765.5), where the Codec Information is defined either in ITU-T Recommendation Q.765.5 [24] or in another specification for the given Organization Identifier. For 3GPP codecs these are defined in 3GPP TS 26.103 [16].
 - The first Codec Type in the list is the Distant Used Codec, received from the distant TFO partner (see 3GPP TS 28.062 [5]).
- 15.1.3.3 Signals

None.

15.1.3.4 Statistics

None.

15.1.3.5 Procedures

For the procedures for TFO see 3GPP TS 28.062 [5].

To enable TFO, the MSC Server shall configure the properties of this package on a The use of the properties in this package is applicable only when the MGW Termination to which the package properties are applied has with the media stream property for Codec Type set to ITU-T Recommendation G.711 [25] (see annex C of ITU-T Recommendation H.248 [10]); in this case, Furthermore, the package properties are applicable only if the Codec Type property of the media stream at the opposing MGW Termination in the Context is shall not be set to ITU-T Recommendation G.711 [25]. The MSC Server shall properly terminate TFO if the call configuration becomes no longer TFO compatible or if the Codec Type property of the media stream at the opposing termination in the Context is reconfigured to G.711.