

The ATM Forum Technical Committee

PICS Proforma for UNI 3.1 Signalling (Network Side)

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1. Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options that have been implemented. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

1.1 Scope

This document provides the PICS proforma for the UNI Signalling Specification 3.1 - network side, as specified in Section 5 of the ATM User-Network Interface Specification [3] in compliance with the relevant requirements, and in accordance with the relevant guidelines, given in ISO/IEC 9646-2[2]. In most cases, statements contained in notes in the specification, which were intended as information, are not included in the PICS.

It does not cover Section 5.8 on Address Registration, user side capabilities and options. It also does not include Section 5.9 on the Signalling AAL; PICS for this section are covered in separate documents:

- AAL Type 5 Common Part PICS: ATM Forum/af-test-0042 [4]
- SSCOP PICS: ITU Recommendation Q.2110 [5]
- SSCF at UNI PICS: ITU Recommendation Q.2130 [6]

1.2 Normative References

- [1] ISO/IEC 9646-1:1994, Information technology Open systems interconnection Conformance testing methodology and framework Part 1: General Concepts. (See also ITU Recommendation X.290(1995)).
- [2] ISO/IEC 9646-2:1994, Information technology Open systems interconnection Conformance testing methodology and interconnection Part 2: Abstract test suite specification. (See also ITU Recommendation X.291(1995)).
- [3] ATM Forum: ATM User-Network Interface Specification, Version 3.1, September 1994.
- [4] ATM Forum af-test-0042.000, PICS Proforma for the AAL Type 5, August, 1995.
- [5] ITU-T Recommendation Q.2110, B-ISDN ATM Adaptation Layer Service Specific Connection Oriented Protocol (SSCOP).
- [6] ITU-T Recommendation Q.2130, B-ISDN Signalling ATM Adaptation Layer Service Specific Coordination Function (SSCF) for support of signalling at the user-to-network interface (SSCF at UNI).

1.3 Definitions

This document uses the following terms defined in ISO/IEC 9646-1[1]:

- A Protocol Implementation Conformance Statement (PICS) is a statement made by the supplier of an implementation or system, stating which capabilities have been implemented for a given protocol.
- A PICS proforma is a document, in the form of a questionnaire, designed by the protocol specifier or conformance test suite specifier, which when completed for an implementation or system becomes the PICS.

ATM Forum Technical Committee

1.4 Acronyms

AAL	ATM Adaptation Layer
B-HLI	Broadband High Layer Information
B-LLI	Broadband Low Layer Information
CS	Call States
IE	Information Element
IER	Information Elements Received by the Network
IET	Information Elements Transmitted by the Network
IUT	Implementation Under Test
М	Mandatory requirements (these are to be observed in all cases)
MC	Major Capabilities
MR	Supported Messages Received by the Network
MS	Message Structure
MT	Supported Messages Transmitted by the Network
0	Optional (may be selected to suit the implementation, provided that any requirements
	applicable to the options are observed)
O.n	Optional, but support is required for either at least one or only one of the options in the group
	labeled with the same numeral "n".
PICS	Protocol Implementation Conformance Statement
PMP	Point-to-Multipoint
PS	Party States
SC	Subsidiary Capabilities
SUT	System Under Test
TM	Timers
VPCI	Virtual Path Connection Identifier
VPI	Virtual Path Identifier
VCI	Virtual Channel Identifier

1.5 Conformance

The supplier of a protocol implementation which is claimed to conform to the ATM Forum UNI Specification Signalling interface is required to complete a copy of the PICS proforma provided in this document and is required to provide the information necessary to identify both the supplier and the implementation.

2. Identification of the Implementation

Implementation Under Test (IUT) Identification

IUT Name:
IUT Version:
System Under Test (SUT) Identification
SUT Name:
Hardware Configuration:
Operating System:
Product Supplier
Name:
Address:
Telephone Number:
Facsimile Number:
Email Address:
Additional Information:

Client
Name:
Address:
Telephone Number:
Facsimile Number:
Email Address:
Additional Information:
PICS Contact Person
Name:
Address:
Facsimile Number:
Email Address:
Additional Information:

PICS/System Conformance Statement

Provide the relationship of the PICS with the System Conformance Statement for the system:

Identification of the protocol

This PICS proforma applies to the following:

* ATM Forum User-Network Specification Version 3.1 (Network side), September 1994.

3. PICS Proforma

3.1 Global statement of conformance

The implementation described in this PICS meets all of the mandatory requirements of the reference protocol.

[] YES [] NO

Note: Answering "No" indicates non-conformance to the specified protocol. Non-supported mandatory capabilities are to be identified in the following tables, with an explanation by the implementor explaining why the implementation is non-conforming.

3.2 Instructions for Completing the PICS Proforma

The PICS Proforma is a fixed-format questionnaire. Answers to the questionnaire should be provided in the rightmost columns, either by simply indicating a restricted choice (such as Yes or No), or by entering a value or a set of range of values.

A supplier may also provide additional information, categorized as exceptional or supplementary information. These additional information should be provided as items labeled X.<i> for exceptional information, or S.<i> for supplemental information, respectively, for cross reference purposes, where <i> is any unambiguous identification for the item. The exception and supplementary information are not mandatory and the PICS is complete without such information. The presence of optional supplementary or exception information should not affect test execution, and will in no way affect interoperability verification. The column labeled 'Reference' gives a pointer to sections of the protocol specification for which the PICS Proforma is being written.

Roles

Item	Does the Implementation	Status	Reference	Support			
R1	support the public UNI?	0.1	5.1.1	YesNo			
R2	support the private UNI?	0.1	5.1.1	YesNo			
Comments:							
O.1=mandatory to support one of these roles.							

Major Capabilities (MC) 3.4

Item	Does the Implementation	Status	Conditions for status	Reference	Support
MC 1	support outgoing calls?	0.1	101 status	551	Vec No
NIC I	support outgoing cans?	Note 1		5.5.1	1esNo
MC 1.1	support point-to-point calls?	M		5.5	Yes No
MC 1.2	support transit network selection?	0	MC 1	5.5.1.9	Yes No
				Annex D	
MC 1.3	support end-to-end compatibility parameter identification?	М		5.1.2.13	YesNo
MC 2	support incoming calls?	0.1		5.5.2	YesNo
		Note 2			
MC 3	support user-initiated call clearing?	М		5.5.4.3	YesNo
MC 4	support call clearing initiated by the network?	М		5.5.4.4	YesNo
MC 5.1	initiate restart procedures?	0		5.5.5	Yes_No_
MC 5.2	support reception of RESTART message?	М		5.5.5	Yes_No_
MC 6.1	support response to STATUS ENQUIRY message?	М		5.5.6.11	YesNo
MC 6.2	support sending of STATUS ENQUIRY message?	М		5.5.6.11	YesNo
MC 7	support symmetric call operation?	0		5.5.1.10	YesNo
MC 8	For point-to-multipoint connections, does the IUT support return bandwidth of zero?	М		5.1.2.3	YesNo
MC 9.1	support for Class X ATM Transport Service?	O.2		5.1.2.6	YesNo
MC 9.2	support for Class A ATM Transport Service?	O.2		5.1.2.6	YesNo
MC 9.3	support for Class C ATM Transport Service?	0.2		5.1.2.6	YesNo
MC 10	support for a single virtual channel, VPI=0 and VCI =5 for all signalling?	М		5.1.2.9	YesNo
MC 11	support for Error Recovery?	М		5.1.2.10	YesNo
MC 12.1	support only E.164 address structure?	0.3		5.1.3 and	Yes_No_
				Annex A	
MC 12.2	support only Private ATM Address Structure	0.3		5.1.3 and	Yes_No_
	(all 3 formats, as defined in section 5.1.3.1)?			Annex A	
MC 13	support point-to-multipoint procedures?	0		5.6	Yes_No_
Comments					

O.1 = mandatory to support at least one of these features.

O.2 = mandatory to support at least one service.

O.3 = For Public UNI (Role R1), mandatory to support at least one of these structures; for Private UNI (Role R2), MC 12.1 is N/A and MC 12.2 is mandatory.

Note 1: Outgoing call is one where the network receives a request for call establishment from the user.

Note 2: Incoming call is one where the network sends a request for call establishment to the user.

3.5 Subsidiary Capabilities (SC)

Item	Does the Implementation	Status	Conditions for status	Reference	Support			
Call proc	Call procedures							
SC 1	establish an assured mode signalling AAL connection before invoking call/connection procedures?	М		5.5.1	YesNo			
SC 2	include all the mandatory information (ATM Traffic descriptor, Broadband bearer capability, Called party number and Quality of service parameter information elements) in the SETUP message required by the called user to process the call?	М	MC 2	5.5.2.1	Yes_No_			
SC 3	ignore a Broadband sending complete I.E. included in a SETUP message from the user?	М		5.5.1.1	YesNo			
SC 4	treat a Connection identifier I.E. included in a SETUP message from the user as an unexpected recognized I.E.?	М		5.5.1.2.1	YesNo			
SC 5	first respond to a valid SETUP with CALL PROCEEDING, CONNECT or RELEASE COMPLETE message?	М		5.5.1.5, 5.5.1.2.1, 5.5.1.3, 5.5.1.7	Yes_No_			
SC 6	include the Connection identifier I.E. in the first message (CONNECT or CALL PROCEEDING) in response to a SETUP message?	М	MC1	5.5.1.2.1	YesNo			
SC 7	progress the call if able to provide the requested ATM traffic descriptor and QoS class?	М	MC1	5.5.1.3	YesNo			
SC 8	reject the call by returning a RELEASE COMPLETE with cause #49 if the network is not able to provide the requested QoS class?	М		5.5.1.3	YesNo			
SC 9	reject the call by returning a RELEASE COMPLETE with cause #51 if the network is not able to provide the requested ATM traffic descriptor?	М		5.5.1.3	YesNo			
SC 10	reject the call by returning a RELEASE COMPLETE with cause #73 if the network detects that the ATM traffic descriptor IE contains a non-supported set of traffic parameters?	М		5.5.1.3	Yes_No_			
SC 11	initiate call clearing in accordance with section 5.4.4 if the network determines that the call information received from the user is invalid upon receiving a SETUP message?	М		5.5.1.4	YesNo			
SC 12	ever send a CALL PROCEEDING message to the user to acknowledge the SETUP message and enter the Outgoing Call Proceeding state?	0	MC1	5.5.1.5, 5.5.1.10	YesNo			
SC 13	initiate call clearing in accordance with section 5.5.4 with cause #38, #57, #58, #63, or #65 if the network determines that a requested service is not authorized or is not available?	M		5.5.1.5	YesNo			
Call/Con	nection acceptance	1	r	1	1			
SC 14	send a CONNECT message across the UNI to the calling user and enter the Active state (N10) on receiving an indication that the call has been accepted?	М	MC1	5.5.1.7	YesNo			

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Item	Does the Implementation	Status	Conditions for status	Reference	Support
SC 15	not take any action on receipt of a CONNECT	М	MC1	5.5.1.7	Yes No
~ ~ ~ ~ ~	ACKNOWLEDGE message when it perceives				
	the call to be in the Active state?				
Call/Con	nection rejection				
SC 16	initiate clearing at the originating UNI as in	М	MC1	5518	Yes No
50.10	section 5.5.4 (and use the cause provided by	101	mer	5.5.1.0	103_100_
	the terminating network or the called user)				
	upon receiving an indication that the network				
	or called user is unable to accept the call?				
Transit n	etwork selection		I		
SC 17	process the call according to Anney D when	м	MC 1 2	5510	Ves No
5017	the Transit network selection I E is present?	101		5.5.1.7	103_100
Call/Con	nection establishment at the destination interfac	po Point	to-point Acce	se Configurat	tion Call Offering
SC 18	transfer a SETUD message across the interface	M	MC2		
SC 10	to indicate the arrival of a call at the UNI start	101	WIC2	5.5.2.1	165_110_
	timer T303 and onter the Call Present state?				
SC 10	always retransmit the SETUD message and	0	MC2	5521	Vas No
SC 19	always fetralishing the SETOP message and	0	MC2	5.5.2.1	res_no_
C	restart 1505 on the first expiry of 1505?	1			
Connecti	on Identifier (VPCI/VCI) allocation/selection –	destinatio	n NG2		X7 X 7
SC 20	allocate a VPCI/VCI value and include this	М	MC2	5.5.2.3	Yes_No_
	value in the SETUP message?		1460		
SC 21	send a RELEASE message with cause #36 if	М	MC2	5.5.2.3	YesNo
	the VPCI and VCI values in the first response				
	from the user to the SETUP message are not				
	the VPCI and VCI values offered by the				
	network?				
SC 22	initiate clearing towards the calling party	М	MC2	5.5.2.3	YesNo
	using cause #41 if the connection identifier				
	selection fails?				
QoS and	Traffic parameter selection procedures			I	T
SC 23	indicate the QoS class in the Quality of service	М	MC2	5.5.2.4	YesNo
	I.E.?				
SC 24	indicate the ATM traffic descriptor in the	М	MC2	5.5.2.4	Yes_No_
	ATM traffic descriptor I.E.?				
Call/Con	nection confirmation				
SC 25	stop timer T303, start timer T310, and enter	М	MC2	5.5.2.5.2	YesNo
	the Incoming Call Proceeding state on receipt				
	of the CALL PROCEEDING message while				
	in the Call Present state?				
SC 26	stop timer T303 or T310, continue to clear the	М	MC2	5.5.2.5.3	YesNo
	call to the called user as in section 5.5.4.3, and				
	clear the call to the calling user with the cause				
	received in the RELEASE COMPLETE or				
	RELEASE message on receipt of a RELEASE				
	COMPLETE or RELEASE message before a				
	CONNECT message is received?				
SC 27	enter the Null state and initiate clearing	Μ	MC2	5.5.2.5.4	YesNo
	procedures towards the calling user with cause				
	#18 if no response to the SETUP message is				
	received after the final expiry of timer T303?				
SC 28	initiate clearing procedures toward the calling	М	MC2	5.5.2.5.4	YesNo
	user with cause #18 and initiate clearing				
	procedures towards the called user with cause				
	#102 if the network has received a CALL				
	PROCEEDING message but does not receive				
	a CONNECT or RELEASE message prior to				
L	the expiration of timer T310?				
SC 29	stop timers T303 or T310 and enter the	М	MC2	5.5.2.7	YesNo
	Connect Request state on receiving the	1			

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Item	Does the Implementation	Status	Conditions for status	Reference	Support
	CONNECT message?				
SC 30	after awarding the call/connection, send a CONNECT ACKNOWLEDGE message to the user, initiate procedures to send a CONNECT message towards the calling user, and enter the Active state?	М	MC2	5.5.2.7	YesNo
Call/Con	nection clearing				
SC 31	when rejecting a setup request send a	М		5542	Ves No
50.51	RELEASE COMPLETE message if this is the first response to the SETUP message?	141		5.5.4.2	105105
SC 32	when rejecting a setup request, send a RELEASE message if this is not the first response to the SETUP message?	М		5.5.4.2	YesNo
SC 33	enter the Release Request state and disconnect the virtual channel used for the call, upon receipt of a RELEASE message while not in the Release Indication or Null states?	М		5.5.4.3	YesNo
SC 34	after following SC 33, send a RELEASE COMPLETE message to the user, release both the call reference and the virtual channel (i.e., connection identifier) and enter the Null state?	М		5.5.4.3	YesNo
SC 35	after sending a RELEASE message, start timer T308, disconnect the virtual channel and enter the Release Indication state?	М		5.5.4.4	YesNo
SC 36	stop timer T308, release both the virtual channel and call reference, and enter the Null state on receipt of the RELEASE COMPLETE message while in the Release Indication state?	М		5.5.4.4	YesNo
SC 37	retransmit the RELEASE message (with the cause number originally contained in the first RELEASE message), start timer T308 and remain in the Release Indication state, on the first expiry of timer T3082	М		5.5.4.4	YesNo
SC 38	ever indicate a second Cause IE with cause #102 in the RELEASE message retransmitted on the first expiry of timer T308?	0		5.5.4.4	YesNo
SC 39	release the call reference and enter the Null state on the second expiry of timer T308?	М		5.5.4.4	YesNo
SC 40	in addition to SC 39, perform implementation dependent recovery such as initiating restart procedures?	0		5.5.4.4	YesNo
SC 41	stop timer T308, release the call reference and virtual channel, and enter the Null state on receipt of a RELEASE message in Release Indication state?	М		5.5.4.5	YesNo
Restart p	procedures: Sending RESTART	r -			
SC 42	return virtual channels to the idle condition by sending a RESTART message with Restart indicator IE indicating whether "an indicated virtual channel or all virtual channels controlled by the layer 3 entity" are to be restarted?	M	MC 5.1	5.5.5.1	Yes_No_
SC 43	when restarting a virtual channel, include the Connection identifier IE in the RESTART message to indicate which virtual channel is to be returned to the idle condition when the Restart indicator IE is coded as "indicated virtual channel"?	M	MC 5.1	5.5.5.1	Yes_No_
SC 44	not include the Connection identifier IE in the	M	MC 5.1	5.5.5.1	YesNo

