SET_Network

Fri Sep 4 15:25:12 1998

I

Test Suite Overview

Test Suite Structure

Suite Name : SET_Network

Standards Ref : ETS 301 002−1

PICS Ref : ETS 301 002−2

PIXIT Ref : ETS 301 002−6 Annex B

Test Method(s) : Remote test method (see ETS 301 002−6 clause 4)

Comments : ETSI: Nr 301 002−6, WI Nr: DEN/SPS−05123−6
Version 1.1.1 sp512361.mp or .ps
First draft to be reviewed in October

Test Group Reference	Selection Ref	Test Group Objective	Page Nr
Network_ST/			72
Network_ST/Registration/			72
Network_ST/Possible_fraudulent_use/			79
Network_ST/Possible_fraudulent_use/PIN/			79
Network_ST/Possible_fraudulent_use/TAN/			83

Detailed Comments :

Test Case Index

Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
Network_ST/Registration/	SET_N01_001			72
Network_ST/Registration/	SET_N01_002			73
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Network_ST/Possible_fraudulent_use/PIN/	SET_N03_001			79
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Network_ST/Possible_fraudulent_use/PIN/	SET_N03_003			81
Network_ST/Possible_fraudulent_use/PIN/	SET_N03_004			82
Network_ST/Possible_fraudulent_use/TAN/	SET_N04_001			83
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Detailed Comments :

Test Step Index

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Network_Steps/	PR30001		87
Network_Steps/PIN_PREAMBLES/	PR_PIN1		89
Network_Steps/PIN_PREAMBLES/	PR_PIN2		90
Network_Steps/TAN_PREAMBLES/	PR_TAN1		91
Network_Steps/TAN_PREAMBLES/	PR_TAN2		92

Detailed Comments :

Default Index			
Default Group Reference	**Default Id**	**Description**	**Page Nr**
	DF_SET		93
Detailed Comments :			

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Declarations Part

Simple Type Definitions			
Type Name	**Type Definition**	**Type Encoding**	**Comments**
GFP_MT_LIST	OCTETSTRING (’24’O, ’28’O, ’30’O, ’31’O, ’33’O, ’37’O, ’62’O, ’64’O)		OCTETSTRING[1] see ETS 300 196, subclause 11 (1)
CR_LENGTH_TYPE	INTEGER (1, 2)		Call reference length type
CH_NUM_TYPE	INTEGER (1 TO 31)		Channel number type
CAU_I	BITSTRING (’00001000’B)		Cause identifier type
CDPN_I	BITSTRING (’01110000’B)		Called party number identifier type
CDPS_I	BITSTRING (’01110001’B)		Called party subaddress identifier type
CHI_I	BITSTRING(’00011000’B)		Channel id identifier type
DSP_I	BITSTRING (’00101000’B)		Display identifier type
FAC_I	BITSTRING(’00011100’B)		Facility identifier type
FAC_PP_INV	OCTETSTRING(’91A1’O)		Protocol profile, invoke component tag
KPF_I	BITSTRING (’00101100’B)		Keypad facility identifier type
NOID_I	BITSTRING (’00100111’B)		Notification indicator identifier type
RI_I	BITSTRING (’01111001’B)		Restart indicator identifier type
RONN_I	BITSTRING (’01110110’B)		Redirection number identifier type
PD	BITSTRING (’00001000’B)		Protocol discriminator
MT	BITSTRING [8]		Message type
BIT7OR8	BITSTRING[7 .. 8]		Used in Channel identification
BIT7OR15	BITSTRING[7 .. 15]		Used in Call Reference
SCI	BITSTRING (’10100001’B)		Sending complete information
Detailed Comments :			

Structured Type Definition

Type Name : CAU
(CAUSE IE
)

Encoding Variation :

Comments : Info Element CAUse
ETS 300 102−1 subclause 4.5.12

Element Name	Type Definition	Field Encoding	Comments
cau_i	CAU_I		Identifier
cau_l	BITSTRING [8]		Length
cau_e3_loc	BITSTRING [8]		Location
cau_e4_rec	OCTETSTRING [0 .. 1]		Recommendation
cau_e5_cv1	BITSTRING [1]		Extension bit
cau_e5_cv2	BITSTRING [7]		Cause value
cau_di	OCTETSTRING [0 TO 28]		Diagnostics

Detailed Comments : &COMMON_N12

Structured Type Definition

Type Name : CDPN
(CALLED PARTY NUMBER IE
)

Encoding Variation :

Comments : Info Element CalleD Party Number
ETS 300 102−1 subclause 4.5.8

Element Name	Type Definition	Field Encoding	Comments
cdpn_i	CDPN_I		Identifier
cdpn_l	OCTETSTRING [1]		Length
cdpn_e3_npi	OCTETSTRING [1]		Type of number/Numbering plan identifier
cdpn_e4_nd	OCTETSTRING [1 TO 20]		Number digits

Detailed Comments : &COMMON_N12

Structured Type Definition

Type Name : CDPS
(CALLED PARTY SUBADDRESS IE
)

Encoding Variation :

Comments : Info Element CalleD Party Subaddress
ETS 300 102−1 subclause 4.5.9

Element Name	Type Definition	Field Encoding	Comments
cdps_i	CDPS_I		Identifier
cdps_l	BITSTRING [8]		Length
cdps_e3_tos	BITSTRING [8]		Type of subaddress/Odd/even indicator
cdps_e4_si	OCTETSTRING [1 TO 20]		Subaddress information

Detailed Comments : &COMMON_N12

Structured Type Definition

Type Name : CHI_RS (Channel identification)

Encoding Variation :

Comments : Information Element CHannel Identification
ETS 300 403−1 subclause 4.5.13

Element Name	Type Definition	Field Encoding	Comments
chi_i (Identifier)	CHI_I		
chi_l (Length)	BITSTRING[8]		
chi_e3_p1	BITSTRING[4]		(1)
chi_e3_pe	BITSTRING[1]		(1)
chi_e3_p3	BITSTRING[3]		(1)
chi_e3_cs	OCTETSTRING[1]		(2)
chi_e4	BITSTRING[8]		(3)
chi_e5_ch	OCTETSTRING[1..30]		(3)

Detailed Comments : (1) Coding of octet 3 used for primary rate access.
(2) Coding of octet 3 used for basic access.
(3) The octets 4 and 5 are only used in primary rate access configurations.

Structured Type Definition

Type Name : CR
(CALL REFERENCE
)

Encoding Variation :

Comments : Call Reference
ETS 300 102−1 subclause 4.3

Element Name	Type Definition	Field Encoding	Comments
cr_l	BITSTRING [8]		Length
cr_f	BITSTRING [1]		Flag
cr_r	BIT7OR15		Call reference value

Detailed Comments : &COMMON_N12
The call reference is of type BITSTRING[7] for basic access and of type BITSTRING[15] for primary rate access.

Structured Type Definition

Type Name : DSP
(DISPLAY IE
)

Encoding Variation :

Comments : Info Element DiSPlay
ETS 300 102−1 subclause 4.5.15

Element Name	Type Definition	Field Encoding	Comments
dsp_i	DSP_I		Identifier
dsp_l	BITSTRING [8]		Length
dsp_di	OCTETSTRING [0 TO 32]		Display information

Detailed Comments : &COMMON_N12

Structured Type Definition

Type Name : FA
(FACILITY IE)

Encoding Variation :

Comments : Info Element FAcility
ETS 300 196−1 subclause 11

Element Name	Type Definition	Field Encoding	Comments
fac_i	FAC_I		Identifier
fac_l	OCTETSTRING[1]		Length
fac_pp_inv	FAC_PP_INV		Protocol profile, invoke component tag
fac_con	OCTETSTRING[6..250]		Rest of component

Detailed Comments :

Structured Type Definition

Type Name : KPF
(KEYPAD FACILITY IE
)

Encoding Variation :

Comments : Info Element KeyPad Facility
ETS 300 102−1 subclause 4.5.17

Element Name	Type Definition	Field Encoding	Comments
kpf_i	KPF_I		Identifier
kpf_l	BITSTRING [8]		Length
kpf_ki	OCTETSTRING [0 TO 32]		Keypad information

Detailed Comments : &COMMON_N12

Structured Type Definition

Type Name : NOID
(NOTIFICATION INDICATOR IE
)

Encoding Variation :

Comments : Info Element NOtification InDicator
ETS 300 102−1 subclause 4.5.21

Element Name	Type Definition	Field Encoding	Comments
noid_i	NOID_I		Identifier
noid_l	BITSTRING [8]		Length
noid_e3_nd	BITSTRING [8]		Notification description

Detailed Comments : &COMMON_N12

Structured Type Definition

Type Name : RI
(RESTART INDICATOR IE
)

Encoding Variation :

Comments : Info Element Restart Indicator
ETS 300 102−1 subclause 4.5.24

Element Name	Type Definition	Field Encoding	Comments
ri_i	RI_I		Identifier
ri_l	BITSTRING [8]		Length
ri_cl	BITSTRING [5]		Fixed value ’10000’B
ri_cl1	BITSTRING [3]		Class

Detailed Comments : &COMMON_N12

Structured Type Definition

Type Name : RONN
(REDIRECTION NUMBER IE
)

Encoding Variation :

Comments : Info Element RedirectiON Number
ETS 300 207−1 subclause 7.2.3

Element Name	Type Definition	Field Encoding	Comments
ronn_i	RONN_I		Identifier
ronn_l	BITSTRING [8]		Length
ronn_e3_ton	BITSTRING [4]		Type of number
ronn_e3_npi	BITSTRING [4]		Numbering plan identifier
ronn_e4_pi	BITSTRING [3]		Presentation indicator
ronn_e4_sp	BITSTRING [5]		Spare
ronn_e5_nd	OCTETSTRING [0 TO 20]		Number digits

Detailed Comments : &COMMON_N12

ASN.1 Type Definition

Type Name : FIE_I

Encoding Variation :

Comments : Identifier for the Facility information element.

Type Definition

BIT STRING (’00011100’B)

Detailed Comments : &COMMON_N12

ASN.1 Type Definition

Type Name : FIE_LengthType

Encoding Variation :

Comments :

Type Definition

BIT STRING (SIZE (8))

Detailed Comments : &COMMON_N12
This type is needed in the test suite operation CALC_FIE_LENGTH.

ASN.1 Type Definition

Type Name : FIE

Encoding Variation :

Comments : Facility information element taken from ETS 300 196:1993; 11.2.2.1.
Specified here for both send & receive event.

Type Definition

SEQUENCE { informationElementIdentif002 FIE_I , length FIE_LengthType , extBit BIT STRING (SIZE (1)) , spareBits BIT STRING (SIZE (2)) , protocolProfile BIT STRING (SIZE (5)) , components SET OF Component }

Detailed Comments : &COMMON_N12
When sending normally only one component is sent, but when receiving any number of components can be recieved even though normally we are only interested in one component.

ASN.1 Type Definition

Type Name : FIES

Encoding Variation :

Comments : This type carries a SET OF FIE.
The order of the element is of no interest.

Type Definition

SET OF FIE

Detailed Comments : &COMMON_N12

ASN.1 Type Definition

Type Name : Operation

Encoding Variation :

Comments : from ETS 300 196 (table E.1) & CCITT X.219 (figure 4).

Type Definition

CHOICE { localValue INTEGER , globalValue OID }

Detailed Comments : &COMMON_N12

ASN.1 Type Definition	
Type Name :	Error
Encoding Variation :	
Comments :	
Type Definition	
CHOICE { localValue INTEGER , globalValue OID }	
Detailed Comments :	Note that elements of type INTEGER are global.

ASN.1 Type Definition	
Type Name :	InvokeIDType
Encoding Variation :	
Comments :	
Type Definition	
INTEGER (−32768 .. 32767)	
Detailed Comments :	&COMMON_N12 Values: Sending Components: If it is an invoke component then use Test Case Variable (with default) to set value. If another invoke component is sent the TCV should be incremented beforehand. If it is a return result, error or reject component in response to a received invoke component then use TCV also, making sure the value is set to the value of the received component beforehand. Receiving Components: If it is an invoke comp then use '?'. If it is a return result, error or reject component in response to a sent invoke component then use TCV value (as used in sent invoke component).

ASN.1 Type Definition

Type Name : ROSE_Problems

Encoding Variation :

Comments : from ETS 300 196 D.1

Type Definition

```
INTEGER {
unrecognizedComponent (0) ,
unrecognizedInvocation (0) ,
duplicateInvocation (0) ,
mistypedComponent (1) ,
-- GeneralProblem
 errorResponseUnexpected (1) ,
-- ReturnResultProblem, ReturnErrorProblem
 resultResponseUnexpected (1) ,
-- InvokeProblem
 unrecognizedOperation (1) ,
-- GeneralProblem
 badlyStructuredComponent (2) ,
-- ReturnErrorProblem
 unrecognizedError (2) ,
-- ReturnResultProblem
 mistypedArgument (2) ,
-- InvokeProblem
 mistypedResult (2) ,
-- GeneralProblem
 resourceLimitation (3) ,
-- ReturnErrorProblem
 unexpectedError (3) ,
-- InvokeProblem
 mistypedParameter (4) ,
-- ReturnResultProblem
 initiatorReleasing (4) ,
-- InvokeProblem
 unrecognizedLinkedID (5) ,
-- ReturnErrorProblem
 linkedResponseUnexpected (6) ,
-- ReturnErrorProblem
 -- InvokeProblem
 -- InvokeProblem
 -- InvokeProblem
 unexpectedChildOperation (7)
 -- InvokeProblem

}
```

Detailed Comments : &COMMON_N12
Errors of the same integer value are distinguished by their different parent types (General, Invoke, ReturnResult, ReturnError).

ASN.1 Type Definition

Type Name : Component

Encoding Variation :

Comments : The collection of all possible components for SET nu

Type Definition

```
CHOICE {
  modifyPin_Components                ModifyPin_Components ,
  activationRC_Components             ActivationRC_Components ,
  possibleFraudPinUse_Components      PossibleFraudPinUse_Components ,
  possibleFraudTanUse_Components      PossibleFraudTanUse_Components
        }
```

Detailed Comments : plural (compontentS) as each type represents invoke_Components, return result_Components, return error etc.

ASN.1 Type Definition

Type Name : RejectComponent

Encoding Variation :

Comments : Reject Component is not specific to any particular operation. The invokeID may be used to identify a specific operation.

Type Definition

```
SEQUENCE {
  invokedID CHOICE { invokeID InvokeIDType , null NULL } ,
  problem CHOICE { generalProblem [   0 ] IMPLICIT GeneralProblem , invokeProblem [   1 ] IMPLICIT InvokeProblem ,
returnResultProblem [   2 ] IMPLICIT ReturnResultProblem , returnErrorProblem [   3 ] IMPLICIT ReturnErrorProblem }
  }
```

Detailed Comments : &COMMON_N12

ASN.1 Type Definition

Type Name : GeneralProblem

Encoding Variation :

Comments : from ETS 300 196 D.1

Type Definition

```
ROSE_Problems (unrecognizedComponent   | mistypedComponent   | badlyStructuredComponent  )
```

Detailed Comments : &COMMON_N12
Type restricted to these three.

ASN.1 Type Definition

Type Name : InvokeProblem

Encoding Variation :

Comments : from ETS 300 196 D.1

Type Definition

ROSE_Problems (duplicateInvocation | unrecognizedOperation | mistypedArgument | resourceLimitation | initiatorReleasing | unrecognizedLinkedID | linkedResponseUnexpected | unexpectedChildOperation)

Detailed Comments : &COMMON_N12
Type restricted to these 8.

ASN.1 Type Definition

Type Name : ReturnErrorProblem

Encoding Variation :

Comments : from ETS 300 196 D.1

Type Definition

ROSE_Problems (unrecognizedInvocation | errorResponseUnexpected | unrecognizedError | unexpectedError | mistypedParameter)

Detailed Comments : &COMMON_N12
Type restricted to these 5.

ASN.1 Type Definition

Type Name : ReturnResultProblem

Encoding Variation :

Comments : from ETS 300 196 D.1

Type Definition

ROSE_Problems (unrecognizedInvocation | resultResponseUnexpected | mistypedResult)

Detailed Comments : &COMMON_N12
Type restricted to these three.

ASN.1 Type Definition

Type Name : OID

Encoding Variation :

Comments :

Type Definition

OBJECT IDENTIFIER

Detailed Comments :

ASN.1 Type Definition

Type Name : ModifyPin_Components

Encoding Variation :

Comments : From EN 301 002−1

Type Definition

```
CHOICE
 {
   modifyPin_InvokeComp [   1 ] IMPLICIT ModifyPin_InvokeComp ,
   modifyPin_ReturnResult [   2 ] IMPLICIT ModifyPin_ReturnResult ,
   modifyPin_ReturnError [   3 ] IMPLICIT ModifyPin_ReturnError ,
   modifyPin_RejectComp [   4 ] IMPLICIT RejectComponent
   }

  ModifyPin_InvokeComp
        ::= SEQUENCE { invokeID InvokeIDType ,
                       operation_value Operation ,
                       argument Argument OPTIONAL }

  ModifyPin_ReturnResult ::= SEQUENCE { invokeID InvokeIDType  }

  ModifyPin_ReturnError ::= SEQUENCE { invokeID InvokeIDType , error  ModifyPinError }

−− Common (local) type elements −−


Argument ::= SEQUENCE
 {
   oldPin          Pin,
   newPin          Pin,
   servedUserNr   PartyNumber
}


ModifyPinError ::= Error
```

Detailed Comments :

ASN.1 Type Definition

Type Name : ActivationRC_Components

Encoding Variation :

Comments : From EN ?

Type Definition

```
CHOICE
 {
  activationRC_InvokeComp  [   1 ]  IMPLICIT ActivationRC_InvokeComp ,
  activationRC_ReturnResult [   2 ]  IMPLICIT ActivationRC_ReturnResult ,
  activationRC_ReturnError   [   3 ]  IMPLICIT ActivationRC_ReturnError ,
  activationRC_RejectComp  [   4 ]  IMPLICIT RejectComponent
  }

 ActivationRC_InvokeComp
      ::= SEQUENCE { invokeID InvokeIDType ,
                     operation_value Operation ,
                     argument Argument OPTIONAL }

 ActivationRC_ReturnResult  ::=  SEQUENCE { invokeID InvokeIDType  }

 ActivationRC_ReturnError    ::=  SEQUENCE { invokeID InvokeIDType , error  ActivationRCError }

-- Common (local) type elements --


Argument ::= SEQUENCE
 {
  servedUserNr    PartyNumber ,
  pin                 Pin ,
  tan                 Tan   OPTIONAL
}


ActivationRCError ::= Error
```

Detailed Comments :

ASN.1 Type Definition

Type Name : PossibleFraudPinUse_Components

Encoding Variation :

Comments : From EN 301 002−1

Type Definition

```
CHOICE {
  possibleFraudPinUse_InvokeComp    [   1 ] IMPLICIT PossibleFraudPinUse_InvokeComp
          }

  PossibleFraudPinUse_InvokeComp
      ::= SEQUENCE { invokeID InvokeIDType ,
                     operation_value Operation ,
                     argument Argument OPTIONAL
                        }

Argument ::= SEQUENCE {
                              }
```

Detailed Comments :

ASN.1 Type Definition

Type Name : PossibleFraudTanUse_Components

Encoding Variation :

Comments : From EN 301 002−1

Type Definition

```
CHOICE {
  possibleFraudTanUse_InvokeComp    [   1 ] IMPLICIT PossibleFraudTanUse_InvokeComp
          }

  PossibleFraudTanUse_InvokeComp
      ::= SEQUENCE { invokeID InvokeIDType ,
                     operation_value Operation ,
                     argument Argument OPTIONAL
                        }

Argument ::= SEQUENCE {
                              }
```

Detailed Comments :

ASN.1 Type Definition

Type Name : TypeOfNumber

Encoding Variation :

Comments : from ETS 300 196 D.3, modified for TTCN ASN.1 (combination of PublicTypeOfNumber and PrivateTypeOfNumber).

Type Definition

ENUMERATED { unknown (0) , level2RegionalNumber (1) , internationalNumber (1) , level1RegionalNumber (2) , nationalNumber (2) , pTNSpecificNumber (3) , networkSpecificNumber (3) , localNumber (4) , subscriberNumber (4) , abbreviatedNumber (6) }

Detailed Comments :

ASN.1 Type Definition

Type Name : PrivateTypeOfNumber

Encoding Variation :

Comments : from ETS 300 196 D.3

Type Definition

TypeOfNumber (unknown | level2RegionalNumber | level1RegionalNumber | pTNSpecificNumber | localNumber | abbreviatedNumber)

Detailed Comments :

ASN.1 Type Definition

Type Name : PublicTypeOfNumber

Encoding Variation :

Comments : from ETS 300 196 D.3

Type Definition

TypeOfNumber (unknown | internationalNumber | nationalNumber | networkSpecificNumber | subscriberNumber | abbreviatedNumber)

Detailed Comments :

ASN.1 Type Definition	
Type Name	: NumberDigits
Encoding Variation	:
Comments	: from ETS 300 196 Table D.3
Type Definition	
NumericString (SIZE (1 .. 20))	
Detailed Comments	:

ASN.1 Type Definition	
Type Name	: PrivatePartyNumber
Encoding Variation	:
Comments	: from ETS 300 196 D.3
Type Definition	
SEQUENCE { privateTypeOfNumber PrivateTypeOfNumber , privateNumberDigits NumberDigits }	
Detailed Comments	:

ASN.1 Type Definition	
Type Name	: PublicPartyNumber
Encoding Variation	:
Comments	: from ETS 300 196 D.3
Type Definition	
SEQUENCE { publicTypeOfNumber PublicTypeOfNumber , publicNumberDigits NumberDigits }	
Detailed Comments	:

ASN.1 Type Definition

Type Name : PartyNumber

Encoding Variation :

Comments : from ETS 300 196 D.3

Type Definition

```
CHOICE {
  unknownPartyNumber [  0 ] IMPLICIT NumberDigits ,
  publicPartyNumber [  1 ] IMPLICIT PublicPartyNumber ,
  dataPartyNumber [  3 ] IMPLICIT NumberDigits ,
  telexPartyNumber [  4 ] IMPLICIT NumberDigits ,
  privatePartyNumber [  5 ] IMPLICIT PrivatePartyNumber ,
  nationalStandardPartyNumber [  8 ] IMPLICIT NumberDigits
  }
```

Detailed Comments :

ASN.1 Type Definition

Type Name : Pin

Encoding Variation :

Comments : Personal Identification Number from EN301 002−1

Type Definition

```
IA5String  (SIZE (4..12))  (FROM ( " 0 " | " 1 " | " 2 " | " 3 " | " 4 " | " 5 " | " 6 " | " 7 " | " 8 " | " 9  "
                                 | " A " | " B " | " C " | " D " | " E " | " F " | " G " | " H " | " I " | " J "
                                 | " K " | " L " | " M " | " N " | " O " | " P " | " Q " | " R " | " S " | " T "
                                 | " U " | " V " | " W " | " X " | " Y " | " Z "
                                 | " a " | " b " | " c " | " d " | " e " | " f " | " g " | " h " | " i " | " j "
                                 | " k " | " l " | " m " | " n " | " o " | " p " | " q " | " r " | " s " | " t "
                                 | " u " | " v " | " w " | " x " | " y " | " z " ) )
```

Detailed Comments :

ASN.1 Type Definition

Type Name : Tan

Encoding Variation :

Comments : Personal Identification Number from EN301 002−1

Type Definition

```
IA5String  (SIZE (6..12))  (FROM ( " 0 " | " 1 " | " 2 " | " 3 " | " 4 " | " 5 " | " 6 " | " 7 " | " 8 " | " 9  "
                                 | " A " | " B " | " C " | " D " | " E " | " F " | " G " | " H " | " I " | " J "
                                 | " K " | " L " | " M " | " N " | " O " | " P " | " Q " | " R " | " S " | " T "
                                 | " U " | " V " | " W " | " X " | " Y " | " Z "
                                 | " a " | " b " | " c " | " d " | " e " | " f " | " g " | " h " | " i " | " j "
                                 | " k " | " l " | " m " | " n " | " o " | " p " | " q " | " r " | " s " | " t "
                                 | " u " | " v " | " w " | " x " | " y " | " z " ) )
```

Detailed Comments :

Test Suite Operation Definition	
Operation Name :	ASSIGN_CHI_RS(basic, primary : CHI_RS; basic_flag : BOOLEAN)
Result Type :	CHI_RS
Comments :	
Description	

{
if(basic_flag)
  return basic; /* Testing the basic access */
else
  return primary; /* Testing the primary rate access */
}	

Detailed Comments :	&COMMON_N09

Test Suite Operation Definition	
Operation Name :	CALC_FIE_LENGTH(COMP: Component)
Result Type :	FIE_LengthType
Comments :	This operation is used to calculate the length of a Facility information element that carries a component.
Description	
The return value represents the length of the contents of a Facility information element in which this test suite operation is called depending on the number and the contents of the ROSE components included.	
Detailed Comments :	&COMMON_N12

Test Suite Operation Definition	
Operation Name :	RANDOM_INVOKE_ID
Result Type :	InvokeIDType
Comments :	This operation is used to generate a random invoke identifier value..
Description	
This test suite operation returns a random value of type InvokeIDType. The result of this operation is restricted to values between −32768 and 32767.	
Detailed Comments :	&COMMON_N12

Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
BASIC	BOOLEAN	SET_NTWK_PIXIT 1.1	TRUE −> basic access FALSE −> primary rate access
CR_LENGTH	CR_LENGTH_TYPE	SET_NTWK_PIXIT 1.2	Call Reference length value (1..2)
CH_NUM1	CH_NUM_TYPE	SET_NTWK_PIXIT N1.5.1	B−channel number (0..31) of CREF1
PX_TACTIVATE	INTEGER	SET_NTWK_PIXIT 3.1	Remote Control activation timer
PX_TREGISTRATE	INTEGER	SET_NTWK_PIXIT 3.4	Registration timer
PX_TWAIT	INTEGER	SET_NTWK_PIXIT 3.5	Value for timer that controls test events initiated at the IUT or by the test operator. (Value in seconds)
PX_TAC	INTEGER	SET_NTWK_PIXIT 3.6	Value for timer that controls test events initiated by stimuli sent by the tester. (Value in seconds)
PX_TNOAC	INTEGER	SET_NTWK_PIXIT 3.7	Value for timer that controls the inactivity of the IUT. (Value in seconds)
PX_REINITPIN	INTEGER	SET_NTWK_PIXIT 3.2	Time taken for network to reinitialise PIN
PX_REINITTAN	INTEGER	SET_NTWK_PIXIT 3.3	Time taken for network to reinitialise TAN
PX_T_RESTART	INTEGER	SET_NTWK_PIXIT 3.8	Value for timer that is used to wait for RESTART messages. (Value in seconds)
PX_WAIT_RESTART	BOOLEAN	SET_NTWK_PIXIT 3.9	TRUE, if the IUT sends RESTART messages after re−establishment of the multiple frame operation
PX_BLOCKINGPIN_LIMIT	INTEGER	SET_NTWK_PIXIT 4.8	Number of invalid PIN access attempts
PX_BLOCKINGTAN_LIMIT	INTEGER	SET_NTWK_PIXIT 4.9	Number of invalid TAN access attempts
PX_INVALID_SERVEDUSERNR	PartyNumber	SET_NTWK_PIXIT 4.11	Invalid Served User Nr
PX_OLDPIN	Pin	SET_NTWK_PIXIT 4.1	Valid old PIN
PX_INVALID_OLDPIN	Pin	SET_NTWK_PIXIT 4.2	Invalid old PIN
PX_NEWPIN	Pin	SET_NTWK_PIXIT 4.3	Valid new PIN
PX_INVALID_NEWPIN	Pin	SET_NTWK_PIXIT 4.4	Invalid new PIN

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Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
PX_PRIMITIVEPIN	Pin	SET_NTWK_PIXIT 4.5	Primitive PIN
PX_TAN	Tan	SET_NTWK_PIXIT 4.6	Valid Transaction number
PX_INVALID_TAN	Tan	SET_NTWK_PIXIT 4.7	Invalid Transaction number
PX_SERVEDUSERNR	PartyNumber	SET_NTWK_PIXIT 4.10	Valid served user number
Detailed Comments : The PICS/PIXIT references are taken from the proformas in the following specifications: BC_PICS: I−ETS 300 316 or I−ETS 300 317; MWI_PICS: ETS 301 002−2; MWI_NTWK_PIXIT: Annex B ETS 301 002−6;			

Test Case Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
bch_num1	BIT7OR8		B−channel for call, BITSTRING[7..8] for CREF1
BNPIN	INTEGER	0	Number of times invalid PIN sent
BNTAN	INTEGER	0	Number of times invalid TAN sent
CREF1	BIT7OR15		Call Ref. value
CREF2	BIT7OR15		Call Ref. value
GLOB_CREF	BIT7OR15		Call Ref. value
inv_ID	InvokeIDType	1	Invoke id. value
r_bch_num	OCTETSTRING		B−channel to be reset
r_bch_l	BITSTRING	’00000001’B	length of CHI to be reset
Detailed Comments : (1) Store the value of the Recall Mode option used by the IUT.			

PCO Type Declarations		
PCO Type	**Role**	**Comments**
SAP	LT	
Detailed Comments :		

PCO Declarations			
PCO Name	**PCO Type**	**Role**	**Comments**
L	SAP	LT	SAP at the lower tester controlling and observing the exchange of call control PDUs (messages) on the ISDN layer 3 D−channel. The lower tester is the user of the data link layer service.
Detailed Comments :			

Coordination Point Declarations	
CP Name	**Comments**
CPA1	CP: MTCA − PTC1
Detailed Comments：	

Timer Declarations			
Timer Name	**Duration**	**Unit**	**Comments**
TWAIT	PX_TWAIT	s	any LT is waiting for IUT initiated test event (timer used for test synchronisation)
TAC	PX_TAC	s	any LT is waiting for IUT initiated test event (2) (timer used for test synchronisation)
TNOAC	PX_TNOAC	s	any LT is controlling IUT inactivity (timer used for test synchronisation)
T_REINITPIN	PX_REINITPIN	s	Time taken to re−initialise PIN
T_REINITTAN	PX_REINITTAN	s	Time taken to re−initialise TAN
T_ACTIVATE	PX_TACTIVATE	s	Remote Control activation timer
T_REGISTRATE	PX_TREGISTRATE	s	Registration timer
Detailed Comments : (1) 5% under the standard timer value. (2) 5% over the standard timer value.			

ASP Type Definition		
ASP Name : DL_EST_RQ (DL_ESTABLISH_REQUEST)		
PCO Type : SAP		
Comments : CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to request the establishment of multiple frame operation (L3 −−−> L2)		
Parameter Name	**Parameter Type**	**Comments**
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_EST_IN (DL_ESTABLISH_INDICATION)		
PCO Type : SAP		
Comments : CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to indicate the establishment of multiple frame operation (L2 −−−> L3)		
Parameter Name	**Parameter Type**	**Comments**
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_EST_CO (DL_ESTABLISH_CONFIRM)		
PCO Type : SAP		
Comments : CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to confirm the establishment of multiple frame operation (L2 −−−> L3)		
Parameter Name	**Parameter Type**	**Comments**
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_REL_RQ (DL_RELEASE_REQUEST)		
PCO Type : SAP		
Comments : CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to request the termination of an established multiple frame operation (L3 −−−> L2)		
Parameter Name	**Parameter Type**	**Comments**
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_REL_IN (DL_RELEASE_INDICATION)		
PCO Type : SAP		
Comments : CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to indicate the termination of an established multiple frame operation or to report an unsuccessful establishment attempt (L2 −−−> L3)		
Parameter Name	**Parameter Type**	**Comments**
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_REL_CO (DL_RELEASE_CONFIRM)		
PCO Type : SAP		
Comments : CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to confirm the termination of an established multiple frame operation (L2 −−−> L3)		
Parameter Name	**Parameter Type**	**Comments**
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_DAT_RQ_RESTART_ACK (DL_DATA_REQUEST)		
PCO Type : SAP		
Comments : CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to request the transmission of layer 3 pdus using acknowledged operation (L3 −−−> L2)		
Parameter Name	**Parameter Type**	**Comments**
mun (Message Unit)	RESTART_ACK_PDU	contains network layer (peer−to−peer message) pdu. Acknowledged operation used.
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_DAT_IN (DL−DATA−INDICATION) **PCO Type :** SAP **Comments :**		
Parameter Name	**Parameter Type**	**Comments**
mun	PDU	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_DAT_RQ (DL−DATA−REQUEST) **PCO Type :** SAP **Comments :**		
Parameter Name	**Parameter Type**	**Comments**
mun	PDU	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_DAT_IN_GFP_MSGr (DL_DATA_INDICATION) **PCO Type :** SAP **Comments :** CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to indicate the receipt of layer 3 pdus using acknowledged operation (L2 −−−> L3)		
Parameter Name	**Parameter Type**	**Comments**
mun (Message Unit)	GFP_MSG_PDU	contains network layer (peer−to−peer message) pdu. Acknowledged operation used.
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_DAT_IN_INFOr (DL_DATA_INDICATION) **PCO Type :** SAP **Comments :** CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to indicate the receipt of layer 3 pdus using acknowledged operation (L2 −−−> L3)		
Parameter Name	**Parameter Type**	**Comments**
mun (Message Unit)	INFO_PDU	contains network layer (peer−to−peer message) pdu. Acknowledged operation used.
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_DAT_IN_NOTIFYr (DL_DATA_INDICATION) **PCO Type :** SAP **Comments :** CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to indicate the receipt of layer 3 pdus using acknowledged operation (L2 −−−> L3)		
Parameter Name	**Parameter Type**	**Comments**
mun (Message Unit)	NOTIFY_PDU	contains network layer (peer−to−peer message) pdu. Acknowledged operation used.
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_DAT_IN_RESTARTr (DL_DATA_INDICATION) **PCO Type :** SAP **Comments :** CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to indicate the receipt of layer 3 pdus using acknowledged operation (L2 −−−> L3)		
Parameter Name	**Parameter Type**	**Comments**
mun (Message Unit)	RESTART_PDU	contains network layer (peer−to−peer message) pdu. Acknowledged operation used.
Detailed Comments : &COMMON_N12		

ASP Type Definition		
ASP Name : DL_DAT_IN_ST_ENQr (DL_DATA_INDICATION) **PCO Type :** SAP **Comments :** CEId: = (SAPI,CES) mapped onto DLCI: = (SAPI,TEI) ASP is used to indicate the receipt of layer 3 pdus using acknowledged operation (L2 −−−> L3)		
Parameter Name	**Parameter Type**	**Comments**
mun (Message Unit)	ST_ENQ_PDU	contains network layer (peer−to−peer message) pdu. Acknowledged operation used.
Detailed Comments : &COMMON_N12		

PDU Type Definition

PDU Name : FAC_PDU
PCO Type : SAP
Encoding Rule Name :
Encoding Variation :
Comments : FACility u <–> n
ETS 300 196 subclause 11.1.1.1, 11.1.2.1, 11.1.3.1

Field Name	Field Type	Field Encoding	Comments
pd	PD		protocol discriminator M
cr	CR		call reference M OCTETSTRING[1..3]
mt	MT		message type M
fie	FIES		facility M
fac	FA		facility in tabular form
noid	NOID		notification indicator M OCTETSTRING[3]
dsp	DSP		display (n –>u) O OCTETSTRING[2..34]
cdpn	CDPN		called party number O OCTETSTRING[2..23]
cdps	CDPS		called party subaddress O OCTETSTRING [2..23]

Detailed Comments : &COMMON_U09
CDPN and CDPS may only be included, if the dummy call reference is used.

PDU Type Definition

PDU Name : INFO_PDU
PCO Type : SAP
Encoding Rule Name :
Encoding Variation :
Comments : INFOrmation u <−> n local
ETS 300 102−1 subclause 3.1.8

Field Name	Field Type	Field Encoding	Comments
pd	PD		protocol discriminator M
cr	CR		call reference M OCTETSTRING1..[3]
mt	MT		message type M
sci	SCI		sending complete information O
cau	CAU		cause O OCTETSTRING[4..34]
fie	FIES		facility O
fac	FA		facility in tabular form
noid	NOID		notification indicator M OCTETSTRING[3]
dsp	DSP		display (n −>u) O OCTETSTRING[2..34]
kpf	KPF		keypad facility (n −>u) O OCTETSTRING [2..34]
cdpn	CDPN		called party number O OCTETSTRING[2..23]
ronn	RONN		redirection number (n −>u) O OCTETSTRING[2..24]

Detailed Comments : &COMMON_N12

PDU Type Definition

PDU Name : NOTIFY_PDU
PCO Type : SAP
Encoding Rule Name :
Encoding Variation :
Comments : NOTIFY u <−> n access
ETS 300 102−1 subclause 3.1.9

Field Name	Field Type	Field Encoding	Comments
pd	PD		protocol discriminator M
cr	CR		call reference M OCTETSTRING[3]
mt	MT		message type M
noid	NOID		notification indicator M OCTETSTRING[3]
dsp	DSP		display (n −>u) O OCTETSTRING[2..34]
ronn	RONN		redirection number (n −>u) O OCTETSTRING[2..24]

Detailed Comments : &COMMON_N12

PDU Type Definition

PDU Name : GFP_MSG_PDU
PCO Type : SAP
Encoding Rule Name :
Encoding Variation :
Comments : u −> n
ETS 300 196, subclause 11

Field Name	Field Type	Field Encoding	Comments
pd	PD		protocol discriminator M
cr	CR		call reference M OCTETSTRING[1..3]
mt	GFP_MT_LIST		message type M
ie_list	OCTETSTRING		information element(s)

Detailed Comments : &COMMON_N12

PDU Type Definition

PDU Name : RESTART_PDU
PCO Type : SAP
Encoding Rule Name :
Encoding Variation :
Comments : RESTART u <−> n local
ETS 300 102−1 clause 3.4.1

Field Name	Field Type	Field Encoding	Comments
pd	PD		protocol discriminator M
cr	CR		call reference M OCTETSTRING[3]
mt	MT		message type M
chi	CHI_RS		channel identification O OCTETSTRING[2..5]
dsp	DSP		display (n −>u) O OCTETSTRING[2..34]
ri	RI		restart indicator O OCTETSTRING[3]

Detailed Comments : &COMMON_N09

PDU Type Definition

PDU Name : RESTART_ACK_PDU
PCO Type : SAP
Encoding Rule Name :
Encoding Variation :
Comments : RESTART ACKnoledge u <−> n local
ETS 300 102−1 clause 3.4.2

Field Name	Field Type	Field Encoding	Comments
pd	PD		protocol discriminator M
cr	CR		call reference M OCTETSTRING[3]
mt	MT		message type M
chi	CHI_RS		channel identification O OCTETSTRING[2..5]
dsp	DSP		display (n −>u) O OCTETSTRING[2..34]
ri	RI		restart indicator O OCTETSTRING[3]

Detailed Comments : &COMMON_N09

PDU Type Definition

PDU Name : ST_ENQ_PDU
PCO Type : SAP
Encoding Rule Name :
Encoding Variation :
Comments : STatus_ENQuiry u <–> n local
ETS 300 102−1 subclause 3.1.19

Field Name	Field Type	Field Encoding	Comments
pd	PD		protocol discriminator M
cr	CR		call reference M OCTETSTRING[1..3]
mt	MT		message type M
dsp	DSP		display (n –>u) O OCTETSTRING[2..34]

Detailed Comments : &COMMON_N12

CM Type Definition		
CM Name : CP_M **Comments :** coordination message		
Parameter Name	**Parameter Type**	**Comments**
CM_content	IA5String [0 TO 26]	message content in clear text
Detailed Comments : &COMMON_N12		

Alias Definitions		
Alias Name	**Expansion**	**Comments**
FAC	DL_DAT_RQ	FACILITY PDU, send event
RESTART_ACK	DL_DAT_RQ_RESTART_ACK	RESTART_ACK PDU, send event
FACr	DL_DAT_IN	FACILITY PDU, receive event
GFP_MSGr	DL_DAT_IN_GFP_MSGr	GFP_MSG PDU, receive event
INFOr	DL_DAT_IN_INFOr	INFO PDU, receive event
NOTIFYr	DL_DAT_IN_NOTIFYr	NOTIFY PDU, receive event
RESTARTr	DL_DAT_IN_RESTARTr	RESTART PDU, receive event
ST_ENQr	DL_DAT_IN_ST_ENQr	STATUS_ENQ PDU, receive event
Detailed Comments :		

III

Constraints Part

Structured Type Constraint Declaration

Constraint Name : CHI_RS_Rb
Structured Type : CHI_RS
Derivation Path :
Encoding Variation :
Comments :

Element Name	Element Value	Element Encoding	Comments
chi_i	’00011000’B		Identifier
chi_l	’00000001’B		Length value present
chi_e3_p1	–		Not present
chi_e3_pe	–		Not present
chi_e3_p3	–		Not present
chi_e3_cs	?		Channel selection present
chi_e4	–		Not present
chi_e5_ch	–		Not present

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : CHI_RS_Sb(CHL: BITSTRING; BCH: OCTETSTRING)
Structured Type : CHI_RS
Derivation Path :
Encoding Variation :
Comments :

Element Name	Element Value	Element Encoding	Comments
chi_i	’00011000’B		Identifier
chi_l	CHL		Length value present
chi_e3_p1	–		Not present
chi_e3_pe	–		Not present
chi_e3_p3	–		Not present
chi_e3_cs	BCH		Channel selection present
chi_e4	–		Not present
chi_e5_ch	–		Not present

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : CHI_RS_Rp
Structured Type : CHI_RS
Derivation Path :
Encoding Variation :
Comments :

Element Name	Element Value	Element Encoding	Comments
chi_i	’00011000’B		Identifier
chi_l	?		Length value present
chi_e3_p1	’1010’B		
chi_e3_pe	?		
chi_e3_p3	’001’B		
chi_e3_cs	–		Not present
chi_e4	’10000011’B		
chi_e5_ch	?		Channel selection present

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : CHI_RS_Sp(CHL: BITSTRING; BCH: OCTETSTRING)
Structured Type : CHI_RS
Derivation Path :
Encoding Variation :
Comments :

Element Name	Element Value	Element Encoding	Comments
chi_i	’00011000’B		Identifier
chi_l	CHL		Length value present
chi_e3_p1	’1010’B		
chi_e3_pe	’1’B		
chi_e3_p3	’001’B		
chi_e3_cs	–		Not present
chi_e4	’10000011’B		
chi_e5_ch	BCH		Channel selection present

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : CR10
Structured Type : CR
Derivation Path :
Encoding Variation :
Comments : Dummy call reference

Element Name	Element Value	Element Encoding	Comments
cr_l	’00000000’B		
cr_f	–		
cr_r	–		

Detailed Comments : &COMMON_N12

Structured Type Constraint Declaration

Constraint Name : CR18 (FLAG : INTEGER ; CALL_REF : BIT7OR15)
Structured Type : CR
Derivation Path :
Encoding Variation :
Comments : Call reference with parametrized flag value.

Element Name	Element Value	Element Encoding	Comments
cr_l	INT_TO_BIT (CR_LENGTH , 8)		
cr_f	INT_TO_BIT (FLAG , 1)		
cr_r	CALL_REF		

Detailed Comments : &COMMON_N12
Constraint with parametrised Call reference flag and Call refernce value.
The value of cr_l determined by the Test suite parameter CR_LENGTH is either ’00000001’ B for basic access or ’00000010’B for primary rate access.

Structured Type Constraint Declaration

Constraint Name : CR32 (CALL_REF : BIT7OR15)
Structured Type : CR
Derivation Path :
Encoding Variation :
Comments : This CR can be used for outgoing and incoming calls.

Element Name	Element Value	Element Encoding	Comments
cr_l	INT_TO_BIT (CR_LENGTH , 8)		
cr_f	?		(1)
cr_r	CALL_REF		

Detailed Comments : &COMMON_N12
Constraint with parametrised Call reference value.
The value of cr_l determined by the Test suite parameter CR_LENGTH is either ’00000001’ B for basic access or ’00000010’B for primary rate access.
(1) Any Call reference flag value is acceptable.

Structured Type Constraint Declaration

Constraint Name : NOID1
Structured Type : NOID
Derivation Path :
Encoding Variation :
Comments : Notification indicator information element

Element Name	Element Value	Element Encoding	Comments
noid_i	’00100111’B		
noid_l	’00000001’B		
noid_e3_nd	?		(1)

Detailed Comments : &COMMON_N12
(1) Any value acceptable for the Notification description.

Structured Type Constraint Declaration

Constraint Name : RI1 (CLASS_VAL : INTEGER)
Structured Type : RI
Derivation Path :
Encoding Variation :
Comments : Restart indicator information element

Element Name	Element Value	Element Encoding	Comments
ri_i	’01111001’B		
ri_l	’00000001’B		
ri_cl	’10000’B		
ri_cl1	INT_TO_BIT (CLASS_VAL , 3)		

Detailed Comments : &COMMON_N12
Constraint with parametrised Class value.

Structured Type Constraint Declaration

Constraint Name : RI4
Structured Type : RI
Derivation Path :
Encoding Variation :
Comments : Restart indicator information element

Element Name	Element Value	Element Encoding	Comments
ri_i	’01111001’B		
ri_l	’00000001’B		
ri_cl	’10000’B		
ri_cl1	’000’B		(1)

Detailed Comments : &COMMON_N12
(1) Class: indicated channels

ASN.1 Type Constraint Declaration

Constraint Name : fIEr (COMP : Component)
ASN1 Type : FIE
Derivation Path :
Encoding Variation :
Comments : A received FIE which can contain several components, but which contains at least "comp"

Constraint Value

```
{ informationElementIdentif002  '00011100'B     , length ?     , extBit  '1'B     , spareBits  '00'B     , protocolProfile  '10001'B
    , components SUPERSET ({ COMP   } )     }
-- field will contain at least one comp
```

Detailed Comments : &COMMON_N12

ASN.1 Type Constraint Declaration

Constraint Name : fIEs (comp : Component)
ASN1 Type : FIE
Derivation Path :
Encoding Variation :
Comments : Send fie which will contain one component "comp". The length of the fie is calculated by the test suite operation CALC_FIE_LENGTH.

Constraint Value

```
{ informationElementIdentif002  '00011100'B     , -- fIEs length is calculated
                                  length CALC_FIE_LENGTH (comp  )     , extBit  '1'B     , spareBits  '00'B     ,
protocolProfile  '10001'B     , components { comp   }     }
-- field will contain only one comp
```

Detailed Comments : &COMMON_N12

ASN.1 Type Constraint Declaration

Constraint Name : sETOID
ASN1 Type : OID
Derivation Path :
Encoding Variation :
Comments : Object Identifier value.

Constraint Value

```
{ 0   4   0   1002   1   }
```

Detailed Comments :

ASN.1 Type Constraint Declaration	
Constraint Name	: rCOID
ASN1 Type	: OID
Derivation Path	:
Encoding Variation	:
Comments	: Object Identifier value.
Constraint Value	
{ 0 4 0 1002 1 }	
Detailed Comments	:

ASN.1 Type Constraint Declaration	
Constraint Name	: invalidServedUserNr
ASN1 Type	: Error
Derivation Path	:
Encoding Variation	:
Comments	:
Constraint Value	
localValue 6	
Detailed Comments	:

ASN.1 Type Constraint Declaration	
Constraint Name	: modifyPin
ASN1 Type	: OID
Derivation Path	:
Encoding Variation	:
Comments	: Object Identifier operation value.
Constraint Value	
{ sETOID 1 }	
Detailed Comments	:

ASN.1 Type Constraint Declaration	
Constraint Name	: activationRC
ASN1 Type	: OID
Derivation Path	:
Encoding Variation	:
Comments	: Object Identifier operation value.
Constraint Value	
{ rCOID 1 }	
Detailed Comments	:

ASN.1 Type Constraint Declaration	
Constraint Name	: possibleFraudPinUse
ASN1 Type	: OID
Derivation Path	:
Encoding Variation	:
Comments	: Object Identifier operation value.
Constraint Value	
{ sETOID 2 }	
Detailed Comments	:

ASN.1 Type Constraint Declaration	
Constraint Name	: possibleFraudTanUse
ASN1 Type	: OID
Derivation Path	:
Encoding Variation	:
Comments	: Object Identifier operation value.
Constraint Value	
{ sETOID 3 }	
Detailed Comments	:

ASN.1 Type Constraint Declaration

Constraint Name : invalidPin
ASN1 Type : Error
Derivation Path :
Encoding Variation :
Comments : Object Identifier operation value.

Constraint Value

globalValue { sETOID 10 }

Detailed Comments :

ASN.1 Type Constraint Declaration

Constraint Name : pinNotProvided
ASN1 Type : Error
Derivation Path :
Encoding Variation :
Comments : Object Identifier operation value.

Constraint Value

globalValue { sETOID 11 }

Detailed Comments :

ASN.1 Type Constraint Declaration

Constraint Name : invalidNewPin
ASN1 Type : Error
Derivation Path :
Encoding Variation :
Comments : Object Identifier operation value.

Constraint Value

globalValue { sETOID 12 }

Detailed Comments :

ASN.1 Type Constraint Declaration	
Constraint Name	: userControlBlocked
ASN1 Type	: Error
Derivation Path	:
Encoding Variation	:
Comments	: Object Identifier operation value.
Constraint Value	
globalValue { sETOID 13 }	
Detailed Comments	:

ASN.1 Type Constraint Declaration	
Constraint Name	: primitivePin
ASN1 Type	: Error
Derivation Path	:
Encoding Variation	:
Comments	: Object Identifier operation value.
Constraint Value	
globalValue { sETOID 15 }	
Detailed Comments	:

ASN.1 Type Constraint Declaration	
Constraint Name	: newPinIsOldPin
ASN1 Type	: Error
Derivation Path	:
Encoding Variation	:
Comments	: Object Identifier operation value.
Constraint Value	
globalValue { sETOID 16 }	
Detailed Comments	:

ASN.1 Type Constraint Declaration

Constraint Name : ModifyPinInv1 (INV_ID : InvokeIDType ; OLDPIN_NR: Pin ; NEWPIN_NR: Pin ; USER_NR : PartyNumber)

ASN1 Type : Component

Derivation Path :

Encoding Variation :

Comments : SET modifyPin invoke component

Constraint Value

```
modifyPin_Components
    modifyPin_InvokeComp
        { invokeID   INV_ID   ,
         operation_value
             globalValue modifyPin       ,
         argument   {
              oldPin              OLDPIN_NR ,
             newPin              NEWPIN_NR ,
             servedUserNr       USER_NR
             }
        }
```

Detailed Comments :

ASN.1 Type Constraint Declaration

Constraint Name : ActivationRCInv1 (INV_ID : InvokeIDType ; USER_NR : PartyNumber ; OLDPIN_NR : Pin ; TRANSACTION_NR : Tan)

ASN1 Type : Component

Derivation Path :

Encoding Variation :

Comments : Activation RC invoke component

Constraint Value

```
activationRC_Components
    activationRC_InvokeComp
        { invokeID   INV_ID   ,
         operation_value
             globalValue activationRC       ,
         argument   {
             servedUserNr   USER_NR ,
             pin                OLDPIN_NR ,
             tan               TRANSACTION_NR
             }
        }
```

Detailed Comments :

ASN.1 Type Constraint Declaration

Constraint Name : ActivationRCResult (INV_ID : InvokeIDType)
ASN1 Type : Component
Derivation Path :
Encoding Variation :
Comments : Activation RC return result component

Constraint Value

```
activationRC_Components
        activationRC_ReturnResult
        { invokeID INV_ID
        }
```

Detailed Comments :

ASN.1 Type Constraint Declaration

Constraint Name : ActivationRCError (INV_ID : InvokeIDType ; ERR_ID : Error)
ASN1 Type : Component
Derivation Path :
Encoding Variation :
Comments :

Constraint Value

```
activationRC_Components
        activationRC_ReturnError
        {
        invokeID INV_ID , error ERR_ID
        }
```

Detailed Comments :

ASN.1 Type Constraint Declaration

Constraint Name : PossFraudPinUseInv1 (INV_ID : InvokeIDType)
ASN1 Type : Component
Derivation Path :
Encoding Variation :
Comments : SET PossibleFraudulentPinUse invoke component

Constraint Value

```
possibleFraudPinUse_Components
   possibleFraudPinUse_InvokeComp
        { invokeID   ?   ,
         operation_value
              globalValue possibleFraudPinUse       ,
         argument   {
                    }
        }
```

Detailed Comments :

ASN.1 Type Constraint Declaration

Constraint Name : PossFraudTanUseInv1 (INV_ID : InvokeIDType)
ASN1 Type : Component
Derivation Path :
Encoding Variation :
Comments : SET PossibleFraudulentTanUse invoke component

Constraint Value

```
possibleFraudTanUse_Components
    possibleFraudTanUse_InvokeComp
        { invokeID   ?   ,
         operation_value
              globalValue possibleFraudTanUse       ,
         argument   {
                    }
        }
```

Detailed Comments :

ASN.1 Type Constraint Declaration

Constraint Name : ModifyPinResult (INV_ID : InvokeIDType)
ASN1 Type : Component
Derivation Path :
Encoding Variation :
Comments : modifyPin return result component

Constraint Value

```
modifyPin_Components
          modifyPin_ReturnResult
          { invokeID INV_ID
          }
```

Detailed Comments :

ASN.1 Type Constraint Declaration

Constraint Name : ModifyPinError (INV_ID : InvokeIDType ; ERR_ID : Error)
ASN1 Type : Component
Derivation Path :
Encoding Variation :
Comments :

Constraint Value

```
modifyPin_Components
        modifyPin_ReturnError
        {
        invokeID INV_ID , error ERR_ID
        }
```

Detailed Comments :

ASP Constraint Declaration

Constraint Name : A_IN4 (CALL_REF : BIT7OR15)
ASP Type : DL_DAT_IN_INFOr
Derivation Path :
Comments :

Parameter Name	Parameter Value	Comments
mun	IN4 (CALL_REF)	

Detailed Comments : &COMMON_N12

ASP Constraint Declaration

Constraint Name : A_GFP_MSG (CALL_REF : BIT7OR15)
ASP Type : DL_DAT_IN_GFP_MSGr
Derivation Path :
Comments :

Parameter Name	Parameter Value	Comments
mun	GFP_MSG (CALL_REF)	

Detailed Comments : &COMMON_N12

ASP Constraint Declaration

Constraint Name : A_NO3 (CALL_REF : BIT7OR15)
ASP Type : DL_DAT_IN_NOTIFYr
Derivation Path :
Comments :

Parameter Name	Parameter Value	Comments
mun	NO3 (CALL_REF)	

Detailed Comments : &COMMON_N12

ASP Constraint Declaration

Constraint Name : A_RST3(FLAG: INTEGER; CALL_REF: BIT7OR15; CLASS_VAL: INTEGER)
ASP Type : DL_DAT_IN_RESTARTr
Derivation Path :
Comments :

Parameter Name	Parameter Value	Comments
mun	RST3(FLAG,CALL_REF,CLASS_VAL)	

Detailed Comments : &COMMON_N09

ASP Constraint Declaration

Constraint Name : A_RST1 (FLAG : INTEGER ; CALL_REF : BIT7OR15 ; CLASS_VAL : INTEGER)
ASP Type : DL_DAT_IN_RESTARTr
Derivation Path :
Comments :

Parameter Name	Parameter Value	Comments
mun	RST1 (FLAG , CALL_REF , CLASS_VAL)	

Detailed Comments : &COMMON_N12

ASP Constraint Declaration

Constraint Name : A_RSA2(FLAG: INTEGER; CALL_REF: BIT7OR15; CHL: BITSTRING; BCH: OCTETSTRING)
ASP Type : DL_DAT_RQ_RESTART_ACK
Derivation Path :
Comments :

Parameter Name	Parameter Value	Comments
mun	RSA2(FLAG,CALL_REF,CHL,BCH)	

Detailed Comments : &COMMON_N09

ASP Constraint Declaration

Constraint Name : A_RSA5 (FLAG : INTEGER ; CALL_REF : BIT7OR15 ; CLASS_VAL : INTEGER)
ASP Type : DL_DAT_RQ_RESTART_ACK
Derivation Path :
Comments :

Parameter Name	Parameter Value	Comments
mun	RSA5 (FLAG , CALL_REF , CLASS_VAL)	

Detailed Comments : &COMMON_N12

ASP Constraint Declaration

Constraint Name : A_SQ3 (CALL_REF : BIT7OR15)
ASP Type : DL_DAT_IN_ST_ENQr
Derivation Path :
Comments :

Parameter Name	Parameter Value	Comments
mun	SQ3 (CALL_REF)	

Detailed Comments : &COMMON_N12

ASP Constraint Declaration

Constraint Name : Mr(pdu:PDU)
ASP Type : DL_DAT_IN
Derivation Path :
Comments : Generic receive constraint

Parameter Name	Parameter Value	Comments
mun	pdu	

Detailed Comments :

ASP Constraint Declaration

Constraint Name : Ms(pdu:PDU)
ASP Type : DL_DAT_RQ
Derivation Path :
Comments : