

# **I**

## **Test Suite Overview**

Test Suite Structure			
<b>Suite Name</b> : L3_SCMU <b>Standards Ref</b> : ETS 301 276-1 [ITU-T recommendation Q2963 (1996) modified] <b>PICS Ref</b> : ETS 301 276-2 <b>PIXIT Ref</b> : ETS 301 276-4 Annex B <b>Test Method(s)</b> : Remote test method (see ETS 301 276-4 clause 4) <b>Comments</b> : Abstract test suite for the Broadband integrated services digital network (B-ISDN) - Digital subscriber signalling system no. 2 (DSS2) - Connection characteristics; Modification procedures for sustainable cell rate parameters Version 276_4_1.mp, March 2001			
Test Group Reference	Selection Ref	Test Group Objective	Page Nr
Requesting_Entity/ Responding_Entity/	REQUESTING_ENTITY RESPONDING_ENTITY		
<b>Detailed Comments</b> :			

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
Requesting_Entity/	SCMU_01_01		subclause 9.1	
Requesting_Entity/	SCMU_01_02		subclause 9.1	
Requesting_Entity/	SCMU_01_03		subclause 9.1	
Requesting_Entity/	SCMU_01_04		subclause 9.1	
Requesting_Entity/	SCMU_01_05		subclause 9.1	
Requesting_Entity/	SCMU_01_06		subclause 9.1	
Requesting_Entity/	SCMU_01_07		subclause 9.1	
Requesting_Entity/	SCMU_01_08		subclause 9.1	
Responding_Entity/	SCMU_02_01		subclause 9.2	
Responding_Entity/	SCMU_02_02		subclause 9.2	
Responding_Entity/	SCMU_02_03		subclause 9.2	
Responding_Entity/	SCMU_02_04		subclause 9.2	
Responding_Entity/	SCMU_02_05		subclause 9.2	
Responding_Entity/	SCMU_02_06		subclause 9.2	
Responding_Entity/	SCMU_02_07		subclause 9.2	
Responding_Entity/	SCMU_02_08		subclause 9.2	
Responding_Entity/	SCMU_02_09		subclause 9.2	
Responding_Entity/	SCMU_02_10		subclause 9.2	
Responding_Entity/	SCMU_02_11		subclause 9.2	
Responding_Entity/	SCMU_02_12		subclause 9.2	
Responding_Entity/	SCMU_02_13		subclause 9.2	
Responding_Entity/	SCMU_02_14		subclause 9.2	
Responding_Entity/	SCMU_02_15		subclause 9.2	
Responding_Entity/	SCMU_02_16		subclause 9.2	
<b>Detailed Comments :</b>				

Test Step Index			
Test Step Group Reference	Test Step Id	Description	Page Nr
	SCMU_PR_U0	Preamble to U00	
	SCMU_PR_U1	Preamble to U1	
	SCMU_PR_U3	Preamble to U3	
	SCMU_PR_U4	Preamble to U4	
	SCMU_PR_U6	Preamble to U10, Incoming call	
	SCMU_PR_U7	Preamble to U7	
	SCMU_PR_U8	Preamble to U8 and P3	
	SCMU_PR_U9	Preamble to U9	
	SCMU_PR_U10I	Preamble to U10, Incoming call	
	SCMU_PR_U10O	Preamble to U10, Outgoing call	
	SCMU_PR_U11	Preamble to U11, Incoming call	
	SCMU_PR_U13	Preamble to U13, Outgoing call	
	SCMU_PO	Postamble to N00	
	SCMU_CS	Check the link state of the IUT	
Detailed Comments :			

Default Index			
Default Group Reference	Default Id	Description	Page Nr
	SCMU_DEF	Default for all test cases	
<b>Detailed Comments :</b>			

## **II**

### **Declarations Part**

ASN.1 Type Definition	
<b>Type Name</b>	: ANPI_value
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.11
Type Definition	
BIT STRING(SIZE(4))	
<b>Detailed Comments</b> : Addressing/Numbering plan identification value	

ASN.1 Type Definition	
<b>Type Name</b>	: AAL_contents
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.5
Type Definition	
OCTET STRING(SIZE(1..23))	
<b>Detailed Comments</b> : AAL parameters contents	

ASN.1 Type Definition	
<b>Type Name</b>	: ATM_contents
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.6
Type Definition	
OCTET STRING(SIZE(0..32))	
<b>Detailed Comments</b> : ATM Traffic Descriptor contents	

ASN.1 Type Definition	
<b>Type Name</b>	: BBC_contents
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.7
Type Definition	
OCTET STRING(SIZE(2..4))	
<b>Detailed Comments</b> : Broadband Bearer Capability contents	

ASN.1 Type Definition	
<b>Type Name</b>	: BC_contents
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 403-1 subclause 4.5.5
Type Definition	
OCTET STRING(SIZE(0..10))	
<b>Detailed Comments</b> : Broadband Bearer Capability contents	

ASN.1 Type Definition	
<b>Type Name</b>	: LLC_contents
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.9
Type Definition	
OCTET STRING(SIZE(1..13))	
<b>Detailed Comments</b> : Broadband low layer compatibilty contents	

ASN.1 Type Definition	
<b>Type Name</b>	: NI_contents
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.23
Type Definition	
OCTET STRING	
<b>Detailed Comments</b> : Notification indicator contents	

ASN.1 Type Definition	
<b>Type Name</b>	: Cr_value
<b>Encoding Variation</b>	:
<b>Comments</b>	: Call reference value EN 300 443-1 subclause 4.3
Type Definition	
BIT STRING(SIZE(23))	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Cause_value
<b>Encoding Variation</b>	:
<b>Comments</b>	: Cause value EN 300 443-1 subclause 4.5.15
Type Definition	
BIT STRING(SIZE(7))	
<b>Detailed Comments</b> :	



ASN.1 Type Definition	
<b>Type Name</b>	: IEAI_value
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 Table 4-3
Type Definition	
BIT STRING(SIZE(3))	
<b>Detailed Comments</b> : Information element action indicator	

ASN.1 Type Definition	
<b>Type Name</b>	: MSGAI_value
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 Table 4-2
Type Definition	
BIT STRING(SIZE(2))	
<b>Detailed Comments</b> : Message action indicator	

ASN.1 Type Definition	
<b>Type Name</b>	: Flag
<b>Encoding Variation</b>	:
<b>Comments</b>	: Used as Call reference or Endpoint reference flag EN 300 443-1 subclause 4.3, EN 300 771-1 subclause 8.2.1
Type Definition	
BIT STRING(SIZE(1))	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: State_value
<b>Encoding Variation</b>	:
<b>Comments</b>	: Cause value EN 300 443-1 subclause 4.5.10
Type Definition	
BIT STRING(SIZE(6))	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: TON_value
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.11
Type Definition	
BIT STRING(SIZE(3))	
<b>Detailed Comments</b>	: Type of number value

ASN.1 Type Definition	
<b>Type Name</b>	: VPAS_value
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.16
Type Definition	
BIT STRING(SIZE(2))	
<b>Detailed Comments</b>	: VP-associated signalling value

ASN.1 Type Definition	
<b>Type Name</b>	: VCI_VPCI_value
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.16
Type Definition	
BIT STRING(SIZE(16))	
<b>Detailed Comments</b>	: VPI or VPCI value

ASN.1 Type Definition	
<b>Type Name</b>	: Breport
<b>Encoding Variation</b>	:
<b>Comments</b>	: ETS 301 003-1 subclause 8.2.2
Type Definition	
BIT STRING(SIZE(8))	
<b>Detailed Comments</b>	: Broadband report type value

ASN.1 Type Definition	
<b>Type Name</b>	: MessageHeader
<b>Encoding Variation</b>	:
<b>Comments</b>	: The message header is contained in each message.
Type Definition	
SEQUENCE {	
protocolDiscriminator	ProtocolDiscriminator,
callReference	CallReference,
messageType	MessageType
}	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: ProtocolDiscriminator
<b>Encoding Variation</b>	:
<b>Comments</b>	: Protocol discriminator for Q.2931 user-network call/connection control messages EN 300 443-1 subclause 4.2
Type Definition	
BIT STRING ('00001001'B)	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: CallReference
<b>Encoding Variation</b>	:
<b>Comments</b>	: Call reference EN 300 443-1 subclause 4.3
Type Definition	
SEQUENCE {	
bits5_8	BIT STRING('0000'B), -- fixed value for the upper nibble of the length
cr_length	BIT STRING('0011'B), -- length value set to 3
cr_flag	Flag, -- '0'B: Originator, '1'B: Destination
cr_value	Cr_value -- call reference value BITSTRING[23]
}	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: MessageIdentifier
<b>Encoding Variation</b>	:
<b>Comments</b>	: Message type EN 300 443-1 table 4-2
Type Definition	
BIT STRING(SIZE(8))	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: MessageType
<b>Encoding Variation</b>	:
<b>Comments</b>	: Message type including message compatibility instruction indicator EN 300 443-1 subclause 4.4.1
Type Definition	
<pre>SEQUENCE {   message_type      MessageIdentifier,  -- Type of message   extension          BIT STRING(1'B),   -- Extension bit, set to '1'B   spare_67           BIT STRING(SIZE(2)), -- Spare bits, normally set to '00'B   mt_flag            Flag,               -- (1)   spare_34           BIT STRING(SIZE(2)), -- Spare bits, normally set to '00'B   action_indicator   MSGAI_value        -- Message action indicator }</pre>	
<b>Detailed Comments</b> : (1) Message compatibility instruction indicator flag	

ASN.1 Type Definition	
<b>Type Name</b>	: MessageLength
<b>Encoding Variation</b>	:
<b>Comments</b>	: Message length EN 300 443-1 subclause 4.4.2
Type Definition	
BIT STRING(SIZE(16))	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: InformationElements
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5
Type Definition	
<pre>CHOICE {   iEs_ALERTING          IEs_ALERTING,   iEs_CALL_PROCEEDING   IEs_CALL_PROCEEDING,   iEs_CONNECT            IEs_CONNECT,   iEs_CONNECT_ACKNOWLEDGE IEs_CONNECT_ACKNOWLEDGE,   iEs_INFORMATION        IEs_INFORMATION,   iEs_PROGRESS           IEs_PROGRESS,   iEs_RELEASE            IEs_RELEASE,   iEs_RELEASE_COMPLETE   IEs_RELEASE_COMPLETE,   iEs_SETUP_ACKNOWLEDGE  IEs_SETUP_ACKNOWLEDGE,   iEs_SETUP              IEs_SETUP,   iEs_STATUS             IEs_STATUS,   iEs_STATUS_ENQUIRY     IEs_STATUS_ENQUIRY,   iEs_NOTIFY             IEs_NOTIFY,   iEs_RESTART            IEs_RESTART,   iEs_RESTART_ACKNOWLEDGE IEs_RESTART_ACKNOWLEDGE,   iEs_MODIFY_REQUEST     IEs_MODIFY_REQUEST,   iEs_MODIFY_REJECT      IEs_MODIFY_REJECT,   iEs_MODIFY_ACKNOWLEDGE IEs_MODIFY_ACKNOWLEDGE,   iEs_CONNECTION_AVAILABLE IEs_CONNECTION_AVAILABLE,   iEs_INVALID            IEs_INVALID,   iEs_ERROR              IEs_ERROR }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition			
Type Name		: IEs_ALERTING	
Encoding Variation		:	
Comments		: EN 300 443-1 subclause 3.1.1, 3.2.1	
Type Definition			
SET {	connectionIdentifier	ConnectionIdentifier	OPTIONAL,
	narrowbandBearerCapability	NarrowbandBearerCapability	OPTIONAL,
	narrowbandHighLayerCompatibility	NarrowbandHighLayerCompatibility	OPTIONAL,
	notificationIndicator	NotificationIndicator	OPTIONAL,
	progressIndicator	ProgressIndicator	OPTIONAL
}			
Detailed Comments		:	

ASN.1 Type Definition			
Type Name		: IEs_CALL_PROCEEDING	
Encoding Variation		:	
Comments		: EN 300 443-1 subclause 3.1.2, 3.2.2	
Type Definition			
SET {	connectionIdentifier	ConnectionIdentifier	OPTIONAL,
	narrowbandBearerCapability	NarrowbandBearerCapability	OPTIONAL,
	narrowbandHighLayerCompatibility	NarrowbandHighLayerCompatibility	OPTIONAL,
	notificationIndicator	NotificationIndicator	OPTIONAL,
	progressIndicator	ProgressIndicator	OPTIONAL
}			
Detailed Comments :			

ASN.1 Type Definition			
Type Name		: IEs_CONNECT	
Encoding Variation		:	
Comments		: EN 300 443-1 subclause 3.1.3, 3.2.3	
Type Definition			
SET {	aTMAdaptionLayerParameters	ATMAdaptionLayerParameters	OPTIONAL,
	broadbandLowLayerInformation	BroadbandLowLayerInformation	OPTIONAL,
	connectionIdentifier	ConnectionIdentifier	OPTIONAL,
	endToEndTransitDelay	EndToEndTransitDelay	OPTIONAL,
	narrowbandBearerCapability	NarrowbandBearerCapability	OPTIONAL,
	narrowbandHighLayerCompatibility	NarrowbandHighLayerCompatibility	OPTIONAL,
	narrowbandLowLayerCompatibility	NarrowbandLowLayerCompatibility	OPTIONAL,
	notificationIndicator	NotificationIndicator	OPTIONAL,
	aMTrafficDescriptor	ATMTrafficDescriptor	OPTIONAL,
	abrSetupParameters	AbrSetupParameters	OPTIONAL,
	oAMTrafficDescriptor	OAMTrafficDescriptor	OPTIONAL,
	progressIndicator	ProgressIndicator	OPTIONAL
}			
Detailed Comments :			

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_CONNECT_ACKNOWLEDGE
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.1.4
Type Definition	
SET { notificationIndicator NotificationIndicator OPTIONAL }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_NOTIFY
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.1.10
Type Definition	
SET { notificationIndicator NotificationIndicator }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_RELEASE
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.1.5, 3.2.6
Type Definition	
SET { causes Causes, notificationIndicator NotificationIndicator OPTIONAL, progressIndicator ProgressIndicator OPTIONAL }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_RESTART
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.3.1
Type Definition	
SET { connectionIdentifier ConnectionIdentifier OPTIONAL, restartIndicator RestartIndicator }	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_RESTART_ACKNOWLEDGE
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.3.2
Type Definition	
SET {	connectionIdentifier ConnectionIdentifier OPTIONAL,
	restartIndicator RestartIndicator
}	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_RELEASE_COMPLETE
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.1.6
Type Definition	
SET {	causes Causes OPTIONAL
}	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_SETUP
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.1.7, subclause 3.2.7
Type Definition	
SET {	aTMAadaptationLayerParameters ATMAadaptationLayerParameters OPTIONAL,
	aTMTrafficDescriptor ATMTrafficDescriptor,
	alternativeATMTrafficDescriptor AlternativeATMTrafficDescriptor OPTIONAL,
	acceptableATMTrafficDescriptor AcceptableATMTrafficDescriptor OPTIONAL,
	abrSetupParameters AbrSetupParameters OPTIONAL,
	broadbandBearerCapability BroadbandBearerCapability,
	broadbandHighLayerInformation BroadbandHighLayerInformation OPTIONAL,
	broadbandLowLayerInformation BroadbandLowLayerInformation OPTIONAL,
	calledPartyNumber CalledPartyNumber OPTIONAL,
	calledPartySubaddress CalledPartySubaddress OPTIONAL,
	callingPartyNumber CallingPartyNumber OPTIONAL,
	callingPartySubaddress CallingPartySubaddress OPTIONAL,
	connectionIdentifier ConnectionIdentifier OPTIONAL,
	endToEndTransitDelay EndToEndTransitDelay OPTIONAL,
	narrowbandBearerCapabilities NarrowbandBearerCapabilities OPTIONAL,
	narrowbandHighLayerCompatibilities NarrowbandHighLayerCompatibilities OPTIONAL,
	narrowbandLowLayerCompatibilities NarrowbandLowLayerCompatibilities OPTIONAL,
	notificationIndicator NotificationIndicator OPTIONAL,
	oAMTrafficDescriptor OAMTrafficDescriptor OPTIONAL,
	progressIndicator ProgressIndicator OPTIONAL,
	qualityOfServiceParameter QualityOfServiceParameter,
	broadbandSendingComplete BroadbandSendingComplete OPTIONAL,
	transitNetworkSelection TransitNetworkSelection OPTIONAL
}	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_STATUS
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.1.8
Type Definition	
SET {	
cause	Cause,
callState	CallState
}	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_STATUS_ENQUIRY
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.1.9
Type Definition	
SET { }	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_SETUP_ACKNOWLEDGE
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.2.8
Type Definition	
SET {	
connectionIdentifier	ConnectionIdentifier OPTIONAL,
notificationIndicator	NotificationIndicator OPTIONAL,
progressIndicator	ProgressIndicator OPTIONAL
}	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_INFORMATION
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.2.4
Type Definition	
SET {	
broadbandSendingComplete	BroadbandSendingComplete OPTIONAL,
calledPartyNumber	CalledPartyNumber OPTIONAL
}	
<b>Detailed Comments</b>	:



ASN.1 Type Definition	
<b>Type Name</b>	: IEs_PROGRESS
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 3.2.5
Type Definition	
SET {	
narrowbandBearerCapability	NarrowbandBearerCapability OPTIONAL,
narrowbandHighLayerCompatibility	NarrowbandHighLayerCompatibility OPTIONAL,
notificationIndicator	NotificationIndicator OPTIONAL,
progressIndicator	ProgressIndicator
}	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_ERROR
<b>Encoding Variation</b>	:
<b>Comments</b>	: Used to construct messages with incorrect contents
Type Definition	
SET {	
calledPartyNumber	CalledPartyNumber OPTIONAL,
broadbandSendingComplete	BroadbandSendingComplete OPTIONAL,
broadbandLowLayerInformation	BroadbandLowLayerInformation OPTIONAL,
cause	Cause OPTIONAL,
notificationIndicator	NotificationIndicator OPTIONAL,
unrecognised_IE	Unrecognised_IE OPTIONAL
}	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_INVALID
<b>Encoding Variation</b>	:
<b>Comments</b>	: Used to handle the receipt of incorrect messages
Type Definition	
OCTET STRING	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_MODIFY_REQUEST
<b>Encoding Variation</b>	:
<b>Comments</b>	: ETS 301 003-1 subclause 8.1.1
Type Definition	
SET {	
aTMTrafficDescriptor	ATMTrafficDescriptor,
notificationIndicator	NotificationIndicator OPTIONAL
}	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_MODIFY_ACKNOWLEDGE
<b>Encoding Variation</b>	:
<b>Comments</b>	: ETS 301 003-1 subclause 8.1.2
Type Definition	
<pre>SET {   notificationIndicator NotificationIndicator OPTIONAL,   broadbandReportType  BroadbandReportType OPTIONAL }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_MODIFY_REJECT
<b>Encoding Variation</b>	:
<b>Comments</b>	: ETS 301 003-1 subclause 8.1.3
Type Definition	
<pre>SET {   notificationIndicator NotificationIndicator OPTIONAL,   cause                Cause }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: IEs_CONNECTION_AVAILABLE
<b>Encoding Variation</b>	:
<b>Comments</b>	: ETS 301 003-1 subclause 8.1.4
Type Definition	
<pre>SET {   notificationIndicator NotificationIndicator OPTIONAL }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: IEHeader
<b>Encoding Variation</b>	:
<b>Comments</b>	: The IEHeader is contained in each information element.
Type Definition	
<pre>SEQUENCE {   iEIdentifier      IEIdentifier,      -- Information element identifier   extension         BIT STRING(1'B),  -- Extension bit, set to '1'B   coding_standard   BIT STRING(SIZE(2)), -- Coding standard   ie_flag           Flag,              -- Instruction field   reserved          BIT STRING(SIZE(1)), -- Reserved bit, normally set to '0'B   action_indicator  IEAI_value         -- Information element action indicator }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: IEIdentifier
<b>Encoding Variation</b>	:
<b>Comments</b>	: Information element identifiers EN 300 443-1 table 4-3
Type Definition	
BIT STRING(SIZE(8))	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: IELength
<b>Encoding Variation</b>	:
<b>Comments</b>	: Information element length EN 300 443-1 subclause 4.5.1
Type Definition	
BIT STRING(SIZE(16))	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: ATMAAdaptionLayerParameters
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.5
Type Definition	
<pre>SEQUENCE {     iEHeader IEHeader,     iELength IELength,     contents AAL_contents }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: RateSize
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 301 443-1 subclause 4.5.6, EN 301 067-1 subclause 8.2.1, EN 301 068
Type Definition	
BIT STRING(SIZE(24))	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: Rate_Id
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 301 443-1 subclause 4.5.6, EN 301 067-1 subclause 8.2.1, EN 301 068
Type Definition	
<pre> BIT STRING (   '10000010'B -- forward peak cell rate (CLP = 0)   '10000011'B -- backward peak cell rate (CLP = 0)   '10000100'B -- forward peak cell rate (CLP = 0 + 1)   '10000101'B -- backward peak cell rate (CLP = 0 + 1)   '10001000'B -- forward sustainable cell rate (CLP = 0)   '10001001'B -- backward sustainable cell rate (CLP = 0)   '10010000'B -- forward sustainable cell rate (CLP = 0 + 1)   '10010001'B -- backward sustainable cell rate (CLP = 0 + 1)   '10100000'B -- forward maximum burst size (CLP = 0)   '10100001'B -- backward maximum burst size (CLP = 0)   '10110000'B -- forward maximum burst size (CLP = 0 + 1)   '10110001'B -- backward maximum burst size (CLP = 0 + 1)   '10010010'B -- forward ABR minimum cell rate (CLP = 0 + 1)   '10010011'B -- backward ABR minimum cell rate (CLP = 0 + 1)   '11000000'B -- forward RM peak cell rate   '11000001'B -- backward RM peak cell rate ) </pre>	
<b>Detailed Comments</b>	: Possible identifiers for the traffic rates of the ATM traffic descriptor information elements

ASN.1 Type Definition	
<b>Type Name</b>	: Rates
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 301 443-1 subclause 4.5.6, EN 301 067-1 subclause 8.2.1, EN 301 068
Type Definition	
<pre> SEQUENCE {   identifier Rate_Id,   contents   RateSize } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: ATMTrafficDescriptor
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 301 443-1 subclause 4.5.6, EN 301 067-1 subclause 8.2.1, EN 301 068
Type Definition	
<pre> CHOICE {   send      Send,   receive   Receive }  Send ::= SEQUENCE {   iEHeader IEHeader,   iLength  IELength,   contents ATM_contents }  Receive ::= SEQUENCE {   iEHeader IEHeader,   iLength  IELength,   contents SEQUENCE {     rates          SET OF Rates,     trafficMgmtOptions TrafficMgmtOptions OPTIONAL   } }  TrafficMgmtOptions ::= SEQUENCE {   trafficManagementOptionsId BIT STRING('10111111'B),   spare_345678              BIT STRING(SIZE(6)),   -- Spare bits, normally set to '000000'B   tb                        BIT STRING(SIZE(1)),   tf                        BIT STRING(SIZE(1)) } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: BroadbandBearerCapability
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.7
Type Definition	
<pre> SEQUENCE {   iEHeader IEHeader,   iLength  IELength,   contents BBC_contents } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: BroadbandHighLayerInformation
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.8
Type Definition	
<pre> SEQUENCE {   iEHeader IEHeader,   iLength  IELength,   contents OCTET STRING(SIZE(0..9)) } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: BroadbandLowLayerInformations
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.1 Repetition of information elements by use of the Broadband repeat indicator information element
Type Definition	
<pre>CHOICE {     single_LLI    BroadbandLowLayerInformation,     repeated_LLI  Repeated_LLI                -- (1) }</pre> <pre>Repeated_LLI ::= SEQUENCE {     broadbandRepeatIndicator BroadbandRepeatIndicator,     first_LLI                BroadbandLowLayerInformation,     second_LLI               BroadbandLowLayerInformation,     third_LLI                BroadbandLowLayerInformation OPTIONAL }</pre>	
<b>Detailed Comments</b>	: (1) More than one Broadband low layer information information elements may be included in SETUP messages.

ASN.1 Type Definition	
<b>Type Name</b>	: BroadbandLowLayerInformation
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.9
Type Definition	
<pre>SEQUENCE {     iEHeader IEHeader,     iELength IELength,     contents LLC_contents }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: CallState
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.10
Type Definition	
<pre>SEQUENCE {     iEHeader    IEHeader,     iELength    IELength,     spare_87    BIT STRING(SIZE(2)), -- Spare bits, normally set to '00'B     call_state  State_value          -- Call/global interface state value }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: CalledPartyNumber
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.11
Type Definition	
SEQUENCE {	
iEHeader	IEHeader,
iELength	IELength,
extension_o5	BIT STRING(SIZE(1)), -- Extension bit, set to '1'B
cpn_type	BIT STRING(SIZE(3)), -- Type of number
numbering_plan_id	BIT STRING(SIZE(4)), -- Addressing/numbering plan identification
address_digits	IA5String(SIZE(0..20)) OPTIONAL -- Address/number digits
}	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: CalledPartySubaddress
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.12
Type Definition	
SEQUENCE {	
iEHeader	IEHeader,
iELength	IELength,
extension_o5	BIT STRING('1'B), -- Extension bit, set to '1'B
cps_type	BIT STRING(SIZE(3)), -- Type of subaddress
odd_even_indicator	BIT STRING(SIZE(4)),
spare_123	BIT STRING(SIZE(3)), -- Spare bits, normally set to '000'B
subaddress_info	IA5String(SIZE(0..20)) OPTIONAL -- Sub-address information
}	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: CallingPartyNumber
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.13
Type Definition	
SEQUENCE {	
iEHeader	IEHeader,
iELength	IELength,
extension_o5	BIT STRING(SIZE(1)), -- Extension bit, set to '1'B
cpn_type	BIT STRING(SIZE(3)), -- Type of number
numbering_plan_id	BIT STRING(SIZE(4)), -- Addressing/numbering plan identification
octet5a	Octet5a OPTIONAL, -- Optional octet 5a
address_digits	IA5String(SIZE(0..20)) OPTIONAL -- Address/number digits
}	
Octet5a ::= SEQUENCE {	
extension_o5a	BIT STRING('1'B), -- Extension bit, set to '1'B
presentation_indicator	BIT STRING(SIZE(2)),
spare_345	BIT STRING(SIZE(3)), -- Spare bits, normally set to '000'B
screening_indicator	BIT STRING(SIZE(2)) }
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: CallingPartySubaddress
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.14
Type Definition	
<pre> SEQUENCE {     ieHeader          IEHeader,     ieLength          IELength,     extension_o5      BIT STRING('1'B),      -- Extension bit, set to '1'B     cps_type          BIT STRING(SIZE(3)),    -- Type of subaddress     odd_even_indicator BIT STRING(SIZE(4)),     spare_123         BIT STRING(SIZE(3)),    -- Spare bits, normally set to '000'B     subaddress_info   IA5String(SIZE(0..20)) OPTIONAL -- Sub-address information } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Causes
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.15
Type Definition	
<pre> SEQUENCE {     cause          Cause OPTIONAL,     cause_repeated Cause OPTIONAL -- (1) } </pre>	
<b>Detailed Comments</b>	: (1) The Cause information element may be repeated in RELEASE and RELEASE COMPLETE messages.

ASN.1 Type Definition	
<b>Type Name</b>	: Cause
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.15
Type Definition	
<pre> SEQUENCE {     ieHeader          IEHeader,     ieLength          IELength,     extension_o5      BIT STRING('1'B),      -- Extension bit, set to '1'B     spare_567         BIT STRING(SIZE(3)),    -- Spare bits, normally set to '000'B     location          BIT STRING(SIZE(4)),     extension_o6      BIT STRING('1'B),      -- Extension bit, set to '1'B     cause_value       Cause_value,     diagnostics       OCTET STRING OPTIONAL } </pre>	
<b>Detailed Comments</b>	:



ASN.1 Type Definition	
<b>Type Name</b>	: ConnectionIdentifier
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.16
Type Definition	
<pre> SEQUENCE {     iEHeader          IEHeader,     iELength          IELength,     extension_o5      BIT STRING('1'B), -- Extension bit, set to '1'B     spare_67          BIT STRING(SIZE(2)), -- Spare bits, normally set to '00'B     vp_assoc_signalling VPAS_value, -- VP-associated signalling     preferred_exclusive BIT STRING(SIZE(3)),     vpci              VCI_VPCI_value, -- Virtual Path Connection Identifier     vci               VCI_VPCI_value -- Virtual Channel Identifier } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: EndToEndTransitDelay
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.17
Type Definition	
<pre> SEQUENCE {     iEHeader          IEHeader,     iELength          IELength,     cumulative_td_id  BIT STRING('00000001'B), -- Cumulative transit delay identifier     cumulative_td     BIT STRING(SIZE(16)), -- Cumulative transit delay value     maximum_td        Maximum_td OPTIONAL -- Maximum transit delay }  Maximum_td ::= SEQUENCE {     maximum_td_id  BIT STRING('00000011'B), -- Maximum transit delay id     maximum_td     BIT STRING(SIZE(16)) -- Maximum transit delay value } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: QualityOfServiceParameter
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.18
Type Definition	
<pre> SEQUENCE {     iEHeader          IEHeader,     iELength          IELength,     qos_class_fwd     BIT STRING(SIZE(8)), -- QOS class forward     qos_class_bwd     BIT STRING(SIZE(8)) -- QOS class backward } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: BroadbandRepeatIndicator
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.19
Type Definition	
<pre>SEQUENCE {     iEHeader      IEHeader,     iELength      IELength,     extension_o5  BIT STRING('1'B), -- Extension bit, set to '1'B     spare_765     BIT STRING(SIZE(3)), -- Spare bits, normally set to '000'B     br_indication BIT STRING('0010'B) -- Broadband repeat indicator }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: RestartIndicator
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.20
Type Definition	
<pre>SEQUENCE {     iEHeader      IEHeader,     iELength      IELength,     extension_o5  BIT STRING('1'B), -- Extension bit, set to '1'B     spare_7654    BIT STRING(SIZE(4)), -- Spare bits, normally set to '0000'B     ri_class      BIT STRING(SIZE(3)) }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: BroadbandSendingComplete
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.21
Type Definition	
<pre>SEQUENCE {     iEHeader      IEHeader,     iELength      IELength,     extension_o5  BIT STRING('1'B), -- Extension bit, set to '1'B     bsc_indication BIT STRING('0100001'B) -- Broadband sending complete indication }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: TransitNetworkSelection
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.22
Type Definition	
<pre> SEQUENCE {     iEHeader      IEHeader,     iELength      IELength,     extension_o5   BIT STRING('1'B),    -- Extension bit, set to '1'B     type_of_nw_id  BIT STRING(SIZE(3)),  -- Type of network identification     nw_plan_id     BIT STRING(SIZE(4)),  -- Network identification plan     nw_id          IA5String              -- Network identification } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: NotificationIndicator
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.23
Type Definition	
<pre> SEQUENCE {     iEHeader IEHeader,     iELength IELength,     contents NI_contents -- Further contents as defined in other standards } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: OAMTrafficDescriptor
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.5.24
Type Definition	
<pre> SEQUENCE {     iEHeader      IEHeader,     iELength      IELength,     extension_o5   BIT STRING('1'B),    -- Extension bit, set to '1'B     shaping_indicator  BIT STRING(SIZE(2)), -- Type of subaddress     complete_indicator  BIT STRING(SIZE(1)),     spare_4_o5          BIT STRING(SIZE(1)), -- Spare bit, normally set to '0'B     un_fault_mngt_indicator  BIT STRING(SIZE(4)), -- (1)     extension_o6        BIT STRING('1'B),    -- Extension bit, set to '1'B     fwd_flow_indicator   BIT STRING(SIZE(3)), -- (2)     spare_4_o6          BIT STRING(SIZE(1)), -- Spare bit, normally set to '0'B     bwd_flow_indicator   BIT STRING(SIZE(4))  -- (3) } </pre>	
<b>Detailed Comments</b> : (1) User-network fault management indicator (2) Forward end-to-end OAM F5 flow indicator (3) Backward end-to-end OAM F5 flow indicator	

ASN.1 Type Definition	
<b>Type Name</b>	: AlternativeATMTrafficDescriptor
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 301 443-1 subclause 4.5.6, EN 301 067-1 subclause 8.2.1, EN 301 068
Type Definition	
<pre>SEQUENCE {     iEHeader IEHeader,     iELength IELength,     contents ATM_contents }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: AcceptableATMTrafficDescriptor
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 301 443-1 subclause 4.5.6, EN 301 067-1 subclause 8.2.1, EN 301 068
Type Definition	
<pre>SEQUENCE {     iEHeader IEHeader,     iELength IELength,     contents ATM_contents }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: AbrSetupParameters
<b>Encoding Variation</b>	:
<b>Comments</b>	: ETS 301 068-1
Type Definition	
<pre>SEQUENCE {     iEHeader      IEHeader,     iELength      IELength,     contents      OCTET STRING(SIZE(0..32)) }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Definition	
<b>Type Name</b>	: NarrowbandBearerCapabilities
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.6.2 Repetition of information elements by use of the Broadband repeat indicator information element
Type Definition	
<pre> CHOICE {     single_BC  NarrowbandBearerCapability , -- (1)     repeated_BC Repeated_BC }  Repeated_BC ::= SEQUENCE {     broadbandRepeatIndicator BroadbandRepeatIndicator,     first_BC                 NarrowbandBearerCapability,     second_BC                NarrowbandBearerCapability,     third_BC                 NarrowbandBearerCapability OPTIONAL } </pre>	
<b>Detailed Comments</b>	: (1) More than one Narrowband bearer capability information elements may be included in SETUP messages.

ASN.1 Type Definition	
<b>Type Name</b>	: NarrowbandBearerCapability
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.6.2, EN 300 403-1 subclause 4.5.5
Type Definition	
<pre> SEQUENCE {     iEHeader IEHeader,     iELength IELength,     contents BC_contents } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: NarrowbandHighLayerCompatibilities
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.6.3
Type Definition	
<pre> CHOICE {     single_HLC  NarrowbandHighLayerCompatibility , -- (1)     repeated_HLC Repeated_HLC }  Repeated_HLC ::= SEQUENCE {     first_HLC  NarrowbandHighLayerCompatibility,     second_HLC NarrowbandHighLayerCompatibility } </pre>	
<b>Detailed Comments</b>	: (1) More than one Narrowband high layer compatibility information elements may be included in SETUP messages.

ASN.1 Type Definition	
<b>Type Name</b>	: NarrowbandHighLayerCompatibility
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.6.3, EN 300 403-1 subclause 4.5.17
Type Definition	
<pre>SEQUENCE {     iEHeader IEHeader,     iELength IELength,     contents OCTET STRING(SIZE(0..3)) }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: NarrowbandLowLayerCompatibilities
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.6.4 Repetition of information elements by use of the Broadband repeat indicator information element
Type Definition	
<pre>CHOICE {     single_LLC NarrowbandLowLayerCompatibility , -- (1)     repeated_LLC Repeated_LLC }  Repeated_LLC ::= SEQUENCE {     broadbandRepeatIndicator BroadbandRepeatIndicator,     first_LLC NarrowbandLowLayerCompatibility,     second_LLC NarrowbandLowLayerCompatibility,     third_LLC NarrowbandLowLayerCompatibility OPTIONAL,     fourth_LLC NarrowbandLowLayerCompatibility OPTIONAL }</pre>	
<b>Detailed Comments</b>	: (1) More than one Narrowband low layer compatibility information elements may be included in SETUP messages.

ASN.1 Type Definition	
<b>Type Name</b>	: NarrowbandLowLayerCompatibility
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.6.4, EN 300 403-1 subclause 4.5.19
Type Definition	
<pre>SEQUENCE {     iEHeader IEHeader,     iELength IELength,     contents OCTET STRING(SIZE(0..16)) }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: ProgressIndicator
<b>Encoding Variation</b>	:
<b>Comments</b>	: EN 300 443-1 subclause 4.6.5, EN 300 403-1 subclause 4.5.23
Type Definition	
<pre>SEQUENCE {     iEHeader          IEHeader,     iELength          IELength,     extension_o3      BIT STRING('1'B), -- Extension bit, set to '1'B     coding_standard   BIT STRING(SIZE(2)),     spare_5           BIT STRING(SIZE(1)), -- Spare bit, normally set to '0'B     location          BIT STRING(SIZE(4)),     extension_o4      BIT STRING('1'B), -- Extension bit, set to '1'B     progress_description BIT STRING(SIZE(7)) }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: Unrecognised_IE
<b>Encoding Variation</b>	:
<b>Comments</b>	: Unrecognised information element, used to check error handling procedures
Type Definition	
<pre>SEQUENCE {     iEHeader  IEHeader,     iELength  IELength,     contents  OCTET STRING -- Contents of unrecognised information element }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Definition	
<b>Type Name</b>	: BroadbandReportType
<b>Encoding Variation</b>	:
<b>Comments</b>	: ETS 301 003-1 subclause 8.2.2
Type Definition	
<pre>SEQUENCE {     iEHeader  IEHeader,     iELength  IELength,     breport   Breport }</pre>	
<b>Detailed Comments</b>	:

Test Suite Operation Definition	
<b>Operation Name</b>	: ESTABLISH_UNDERLYING_LAYERS
<b>Result Type</b>	: BOOLEAN
<b>Comments</b>	: Empty test suite operation to be completed by the test laboratory.
Description	
<p>BOOLEAN ESTABLISH_UNDERLYING_LAYERS()</p> <p>The layer 2 of the IUT at the access related to MTC has to be established before the execution of a test case. The procedures to do so are out of the scope of ETS 300 443-1 and ETS 300 771-1. This test suite operation used in the preambles to enter the Null call state N00 has to be replaced by TTCN code that describes the procedures to establish and/or maintain the underlying layers. The definition of that code has to be agreed between the test laboratory and the IUT provider.</p> <p>The output of this test operation is a BOOLEAN value that describes, whether the underlying layers have been established successfully.</p> <p>Example:  ESTABLISH_UNDERLYING_LAYERS() = TRUE Establishment of underlying layer accomplished.  ESTABLISH_UNDERLYING_LAYERS() = FALSE Establishment of underlying layer failed.</p>	
<b>Detailed Comments</b> :	

Test Suite Operation Definition	
<b>Operation Name</b>	: CALCULATE_MSG_LENGTH(IEs: InformationElements)
<b>Result Type</b>	: MessageLength
<b>Comments</b>	: Operation to calculate the message length
Description	
<p>MessageLength CALCULATE_MSG_LENGTH(IEs)</p> <p>This operation calculates the length of a message. The amount of octets represented by the set of information elements specified by the parameter IEs is returned.</p> <p>Example: CALCULATE_MSG_LENGTH(IEs_SETUP) = '0000000001011011'B</p>	
<b>Detailed Comments</b> :	

Test Suite Operation Definition	
<b>Operation Name</b>	: CALCULATE_IE_LENGTH(param: OCTETSTRING)
<b>Result Type</b>	: IELength
<b>Comments</b>	: Operation to calculate the IE length
Description	
<p>IELength CALCULATE_IE_LENGTH(IEs)</p> <p>This operation calculates the length of an IE. The amount of octets represented by the set of information elements specified by the parameter IEs is returned.</p> <p>Example: CALCULATE_IE_LENGTH(IEs_SETUP) = '0000000001011011'B</p>	
<b>Detailed Comments</b> :	



Test Suite Operation Definition	
<b>Operation Name</b>	: RANDOM_CREF
<b>Result Type</b>	: Cr_value
<b>Comments</b>	: Operation to obtain a random call reference value.
Description	
Cr_value RANDOM_CREF  This operation returns a random BITSTRING[23]. The value '0000000000000000000000'B is excluded.  Example: RANDOM_CREF = '00101001110010010100011'B	
<b>Detailed Comments</b> :	

Test Suite Operation Definition	
<b>Operation Name</b>	: INVERSE(FL: Flag)
<b>Result Type</b>	: Flag
<b>Comments</b>	: Operation to invert call reference and endpoint reference flags.
Description	
Flag INVERSE(Flag)  This operation inverts the BIT STRING of size 1 given in the formal parameter FL.  Examples: INVERSE('0'B) = '1'B INVERSE('1'B) = '0'B	
<b>Detailed Comments</b> :	

Test Suite Parameter Declarations			
Parameter Name	Type	PICS/PIXIT Ref	Comments
PC_REQUESTING	BOOLEAN	MOD_PICS R 2.1	TRUE, If the iut acts as a requesting entity
PC_RESPONDING	BOOLEAN	MOD_PICS R 2.2	TRUE, If the iut acts as a responding entity
PC_T303MAX	INTEGER	BC_PICS TMn 3	T303 value + 5%; default 4200 ms
PC_T308MAX	INTEGER	BC_PICS TMn 5	T308 value + 5%; default 31500 ms
PC_T322MAX	INTEGER	BC_PICS TMn 11	T322 value + 5%; default 4200 ms
PX_L2_RELEASE_U00	BOOLEAN	PIXIT 1.1	TRUE, if the IUT initiates release of layer 2 after entering U0
PX_T310MAX	INTEGER	PIXIT 3.1	Network side timer T310 value + 5%; default 10500 ms; used to check the response to SETUP messages after a CALL PROCEEDING has been received (Value in 1/1000 seconds)
PX_TAC	INTEGER	PIXIT 3.2	Value for timer that controls the reaction of the IUT to erroneous messages. (Value in 1/1000 seconds)
PX_TWAIT	INTEGER	PIXIT 3.3	Value for timer that controls test events initiated at the IUT by the test operator. (Value in seconds)
PX_BBC_VALUE	BBC_contents	PIXIT 4.1	Contents (octet 5 onwards) of the Broadband bearer capability information element (User-plane connection configuration = point-to-multipoint) to be sent to the IUT
PX_CDPN_TON	TON_value	PIXIT 4.2	Type of number of the Called party number information elements to be sent to the IUT
PX_CDPN_ANPI	ANPI_value	PIXIT 4.2	Addressing/Numbering plan identification of the Called party number information elements to be sent to the IUT
PX_LCDPN1	IELength	PIXIT 4.3	Length of the Called party number information element to be sent to the IUT
PX_CPN1	IA5String	PIXIT 4.3	Number digits (IA5) for the Called party number information element to be sent to the IUT
PX_ATM_VALUE	ATM_contents	PIXIT 4.4	Contents (octet 5 onwards) of the ATM traffic descriptor to be sent to the IUT at call establishment. It shall contain all sustainable cell rate and maximum burst size values.
PX_ForwardSCR_CLP0	RateSize	PIXIT 4.5	Value for an acceptable forward sustainable cell rate (for CLP 0)
PX_ForwardSCR_CLP0_INV	RateSize	PIXIT 4.6	Value for an unacceptable forward sustainable cell rate (for CLP 0)
PX_ForwardSCR_CLP01	RateSize	PIXIT 4.7	Value for an acceptable forward sustainable cell rate (for CLP 0+1)
PX_ForwardSCR_CLP01_INV	RateSize	PIXIT 4.8	Value for an unacceptable forward sustainable cell rate (for CLP 0+1)
PX_BackwardSCR_CLP0	RateSize	PIXIT 4.9	Value for an acceptable backward sustainable cell rate (for CLP 0)
PX_BackwardSCR_CLP0_INV	RateSize	PIXIT 4.10	Value for an unacceptable backward sustainable cell rate (for CLP 0)
PX_BackwardSCR_CLP01	RateSize	PIXIT 4.11	Value for an acceptable backward sustainable cell rate (for CLP 0+1)
PX_BackwardSCR_CLP01_INV	RateSize	PIXIT 4.12	Value for an unacceptable backward sustainable cell rate (for CLP 0+1)
PX_ForwardMBS_CLP0	RateSize	PIXIT 4.13	Value for an acceptable forward maximum burst size (for CLP 0)
PX_ForwardMBS_CLP0_INV	RateSize	PIXIT 4.14	Value for an unacceptable forward maximum burst size (for CLP 0)
PX_ForwardMBS_CLP01	RateSize	PIXIT 4.15	Value for an acceptable forward maximum burst size (for CLP 0+1)
PX_ForwardMBS_CLP01_INV	RateSize	PIXIT 4.16	Value for an unacceptable forward maximum burst size (for CLP 0+1)
PX_BackwardMBS_CLP0	RateSize	PIXIT 4.17	Value for an acceptable backward maximum burst size (for CLP 0)

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Test Suite Parameter Declarations			
Parameter Name	Type	PICS/PIXIT Ref	Comments
PX_BackwardMBS_CLP0_IN V	RateSize	PIXIT 4.18	Value for an unacceptable backward maximum burst size (for CLP 0)
PX_BackwardMBS_CLP01	RateSize	PIXIT 4.19	Value for an acceptable backward maximum burst size (for CLP 0+1)
PX_BackwardMBS_CLP01_IN V	RateSize	PIXIT 4.20	Value for an unacceptable backward maximum burst size (for CLP 0+1)
PX_VPCI	VCI_VPCI_value	PIXIT 4.21	Preferred path connection
PX_VCI	VCI_VPCI_value	PIXIT 4.22	Preferred virtual channel
<b>Detailed Comments :</b> The PICS/PIXIT references are taken from the proformas in the following specifications: BC_PICS: ETS 300 443-2; MOD_PICS: EN 301 003-2; PIXIT: EN 301 276-4 Annex B			

Test Case Selection Expression Definitions		
Expression Name	Selection Expression	Comments
REQUESTING_ENTITY	PC_REQUESTING	TRUE, If the iut acts as a requesting entity
RESPONDING_ENTITY	PC_RESPONDING	TRUE, If the iut acts as a responding entity
<b>Detailed Comments :</b>		

Test Suite Constant Declarations			
Constant Name	Type	Value	Comments
Q2931	ProtocolDiscriminator	'00001001'B	(1)
AL	MessageIdentifier	'00000001'B	ALERTING
CPR	MessageIdentifier	'00000010'B	CALL PROCEEDING
CN	MessageIdentifier	'00000111'B	CONNECT
CA	MessageIdentifier	'00001111'B	CONNECT ACKNOWLEDGE
RL	MessageIdentifier	'01001101'B	RELEASE
RC	MessageIdentifier	'01011010'B	RELEASE COMPLETE
SU	MessageIdentifier	'00000101'B	SETUP
ST	MessageIdentifier	'01111101'B	STATUS
SQ	MessageIdentifier	'01110101'B	STATUS ENQUIRY
MAK	MessageIdentifier	'10001001'B	MODIFY ACKNOWLEDGE
MRQ	MessageIdentifier	'10001000'B	MODIFY REQUEST
MRJ	MessageIdentifier	'10001010'B	MODIFY REJECT
Called_party_number_ID	IEIdentifier	'01110000'B	Flag values
Called_party_subaddress_ID	IEIdentifier	'01110001'B	
Calling_party_number_ID	IEIdentifier	'01101100'B	
Calling_party_subaddress_ID	IEIdentifier	'01101101'B	
EndToEnd_transit_dalay_ID	IEIdentifier	'01000010'B	
Broadband_sending_complete_ID	IEIdentifier	'01100010'B	
AAL_parameters_ID	IEIdentifier	'01011000'B	
ATM_traffic_descriptor_ID	IEIdentifier	'01011001'B	
Connection_identifier_ID	IEIdentifier	'01011010'B	
QOS_parameter_ID	IEIdentifier	'01011100'B	
Transit_Network_Selection_ID	IEIdentifier	'01111000'B	
Broadband_bearer_capability_ID	IEIdentifier	'01011110'B	
Broadband_high_layer_info_ID	IEIdentifier	'01011101'B	
Broadband_low_layer_info_ID	IEIdentifier	'01011111'B	
Notification_indicator_ID	IEIdentifier	'00100111'B	
Call_state_ID	IEIdentifier	'00010100'B	
Cause_ID	IEIdentifier	'00001000'B	
Alternative_ATM_descriptor_ID	IEIdentifier	'10000010'B	
Acceptable_ATM_descriptor_ID	IEIdentifier	'10000001'B	
Abr_setup_parameters_ID	IEIdentifier	'10000100'B	
Narrowband_bearer_capability_ID	IEIdentifier	'00000100'B	
Narrowband_high_layer_comp_ID	IEIdentifier	'01111101'B	
Narrowband_low_layer_comp_ID	IEIdentifier	'01111100'B	
Progress_indicator_ID	IEIdentifier	'00011110'B	
F0	Flag	'0'B	Link states
F1	Flag	'1'B	
C16	Cause_value	'0010000'B	
C30	Cause_value	'0011110'B	
U0	State_value	'000000'B	
U7	State_value	'000111'B	
U8	State_value	'001000'B	
U9	State_value	'001001'B	
U10	State_value	'001010'B	
U13	State_value	'001101'B	
Detailed Comments : (1) Q.2931 user-network call/connection control messages			

Test Case Variable Declarations			
Variable Name	Type	Value	Comments
CREF	Cr_value		Call reference value
VPAS	VPAS_value		VP-associated signalling value
VCI	VCI_VPCI_value		VCI value
VPCI	VCI_VPCI_value		VPCI value
CALL_STATE	State_value		Link state value
CAUV	Cause_value		Cause value
STATUS_EXPECTED	BOOLEAN	FALSE	Variable to control the receipt of STATUS messages
END_FLAG	BOOLEAN	FALSE	Control flag for REPEAT loops
INV_FL	Flag		Inverted call reference flag
Detailed Comments :			

PCO Type Declarations		
PCO Type	Role	Comments
SAP	LT	
<b>Detailed Comments :</b>		

PCO Declarations			
PCO Name	PCO Type	Role	Comments
L0 O	SAP	LT	(1)
	SAP	UT	(2)
<b>Detailed Comments :</b> (1) SAP at the lower tester controlling and observing the exchange of call control PDUs (messages) on the broadband ISDN layer 3 D-channel. The lower tester is the user of the data link layer service. (2) SAP at the upper tester observing messages displayed on the lower tester's screen and controlling the initiation of test events at the IUT. The upper tester is the test operator.			



Timer Declarations			
Timer Name	Duration	Unit	Comments
TWAIT	PX_TWAIT	s	(1)
TAC	PX_TAC	ms	(3)
T303	PC_T303MAX	ms	
T308	PC_T308MAX	ms	
T310	PX_T310MAX	ms	
T322	PC_T322MAX	ms	
<b>Detailed Comments :</b> (1) Timer to control test events initiated at the IUT by the test operator. (2) Timers to test the implementation of IUT timers. Duration values are assigned in the dynamic part. (3) Timer to control the reaction of the IUT to erroneous messages. (4) Timer to control the inactivity of the IUT.			

ASP Type Definition		
<b>ASP Name</b> : AAL_EST_IN (AAL-ESTABLISH-INDICATION) <b>PCO Type</b> : SAP <b>Comments</b> : This ASP is used to indicate the establishment of an AAL connection (L2 ---> L3).		
Parameter Name	Parameter Type	Comments
<b>Detailed Comments</b> :		

ASP Type Definition		
<b>ASP Name</b> : AAL_REL_IN (AAL-RELEASE-INDICATION) <b>PCO Type</b> : SAP <b>Comments</b> : This ASP is used to confirm the termination of an established AAL connectionn or to report an unsuccessful establishment attempt (L2 ---> L3).		
Parameter Name	Parameter Type	Comments
<b>Detailed Comments</b> :		

PDU Type Definition			
<b>PDU Name</b> : DISPLAY <b>PCO Type</b> : SAP <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> :			
Field Name	Field Type	Field Encoding	Comments
ACTION	IA5String		String displayed by the tester.
<b>Detailed Comments</b> :			

ASN.1 PDU Type Definition	
<b>PDU Name</b> : DSS2_PDU <b>PCO Type</b> : SAP <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> : ETS 300 443-1 subclause 3.1	
Type Definition	
<pre> SEQUENCE {     messageHeader      MessageHeader,     messageLength      MessageLength,     informationElements InformationElements OPTIONAL }           </pre>	
<b>Detailed Comments</b> :	

## **III**

### **Constraints Part**

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: MSG_HDR_receive (MSG_TYPE: MessageIdentifier; FLAG: Flag; CALL_REF: Cr_value)
<b>ASN1 Type</b>	: MessageHeader
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Constraint for receiving messages
Constraint Value	
<pre>{   protocolDiscriminator Q2931,   callReference         CR1(FLAG,CALL_REF), -- parametrized call reference   messageType {     message_type      MSG_TYPE,           -- parametrized message type     extension         '1'B,     spare_67          '00'B,     mt_flag            ?,                  -- any value     spare_34          '00'B,     action_indicator  ('00'B,'01'B,'10'B) -- any non-reserved value   } }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: MSG_HDR_receive_SETUP
<b>ASN1 Type</b>	: MessageHeader
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Constraint for receiving SETUP messages with an unknown call reference value
Constraint Value	
<pre>{   protocolDiscriminator Q2931,   callReference         CR2,                -- call reference with unknown value   messageType {     message_type      SU,                  -- SETUP message     extension         '1'B,     spare_67          '00'B,     mt_flag            ?,                  -- any value     spare_34          '00'B,     action_indicator  ('00'B,'01'B,'10'B) -- any non-reserved value   } }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: MSG_HDR_send(MSG_TYPE: MessageIdentifier; FLAG: Flag; CALL_REF: Cr_value)
<b>ASN1 Type</b>	: MessageHeader
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Constraint for sending messages
Constraint Value	
<pre>{   protocolDiscriminator Q2931,   callReference          CR1(FLAG,CALL_REF), -- parametrized call reference   messageType {     message_type      MSG_TYPE, -- parametrized message type     extension         '1'B,     spare_67          '00'B,     mt_flag           '0'B,      -- message instruction field not significant     spare_34          '00'B,     action_indicator  '10'B      -- value without significance   } }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CR1(FLAG: Flag; CALL_REF: Cr_value)
<b>ASN1 Type</b>	: CallReference
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Constraint for sending and receiving
Constraint Value	
<pre>{   bits5_8  '0000'B, -- fixed value   cr_length '0011'B, -- length = 3   cr_flag   FLAG,   -- parametrized flag   cr_value  CALL_REF -- parametrized value }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CR2
<b>ASN1 Type</b>	: CallReference
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Constraint for receiving SETUP messages
Constraint Value	
<pre>{   bits5_8  '0000'B, -- fixed value   cr_length '0011'B, -- length = 3   cr_flag   '0'B,   -- originator   cr_value  ?       -- any call reference value }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: IE_HDR_receive(IE_ID: IEIdentifier)
<b>ASN1 Type</b>	: IEHeader
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Constraint for receiving information elements
Constraint Value	
<pre>{   iEIdentifier      IE_ID, -- parametrized information element identifier   extension         '1'B,   coding_standard   '00'B,   ie_flag           '?'B, -- any value   reserved          '0'B,   action_indicator  ('000'B,'001'B,'010'B,'101'B,'110'B) -- any non-reserved value }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: IE_HDR_send(IE_ID: IEIdentifier)
<b>ASN1 Type</b>	: IEHeader
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Constraint for sending information elements
Constraint Value	
<pre>{   iEIdentifier      IE_ID, -- parametrized information element identifier   extension         '1'B,   coding_standard   '00'B,   ie_flag           '0'B, -- IE instruction field not significant   reserved          '0'B,   action_indicator  '110'B -- value without significance }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: AALP_R
<b>ASN1 Type</b>	: ATMAdaptionLayerParameters
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader IE_HDR_receive(AAL_parameters_ID),   iELength '000000000000????'B, -- maximum length = 17 octets   contents ? -- any value }</pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ABR_R
<b>ASN1 Type</b>	: AbrSetupParameters
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ iEHeader IE_HDR_receive(Abr_setup_parameters_ID), iELength '0000000000?????'B, -- maximum length = 32 octets contents ? }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardSCR_CLP0_R
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ identifier '10001000'B, contents ? }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardSCR_CLP0_S
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
{ identifier '10001000'B, contents PX_ForwardSCR_CLP0 }	
<b>Detailed Comments</b> :	



ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardSCR_CLP0_S_INV
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre>{   identifier '10001000'B,   contents  PX_ForwardSCR_CLP0_INV }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardSCR_CLP01_R
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   identifier '10010000'B,   contents  ? }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardSCR_CLP01_S
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre>{   identifier '10010000'B,   contents  PX_ForwardSCR_CLP01 }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardSCR_CLP01_S_INV
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
{ identifier '10010000'B, contents PX_ForwardSCR_CLP01_INV }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardSCR_CLP0_R
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ identifier '10001001'B, contents ? }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardSCR_CLP0_S
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
{ identifier '10001001'B, contents PX_BackwardSCR_CLP0 }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardSCR_CLP0_S_INV
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre>{   identifier '10001001'B,   contents   PX_BackwardSCR_CLP0_INV }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardSCR_CLP01_R
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   identifier '10010001'B,   contents   ? }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardSCR_CLP01_S
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre>{   identifier '10010001'B,   contents   PX_BackwardSCR_CLP01 }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardSCR_CLP01_S_INV
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
{ identifier '10010001'B, contents PX_BackwardSCR_CLP01_INV }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardMBS_CLP0_R
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ identifier '10100000'B, contents ? }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardMBS_CLP0_S
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
{ identifier '10100000'B, contents PX_ForwardMBS_CLP0 }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardMBS_CLP0_S_INV
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre>{   identifier '10100000'B,   contents  PX_ForwardMBS_CLP0_INV }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardMBS_CLP01_R
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   identifier '10110000'B,   contents  ? }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardMBS_CLP01_S
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre>{   identifier '10110000'B,   contents  PX_ForwardMBS_CLP01 }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ForwardMBS_CLP01_S_INV
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
{ identifier '10110000'B, contents PX_ForwardMBS_CLP01_INV }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardMBS_CLP0_R
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ identifier '10100001'B, contents ? }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardMBS_CLP0_S
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
{ identifier '10100001'B, contents PX_BackwardMBS_CLP0 }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardMBS_CLP0_S_INV
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre>{   identifier '10100001'B,   contents   PX_BackwardMBS_CLP0_INV }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardMBS_CLP01_R
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   identifier '10110001'B,   contents   ? }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardMBS_CLP01_S
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre>{   identifier '10110001'B,   contents   PX_BackwardMBS_CLP01 }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BackwardMBS_CLP01_S_INV
<b>ASN1 Type</b>	: Rates
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
{ identifier '10110001'B, contents   PX_BackwardMBS_CLP01_INV }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ATMTD_R
<b>ASN1 Type</b>	: ATMTrafficDescriptor
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
send { iEHeader IE_HDR_receive(ATM_traffic_descriptor_ID), iELength '0000000000?????'B, contents ? }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ATMTD_R1(RATE_VAL: Rates)
<b>ASN1 Type</b>	: ATMTrafficDescriptor
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
receive { iEHeader IE_HDR_receive(ATM_traffic_descriptor_ID), iELength '0000000000?????'B, contents { rates                   SUPERSET({RATE_VAL}), trafficMgmtOptions * } }	
<b>Detailed Comments</b> :	



ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ATMTD_S_SETUP
<b>ASN1 Type</b>	: ATMTrafficDescriptor
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre> send {   iEHeader IE_HDR_send(ATM_traffic_descriptor_ID),   iELength CALCULATE_IE_LENGTH(PX_ATM_VALUE),   contents PX_ATM_VALUE } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ATMTD_S1(RATE_VAL: Rates)
<b>ASN1 Type</b>	: ATMTrafficDescriptor
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre> receive {   iEHeader IE_HDR_send(ATM_traffic_descriptor_ID),   iELength '00000000000000100'B,   contents {     rates { RATE_VAL },     trafficMgmtOptions -   } } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: A_ATMTD_R
<b>ASN1 Type</b>	: AlternativeATMTrafficDescriptor
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre> {   iEHeader IE_HDR_receive(Alternative_ATM_descriptor_ID),   iELength '0000000000?????'B,   contents ? } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: MA_ATMTD_R
<b>ASN1 Type</b>	: AcceptableATMTrafficDescriptor
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ iEHeader IE_HDR_receive(Acceptable_ATM_descriptor_ID), iELength '0000000000?????'B, contents ? }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BBC_R
<b>ASN1 Type</b>	: BroadbandBearerCapability
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ iEHeader IE_HDR_receive(Broadband_bearer_capability_ID), iELength '00000000000000??'B, -- maximum length = 3 octets contents ('8181'O,'81A1'O,'8381'O,'83A1'O,'10?81'O,'10?A1'O) -- allowed values }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BBC_S
<b>ASN1 Type</b>	: BroadbandBearerCapability
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
{ iEHeader IE_HDR_send(Broadband_bearer_capability_ID), iELength CALCULATE_IE_LENGTH(PX_BBC_VALUE), -- test suite parameter contents PX_BBC_VALUE -- test suite parameter }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BHLC_R
<b>ASN1 Type</b>	: BroadbandHighLayerInformation
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader IE_HDR_receive(Broadband_high_layer_info_ID),   iELength '000000000000????'B, -- maximum length = 9 octets   contents ?                      -- any value }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BLLC_R
<b>ASN1 Type</b>	: BroadbandLowLayerInformation
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader IE_HDR_receive(Broadband_low_layer_info_ID),   iELength '000000000000????'B, -- maximum length = 13 octets   contents ?                      -- any value }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BSC_R
<b>ASN1 Type</b>	: BroadbandSendingComplete
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader      IE_HDR_receive(Broadband_sending_complete_ID),   iELength      '0000000000000001'B, -- length = 1 octet   extension_o5  '1'B,   bsc_indication '010001'B }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: BSC_S
<b>ASN1 Type</b>	: BroadbandSendingComplete
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre>{   iEHeader      IE_HDR_send(Broadband_sending_complete_ID),   iELength      '0000000000000001'B,   extension_o5   '1'B,   bsc_indication '0100001'B }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CAU_R
<b>ASN1 Type</b>	: Cause
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader      IE_HDR_receive(Cause_ID),   iELength      ?,          -- any value   extension_o5   '1'B,   spare_567     '000'B,   location       ?,          -- any value   extension_o6   '1'B,   cause_value    ?,          -- any value   diagnostics    *          -- any value or empty }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CAU_R1(CAU_VAL: Cause_value)
<b>ASN1 Type</b>	: Cause
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint with parametrized cause value
Constraint Value	
<pre>{   iEHeader      IE_HDR_receive(Cause_ID),   iELength      ?,          -- any value   extension_o5   '1'B,   spare_567     '000'B,   location       ?,          -- any value   extension_o6   '1'B,   cause_value    CAU_VAL,    -- parametrized cause value   diagnostics    *          -- any value or empty }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CAU_S1(CAU_VAL: Cause_value)
<b>ASN1 Type</b>	: Cause
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint, Parametrized cause value
Constraint Value	
<pre>{   iEHeader      IE_HDR_send(Cause_ID),   iELength      '0000000000000010'B,   extension_o5   '1'B,   spare_567     '000'B,   location      '0000'B, -- user   extension_o6   '1'B,   cause_value    CAU_VAL -- parametrized cause value }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CDPN_R
<b>ASN1 Type</b>	: CalledPartyNumber
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader      IE_HDR_receive(Called_party_number_ID),   iELength      ?, -- maximum length network dependend   extension_o5   '1'B,   cpn_type       ?, -- any value   numbering_plan_id ?, -- any value   address_digits *, -- any value or empty }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CDPN_S1
<b>ASN1 Type</b>	: CalledPartyNumber
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint indicating the party number of the initial party of a point-to-multipoint call
Constraint Value	
<pre>{   iEHeader      IE_HDR_send(Called_party_number_ID),   iELength      PX_LCDPN1, -- test suite parameter   extension_o5   '1'B,   cpn_type       PX_CDPN_TON, -- test suite parameter   numbering_plan_id PX_CDPN_ANPI, -- test suite parameter   address_digits PX_CPN1 -- test suite parameter }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CDPS_R
<b>ASN1 Type</b>	: CalledPartySubaddress
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre> {   iEHeader          IE_HDR_receive(Called_party_subaddress_ID),   iELength           '?', -- maximum length = 21 octets   extension_o5       '1'B,   cps_type           '?', -- any value   odd_even_indicator '?', -- any value   spare_123          '000'B,   subaddress_info    '*' -- any value or empty } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CGPN_R
<b>ASN1 Type</b>	: CallingPartyNumber
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre> {   iEHeader          IE_HDR_receive(Calling_party_number_ID),   iELength           '?', -- maximum length network dependend   extension_o5       '1'B,   cpn_type           '?', -- any value   numbering_plan_id '?', -- any value   octet5a            '*', -- any value or empty   address_digits     '*' -- any value or empty } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CGPS_R
<b>ASN1 Type</b>	: CallingPartySubaddress
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre> {   iEHeader          IE_HDR_receive(Calling_party_subaddress_ID),   iELength           '?', -- maximum length = 21 octets   extension_o5       '1'B,   cps_type           '?', -- any value   odd_even_indicator '?', -- any value   spare_123          '000'B,   subaddress_info    '*' -- any value or empty } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CST_R1
<b>ASN1 Type</b>	: CallState
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader    IE_HDR_receive(Call_state_ID),   iELength    '0000000000000001'B,   spare_87    '00'B,   call_state ?                               -- Any call state value }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CST_R2(CST_VAL: State_value)
<b>ASN1 Type</b>	: CallState
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint with parametrized call state value
Constraint Value	
<pre>{   iEHeader    IE_HDR_receive(Call_state_ID),   iELength    '0000000000000001'B,   spare_87    '00'B,   call_state  CST_VAL                               -- Parametrized call state value }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CI_R1
<b>ASN1 Type</b>	: ConnectionIdentifier
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader          IE_HDR_receive(Connection_identifier_ID),   iELength          '0000000000000101'B,   extension_o5      '1'B,   spare_67          '00'B,   vp_assoc_signalling '01'B,    -- Explicit indication of VPCI   preferred_exclusive '00?'B,   -- Any non-reserved value   vpci              PX_VPCI,    -- Test suite parameter   vci               PX_VCI     -- Test suite parameter }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CI_R2
<b>ASN1 Type</b>	: ConnectionIdentifier
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader      IE_HDR_receive(Connection_identifier_ID),   iELength      '0000000000000101'B,   extension_o5   '1'B,   spare_67      '00'B,   vp_assoc_signalling '0?'B, -- VP-associated signalling or explicit indication of VCPI   preferred_exclusive '001'B, -- Exclusive VPCI; any VCI   vpci          ?, -- Any Virtual Path Connection Identifier value   vci           ? -- Any Virtual Channel Identifier value }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CI_R3
<b>ASN1 Type</b>	: ConnectionIdentifier
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader      IE_HDR_receive(Connection_identifier_ID),   iELength      '0000000000000101'B,   extension_o5   '1'B,   spare_67      '00'B,   vp_assoc_signalling '0?'B, -- VP-associated signalling or explicit indication of VCPI   preferred_exclusive '000'B, -- Exclusive VPCI; exclusive VCI   vpci          ?, -- Any Virtual Path Connection Identifier value   vci           ? -- Any Virtual Channel Identifier value }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CI_S1(VPCI_VAL, VCI_VAL: VCI_VPCI_value; VPAS_VAL: VPAS_value)
<b>ASN1 Type</b>	: ConnectionIdentifier
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader      IE_HDR_send(Connection_identifier_ID),   iELength      '0000000000000101'B,   extension_o5   '1'B,   spare_67      '00'B,   vp_assoc_signalling VPAS_VAL, -- Parametrized value   preferred_exclusive '000'B, -- Exclusive VPCI; exclusive VCI   vpci          VPCI_VAL, -- Parametrized Virtual Path Connection Identifier value   vci           VCI_VAL -- Parametrized Virtual Channel Identifier value }</pre>	
<b>Detailed Comments</b> :	



ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CI_S2
<b>ASN1 Type</b>	: ConnectionIdentifier
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader      IE_HDR_send(Connection_identifier_ID),   iELength      '0000000000000101'B,   extension_o5  '1'B,   spare_67      '00'B,   vp_assoc_signalling '01'B,  -- VP-associated signalling   preferred_exclusive '000'B,  -- Exclusive VPCI; exclusive VCI   vpci          PX_VPCI,  -- Test suite parameter   vci           PX_VCI   -- Test suite parameter }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ETD_R
<b>ASN1 Type</b>	: EndToEndTransitDelay
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader IE_HDR_receive(EndToEnd_transit_delay_ID),   iELength '0000000000000000???B, -- maximum length = 6 octets   cumulative_td_id '00000001'B,   cumulative_td    '?',           -- any value   maximum_td      '*',           -- any value or empty }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: NBC_R
<b>ASN1 Type</b>	: NarrowbandBearerCapability
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre>{   iEHeader IE_HDR_receive(Narrowband_bearer_capability_ID),   iELength '00000000000000000000???B, -- maximum length = 10 octets   contents ?                               -- any value }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: NHLC_R
<b>ASN1 Type</b>	: NarrowbandHighLayerCompatibility
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ iEHeader IE_HDR_receive(Narrowband_high_layer_comp_ID), iELength '00000000000000??'B, -- maximum length = 3 octets contents ? -- any value }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: NLLC_R
<b>ASN1 Type</b>	: NarrowbandLowLayerCompatibility
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ iEHeader IE_HDR_receive(Narrowband_low_layer_comp_ID), iELength '000000000000????'B, -- maximum length = 16 octets contents ? -- any value }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: NI_R
<b>ASN1 Type</b>	: NotificationIndicator
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
{ iEHeader IE_HDR_receive(Notification_indicator_ID), iELength ?, -- maximum length application dependent contents ? -- any value }	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: PI_R
<b>ASN1 Type</b>	: ProgressIndicator
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre> {   iEHeader      IE_HDR_receive(Progress_indicator_ID),   iELength      '00000000000000010'B,   extension_o3   '1'B,   coding_standard ?,          -- any value   spare_5       '0'B,   location       ?,          -- any value   extension_o4   '1'B,   progress_description ?      -- any value } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: QOS_R
<b>ASN1 Type</b>	: QualityOfServiceParameter
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre> {   iEHeader      IE_HDR_receive(QOS_parameter_ID),   iELength      '00000000000000010'B,   qos_class_fwd '00000000'B, -- unspecified QOS class   qos_class_bwd '00000000'B -- unspecified QOS class } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: QOS_S
<b>ASN1 Type</b>	: QualityOfServiceParameter
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint
Constraint Value	
<pre> {   iEHeader      IE_HDR_send(QOS_parameter_ID),   iELength      '00000000000000010'B,   qos_class_fwd '00000000'B, -- unspecified QOS class   qos_class_bwd '00000000'B -- unspecified QOS class } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: TNS_R
<b>ASN1 Type</b>	: TransitNetworkSelection
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint
Constraint Value	
<pre> {   iEHeader      IE_HDR_receive(Transit_Network_Selection_ID),   iELength      ?,          -- any value   extension_o5   '1'B,   type_of_nw_id '0??'B,    -- any non-reserved value   nw_plan_id    '00??'B,   -- any non-reserved value   nw_id         *          -- any value or empty } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: AL_R1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for ALERTING messages
Constraint Value	
<pre> iEs_ALERTING {   connectionIdentifier      CI_R1 IF_PRESENT,   narrowbandBearerCapability NBC_R IF_PRESENT,   narrowbandHighLayerCompatibility NHL_C_R IF_PRESENT,   notificationIndicator      NI_R IF_PRESENT,   progressIndicator          PI_R IF_PRESENT } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: AL_S1(VPCI_VAL, VCI_VAL: VCI_VPCI_value; VPAS_VAL: VPAS_value)
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint; used for ALERTING.
Constraint Value	
<pre> iEs_ALERTING {   connectionIdentifier  CI_S1(VPCI_VAL,VCI_VAL,VPAS_VAL) } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CP_R1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for CALL PROCEEDING messages
Constraint Value	
<pre> iEs_CALL_PROCEEDING {   connectionIdentifier          CI_R1 IF_PRESENT,   narrowbandBearerCapability    NBC_R IF_PRESENT,   narrowbandHighLayerCompatibility NHLC_R IF_PRESENT,   notificationIndicator         NI_R IF_PRESENT,   progressIndicator            PI_R IF_PRESENT } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CP_S1(VPCI_VAL, VCI_VAL: VCI_VPCI_value; VPAS_VAL: VPAS_value)
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint; used for CALL PROCEEDING messages
Constraint Value	
<pre> iEs_CALL_PROCEEDING {   connectionIdentifier  CI_S1(VPCI_VAL,VCI_VAL,VPAS_VAL) } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CN_R1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for CONNECT messages
Constraint Value	
<pre> iEs_CONNECT {   aTMAdaptionLayerParameters      AALP_R IF_PRESENT,   broadbandLowLayerInformation     BLLC_R IF_PRESENT,   connectionIdentifier            CI_R1 IF_PRESENT,   endToEndTransitDelay            ETD_R IF_PRESENT,   narrowbandBearerCapability       NBC_R IF_PRESENT,   narrowbandHighLayerCompatibility NHLC_R IF_PRESENT,   narrowbandLowLayerCompatibility NLLC_R IF_PRESENT,   notificationIndicator           NI_R IF_PRESENT,   aTMTrafficDescriptor            ATMTD_R IF_PRESENT,   abrSetupParameters              ABR_R IF_PRESENT,   oAMTrafficDescriptor            OMIT,          -- OAM traffic descriptor absent   progressIndicator              PI_R IF_PRESENT } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CN_S1(VPCI_VAL, VCI_VAL: VCI_VPCI_value; VPAS_VAL: VPAS_value)
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint; used for CONNECT messages
Constraint Value	
<pre>iEs_CONNECT {   connectionIdentifier  CI_S1(VPCI_VAL,VCI_VAL,VPAS_VAL) }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CA_R1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for CONNECT ACKNOWLEDGE messages
Constraint Value	
<pre>iEs_CONNECT_ACKNOWLEDGE {   notificationIndicator NI_R IF_PRESENT }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: CA_S1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint; used for CONNECT ACKNOWLEDGE messages
Constraint Value	
<pre>iEs_CONNECT_ACKNOWLEDGE { }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: RL_S1(CAU_VAL: Cause_value)
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint; used for RELEASE messages
Constraint Value	
<pre> iEs_RELEASE {   causes {     cause CAU_S1(CAU_VAL) -- parametrized cause value   } } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: RC_R1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for RELEASE COMPLETE messages
Constraint Value	
<pre> iEs_RELEASE_COMPLETE {   causes {     cause CAU_R IF_PRESENT   } } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: SU_R1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for SETUP messages
Constraint Value	
<pre> iEs_SETUP {   aTMAAdaptionLayerParameters      AALP_R IF_PRESENT,   aTMTrafficDescriptor             ATMTD_R,   alternativeATMTrafficDescriptor  A_ATMTD_R IF_PRESENT,   acceptableATMTrafficDescriptor  MA_ATMTD_R IF_PRESENT,   abrSetupParameters              ABR_R IF_PRESENT,   broadbandBearerCapability        BBC_R,   broadbandHighLayerInformation    BHLC_R IF_PRESENT,   broadbandLowLayerInformations    single_LLI BLLC_R IF_PRESENT,   calledPartyNumber               CDPN_R IF_PRESENT,   calledPartySubaddress           CDPS_R IF_PRESENT,   callingPartyNumber              CGPN_R IF_PRESENT,   callingPartySubaddress          CGPS_R IF_PRESENT,   connectionIdentifier            CI_R3,   endToEndTransitDelay            ETD_R IF_PRESENT,   narrowbandBearerCapabilities     single_BC NBC_R IF_PRESENT,   narrowbandHighLayerCompatibilities single_HLC NHL_C_R IF_PRESENT,   narrowbandLowLayerCompatibilities single_LLC NLLC_R IF_PRESENT,   notificationIndicator            NI_R IF_PRESENT,   oAMTrafficDescriptor            OMIT,          -- OAM traffic descriptor absent   progressIndicator               PI_R IF_PRESENT,   qualityOfServiceParameter       QOS_R,   broadbandSendingComplete        BSC_R IF_PRESENT,   transitNetworkSelection         TNS_R IF_PRESENT } </pre>	
<b>Detailed Comments</b> : Valid SETUP message indicating "exclusive VPCI; exclusive VCI"	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: SU_R2
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for SETUP messages
Constraint Value	
<pre> iEs_SETUP {   aTMAAdaptionLayerParameters      AALP_R IF_PRESENT,   aTMTrafficDescriptor             ATMTD_R,   alternativeATMTrafficDescriptor  A_ATMTD_R IF_PRESENT,   acceptableATMTrafficDescriptor  MA_ATMTD_R IF_PRESENT,   abrSetupParameters              ABR_R IF_PRESENT,   broadbandBearerCapability        BBC_R,   broadbandHighLayerInformation    BHLC_R IF_PRESENT,   broadbandLowLayerInformations    single_LLI BLLC_R IF_PRESENT,   calledPartyNumber               CDPN_R IF_PRESENT,   calledPartySubaddress           CDPS_R IF_PRESENT,   callingPartyNumber              CGPN_R IF_PRESENT,   callingPartySubaddress          CGPS_R IF_PRESENT,   connectionIdentifier            CI_R2,   endToEndTransitDelay            ETD_R IF_PRESENT,   narrowbandBearerCapabilities     single_BC NBC_R IF_PRESENT,   narrowbandHighLayerCompatibilities single_HLC NHL_C_R IF_PRESENT,   narrowbandLowLayerCompatibilities single_LLC NLLC_R IF_PRESENT,   notificationIndicator            NI_R IF_PRESENT,   oAMTrafficDescriptor            OMIT,          -- OAM traffic descriptor absent   progressIndicator               PI_R IF_PRESENT,   qualityOfServiceParameter       QOS_R,   broadbandSendingComplete        BSC_R IF_PRESENT,   transitNetworkSelection         TNS_R IF_PRESENT } </pre>	
<b>Detailed Comments</b> : Valid SETUP message indicating "exclusive VPCI; any VCI"	



ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: SU_R3
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for SETUP messages
Constraint Value	
<pre> iEs_SETUP {   aTMAdaptionLayerParameters          AALP_R IF_PRESENT,   aTMTrafficDescriptor                ATMTD_R,   alternativeATMTrafficDescriptor      A_ATMTD_R IF_PRESENT,   acceptableATMTrafficDescriptor       MA_ATMTD_R IF_PRESENT,   abrSetupParameters                  ABR_R IF_PRESENT,   broadbandBearerCapability             BBC_R,   broadbandHighLayerInformation         BHLC_R IF_PRESENT,   broadbandLowLayerInformations         single_LLI BLLC_R IF_PRESENT,   calledPartyNumber                    CDPN_R IF_PRESENT,   calledPartySubaddress                CDPS_R IF_PRESENT,   callingPartyNumber                   CGPN_R IF_PRESENT,   callingPartySubaddress                CGPS_R IF_PRESENT,   connectionIdentifier                  OMIT, -- Connection identifier absent   endToEndTransitDelay                  ETD_R IF_PRESENT,   narrowbandBearerCapabilities          single_BC NBC_R IF_PRESENT,   narrowbandHighLayerCompatibilities   single_HLC NHL_C_R IF_PRESENT,   narrowbandLowLayerCompatibilities    single_LLC NLLC_R IF_PRESENT,   notificationIndicator                 NI_R IF_PRESENT,   oAMTrafficDescriptor                 OMIT, -- OAM traffic descriptor absent   progressIndicator                     PI_R IF_PRESENT,   qualityOfServiceParameter            QOS_R,   broadbandSendingComplete             BSC_R IF_PRESENT,   transitNetworkSelection               TNS_R IF_PRESENT } </pre>	
<b>Detailed Comments</b> : Valid SETUP message without Connection identifier information element	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: SU_S1( ATMTD_VAL: ATMTrafficDescriptor)
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint; used for SETUP messages
Constraint Value	
<pre> iEs_SETUP {   aTMTrafficDescriptor          ATMTD_VAL,   broadbandBearerCapability      BBC_S,   calledPartyNumber              CDPN_S1,   connectionIdentifier           CI_S2,   qualityOfServiceParameter      QOS_S,   broadbandSendingComplete       BSC_S } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ST_R1(CAU_VAL: Cause_value; CST_VAL: State_value)
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for STATUS messages
Constraint Value	
<pre> iEs_STATUS {   cause          CAU_R1(CAU_VAL),   callState      CST_R2(CST_VAL) } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: ST_R2(CAU_VAL: Cause_value)
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for STATUS messages
Constraint Value	
<pre> iEs_STATUS {   cause          CAU_R1(CAU_VAL),   callState      CST_R1          -- any call state value } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: SQ_S1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint; used for STATUS ENQUIRY messages.
Constraint Value	
<pre> iEs_STATUS_ENQUIRY { } </pre>	
<b>Detailed Comments</b>	:

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: INVALID_R
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for invalid messages
Constraint Value	
iEs_INVALID *	
<b>Detailed Comments</b> : Any Octetstring; used to handle invalid messages	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: MAK_R1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for MODIFY ACKNOWLEDGE messages.
Constraint Value	
<pre> iEs_MODIFY_ACKNOWLEDGE {     notificationIndicator    *,     broadbandReportType     * } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: MRQ_R1(RATE_VAL: Rates)
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint; used for MODIFY REQUEST messages.
Constraint Value	
<pre> iEs_MODIFY_REQUEST {     aTMTrafficDescriptor    ATMTD_R1(RATE_VAL) } </pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: MRQ_S1(RATE_VAL: Rates)
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Send constraint; used for MODIFY REQUEST messages.
Constraint Value	
<pre>iEs_MODIFY_REQUEST {     aTMTrafficDescriptor ATMTD_S1(RATE_VAL) }</pre>	
<b>Detailed Comments</b> :	

ASN.1 Type Constraint Declaration	
<b>Constraint Name</b>	: MRJ_R1
<b>ASN1 Type</b>	: InformationElements
<b>Derivation Path</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Receive constraint; used for MODIFY REJECT messages.
Constraint Value	
<pre>iEs_MODIFY_REJECT {     notificationIndicator *,     cause CAU_R1(?)      -- any cause value }</pre>	
<b>Detailed Comments</b> :	

PDU Constraint Declaration			
<b>Constraint Name</b> : SETUP1 <b>PDU Type</b> : DISPLAY <b>Derivation Path</b> : <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> :			
Field Name	Field Value	Field Encoding	Comments
ACTION	"Send a SETUP message including all sustainable cell rate and all maximum burst size values in the ATM traffic descriptor information element"		
<b>Detailed Comments</b> :			

PDU Constraint Declaration			
<b>Constraint Name</b> : MODIFY_REQUEST1 <b>PDU Type</b> : DISPLAY <b>Derivation Path</b> : <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> :			
Field Name	Field Value	Field Encoding	Comments
ACTION	"Send MODIFY_REQUEST requesting modification of the forward sustainable cell rate for CLP 0"		
<b>Detailed Comments</b> :			

PDU Constraint Declaration			
<b>Constraint Name</b> : MODIFY_REQUEST2 <b>PDU Type</b> : DISPLAY <b>Derivation Path</b> : <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> :			
Field Name	Field Value	Field Encoding	Comments
ACTION	"Send MODIFY_REQUEST requesting modification of the forward sustainable cell rate for CLP 0 +1"		
<b>Detailed Comments</b> :			

PDU Constraint Declaration			
<b>Constraint Name</b> : MODIFY_REQUEST3 <b>PDU Type</b> : DISPLAY <b>Derivation Path</b> : <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> :			
Field Name	Field Value	Field Encoding	Comments
ACTION	"Send MODIFY_REQUEST requesting modification of the backward sustainable cell rate for CLP 0"		
<b>Detailed Comments</b> :			

PDU Constraint Declaration			
<b>Constraint Name</b> : MODIFY_REQUEST4 <b>PDU Type</b> : DISPLAY <b>Derivation Path</b> : <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> :			
Field Name	Field Value	Field Encoding	Comments
ACTION	"Send MODIFY_REQUEST requesting modification of the backward sustainable cell rate for CLP 0 + 1"		
<b>Detailed Comments</b> :			

PDU Constraint Declaration			
<b>Constraint Name</b> : MODIFY_REQUEST5 <b>PDU Type</b> : DISPLAY <b>Derivation Path</b> : <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> :			
Field Name	Field Value	Field Encoding	Comments
ACTION	"Send MODIFY_REQUEST requesting modification of the forward maximum burst size for CLP 0"		
<b>Detailed Comments</b> :			

PDU Constraint Declaration			
<b>Constraint Name</b> : MODIFY_REQUEST7 <b>PDU Type</b> : DISPLAY <b>Derivation Path</b> : <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> :			
Field Name	Field Value	Field Encoding	Comments
ACTION	"Send MODIFY_REQUEST requesting modification of the backward maximum burst size for CLP 0"		
<b>Detailed Comments</b> :			

PDU Constraint Declaration			
<b>Constraint Name</b> : MODIFY_REQUEST8 <b>PDU Type</b> : DISPLAY <b>Derivation Path</b> : <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> :			
Field Name	Field Value	Field Encoding	Comments
ACTION	"Send MODIFY_REQUEST requesting modification of the backward maximum burst size for CLP 0 + 1"		
<b>Detailed Comments</b> :			

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b> : SETUP(IEs: InformationElements) <b>PDU Type</b> : DSS2_PDU <b>Derivation Path</b> : <b>Encoding Rule Name</b> : <b>Encoding Variation</b> : <b>Comments</b> : Constraint for receiving SETUP PDUs	
Constraint Value	
<pre> {   messageHeader      MSG_HDR_receive_SETUP,   messageLength      ?,   informationElements IEs -- parametrized set of information elements }           </pre>	
<b>Detailed Comments</b> :	

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: Mr(MSG_TYPE: MessageIdentifier; FLAG: Flag; CALL_REF: Cr_value; IEs: InformationElements)
<b>PDU Type</b>	: DSS2_PDU
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Constraint for receiving PDUs
Constraint Value	
{ messageHeader       MSG_HDR_receive(MSG_TYPE,FLAG,CALL_REF), messageLength       ?, informationElements IEs -- parametrized set of information elements }	
<b>Detailed Comments</b>	:

ASN.1 PDU Constraint Declaration	
<b>Constraint Name</b>	: Ms(MSG_TYPE: MessageIdentifier; FLAG: Flag; CALL_REF: Cr_value; IEs: InformationElements)
<b>PDU Type</b>	: DSS2_PDU
<b>Derivation Path</b>	:
<b>Encoding Rule Name</b>	:
<b>Encoding Variation</b>	:
<b>Comments</b>	: Constraint for sending PDUs
Constraint Value	
{ messageHeader       MSG_HDR_send(MSG_TYPE,FLAG,CALL_REF), messageLength       CALCULATE_MSG_LENGTH(IEs), informationElements IEs -- parametrized set of information elements }	
<b>Detailed Comments</b>	:



## **IV**

### **Dynamic Part**

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_01_01					
<b>Group</b> : Requesting_Entity/					
<b>Purpose</b> : Ensure that the IUT in U10, in order to initiate a forward SCR (for CLP = 0) modification request, 					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_01_02					
<b>Group</b> : Requesting_Entity/					
<b>Purpose</b> : Ensure that the IUT in U10, in order to initiate a forward SCR (for CLP = 0 + 1) modification request, 					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_01_03 <b>Group</b> : Requesting_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, in order to initiate a backward SCR (for CLP = 0) modification request, sends a MODIFY REQUEST message indicating the requested backward SCR (for CLP = 0) in the ATM traffic descriptor information element and enters U13. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F1) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U100			preamble U100
2		O!DISPLAY START TWAIT	MODIFY_REQUEST3		(1)
3		L0?DSS2_PDU CANCEL TWAIT	Mr(MRQ,F0,CREF,MRQ_R1(BackwardSCR_CLP0_R))	(P)	(2)
4		+SCMU_CS(U13,F1)			(3)
5		+SCMU_PO(F1)			postamble U0
6		?TIMEOUT TWAIT		(F)	no response
7		+SCMU_PO(F1)			postamble U0
<b>Detailed Comments</b> : (1) The test operator is prompted to activate a modification request of the connection parameters. (2) A valid MODIFY REQUEST message is received. (3) Test step to check that the IUT has entered U13.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_01_04					
<b>Group</b> : Requesting_Entity/					
<b>Purpose</b> : Ensure that the IUT in U10, in order to initiate a backward SCR (for CLP = 0 + 1) modification request, sends a MODIFY REQUEST message indicating the requested backward SCR (for CLP = 0 + 1) in the ATM traffic descriptor information element and enters U13.					
<b>Configuration</b> :					
<b>Default</b> : SCMU_DEF(F1)					
<b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U100			preamble U100
2		O!DISPLAY START TWAIT	MODIFY_REQUEST4		(1)
3		L0?DSS2_PDU CANCEL TWAIT	Mr(MRQ,F0,CREF,MRQ_R1(BackwardSCR_CLP01_R))	(P)	(2)
4		+SCMU_CS(U13,F1)			(3)
5		+SCMU_PO(F1)			postamble U0
6		?TIMEOUT TWAIT		(F)	no response
7		+SCMU_PO(F1)			postamble U0
<b>Detailed Comments</b> : (1) The test operator is prompted to activate a modification request of the connection parameters. (2) A valid MODIFY REQUEST message is received. (3) Test step to check that the IUT has entered U13.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_01_05 <b>Group</b> : Requesting_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, in order to initiate a forward MBS (for CLP = 0) modification request, sends a MODIFY REQUEST message indicating the requested forward MBS (for CLP = 0) in the ATM traffic descriptor information element and enters U13. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F1) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U100			preamble U100
2		O!DISPLAY START TWAIT	MODIFY_REQUEST5		(1)
3		L0?DSS2_PDU CANCEL TWAIT	Mr(MRQ,F0,CREF,MRQ_R1(Forward MBS_CLP0_R))	(P)	(2)
4		+SCMU_CS(U13,F1)			(3)
5		+SCMU_PO(F1)			postamble U0
6		?TIMEOUT TWAIT		(F)	no response
7		+SCMU_PO(F1)			postamble U0
<b>Detailed Comments</b> : (1) The test operator is prompted to activate a modification request of the connection parameters. (2) A valid MODIFY REQUEST message is received. (3) Test step to check that the IUT has entered U13.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_01_06 <b>Group</b> : Requesting_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, in order to initiate a forward MBS (for CLP = 0 + 1) modification request, sends a MODIFY REQUEST message indicating the requested forward MBS (for CLP = 0 + 1) in the ATM traffic descriptor information element and enters U13. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F1) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U100			preamble U100
2		O!DISPLAY START TWAIT	MODIFY_REQUEST1		(1)
3		L0?DSS2_PDU CANCEL TWAIT	Mr(MRQ,F0,CREF,MRQ_R1(Forward MBS_CLP01_R))	(P)	(2)
4		+SCMU_CS(U13,F1)			(3)
5		+SCMU_PO(F1)			postamble U0
6		?TIMEOUT TWAIT		(F)	no response
7		+SCMU_PO(F1)			postamble U0
<b>Detailed Comments</b> : (1) The test operator is prompted to activate a modification request of the connection parameters. (2) A valid MODIFY REQUEST message is received. (3) Test step to check that the IUT has entered U13.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_01_07 <b>Group</b> : Requesting_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, in order to initiate a backward MBS (for CLP = 0) modification request, sends a MODIFY REQUEST message indicating the requested backward MBS (for CLP = 0) in the ATM traffic descriptor information element and enters U13. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F1) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U100			preamble U100
2		O!DISPLAY START TWAIT	MODIFY_REQUEST7		(1)
3		L0?DSS2_PDU CANCEL TWAIT	Mr(MRQ,F0,CREF,MRQ_R1(Backwar dMBS_CLP0_R))	(P)	(2)
4		+SCMU_CS(U13,F1)			(3)
5		+SCMU_PO(F1)			postamble U0
6		?TIMEOUT TWAIT		(F)	no response
7		+SCMU_PO(F1)			postamble U0
<b>Detailed Comments</b> : (1) The test operator is prompted to activate a modification request of the connection parameters. (2) A valid MODIFY REQUEST message is received. (3) Test step to check that the IUT has entered U13.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_01_08 <b>Group</b> : Requesting_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, in order to initiate a backward MBS (for CLP = 0 + 1) modification request, sends a MODIFY REQUEST message indicating the requested backward MBS (for CLP = 0 + 1) in the ATM traffic descriptor information element and enters U13. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F1) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U100			preamble U100
2		O!DISPLAY START TWAIT	MODIFY_REQUEST8		(1)
3		L0?DSS2_PDU CANCEL TWAIT	Mr(MRQ,F0,CREF,MRQ_R1(Backwar dMBS_CLP01_R))	(P)	(2)
4		+SCMU_CS(U13,F1)			(3)
5		+SCMU_PO(F1)			postamble U0
6		?TIMEOUT TWAIT		(F)	no response
7		+SCMU_PO(F1)			postamble U0
<b>Detailed Comments</b> : (1) The test operator is prompted to activate a modification request of the connection parameters. (2) A valid MODIFY REQUEST message is received. (3) Test step to check that the IUT has entered U13.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_01 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a forward SCR (for CLP = 0) to be modified in the ATM traffic descriptor information element, when the request for modification is to be rejected, sends a MODIFY REJECT message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(Forward SCR_CLP0_S_INV))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MRJ,F1,CREF,MRJ_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating unacceptable traffic parameters is sent (2) A MODIFY REJECT message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_02 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a forward SCR (for CLP = 0 + 1) to be modified in the ATM traffic descriptor information element, when the request for modification is to be rejected, sends a MODIFY REJECT message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(Forward SCR_CLP01_S_INV))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MRJ,F1,CREF,MRJ_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating unacceptable traffic parameters is sent (2) A MODIFY REJECT message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_03 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a backward SCR (for CLP = 0) to be modified in the ATM traffic descriptor information element, when the request for modification is to be rejected, sends a MODIFY REJECT message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(BackwardSCR_CLP0_S_INV))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MRJ,F1,CREF,MRJ_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating unacceptable traffic parameters is sent (2) A MODIFY REJECT message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_04 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a backward SCR (for CLP = 0 + 1) to be modified in the ATM traffic descriptor information element, when the request for modification is to be rejected, sends a MODIFY REJECT message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(BackwardSCR_CLP01_S_INV))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MRJ,F1,CREF,MRJ_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating unacceptable traffic parameters is sent (2) A MODIFY REJECT message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_05 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a forward MBS (for CLP = 0) to be modified in the ATM traffic descriptor information element, when the request for modification is to be rejected, sends a MODIFY REJECT message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(Forward MBS_CLP0_S_INV))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MRJ,F1,CREF,MRJ_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating unacceptable traffic parameters is sent (2) A MODIFY REJECT message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_06 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a forward MBS (for CLP = 0 + 1) to be modified in the ATM traffic descriptor information element, when the request for modification is to be rejected, sends a MODIFY REJECT message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(Forward MBS_CLP01_S_INV))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MRJ,F1,CREF,MRJ_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating unacceptable traffic parameters is sent (2) A MODIFY REJECT message is received. (3) Test step to check that the IUT has entered U10.					



Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_07 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a backward MBS (for CLP = 0) to be modified in the ATM traffic descriptor information element, when the request for modification is to be rejected, sends a MODIFY REJECT message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(BackwardMBS_CLP0_S_INV))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MRJ,F1,CREF,MRJ_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating unacceptable traffic parameters is sent (2) A MODIFY REJECT message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_08 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a backward MBS (for CLP = 0 + 1) to be modified in the ATM traffic descriptor information element, when the request for modification is to be rejected, sends a MODIFY REJECT message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(BackwardMBS_CLP01_S_INV))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MRJ,F1,CREF,MRJ_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating unacceptable traffic parameters is sent (2) A MODIFY REJECT message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_09 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a forward SCR (for CLP = 0) to be modified in the ATM traffic descriptor information element, when the request for modification is to be accepted, sends a MODIFY ACKNOWLEDGE message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(Forward SCR_CLP0_S))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MAK,F1,CREF,MAK_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating acceptable traffic parameters is sent (2) A MODIFY ACKNOWLEDGE message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_10 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a forward SCR (for CLP = 0 + 1) to be modified in the ATM traffic descriptor information element, when the request for modification is to be accepted, sends a MODIFY ACKNOWLEDGE message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(Forward SCR_CLP01_S))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MAK,F1,CREF,MAK_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating acceptable traffic parameters is sent (2) A MODIFY ACKNOWLEDGE message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_11 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a backward SCR (for CLP = 0) to be modified in the ATM traffic descriptor information element, when the request for modification is to be accepted, sends a MODIFY ACKNOWLEDGE message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(BackwardSCR_CLP0_S))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MAK,F1,CREF,MAK_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating acceptable traffic parameters is sent (2) A MODIFY ACKNOWLEDGE message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_12 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a backward SCR (for CLP = 0 + 1) to be modified in the ATM traffic descriptor information element, when the request for modification is to be accepted, sends a MODIFY ACKNOWLEDGE message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(BackwardSCR_CLP01_S))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MAK,F1,CREF,MAK_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating acceptable traffic parameters is sent (2) A MODIFY ACKNOWLEDGE message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_13 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a forward MBS (for CLP = 0) to be modified in the ATM traffic descriptor information element, when the request for modification is to be accepted, sends a MODIFY ACKNOWLEDGE message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(Forward MBS_CLP0_S))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MAK,F1,CREF,MAK_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating acceptable traffic parameters is sent (2) A MODIFY ACKNOWLEDGE message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_14 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a forward MBS (for CLP = 0 + 1) to be modified in the ATM traffic descriptor information element, when the request for modification is to be accepted, sends a MODIFY ACKNOWLEDGE message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(Forward MBS_CLP01_S))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MAK,F1,CREF,MAK_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating acceptable traffic parameters is sent (2) A MODIFY ACKNOWLEDGE message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_15 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a backward MBS (for CLP = 0) to be modified in the ATM traffic descriptor information element, when the request for modification is to be accepted, sends a MODIFY ACKNOWLEDGE message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(BackwardMBS_CLP0_S))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MAK,F1,CREF,MAK_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating acceptable traffic parameters is sent (2) A MODIFY ACKNOWLEDGE message is received. (3) Test step to check that the IUT has entered U10.					

Test Case Dynamic Behaviour					
<b>Test Case Name</b> : SCMU_02_16 <b>Group</b> : Responding_Entity/ <b>Purpose</b> : Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message indicating a backward MBS (for CLP = 0 + 1) to be modified in the ATM traffic descriptor information element, when the request for modification is to be accepted, sends a MODIFY ACKNOWLEDGE message and re-enters U10. <b>Configuration</b> : <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U10I			preamble U10
2		L0!DSS2_PDU START TAC	Ms(MRQ,F0,CREF,MRQ_S1(BackwardMBS_CLP01_S))		(1)
3		L0?DSS2_PDU CANCEL TAC	Mr(MAK,F1,CREF,MAK_R1)	(P)	(2)
4		+SCMU_CS(U10,F0)			(3)
5		+SCMU_PO(F0)			postamble U0
6		?TIMEOUT TAC		(F)	no response
7		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (2) A MODIFY REQUEST message indicating acceptable traffic parameters is sent (2) A MODIFY ACKNOWLEDGE message is received. (3) Test step to check that the IUT has entered U10.					

Test Step Dynamic Behaviour					
<b>Test Step Name</b> : SCMU_PR_U0					
<b>Group</b> :					
<b>Objective</b> : Preamble to the Null call state U00.					
<b>Default</b> :					
<b>Comments</b> : Empty preamble to be completed by test laboratory.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ESTABLISH_UNDERLYING_LAYERS()]		(P)	(1)
2		(CREF := RANDOM_CREF())			
3		[NOT ESTABLISH_UNDERLYING_LAYERS()]		I	
<b>Detailed Comments</b> : The AAL connection of the IUT at the access related to the MTC has to be established before the execution of a test case. The procedures to do so are out of the scope of EN 301 003-1. The test suite operation in this preamble has to be replaced by TTCN code that describes the procedures to establish and/or maintain the underlying layers. The definition of that code has to be agreed between the test laboratory and the IUT provider. (1) Random values to be used for the call reference..					

Test Step Dynamic Behaviour					
<b>Test Step Name</b> : SCMU_PR_U10I <b>Group</b> : <b>Objective</b> : Preamble to the Active link state U10 for an incoming call. <b>Default</b> : SCMU_DEF(F0) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U0			preamble U00
2		L0!DSS2_PDU START T303	Ms(SU,F0,CREF,SU_S1(ATMTD_S_S ETUP))		(1)
3		L0?DSS2_PDU CANCEL T303, START T310	Mr(CPR,F1,CREF,CP_R1)		(3)
4		L0?DSS2_PDU CANCEL T310	Mr(AL,F1,CREF,AL_R1)		(4)
5		L0?DSS2_PDU CANCEL TWAIT	Mr(CN,F1,CREF,CN_R1)	(P)	(5)
6		L0!DSS2_PDU	Ms(CA,F0,CREF,CA_S1)		(6)
7		?TIMEOUT TWAIT		(I)	no response
8		+SCMU_PO(F0)			postamble U0
9		L0?DSS2_PDU CANCEL	Mr(CN,F1,CREF,CN_R1)	(P)	(7)
10		L0!DSS2_PDU	Ms(CA,F0,CREF,CA_S1)		(6)
11		?TIMEOUT T310		(F)	no response
12		+SCMU_PO(F0)			postamble U0
13		L0?DSS2_PDU CANCEL T303	Mr(AL,F1,CREF,AL_R1)		(4)
14		L0?DSS2_PDU CANCEL TWAIT	Mr(CN,F1,CREF,CN_R1)	(P)	(5)
15		?TIMEOUT TWAIT		(I)	no response
16		+SCMU_PO(F0)			postamble U0
17		L0?DSS2_PDU CANCEL	Mr(CN,F1,CREF,CN_R1)	(P)	(7)
18		L0!DSS2_PDU	Ms(CA,F0,CREF,CA_S1)		(6)
19		?TIMEOUT T303		(F)	no response
20		+SCMU_PO(F0)			postamble U0
<b>Detailed Comments</b> : (1) A valid SETUP message with the sending complete information element is sent. The IUT enters U6. (3) A CALL PROCEEDING message is received. The IUT has entered U9. (4) An ALERTING message is received. The IUT has entered U7. (5) A CONNECT message is received. The IUT has entered U8. (6) A CONNECT ACKNOWLEDGE message is sent. The IUT enters U10. (7) A CONNECT message is received. The IUT has entered U8.					

### Test Step Dynamic Behaviour

**Test Step Name** : SCMU\_PR\_U100

**Group** :

**Objective** : Preamble to the Active link state N10 for an outgoing call.

**Default** : SCMU\_DEF(F1)

**Comments** :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+SCMU_PR_U0			preamble U00
2		O!DISPLAY START TWAIT	SETUP1		(1)
3		L0?DSS2_PDU (CREF := DSS2_PDU.messageHeader.callRefere nce.cr_value, VCI := DSS2_PDU.informationElements.iEs_ SETUP.connectionIdentifier.vci, VPCI := DSS2_PDU.informationElements.iEs_ SETUP.connectionIdentifier.vpci, VPAS := DSS2_PDU.informationElements.iEs_ SETUP.connectionIdentifier.vp_ass oc_signalling) CANCEL TWAIT	SETUP(SU_R1)	(P)	(2)
4		+SUBTREE_PR_U100			(3)
5		L0?DSS2_PDU (CREF := DSS2_PDU.messageHeader.callRefere nce.cr_value, VCI := PX_VCI, VPCI := DSS2_PDU.informationElements.iEs_ SETUP.connectionIdentifier.vpci, VPAS := DSS2_PDU.informationElements.iEs_ SETUP.connectionIdentifier.vp_ass oc_signalling) CANCEL TWAIT	SETUP(SU_R2)	(P)	(2)
6		+SUBTREE_PR_U100			(3)
7		L0?DSS2_PDU (CREF := DSS2_PDU.messageHeader.callRefere nce.cr_value, VCI := PX_VCI, VPCI := PX_VPCI, VPAS := '01'B) CANCEL TWAIT	SETUP(SU_R3)	(P)	(2)
8		+SUBTREE_PR_U100			(3)
9		L0?DSS2_PDU (CREF := DSS2_PDU.messageHeader.callRefere nce.cr_value) CANCEL TWAIT	SETUP(INVALID_R)	(F)	(4)
10		+SCMU_PO(F1)			postamble U0
11		?TIMEOUT TWAIT		(I)	no response
		SUBTREE_PR_U100			
12		L0!DSS2_PDU	Ms(CPR,F1,CREF,CP_S1(VPCI,VCI, VPAS))		(5)
13		L0!DSS2_PDU	Ms(AL,F1,CREF,AL_S1(VPCI,VCI, VPAS))		(6)
14		L0!DSS2_PDU START TAC	Ms(CN,F1,CREF,CN_S1(VPCI,VCI, VPAS))		(7)
15		L0?DSS2_PDU CANCEL TAC	Mr(CA,F0,CREF,CA_R1)	(P)	(8)
16		?TIMEOUT TAC		(F)	no response
17		+SCMU_PO(F1)			postamble U0

**Detailed Comments** :

- (1) The test operator is prompted to send a setup message.
- (2) A valid SETUP message is received. The IUT has entered U1.
- (3) Subtree to bring the IUT from U1 to U10.
- (4) An invalid SETUP message is received.
- (5) A CALL PROCEEDING is sent. The IUT enters U3.
- (6) An ALERTING is sent. The IUT enters U4.
- (7) A CONNECT is sent. The IUT enters U8.
- (8) A CONNECT ACKNOWLEDGE message is received. The IUT has entered U10.

Test Step Dynamic Behaviour					
<b>Test Step Name</b> : SCMU_PO(FL: Flag) <b>Group</b> : <b>Objective</b> : To bring the IUT back to the Null call state N0 and to terminate all active PTCs. <b>Default</b> : <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		L0!DSS2_PDU (INV_FL := INVERSE(FL)) START T308	Ms(RL,FL,CREF,RL_S1(C16))		(1)
2		L0?DSS2_PDU CANCEL T308	Mr(RC,INV_FL,CREF,RC_R1)	R	(2)
3		?TIMEOUT T308		R	no response
4		L0?OTHERWISE		R	(3)
<b>Detailed Comments</b> : (1) A valid RELEASE message indicating the cause value 16 "Normal call clearing" is sent. (2) A RELEASE COMPLETE message is received from the IUT. (3) An invalid event occurred.					

Test Step Dynamic Behaviour					
<b>Test Step Name</b> : SCMU_CS(ES: State_value; FL: Flag) <b>Group</b> : <b>Objective</b> : To check the link state of the IUT. <b>Default</b> : SCMU_DEF(FL) <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		L0!DSS2_PDU (END_FLAG := FALSE, INV_FL := INVERSE(FL), CALL_STATE := ES) START T322	Ms(SQ,FL,CREF,SQ_S1)		(1)
2		REPEAT SUBTREE_CS1 UNTIL [END_FLAG]			(2)
3		SUBTREE_CS1 L0?AAL_REL_IN [(ES= U0) AND PX_L2_RELEASE_U00] CANCEL T322		(P)	(3)
4		(END_FLAG := TRUE)			
5		L0?DSS2_PDU [CALL_STATE = U9]	Mr(AL,INV_FL,CREF,AL_R1)		
6		(CALL_STATE := U7)			
7		L0?DSS2_PDU [(CALL_STATE = U9) OR (CALL_STATE = U7)]	Mr(CN,INV_FL,CREF,CN_R1)		
8		(CALL_STATE := U8)			
9		L0?DSS2_PDU CANCEL T322	Mr(ST,INV_FL,CREF,ST_R1(C30,C ALL_STATE))	(P)	(4)
10		(END_FLAG := TRUE)			
11		L0?DSS2_PDU [STATUS_EXPECTED]	Mr(ST,INV_FL,CREF,ST_R2(CAUV) )		(5)
12		(STATUS_EXPECTED := FALSE)			
13		?TIMEOUT T322		(F)	no response
14		(END_FLAG := TRUE)			
<b>Detailed Comments</b> : (1) A STATUS ENQUIRY message is sent. (2) The subtree SUBTREE_CS is repeated until a STATUS message indicating the current link and a valid cause value is received. (3) A AAL-RELEASE-INDICATION is received. The IUT has released layer 2 after entering N0. (4) A STATUS message is received indicating the expected link state values and the appropriate cause value 30. (5) A STATUS message is received indicating the cause value as stored in the test case variable CAUV. This variable is set in test cases which allow optionally the receipt of a STATUS message (e.g. reaction to a message with a non-mandatory information element contents error).					



Default Dynamic Behaviour					
<b>Default Name</b> : SCMU_DEF(FL: Flag) <b>Group</b> : <b>Objective</b> : Default subtree for all test cases. <b>Comments</b> :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		L0?AAL_REL_IN		(I)	AAL failure
2		[TRUE]		R	(1)
3		L0?AAL_EST_IN		(I)	AAL reset
4		+RELEASE_CALL(FL)			(2)
5		L0?OTHERWISE		(F)	(3)
6		+RELEASE_CALL(FL)			(2)
		RELEASE_CALL(FL: Flag)			
7		L0!DSS2_PDU (INV_FL := INVERSE(FL)) START T308	Ms(RL,FL,CREF,RL_S1(C1 6))		(4)
8		L0?DSS2_PDU CANCEL T308	Mr(RC,INV_FL,CREF,RC_R 1)	R	(5)
9		?TIMEOUT T308		F	no response
10		L0?OTHERWISE		F	(3)
<b>Detailed Comments</b> : (1) This behaviour line is inserted to allow the assignment of a final verdict R. It is mandatory to assign a final verdict to each leaf of a default behaviour tree. (2) Subtree to release the call. (3) An invalid event occurred. (4) A valid RELEASE message with cause #16 is sent. (5) A RELEASE COMPLETE message is received from the IUT.					