Item	Does the Implementation	Status	Conditions	Reference	Support
	•		for status		
	RESTART message when the Restart				
	indicator IE is coded as "all virtual channels				
	controlled by the layer 3 entity which sends				
SC 15	the RESTART message"?	м	MC 5 1	5551	V N-
SC 45	start timer 1316, enter Restart Request state	M	MC 5.1	5.5.5.1	YesNo
	message after sending the RESTART				
	message?				
SC 46	not send further RESTART messages until a	М	MC 5.1	5.5.5.1	Yes No
	RESTART ACKNOWLEDGE is received or				
	timer T316 expires?				
SC 47	stop timer T316, release the virtual channel(s)	М	MC 5.1	5.5.5.1	YesNo
	and call reference value(s), and enter the Null				
	state on receiving a RESTART				
SC 19	ACKNOWLEDGE message?	0	MC 5 1	5551	Var. No.
SC 48	avpiry of timer T316 until a PESTART	0	MC 5.1	5.5.5.1	Tes_NO
	ACKNOWLEDGE message is received?				
SC 49	neither place nor accept calls over the virtual	М	MC 5.1	5.5.5.1	Yes No
~~~~	channel(s) under restart while timer T316 is				
	running?				
SC 50	make no further restart attempts, enter the Null	М	MC 5.1	5.5.5.1	YesNo
	state (REST 0), indicate the restart failure to				
	the maintenance entity and consider the virtual				
	channel(s) to be in an out-of-service condition				
	(until maintenance action has been taken)				
	when the number of restart attempts limit				
SC 51	(default is 2) is reached?	м	MC 5 1	5551	Var No
SC 51	message on receiving a RESTART	IVI	MC 5.1	5.5.5.1	1 es100
	ACKNOWLEDGE message indicating a				
	different set of virtual channels from the set				
	indicated in the RESTART message?				
SC 52	include the global call reference value (all	М	MC 5.1	5.5.5.1	YesNo
	zeros) to which the Restart Request state is				
	associated in RESTART and RESTART				
0.0.52	ACKNOWLEDGE messages?	М	MO 5 1	5551	XZ NI
SC 53	when restarting a virtual channel, clear remote	M	MC 5.1	5.5.5.1	YesNo
	cause #41?				
Restart n	rocedures: Receipt of RESTART				
SC 54	on receiving a RESTART message	М		5.5.5.2	Yes No
	• enter the Restart state associated to the				
	global call reference and start timer				
	T317 ?				
	• (then initiate the appropriate internal				
	actions to return the specified virtual				
	channels to the idle condition and)				
	the specified virtual channels?				
SC 55	following the actions in SC 54 ston timer	М		5,552	Yes No
50 55	T317 after completing internal clearing.	.,,		5.5.5.2	100_100
	send a RESTART ACKNOWLEDGE to the				
	originator of the RESTART, and enter the				
	Null state (REST 0)?				
SC 56	(send an indication to the maintenance entity	М		5.5.5.2	Yes_No_
	and) enter the Null state (REST 0) upon				
	expiry of timer T317 prior to completion of internal clearing?				
1	internal clearing?	1	1		1

<b>T</b> (				De	a ,
Item	Does the Implementation	Status	for status	Reference	Support
SC 57	following actions in SC 55, clear remote	М		5.5.5.2	Yes No
	parties on indicated virtual channel using				
	cause #41?				
SC 58	transmit a RESTART ACKNOWLEDGE	М		5.5.5.2	Yes No
	message to the originator of the RESTART on				
	receiving a RESTART, even if all the				
	specified virtual channels are in the idle				
	condition?				
SC 59	clear all calls on all interfaces associated with	М		5.5.5.2	Yes_No_
	the signalling virtual channel on receiving a				
	RESTART with Restart indicator IE coded as				
	"all virtual channels controlled by the layer 3				
	entity which sends the RESTART message"?				
SC 60	treat the Connection identifier IE as described	М		5.5.5.2	Yes_No_
	in 5.5.6.8.3 on receiving a RESTART with				
	Restart indicator IE coded as "all virtual				
	channels controlled by the layer 3 entity which				
	sends the RESTART message" and a				
0.0.41	Connection identifier IE is included?				<b>X</b> 7 X
SC 61	follow procedures in 5.5.6.7.1 on receiving a	М		5.5.5.2	Yes_No_
	RESTART message with the Restart indicator				
	IE coded as indicated virtual channel and				
50.62	follow procedures in 55672 on receiving o	м		5550	Vac No
SC 02	DESTART massage with the Postert indicator	IVI		5.5.5.2	ies_no_
	IE coded as "indicated virtual channel" and				
	the Connection identifier IE contains an				
	unrecognized VPCI?				
SC 63	take no action on the permanent virtual	М		5.5.5.2	Yes No
50 05	connections but send a RESTART			0.0.0.2	105_110_
	ACKNOWLEDGE message containing the				
	appropriate indications on receiving a				
	RESTART message with permanent virtual				
	connections established by management				
	procedures implicitly specified (by specifying				
	"all virtual channels controlled by the layer 3				
	entity which sends the RESTART message")?				
SC 64	take no action on the virtual channel, but send	М		5.5.5.2	YesNo
	a STATUS message with cause #82,				
	indicating in the diagnostics field the virtual				
	channel that could not be handled, on				
	receiving a RESTART message with				
	permanent virtual connections established by				
	management procedures or a reserved				
	VPCI/VCI (e.g., the point-to-point signalling				
	virtual channel) explicitly specified (by				
	DESTART massage)?				
SC 65	follow procedures in 5564 on receiving a	м		5550	Vac No
50.05	RESTART message while in the Pastart state?	IVI		5.5.5.2	105_110_
Handling	error conditions	I	1	I	<u>I</u>
SC 66	handle errors described in sections 5561	М		5.5.6	Yes No
	through 5.5.6.8 in the order of precedence			5.0.0	
	listed ?				
SC 67	follow the explicit instruction in the Action	0.1		5.4.4.1	Yes_No_
	Indicator field for message errors when the			Note 1	
	Flag field is set to one?				
SC 68	ignore the content of the Action Indicator field	0.1		5.4.4.1	YesNo
	for message errors when the Flag field is set to			Note 1	

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Item	Does the Implementation	Status	Conditions for status	Reference	Support
	one?				
General	errors				
SC 69	ignore a received message with protocol discrimination error ?	М		5.5.6.1	YesNo
SC 70	ignore a received message too short to contain a complete Message length information element ?	М		5.5.6.2	Yes_No_
Call refe	rence errors				
SC 71	ignore a received message with call reference bits 5 to 8 in octet 1 not equal to '0000'?	М		5.5.6.3.1	Yes_No_
SC 72	ignore a received message if the call reference information element octet 1, bits 1 through 4 indicate a length other than 3 octets?	М		5.5.6.3.1	Yes_No_
SC 73	clear the call on receiving any message other than SETUP, RELEASE COMPLETE, STATUS, and STATUS ENQUIRY with a call reference which is not active by sending RELEASE COMPLETE with cause #81?	М		5.5.6.3.2a	YesNo
SC 74	take no action on receiving a RELEASE COMPLETE message with call reference not recognized as relating to an active call or to a call in progress?	М		5.5.6.3.2b	YesNo
SC 75	ignore a received SETUP message with a call reference which is not recognized as relating to an active call or to a call in progress, and with a call reference flag incorrectly set to '1'?	М		5.5.6.3.2c	YesNo
SC 76	ignore a received SETUP message with a call reference which is recognized as relating to an active call or to a call in progress?	М		5.5.6.3.2d	YesNo
SC 77	transmit a STATUS message with global call reference, with a call state indicating the current state associated with the global call reference and with cause #81, on receiving any message other than RESTART, RESTART ACKNOWLEDGE or STATUS with global call reference?	М		5.5.6.3.2e	Yes_No_
SC 78	implement the procedures in section 5.5.6.12 on receiving a STATUS message with call reference which is not recognized as relating to an active call or to a call in progress?	М		5.5.6.3.2f	YesNo
SC 79	implement the procedures in section 5.5.6.11 on receiving a STATUS ENQUIRY message which is not recognized as relating to an active call or to a call in progress?	М		5.5.6.3.2g	YesNo
Message	1 ype, Message sequence, Message length errors	5	NOT SC /7	5564	Vac N-
SC 80	transmit a STATUS message with cause #97 or #101 on receipt of an unexpected message other than RELEASE, RELEASE COMPLETE or of an unrecognized message in any other state than the Null state?	М	NUT SC 67	5.5.6.4	YesNo
SC 81	clear the network connection and the call to the remote user with the cause in the RELEASE message received or if not included, with cause #31, and send a RELEASE COMPLETE message to the user on receipt of an unexpected RELEASE message?	M		5.5.6.4	Yes_No_
SC 82	the remote user with the cause in the	М		5.5.6.4	resNo

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Item	Does the Implementation	Status	Conditions for status	Reference	Support
	RELEASE COMPLETE message received or if not included, with cause #111, on receipt of an unexpected RELEASE COMPLETE message ?				
SC 83	handle message as much as possible if message length in the Message length information element is inconsistent with length of message received ?	М		5.5.6.5	Yes_No_
General	Information element errors				
SC 84	send the first four information elements in the order specified in section 5.4.1?	М		5.5.6.6.1	Yes_No_
SC 85	process variable length information elements regardless of their order in the message ?	М		5.5.6.6.1	Yes_No_
SC 86	for not permitted repeated IEs, only process the contents of the IEs appearing first and ignore all subsequent repetitions?	М		5.5.6.6.2	YesNo
SC 87	handle permitted repetitions (up to a limit) of an information element appearing first and ignore all subsequent repetitions?	М		5.5.6.6.2	YesNo
SC 88	process unknown coding standard as an IE with a content error ?	М		5.5.6.6.3	Yes_No_
SC 89	follow the explicit instruction in the Action Indicator field for IE errors when the Flag field is set to one?	0.3		5.4.5.1 (Note 3 of Table 5-6)	YesNo
SC 90	ignore the content of the Action Indicator field for IE errors when the Flag field is set to one?	0.3		5.4.5.1 (Note 3 of Table 5-6)	YesNo
Mandato	ory Information elements errors	•	•	•	
SC 91	take no action, except for the sending of a STATUS message with cause #96, on receipt of a message other than SETUP, RELEASE, or RELEASE COMPLETE, with mandatory information elements missing ?	М		5.5.6.7.1	Yes_No_
SC 92	return a RELEASE COMPLETE message with cause #96, on receipt of a SETUP or RELEASE message with one or more mandatory information elements missing?	М		5.5.6.7.1	Yes_No_
SC 93	take no action, except for the sending of a STATUS message with cause #100, on receipt of a message other than SETUP, RELEASE, or RELEASE COMPLETE, with mandatory information elements with invalid content ?	М	NOT SC 89	5.5.6.7.2	Yes_No_
SC 95	return a RELEASE COMPLETE message with cause #100, on receipt of a SETUP or RELEASE message with one or more mandatory information elements with invalid content?	М		5.5.6.7.2	Yes_No_
SC 96	take action, as if a RELEASE message with cause #31 is received, on receipt of a RELEASE message with mandatory information element missing or with mandatory information element content error?	М		5.5.6.7	Yes_No_
SC 97	handle a RELEASE COMPLETE message as received with cause #31 even if it has mandatory information element (cause) missing or with invalid content?	М		5.5.6.7	Yes_No_
SC 98	treat mandatory information elements with length exceeding the maximum as with invalid content error ?	М		5.5.6.7.2	Yes_No_

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Item	Does the Implementation	Status	Conditions for status	Reference	Support
Non-man	datory information element errors			1	1
SC 99	take action on message and those information	М	NOT SC 89	5.5.6.8.1	Yes No
	elements which are recognized and have valid				
	content on receipt of a message with one or				
	more unrecognized information elements?				
SC 100	transmit a STATUS message with cause #99	0	NOT SC 89	5.5.6.8.1	Yes_No_
	on receipt of a message other than RELEASE				
	or RELEASE COMPLETE, with				
	unrecognized non-mandatory information				
	elements?				
SC 101	transmit a RELEASE COMPLETE message	М	NOT SC 89	5.5.6.8.1a	Yes_No_
	with cause #99 on receipt of a RELEASE				
	message with unrecognized non-mandatory				
50 102	information elements?	м	NOT SC 90	556911	V N-
SC 102	information alements on receipt of	IVI	NOT SC 89	5.5.6.8.10	resno
	DELEASE COMPLETE massage with				
	unrecognized non-mandatory information				
	elements?				
SC 103	include diagnostic(s) for cause #99?	0		5.5.6.8.1	Yes No
SC 104	take action on the message and those	M	NOT SC 89	5.5.6.8.2	Yes No
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	information elements which are recognized				
	and have valid content on receipt of a message				
	with one or more non-mandatory information				
	elements with invalid content?				
SC 105	transmit a STATUS message with cause #100	0	NOT SC 89	5.5.6.8.2	Yes_No_
	on receipt of a non-mandatory information				
	element with invalid contents?				
SC 106	take action on the message and those	М	NOT SC 89	5.5.6.8.2	Yes_No_
	information elements which are recognized				
	and have valid content on receipt of a message				
	with one or more non-mandatory information				
	elements with length exceeding the				
SC 107	maximum?	0	NOT SC 90	55697	Vac No
SC 107	on receipt of a message with one or more non-	0	NOT SC 89	5.5.0.8.2	1es_1NO
	mandatory access information elements with				
	length exceeding the maximum?				
SC 108	transmit a STATUS message with cause #100	0	NOT SC 89	5.5.6.8.2	Yes No
50100	on receipt of a message with one or more non-	Ű	1101 50 05	010101012	100_100
	mandatory information elements (other than				
	access information elements) with length				
	exceeding the maximum?				
SC 109	either treat the IE as an unrecognized IE and	М		5.5.6.8.3	Yes_No_
	follow the procedures defined in section				
	5.5.6.8.1 or process the unexpected				
	recognized IEs when the procedure for				
	processing the IE is independent of the				
	message in which it is received, on receipt of a				
	defined to be contained in that massage?				
Simoli	AL Poset	L	I	L	I
Signalin	take no action for calls in the classing	м		55600	Vas No
SC 110	states on receipt of an AAL-ESTARISU	1V1		5.5.0.9a	105_110_
	INDICATION primitive ?				
SC 111	maintain calls in the establishment	М		5.5.6.9h	Yes No
50 111	state on receipt of an AAL-ESTABLISH-			2.2.0.70	100_100_
	INDICATION primitive?				
SC 112	invoke Status Enquiry procedure for calls in	0		5.5.6.9b	Yes_No

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Item	Does the Implementation	Status	Conditions for status	Reference	Support
	the establishment phase on receipt of an AAL- ESTABLISH-INDICATION primitive?				
SC 113	maintain calls in the active state according to the procedures in Section 5.5.6.11 on receipt of an AAL-ESTABLISH- INDICATION primitive?	М		5.5.6.9c	YesNo
Signalling	9 AAL Failure	I			
SC 114	clear any calls not in the active state on receipt of an AAL-RELEASE-INDICATION	М		5.5.6.10a	YesNo
SC 115	start timer T309 if any calls are in the active state and if the timer is not already running, on receipt of an AAL-RELEASE-INDICATION primitive?	М		5.5.6.10b	Yes_No_
SC 116	following actions in SC 115, request layer 2 re-establishment?	М		5.5.6.10	YesNo
SC 117	stop timer T309 when receiving indication that the layer 2 connection is re-established ?	М		5.5.6.10	YesNo
SC 118	perform Status Enquiry procedure for active calls when layer 2 is re-established ?	М		5.5.6.10	YesNo
SC 119	clear the network connection and call to the remote user with cause #27 if layer 2 fails to be re-established before the expiry of timer T309?	М		5.5.6.10	YesNo
Status Er	quiry procedure				
SC 120	start T322 on sending a STATUS ENQUIRY message?	М		5.5.6.11	YesNo
SC 121	have only one STATUS ENQUIRY outstanding per call at a given time when T322 is active?	М		5.5.6.11	YesNo
SC 122	stop T322 and continue clearing if a clearing message is received before T322 expires?	М		5.5.6.11	YesNo
SC 123	respond with a STATUS message reporting call state and cause #30 on receipt of a STATUS ENOURY message?	М		5.5.6.11	YesNo
SC 124	stop T322 and take appropriate action if a STATUS message is received containing cause #30?	М		5.5.6.11	YesNo
SC 125	retransmit STATUS ENQUIRY message on expiry of T322 a number of times up to a maximum retransmission limit?	0		5.5.6.11	Yes_No_
SC 126	clear the call to the local interface and network connection with cause #41 if the maximum retransmission limit is reached?	М		5.5.6.11	YesNo
Status Pr	ocedures	1		r	T.
SC 127	clear the call by sending the appropriate clearing message with cause #101 on receipt of a STATUS message reporting an incompatible state?	0.4		5.5.6.12	YesNo
SC 128	take other actions (implementation option) which attempt to recover from a mismatch on receipt of a STATUS message reporting an incompatible state?	O.4		5.5.6.12	YesNo
SC 129	send a RELEASE COMPLETE message with cause #101 (and remain in the Null state) on receipt of a STATUS message indicating any call state except the Null state, which is received in the Null state?	М		5.5.6.12	YesNo

PICS Proforma for UNI 3.1 Signalling (Network Side)

Item	Does the Implementation	Status	Conditions for status	Reference	Support
SC 130	take no action on receipt of a STATUS message indicating any call state except the Null state, which is received in the Release Request or Release Indication state?	М		5.5.6.12	YesNo
SC 131	release all resources and move to the Null state on receipt of a STATUS message indicating the Null state, which is received in any state except the Null state?	М		5.5.6.12	Yes_No_
SC 132	take no action other than to discard the message on receipt of a STATUS message indicating the Null state, which is received in the Null state?	М		5.5.6.12	YesNo
SC 133	take action which is an implementation option on receipt of a STATUS message with compatible call state but with cause #96, #97, #99, #100, or #101?	0.5		5.5.6.12	Yes_No_
SC 134	clear the call with the appropriate procedure in section 5.5.4 using the cause in the received STATUS message on receipt of a STATUS message with compatible call state but with cause #96, #97, #99, #100, or #101, if other procedures are not defined?	0.5		5.5.6.12	Yes_No_
SC 135	inform layer management and take no further action on receipt of a STATUS message specifying the global call reference and reporting an incompatible state in the Restart Request or Restart state?	М		5.5.6.12	Yes_No_
SC 136	take no action on receipt of a STATUS message with global call reference, which is received in the Null state?	М		5.5.6.12	YesNo
$\begin{array}{c} \text{Comment}\\ \text{O.1} = \text{man}\\ \text{O.2} = \text{man}\\ \text{O.3} = \text{man}\\ \text{O.4} = \text{man}\\ \text{O.5} = \text{man} \end{array}$	s: adatory to support at least one of these procedures adatory to support at least one of these procedures				<u>.</u>

# Point-to-Multipoint (PMP) Procedures

This table is only intended to be completed for implementations under test (IUT) which implement point-to-multipoint procedures.

Item	If point-to-multipoint (PMP) procedures are supported does the implementation	Status	Conditions for status	Reference	Support
Adding a	party at the originating interface: set up of the first	t narty	Tor Status		
PMP 1	follow procedures of section 5.5 to set up the first	M		5611	Yes No
1.000	party of a PMP call?			5.0.1.1	105110
PMP 2	support link states for the call change according to	М		5.6.1.1	Yes No
	call state changes in section 5.5?				
PMP 3	on receiving a SETUP from the Root, change from	М	MC1	5.6.1.1	YesNo
	Null to Add Party Received party-state?				
PMP 4	after sending CONNECT to the user side of the	М	MC1	5.6.1.1	YesNo
	Root UNI in response to a SETUP from the Root,				
	change party state to Active?				
PMP 5	on sending or receiving a CALL PROCEEDING			5.6.1.1	Yes_No_
	message or on receiving a CONNECT	М			
	ACKNOWLEDGE message, not change party-				
	state?				
PMP 6	on receipt of a SETUP containing a non-zero			5.6.1.1	Yes_No
	backward user cell rate parameter, reject a SETUP	М			
DMD 7	request with cause #/3?			5(11	V N-
PMP /	on receipt of a SETUP message containing an			5.0.1.1	resNo
	capability I.E. which does not indicate point to	м			
	multipoint in the user plane connection	141			
	configuration field reject a SETUP request with				
	cause #100 and include both the Endpoint				
	reference I.E. and the Broadband bearer capability				
	I.E. identifiers in the diagnostic field?				
PMP 8	on receipt of a SETUP message containing			5.6.1.1	Yes_No_
	Broadband bearer capability I.E. indicating point-				
	to-multipoint in the user plane connection	М			
	configuration field and not containing an Endpoint				
	reference I.E, reject a Setup request with cause #96				
	and include the Endpoint reference I.E. in the				
	diagnostic field?				
Adding a	party at the originating interface: adding a party		MGI	5 < 1 2	
PMP 9	reject an Add Party Request by sending an ADD	м	MCI	5.6.1.2	YesNo
	#51 respectively if not able to provide either the	IVI			
	requested OoS class or the user cell rate of the				
	original connection?				
PMP 10	following actions in PMP 9 send a RELEASE	М	MC1	5612	Yes No
1.000 10	message to the user with cause #31, if there are no		mor	5.0.1.2	105_110
	remaining parties in the Active or Add Party				
	Received party-state?				
Adding a	party at the originating interface: Invalid Call/Cor	nection C	Control Inform	ation or Serv	ice Request in
the ADD	PARTY message				-
PMP 11	upon receiving an ADD PARTY message, enter the	М	MC1	5.6.1.3	YesNo
	Add Party Received party-state?				
PMP12	reject the Add Party request by sending an ADD	Μ	MC1	5.6.1.3	Yes_No_
	PARTY REJECT with cause #1, #3, #22, or #28 if				
	the IUT determines that the call information				
	received from the user is invalid or with cause #47	1	1		

Item	If point-to-multipoint (PMP) procedures are supported, does the implementation	Status	Conditions for status	Reference	Support
	or #58 if the IUT determines that a requested service is not authorized, not implemented, or not available?				
PMP13	following actions in PMP 12, send a RELEASE message with cause #31 if there are no remaining parties in the Active or Add Party Received party- state?	М	MC1	5.6.1.3	YesNo
Adding a	party at the originating interface: Add Party Rece	ived			1
PMP 14	progress the call if access to the requested service can be determined to be authorized and available?	М	MC1	5.6.1.4	YesNo
Adding a	party at the originating interface: Add Party Conr	nected		•	•
PMP 15	on receiving an indication that the Add Party Request has been accepted, send an ADD PARTY ACKNOWLEDGE message to the calling (Root) user and enter the Active party-state for that party?	М	MC1	5.6.1.5	Yes_No_
Adding a	party at the originating interface: Add Party Rejection	ction			
PMP 16	on receiving an indication that the network or the called user is unable to accept the call, send an ADD PARTY REJECT message at the originating UNI using the cause provided by the terminating network or the called user and enter the Null party-state for the party?	M	MC1	5.6.1.5	Yes_No_
PMP 17	following actions in PMP 16, send a RELEASE message to the user with cause #31 if there are no remaining parties in the Active or Add Party Received party-state?	М	MC1	5.6.1.5	Yes_No_
Add par	ty establishment at the destination interface: incom	ing add pa	arty request		
PMP 18	send a SETUP message with a new Call Reference value across the UNI if the link-state is either Null or in a clearing state and include an endpoint reference value =0 for the first party of a point-to- multipoint connection?	M	MC18	5.6.2.1	Yes_No_
PMP 19	when using a SETUP message, follow the point-to- point procedure of section 5.2 except include the Endpoint reference I.E. and track the party-states?	М	MC18	5.6.2.1	YesNo
PMP 20	send an ADD PARTY message (containing all additional information required by the called user to process the call) across the UNI, start timer T399, and enter the Add Party Initiated party-state <i>only</i> if the link is in the Active link-state and if resources are available?	М	MC18	5.6.2.1	Yes_No_
PMP 21	if there is one and only one party in the Add Party Initiated party-state and the link is not yet in the Active link-state, and the IUT is able to queue additional add party requests, does the IUT queue the additional add party requests until the link becomes active?	М	MC18	5.6.2.1	YesNo
PMP 22	if there is one and only one party in the Add Party Initiated party-state and the link is not yet in the Active link-state, and the IUT is not able to queue additional add party requests, does the IUT send an ADD PARTY REJECT message to the calling user with cause #92?	M	MC18	5.6.2.1	Yes_No_
PMP 23	upon receiving a RELEASE message for a call which has one or more parties which have not progressed past the Add Party Initiated party-state, send one of the ADD PARTY messages as a SETUP message with a new call reference value and the same I.E. values as the previous call?	M	MC18	5.6.2.1	Yes_No_

110011	ororina for ertrest signaling (retwork blue)	1	1		
Item	If point-to-multipoint (PMP) procedures are supported, does the implementation	Status	Conditions for status	Reference	Support
PMP 24	following actions in PMP 23, clear the call	М	MC18	5.6.2.1	Yes_No_
	reference and initiate party dropping procedures				
	towards the calling user for the party previously in				
	the Active party-state?				
PMP 25	on receiving the CONNECT message in response	М	MC18	5.6.2.1	YesNo
	to the SETUP message sent (in PMP 23),				
	retransmit the remaining ADD PARTY messages				
	using the new call reference value (in PMP 23)?				
Add par	ty establishment at the destination interface: Called	user rejec	ction of incom	ing call establ	ishment
PMP 26	if an ADD PARTY REJECT is received before an	М		5.6.2.5.2	YesNo
	ADD PARTY ACKNOWLEDGE message has				
	been received and there are other parties of the call				
	on the interface in the Add Party Initiated or Active				
	party-states, stop timer T399 and clear the party				
	toward the calling user (with the cause received in				
	the ADD PARTY REJECT message)?				
PMP 27	if an ADD PARTY REJECT is received before an	М		5.6.2.5.2	Yes_No_
	ADD PARTY ACKNOWLEDGE message has				
	been received and there are no other parties of the				
	call on the interface in the Add Party Initiated or				
	Active party-states, stop timer T399 and clear the				
	party toward the calling user (with the cause				
	received in the ADD PARTY REJECT message)				
	and initiate link clearing procedures toward the				
	called user (as in section 5.6.3.5)?				
Add par	ty establishment at the destination interface: Call fa	ilure			
PMP 28	if the network does not receive any response to the	М		5.6.2.5.3	Yes_No_
	transmitted ADD PARTY message prior to the				
	expiration of timer T399, initiate procedures to				
	send an ADD PARTY REJECT message towards				
	the calling user (with cause #18)?				
PMP 29	following PMP 28, send a RELEASE message to	М		5.6.2.5.3	YesNo
	the user with cause #31 if there are no remaining				
	parties in the Active or Add Party Received party-				
	state?				
Add par	ty establishment at the destination interface: Active	indication	1	5 6 9 7	XZ NI
PMP 30	on receipt of the ADD PARTY ACKNOWLEDGE	IVI		5.0.2.7	resno
	state and initiate procedures to send an ADD				
	PARTY ACKNOWLEDGE message towards the				
	calling user?				
Dorty Cl	oring: Excention conditions				
PMP 31	in response to a SETUP message (when the call is	М		56322	Ves No
1 1011 51	still in point-to-point configuration) use call	IVI		5.0.5.2a	105100
	clearing procedures in 5.5.4.2?				
PMP 32	in response to an ADD PARTY message when	М	MC1	5632h	Ves No
1 WH 52	rejecting an Add Party request respond with an	IVI	MCI	5.0.5.20	105100
	ADD PARTY REJECT (if no other response has				
	previously been sent)?				
PMP 33	drop a party using RELEASE or DROP PARTY	М		5.6.3.2	Yes No
1 1011 33	and follow 5.5.4.3.5.5.4.4.5.6.3.3 and 5.6.3.4	171		5.0.5.2	105_110
	except for the procedures in PMP 31 and PMP 322				
Party Cl	earing: Dropping a narty initiated by the user	1		1	1
PMP 34	upon receipt of a RELEASE message for	М		5.6.3.3	Yes No
	narties in the Dron Party Initiated and Dron			5.0.0.0	100_100_
	Dorty Deceived porty state onter the Null				
	r arty Received party-state, enter the Null				
DI (D. 27	party-state?			5.622	N7 N7
PMP 35	Lupon receipt of a RELEASE message for	M		5.6.3.3	res No

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Item	If point-to-multipoint (PMP) procedures are supported, does the implementation	Status	Conditions for status	Reference	Support
	parties in the Add Party Received party-state				
	and the Active party-state, clear towards the				
	remote user (using the cause contained in the				
	RELEASE message or cause #31 if no cause				
	was included in the RELEASE message)?				
PMP 36	upon receipt of a RELEASE message for	М	MC18	5.6.3.3	Yes_No_
	parties in the Add Party Initiated party-state,				
	reoffer parties on a new call reference?				
PMP 37	on receipt of a DROP PARTY message if one	М		5.6.3.3	YesNo
	or more parties associated with the call are in				
	the Active party-state, Add Party Initiated or				
	Add Party Received party-state, release the				
	endpoint reference and initiate procedures for				
	dropping the party along the path to the				
	remote user?				
PMP 38	once the endpoint reference used for the party	М		5.6.3.3	YesNo
	has been released, following the actions in				
	PMP 37, send a DROP PARTY				
	ACKNOWLEDGE message to the user and				
D1 (D. 20	enter the Null party-state?			5 6 9 9	
PMP 39	on receipt of a DROP PARTY message if all	м		5.6.3.3	YesNo
	other parties associated with the call are in the				
	Null party-state, Drop Party Initiated or Drop				
	Party Received party-state, release the				
	endpoint reference and initiate procedures for				
	dropping the party along the path to the				
DMD 40	remote user?	м		5622	Vac No
PMP 40	bas been released following conditions in	IVI		5.0.5.5	ies_no_
	DMD 20, send a DELEASE massage to the				
	1 WIF 57, send a RELEASE message to the				
Porty C	user: learing. Dronning a party initiated by the net	work			
PMP 41	initiate dropping a party by sending a RELEASE	M		5634	Ves No
1 1/11 41	message (if all other parties belonging to the same	IVI		5.0.5.4	10 <u>1</u>
	call on the interface are in the Null party-state,				
	Drop Party Received party-state, or Drop Party				
	Initiated party-state), and follow procedures in				
	5.5.4?				
PMP 42	initiate party clearing by first sending a DROP	М		5.6.3.4	Yes_No_
	PARTY message when the party is in the Active or Add Party initiated party states, and there are other				
	parties to the call on this interface in the Add Party				
	Initiated, Add Party Received, or Active party-				
	state?				
Party C	learing: Dropping a party initiated by the net	work – C	learing with	a DROP PA	RTY
message			C		
PMP 43	after sending a DROP PARTY message, start timer	М		5.6.3.4.1	YesNo
	T398 (and enter the Drop Party Initiated party-				
D) (D) (4)	state)?				
PMP 44	on receipt of a DROP PARTY	М		5.6.3.4.1	Yes_No
	ACKNOWLEDGE message, stop timer T398,				
	release the endpoint reference, and return to				
	the Null party-state?				
PMP 45	atter following procedures in PMP 44, if all	М		5.6.3.4.1	Yes_No
	parties associated with the call are in the Null				

Item	If point-to-multipoint (PMP) procedures are supported, does the implementation	Status	Conditions for status	Reference	Support
	party-state, Drop Party Initiated party-state, or Drop Party Received party-state, send a RELEASE message to the user?				
PMP 46	on expiry of timer T398, send a DROP PARTY ACKNOWLEDGE message to the	М		5.6.3.4.1	YesNo
	user (with the cause number originally contained in the DROP PARTY message) and				
	enter the Null party state, if one or more parties associated with the call are in the Active, Add Party Initiated, or Add Party				
	Received party-state?				
PMP 47	on expiry of timer T398, in addition to actions in PMP 46, indicate a second Cause IE #102?	0		5.6.3.4.1	Yes_No_
PMP 48	use status enquiry procedures to verify that the	0		5.6.3.4.1	YesNo
	party has been dropped on expiry of timer T398?				
PMP 49	use implementation-dependent recovery procedures, other than status enquiry procedures, to verify that the party has been	0		5.6.3.4.1	YesNo
DMD 50	dropped on expiry of timer 1398?	M		5 ( 2 4 1	XZ NI
PMP 50	on expiry of timer 1398, send a RELEASE	IVI		5.0.5.4.1	res_no_
	message to the user (with the cause number				
	originally contained in the DROP PARTY				
	message), if all parties associated with the call				
	are in the Null party-state, Drop Party Initiated				
	party-state, or Drop Party Received party-				
DMD 51	state?	0		56241	Var No
PMP 51	on expiry of timer 1398, in addition to actions	0		5.0.5.4.1	res_no_
Dearter C	In PMP 49, indicate a second Cause IE #102?				
Party C	in manages to a DDOD DADTY massage	м		5635	Vas No
TIVIT 52	in response to a DROP PART I message	IVI		5.0.5.5	165110
	state and while there are one or more partice				
	state, and while there are one of more parties				
	Add Party Initiated or Add Party Paceived party				
	state stop timer T308 release the endpoint				
	reference send a DROP PARTY				
	ACKNOWLEDGE message and enter the				
	Null party-state?				
PMP 53	in response to a DROP PARTY message	М		5.6.3.5	Yes No
	received in the Drop Party Initiated party-				
	state, and while all parties associated with the				
	call are in the Null party-state, Drop Party				
	Initiated party-state, or Drop Party Received				
	party-state, stop timer T398, release the				
	endpoint reference, disconnect the bearer				
	virtual channel, and send a RELEASE				
	message?				
Restart	Procedure		-		1
PMP 54	when the virtual channel (connection) is	М		5.6.4	YesNo
	restarted, in addition to other network side				
	procedures in section 5.5.5, set the party-state				
	of all parties associated with the virtual				

Item	If point-to-multipoint (PMP) procedures are supported, does the implementation	Status	Conditions for status	Reference	Support
	channel to Null?				
PMP 55	in addition to actions in PMP 54, initiate normal drop party procedures toward the remote user(s) for all parties associated with the call?	М		5.6.4	YesNo
Handlin	g of error conditions: Call reference and End	point Ref	erence error	s - Call refe	rence
procedu	ral errors	_			
PMP 56	on receipt of an ADD PARTY, ADD PARTY ACKNOWLEDGE, ADD PARTY REJECT, DROP PARTY, or DROP PARTY ACKNOWLEDGE message while in the Null link-state, send a RELEASE COMPLETE message with cause #81 and follow the procedures in 5.5.4 specifying the call reference in the received message?	М		5.6.5.3.1	YesNo
Handlin	g of error conditions: Call reference and End	point Ref	erence error	s – Endpoin	t reference
error: I	nvalid endpoint reference format	<b>r</b> •		<b>F</b>	
PMP 57	on receipt of a message with endpoint reference IE not properly formatted send a STATUS message with cause #100 with no Endpoint reference information element and follow procedures in 5.5.6.7.2 ¹ ?	M		5.6.5.3.2.1	YesNo
Handlin	g of error conditions: Call reference and End	point Ref	erence error	s – Endpoin	t reference
error: I	Endpoint reference procedural errors	•		•	
PMP 58	on receiving any message except SETUP, ADD PARTY, DROP PARTY ACKNOWLEDGE, or STATUS ENQUIRY while in the NULL party-state, send a DROP PARTY ACKNOWLEDGE message with cause #89 (and remain in the Null party- state)?	M		5.6.5.3.2.2a, 5.6.5.11	YesNo
PMP 59	on receiving a DROP PARTY ACNOWLEDGE message while in the Null party-state, take no action?	М		5.6.5.3.2.2b	YesNo
PMP 60	on receiving an ADD PARTY message while not in the Null or Add Party Received party- state, send a STATUS message containing the Active link-state value, the associated endpoint reference and endpoint state information elements and values, and with cause #101?	М		5.6.5.3.2.2c	YesNo
PMP 61	ignore an ADD PARTY message received while in the Add Party Received party-state?	М	MC1	5.6.5.3.2.2d	Yes_No_
Handlin	g of error conditions: Message type or messag	ge sequen	ce errors		
PMP 62	on receiving a message type or message sequence error, follow procedures specified in 5.5.6.4?	M		5.6.5.4, 5.5.6.4	YesNo
PMP 63	upon receipt of an unexpected RELEASE COMPLETE message for parties in the Drop Party Initiated and Drop Party Received party-state, enter the Null party-state?	М		5.6.5.4, 5.6.3.3	YesNo

¹ Note: the reference in UNI 3.1 is to 5.5.7.7.2; the correct reference is 5.5.6.7.2.

				u1 00.	
Item	If point-to-multipoint (PMP) procedures are supported, does the implementation	Status	Conditions for status	Reference	Support
PMP 64	upon receipt of an unexpected RELEASE	М		5.6.5.4,	YesNo
	COMPLETE message (using the cause			5.6.3.3	
	contained in the RELEASE COMPLETE				
	message or cause #111 if no cause was				
	included in the RELEASE COMPLETE				
	message) for parties in the Add Party				
	Received party-state and the Active party-				
	state, clear towards the remote user?				
PMP 65	upon receipt of an unexpected RELEASE	Μ	MC18	5.6.5.4,	YesNo
	COMPLETE message for parties in the Add			5.6.3.3	
	Party Initiated party-state, reoffer parties on a				
-	new call reference?				
PMP 66	on receiving an unexpected DROP PARTY	М		5.6.5.4	YesNo
	ACKNOWLEDGE message, initiate normal				
	party clearing procedures toward the remote				
	user (with the cause indicated by the user or, if				
	not included, cause #111), release the				
	endpoint reference, stop all timers, and enter				
DMD (7	the Null party-state?	м		5654	V N-
PMP 07	on receiving a DROP PARTY	M		5.0.5.4	res_no_
	ACKNOWLEDGE message if no other parties				
	Add Party Passived party state on the cell at				
	Add Party Received party-state on the call at				
	channel and sond a <b>PELEASE</b> massage?				
DMD 68	channel and send a RELEASE message?	м		5651	Vas No
1 1011 00	ACKNOWLEDGE or DPOP DAPTY	IVI		5.0.5.4	1 es10
	ACKNOWLEDGE message in any link-state				
	other than the Active link-state follow				
	procedures in 5.5.6.4?				
Handlin	g of error conditions. Message length errors				
PMP 69	on receiving a message with message length	М		5.6.5.5	Yes No
1	error for adding or dropping parties in point-			0101010	100_100_
	to-multipoint calls follow procedures in				
	5.5.6.5?				
Handlin	g of error conditions: General Information El	ement er	rors		
PMP 70	on receiving a message with general	М		5.6.5.6	YesNo
	information element error for adding or				
	dropping parties in point-to-multipoint calls,				
	follow procedures in 5.5.6.6?				
Handlin	g of error conditions: Mandatory information	n elemen	t error - Mar	ndatory info	rmation
element	missing				
PMP 71	on receiving an ADD PARTY message which	М	MC1	5.6.5.7.1	Yes_No_
	has one or more mandatory IEs missing, send				
	an ADD PARTY REJECT message with				
	cause #96?				
PMP 72	after following actions in PMP 71, if there are	Μ	MC1	5.6.5.7.1	YesNo
	no remaining parties in the Active or Add				
	Party Received party-state, send a RELEASE				
	message with (cause #31) to the user?				
PMP 73	in response to a DROP PARTY message with	М		5.6.5.7.1,	YesNo
	Cause IE missing if all other parties associated			5.6.3	
1	with the call are in the Null party-state, Drop	1			1

Ttom	If noint to multipoint (DMD) proceedings are	Status	Conditions	Defenence	Sunnaut
Item	supported, does the implementation	Status	for status	Kelerence	Support
	Party Initiated party-state, or Drop Party				
	Received party-state, send a RELEASE				
	message (with cause #96)?				
PMP 74	in response to a DROP PARTY message with	М		5.6.5.7.1,	Yes_No_
	Cause IE missing if any other parties			5.6.3	
	associated with the call are in the Active party-				
	state, Add Party Initiated party-state, or Add				
	Party Received party-state, release the				
	endpoint reference, send a DROP PARTY				
	ACKNOWLEDGE message with cause #96,				
	and enter the Null party-state?				
PMP 75	on receiving a DROP PARTY	М		5.6.5.7.1	YesNo
	ACKNOWLEDGE or ADD PARTY REJECT				
	message with a Cause IE missing, assume that				
	the message was received with cause #31?				
Handlin	g of error conditions: Mandatory information	n elemen	t error - Mar	ndatory info	rmation
element	content error				
PMP 76	on receiving an ADD PARTY message with	М	MC1	5.6.5.7.2	YesNo
	one or more mandatory IEs with invalid				
	content, send ADD PARTY REJECT or				
	RELEASE message, as appropriate, with				
	cause #100?				
PMP 77	after sending the ADD PARTY REJECT (in	М	MC1	5.6.5.7.2	YesNo
	PMP 76), if there are no remaining parties in				
	the Active or Add Party Received party-state,				
	send a RELEASE message with (cause #31) to				
	the user?				
PMP 78	on receiving a DROP PARTY message with	М		5.6.5.7.2	YesNo
	invalid content of the Cause IE, take action as				
	if a DROP PARTY message with cause #31				
	was received (section 5.5.4), except that the				
	DROP PARTY ACKNOWLEDGE or				
DMD 70	RELEASE message is sent with cause #100?	м		5(57)	V N-
PMP /9	on receiving a DROP PARTY	IVI		5.0.5.7.2	res_no_
	ACKNOW LEDGE message with invalid				
	DARTY ACKNOWLEDCE massage was				
	received with cause #312				
DMD 80	treat massages with a mandatory information	м		56572	Vas No
1 1011 00	element with a length exceeding the maximum	IVI		5.0.5.7.2	105110
	length (section 5.4) as a mandatory				
	information element with content error?				
Handlin	g of error conditions: Non-mandatory inform	nation el	ement error .	l Unrecogniz	ved
informa	tion element	nation ci		- On cooginz	zcu
PMP 81	on receiving a message with one or more non-	М	Note	5.6.5.8.1	Yes No
	mandatory unrecognized IEs, take action on				
	the message and those IEs which are				
	recognized and have valid content?				
PMP 82	on receiving an ADD PARTY ADD PARTY	0	Note	5.6.5.8.1	Yes No
	ACKNOWLEDGE. or ADD PARTY	-			
	REJECT message with one or more non-				
	mandatory unrecognized IEs. send a STATUS				
	message which indicates the link-state and				

PICS Proforma for UNI 3.1 Signalling (Network Side)

Item	If point-to-multipoint (PMP) procedures are	Status	<b>Conditions</b>	Reference	Support
	supported, does the implementation		Ior status		
	taking action on the message, and which				
	contains one course IF with course #002				
PMP 83	include the diagnostics field in the STATUS	0	Note	56581	Ves No
1 1011 05	message sent in DMD 822	U	Note	5.0.5.0.1	105100
DMD 8/	include on IE identifier for each unreasonized	м	Note	56581	Vec No
1 1/11 04	Include an IE identifier for each unrecognized	IVI	Note	5.0.5.8.1	165100
	Cause IE size) in the diagnostics field if				
	present in the STATUS message sent in DMP				
	82?				
PMP 85	on receiving a DROP PARTY message with	М		5.6.5.8.1a	Yes_No_
	one or more non-mandatory unrecognized				
	information elements, send a DROP PARTY				
	ACKNOWLEDGE or RELEASE message				
	with cause #99 (and the Cause IE diagnostic				
	field, if present, containing the IE identifier				
	for each unrecognized IE)?				
PMP 86	on receiving a DROP PARTY	М		5.6.5.8.1b	YesNo
	ACKNOWLEDGE message with one or more				
	non-mandatory unrecognized information				
	elements, take no action on the unrecognized				
	IEs?				
Handlin	g of error conditions: Signalling AAL reset				
PMP 87	when an indication of a Signalling AAL reset	Μ		5.6.5.9a	YesNo
	is received from the Q.SAAL layer [by means				
	of AAL-ESTABLISH-INDICATION				
	primitive], take no action for parties in the				
	clearing phase (party-states Drop Party				
	Initiated and Drop Party Received)?				
PMP 88	when an indication of a Signalling AAL reset	М		5.6.5.9b	Yes_No
	is received from the Q.SAAL layer [by means				
	of AAL-ESTABLISH-INDICATION				
	primitive], maintain parties in the				
	establishment phase (party-states Add Party				
<b>D1</b> ( <b>D</b> 00	Initiated and Add Party Received)?	0		5 6 5 01	XZ NI
PMP 89	when an indication of a Signalling AAL reset	0		5.6.5.90	YesNo
	is received from the Q.SAAL layer [by means				
	of AAL-ESTABLISH-INDICATION				
	primitive, use status enquiry procedures for				
DMD 00	parties in the establishment phase?	м		56500	Vac No
FMF 90	is reasoned from the O SAAL layer the means	IVI		5.0.5.90	1 esNo
	of A AL ESTADUSH INDICATION				
	of AAL-ESTABLISH-INDICATION				
	state according to procedures in other parts of				
	state according to procedures in other parts of				
Handlin	a of error conditions: Signalling AAI failure				
PMP 91	whenever the network layer entity is notified	М		56510	Yes No
	by its Signalling $\Delta \Delta I$ entity (via the $\Delta \Delta I$	1.1		5.0.5.10	105_110
	RELEASE-INDICATION primitivel that				
	there is a Signalling AAL malfunction				
	internally clear any parties not in the Active				
	party-state?				

#### PICS Proforma for UNI 3.1 Signalling (Network Side)

Item	If point-to-multipoint (PMP) procedures are supported, does the implementation		Conditions for status	Reference	Support
Handlin	g of error conditions: Status enquiry procedu	re			
PMP 92	in response to procedural error conditions described in 5.6.5.9 and 5.6.5.10, send a STATUS ENQUIRY with endpoint reference of the party-state to be checked?	0		5.6.5.11	Yes_No
PMP 93	on sending a STATUS ENQUIRY message, start T322?	М	PMP 92	5.6.5.11	Yes_No_
PMP 94	have only one STATUS ENQUIRY for party- state information outstanding per call at a given time when T322 is active?	М	PMP 92	5.6.5.11	YesNo
PMP 95	if a party clearing message is received before T322 expires, stop T322 and continue clearing?	М	PMP 92	5.6.5.11	YesNo
PMP 96	if a STATUS message is received containing cause #30, stop T322, if running, and take appropriate action based on the current state in that STATUS message?	М		5.6.5.11	YesNo
PMP 97a	in response to a STATUS ENQUIRY message received in any state other than the Null party- state, send a STATUS message (with cause # 30 and with the current party-state)?	М		5.6.5.11	YesNo
PMP 97b	in response to a STATUS ENQUIRY message received while in the Null party state, send a STATUS message (with cause # 30 and with the Null party-state?	0.1		5.6.5.11	Yes_No
PMP 97c	in response to a STATUS ENQUIRY message received while in the Null party state, send a DROP PARTY message (with cause # 89)?	O.1		5.6.5.11, 5.6.5.3.2a	YesNo
PMP 98	on expiry of T322, if no STATUS message was received, retransmit STATUS ENQUIRY message one or more times until a response is received?	0	PMP 92	5.6.5.11	YesNo
PMP 99	if STATUS ENQUIRY has been retransmitted the maximum number of times (implementation dependent), clear the party to the local interface with cause #41?	М	PMP 92	5.6.5.11	YesNo
PMP 100	in addition to actions in PMP 99, clear the network connection using cause #41 if appropriate?	М	PMP 92	5.6.5.11	YesNo
Handlin	g of error conditions: Receiving a STATUS m	essage	1		
PMP 101	on receipt of a STATUS message reporting an incompatible party-state, clear the party by sending the appropriate clearing message with cause #101?	0.2		5.6.5.12	YesNo
РМР 102	on receipt of a STATUS message reporting an incompatible party-state, take actions which attempt to recover, other than clearing the party?	0.2		5.6.5.12	Yes_No
PMP 103	on receiving a STATUS message indicating any party-state except the Null party state while in the Null party-state, send a DROP PARTY ACKNOWLEDGE message with cause #101 and remain in the Null party-state?	М		5.6.5.12	YesNo

PICS Profor	ma for UNI	3.1 Signa	lling (Netw	ork Side)
				/

Item	If point-to-multipoint (PMP) procedures are supported does the implementation	Status	Conditions for status	Reference	Support
PMP	on receiving a STATUS message indicating	М	101 status	56512	Ves No
104	any party state except the Null party state	101		5.0.5.12	103_100
101	while in the Drop Derty Initiated party state				
	take no action?				
DMD		м		5 ( 5 12-	V N-
PMP 105	on receiving a STATUS message indicating	IVI		5.0.5.12c	resNo
105	the Null party-state while in any party-state				
	except the Null party-state, internally clear the				
	party and enter the Null party-state; in				
	addition, initiate call clearing by sending a				
	RELEASE message if no other party of the				
	call is in the Active, Add Party Initiated or				
	Add Party Received party-states?				
PMP	on receiving a STATUS message indicating	М		5.6.5.12	YesNo
106	the Null party-state while in the Null party-				
	state, take no action other than to discard the				
	message (and remain in the Null party-state)?				
PMP	on receiving a STATUS message indicating	0.3		5.6.5.12	YesNo
107	compatible party-state, but containing cause				
	#96, #97, #99, or #100, take actions which are				
	implementation dependent?				
PMP	on receiving a STATUS message indicating	0.3		5.6.5.12	YesNo
108	compatible party-state, but containing cause				
	#96, #97, #99, or #100, if other procedures are				
	not defined, clear the party with the				
	appropriate procedure defined in section 5.6.3				
	(using the cause specified in the received				
	STATUS message)?				
Commen	ts:	1	ı	L	
Note: M	andatory for unrecognized non-mandatory IEs for the ca	ases (PMP	81-84) where		
1)	the IE Instruction Flag (in octet 2) = 0 or	,	,		
2)	the IE Instruction $Flag = 1$ and SC89 is not in	plemente	d.		
O.1 = ma	andatory to support at least one of these procedure	s.			
O.2 = m	andatory to support at least one of these procedure	es.			
O.3 = m	andatory to support at least one of these procedure	es.			

# 3.7 Call States (CS)

Item	Does the implementation support the	Status	Conditions for status	Reference	Support
CS 1	Null state (N0) ?	М		5.2.1.2	YesNo
CS 2	Call Initiated state (N1)?	М		5.2.1.2	Yes_No_
CS 3	Outgoing Call Proceeding state (N3)?	М	MC 1	5.2.1.2	YesNo
CS 4	Call Present state (N6)?	М	MC 2	5.2.1.2	YesNo
CS 5	Connect Request state (N8)?	М	MC 2	5.2.1.2	YesNo
CS 6	Incoming Call Proceeding state (N9)?	М	MC 2	5.2.1.2	YesNo
CS 7	Active state (N10)?	М		5.2.1.2	YesNo
CS 8	Release Request state (N11)?	М		5.2.1.2	YesNo
CS 9	Release Indication state (N12)?	М		5.2.1.2	YesNo
CS 10	Null state (Rest 0)?	М		5.2.3.2	Yes_No_
CS 11	Restart Request state (Rest 1)?	М	MC 5.1	5.2.3.2	Yes_No_
CS 12	Restart state (Rest 2)?	М		5.2.3.2	Yes_No_
Comment	5				

# 3.8 Party States (PS)

Item	Does the implementation support the	Status	Conditions for status	Reference	Support
PS 1	Null party state?	М	MC 13	5.6	YesNo
PS 2	Add Party Initiated party state?	М	MC2, MC 13	5.6	YesNo
PS 3	Add Party Received party state?	М	MC1, MC 13	5.6	YesNo
PS 4	Drop Party Initiated party state?	М	MC 13	5.6	YesNo
PS 5	Drop Party Received party state?	М	MC 13	5.6	YesNo
PS 6	Active party state?	М	MC 13	5.6	YesNo

Item	Does the implementation support the interpretation of	Status	Conditions for status	Reference	Support
MR 1	CALL PROCEEDING?	М	MC 2	5.3.1.2	Yes_No_
MR 2	CONNECT?	М	MC 2	5.3.1.3	Yes_No_
MR 3	CONNECT ACKNOWLEDGE?	М	MC 1	5.3.1.4	YesNo
MR 4	RELEASE?	М		5.3.1.5	YesNo
MR 5	RELEASE COMPLETE?	М		5.3.1.6	YesNo
MR 6	SETUP?	М	MC 1	5.3.1.7	YesNo
MR 7	STATUS?	М		5.3.1.8	YesNo
MR 8	STATUS ENQUIRY?	М		5.3.1.9	YesNo
MR 9	ADD PARTY?	М	MC 13 and MC 1	5.3.5.1	Yes_No_
MR 10	ADD PARTY ACKNOWLEDGE?	М	MC 13 and MC 2	5.3.5.2	YesNo
MR 11	ADD PARTY REJECT?	М	MC 13 and MC 2	5.3.5.3	YesNo
MR 12	DROP PARTY?	М	MC 13	5.3.5.4	YesNo
MR 13	DROP PARTY ACKNOWLEDGE?	М	MC 13	5.3.5.5	YesNo
MR 14	RESTART ?	М		5.3.4.1	YesNo
MR 15	RESTART ACKNOWLEDGE ?	М	MC 5.1	5.3.4.2	Yes_No_
Commen	ts	1	11		

# 3.9 Supported Messages User to Network (Received by the Network) (MR)

Item	Does the implementation support the inclusion of	Status	Conditions for status	Reference	Support
MT 1	CALL PROCEEDING?	0	MC 1	5.3.1.2	YesNo
MT 2	CONNECT?	М	MC 1	5.3.1.3	YesNo
MT 3	CONNECT ACKNOWLEDGE?	М	MC 2	5.3.1.4	YesNo
MT 4	RELEASE?	М		5.3.1.5	YesNo
MT 5	RELEASE COMPLETE?	М		5.3.1.6	YesNo
MT 6	SETUP?	М	MC 2	5.3.1.7	YesNo
MT 7	STATUS?	М		5.3.1.8	YesNo
MT 8	STATUS ENQUIRY?	М		5.3.1.9	Yes_No_
MT 9	ADD PARTY?	М	MC 13 and MC 2	5.3.5.1	Yes_No_
MT 10	ADD PARTY ACKNOWLEDGE?	М	MC 13 and MC 1	5.3.5.2	Yes_No_
MT 11	ADD PARTY REJECT?	М	MC 13 and MC 1	5.3.5.3	YesNo
MT 12	DROP PARTY?	М	MC 13	5.3.5.4	Yes_No_
MT 13	DROP PARTY ACKNOWLEDGE?	М	MC 13	5.3.5.5	Yes_No_
MT 14	RESTART ?	М	MC 5.1	5.3.4.1	Yes_No_
MT 15	RESTART ACKNOWLEDGE ?	М		5.3.4.2	Yes_No_
Commen	ts	1	1	1	1

# 3.10 Supported Messages Network to User (Transmitted by the Network) (MT)

Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 1	CALL PROCEEDING			5.3.1.2	
MS 1.1	Protocol discriminator, call reference, message type and message length?	М			Yes_No
MS 1.2	Connection Identifier?	O Note 1			YesNo
MS 1.3	Endpoint Reference?	O Note 2	MC 13		YesNo
Comment	S				

#### 3.11 Supported Messages (Message structure) (MS)

Note 1: Mandatory in the network-to-user direction. It is mandatory in the user-to-network direction unless the user accepts the connection identifier indicated in the SETUP message.

Note 2: Mandatory if an Endpoint reference was included in the SETUP message.

Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 2	CONNECT			5.3.1.3	
MS 2.1	Protocol discriminator, call reference, message	М			YesNo
	type and message length?				
MS 2.2	AAL parameters ?	0			YesNo
		Note 1			
MS 2.3	Broadband low layer information?	0			Yes_No_
MS 2.4	Connection Identifier?	0			YesNo
		Note 2			
MS 2.5	Endpoint reference?	0	MC 13		YesNo
		Note 3			
Comment	8				

Note 1: AAL parameters information element shall not be present when the endpoint reference information element was present in the SETUP message and had a non-zero value.

Note 2: Mandatory in the network-to-user direction if this message is the first message in response to a SETUP message. It is mandatory in the user-to-network direction if this message is the first message in response to a SETUP message, unless the user accepts the connection identifier indicated in the SETUP message.

Note 3: Mandatory if an Endpoint reference was included in the SETUP message.

Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 3	CONNECT ACKNOWLEDGE			5.3.1.4	
MS 3.1	Protocol discriminator, call reference, message	М			Yes_No_
	type and message length?				
Comment	s				

Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 4	RELEASE			5.3.1.5	
MS 4.1	Protocol discriminator, call reference, message type and message length ?	М			Yes_No
MS 4.2	Cause?	М			YesNo
Comment	S				

Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 5	RELEASE COMPLETE			5.3.1.6	
MS 5.1	Protocol discriminator, call reference, message	М			Yes_No_
	type and message length ?				
MS 5.2	Cause?	0			Yes_No_
		Note			
Comment	S				

Note : Mandatory in the first call clearing message; including when the RELEASE COMPLETE message is sent as a result of an error condition.

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Item	Message parts Does the message include	Status	Conditions for status	Reference	Support
MS 6	SETUP			5.3.1.7	
MS 6.1	Protocol discriminator, call reference, message type and message length ?	М			YesNo
MS 6.2	AAL parameters ?	0			YesNo
MS 6.3	ATM traffic parameters ?	М			Yes_No
MS 6.4	Broadband bearer capability ?	М			Yes_No_
MS 6.5	Broadband high layer information?	0			YesNo
MS 6.6	Broadband repeat indicator?	O Note			YesNo
MS 6.7	Broadband low layer information?	0			YesNo
MS 6.8	Called party number?	М			YesNo
MS 6.9	Called party subaddress?	0			Yes_No_
MS 6.10	Calling party number?	0			YesNo
MS 6.11	Calling party subaddress?	0			YesNo
MS 6.12	Connection identifier?	М	MC 2		Yes_No_
MS 6.13	QoS parameter?	М			YesNo
MS 6.14	Broadband sending complete?	0			YesNo
MS 6.15	Transit network selection?	0	MC 1.2		Yes_No_
MS 6.16	Endpoint reference?	М	MC 13		Yes_No_
Comments				1	1

Note: Must be included when two or more Broadband low-layer information elements are included for Broadband low layer information negotiation.

Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 7	STATUS			5.3.1.8	
MS 7.1	Protocol discriminator, call reference, message type and message length?	М			Yes_No
MS 7.2	Call state?	М			Yes_No
MS 7.3	Cause?	М			YesNo
MS 7.4	Endpoint reference?	0	MC 13		YesNo
MS 7.5	Endpoint state?	М	MS 7.4		YesNo
Comment	s				

Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 8	STATUS ENQUIRY			5.3.1.9	
MS 8.1	Protocol discriminator, call reference, message	М			Yes_No_
	type and message length?				
MS 8.2	Endpoint reference?	0	MC 13		Yes_No_
Comment	S				

Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 9	RESTART			5.3.4.1	
MS 9.1	Protocol discriminator, call reference (global call reference), message type and message length?	М			Yes_No
MS 9.2	Connection identifier?	O Note			Yes_No
MS 9.3	Restart indicator?	М			Yes_No_
Comment	5				

Note: Included when necessary to indicate the particular virtual channel to be restarted.

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Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 10	RESTART ACKNOWLEDGE			5.3.4.2	
MS 10.1	Protocol discriminator, call reference (global call reference), message type and message length?	М			YesNo
MS 10.2	Connection identifier?	O Note			YesNo
MS 10.3	Restart indicator?	М			YesNo
Comments			•		

Note: Included when necessary to indicate the particular virtual channel which has been restarted.

Item	Message parts Does the message include	Status	Conditions for status	Reference	Support
MS 11	ADD PARTY		Ior Status	5351	
MS 11.1	Protocol discriminator, call reference, message type and message length?	М		5.5.5.1	YesNo
MS 11.2	AAL parameters?	0			YesNo
MS 11.3	Broadband high layer information?	0			YesNo
MS 11.4	Broadband low layer information?	0			YesNo
MS 11.5	Called party number?	М			YesNo
MS 11.6	Called party subaddress?	0			YesNo
MS 11.7	Calling party number?	0			YesNo
MS 11.8	Calling party subaddress?	0			YesNo
MS 11.9	Broadband sending complete?	0			YesNo
MS 11.10	Transit network selection?	0	MC 1.2		Yes_No_
MS 11.11	Endpoint reference?	М			Yes_No_
Comments					

Item	Message parts Does the message include	Status	Conditions for status	Reference	Support
MS 12	ADD PARTY ACKNOWLEDGE			5.3.5.2	
MS 12.1	Protocol discriminator, call reference, message type and message length ?	М			YesNo
MS 12.2	Endpoint reference ?	М			YesNo
Comments					

Item	Message parts	Status	Conditions	Reference	Support
	Does the message include		for status		
MS 13	ADD PARTY REJECT			5.3.5.3	
MS 13.1	Protocol discriminator, call reference, message type and message length ?	М			Yes_No
MS 13.2	Cause ?	М			YesNo
MS 13.3	Endpoint reference ?	М			Yes_No_
Comments					

Item	Message parts Does the message include	Status	Conditions for status	Reference	Support
MS 14	DROP PARTY			5.3.5.4	
MS 14.1	Protocol discriminator, call reference, message type and message length ?	М			YesNo
MS 14.2	Cause ?	М			YesNo
MS 14.3	Endpoint reference ?	М			YesNo
Comments					

Item	Message parts Does the message include	Status	Conditions for status	Reference	Support
MS 15	DROP PARTY ACKNOWLEDGE			5.3.5.5	
MS 15.1	Protocol discriminator, call reference, message type and message length ?	М			YesNo
MS 15.2	Cause ?	O Note			Yes_No
MS 15.3	Endpoint reference ?	М			Yes_No_
Comments Note: Man	datory when DROP PARTY ACKNOWLEDG	E is sent as	a result of an e	rror condition	•

3.12	Information elements User to Network (Received by the Network)
	(IER)

Item	Information element Does the implementation support the interpretation of	Status	Conditions for status	Reference	Support
IER 1	Protocol Discriminator	М		5.4.2	Yes_No_
IER 2	Call Reference	М		5.4.3	Yes_No_
IER 3	Message Type	М		5.4.4.1	YesNo
IER 4	Message Length	М		5.4.4.2	Yes_No_
IER 5	ATM adaptation layer parameters ?	М		5.4.5.5	YesNo
IER 6	ATM traffic descriptor ?	М	MC 1	5.4.5.6	Yes_No_
IER 7	broadband bearer capability ?	М	MC 1	5.4.5.7	Yes_No_
IER 8	broadband high layer information ?	М	MC 1	5.4.5.8	Yes_No_
IER 9	broadband low layer information ?	М		5.4.5.9	Yes_No_
IER 10	broadband locking shift ?	М		5.4.5.3	Yes_No_
IER 11	broadband non-locking shift ?	М		5.4.5.4	Yes_No_
IER 12	broadband repeat indicator ?	М	MC 1	5.4.5.19	Yes_No_
IER 13	broadband sending complete ?	М	MC 1	5.4.5.21	Yes_No_
IER 14	call state ?	М		5.4.5.10	Yes_No_
IER 15	called party number ?	М	MC 1	5.4.5.11	Yes_No_
IER 16	called party subaddress ?	М	MC 1	5.4.5.12	Yes_No_
IER 17	calling party number ?	М	MC 1	5.4.5.13	Yes_No_
IER 18	calling party subaddress ?	М	MC 1	5.4.5.14	Yes_No_
IER 19	cause ?	М		5.4.5.15	Yes_No_
IER 20	connection identifier ?	М		5.4.5.16	Yes_No_
IER 21	endpoint reference ?	М	MC 13	5.4.8.1	Yes_No_
IER 22	endpoint state ?	М	MC 13	5.4.8.2	Yes_No_
IER 23	quality of service parameter ?	М	MC 1	5.4.5.18	Yes_No_
IER 24	restart indicator ?	М		5.4.5.20	Yes_No_
IER 25	transit network selection ?	М	MC 1.2	5.4.5.22	YesNo
Commen	ts				

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Item	Information element	Status	Conditions	Reference	Support
	Does the implementation support the		for status		
	inclusion of				
IET 1	Protocol Discriminator	М		5.4.2	Yes_No_
IET 2	Call Reference	М		5.4.3	YesNo
IET 3	Message Type	М		5.4.4.1	YesNo
IET 4	Message Length	М		5.4.4.2	YesNo
IET 5	ATM adaptation layer parameters ?	0		5.4.5.5	YesNo
IET 6	ATM traffic descriptor ?	М	MC 2	5.4.5.6	Yes_No_
IET 7	broadband bearer capability ?	М	MC 2	5.4.5.7	Yes_No_
IET 8	broadband high layer information ?	0	MC 2	5.4.5.8	YesNo
IET 9	broadband low layer information ?	0		5.4.5.9	YesNo
IET 10	broadband repeat indicator ?	O Note 1		5.4.5.19	YesNo
IET 11	broadband sending complete ?	0	MC 2	5.4.5.21	YesNo
IET 12	call state ?	М		5.4.5.10	Yes_No_
IET 13	called party number ?	М	MC 2	5.4.5.11	YesNo
IET 14	called party subaddress ?	0	MC 2	5.4.5.12	YesNo
IET 15	calling party number ?	0	MC 2	5.4.5.13	YesNo
IET 16	calling party subaddress ?	0	MC 2	5.4.5.14	YesNo
IET 17	cause ?	М		5.4.5.15	YesNo
IET 18	connection identifier ?	O Note 2		5.4.5.16	YesNo
IET 19	endpoint reference ?	M	MC 13	5.4.8.1	YesNo
IET 20	endpoint state ?	М	MC 13	5.4.8.2	YesNo
IET 21	quality of service parameter ?	М	MC 2	5.4.5.18	Yes_No_
IET 22	restart indicator ?	М		5.4.5.20	YesNo
			I		

# 3.13 Information elements Network to User (Transmitted by the Network) (IET)

Comments

Note 1: Mandatory if sending multiple Broadband low layer information elements.

Note 2: a) Mandatory in the SETUP message.

b) Mandatory in the RESTART Message if the Restart indicator is coded as "indicated virtual channel"

## PICS Proforma for UNI 3.1 Signalling (Network Side) 3.14 Timers (TM)

Item	Does the implementation support Timer	Status	Conditions for status	Value supported by IUT	Reference	Support	
TM 1	T303? Indicate its value.	М	MC 2		5.7.1	YesNo	
TM 2	T308? Indicate its value.	М			5.7.1	YesNo	
TM 3	T309? Indicate its value.	М			5.7.1	YesNo	
TM 4	T310? Indicate its value.	М	MC 2		5.7.1	YesNo	
TM 5	T316? Indicate its value.	М			5.7.1	YesNo	
TM 6	T317? Indicate its value.	М			5.7.1	YesNo	
TM 7	T322? Indicate its value.	М			5.7.1	YesNo	
TM 8	T398? Indicate its value.	М	MC 13		5.7.1	YesNo	
TM 9	T399? Indicate its value.	М	MC 13 and MC 2		5.7.1	YesNo	
Comments							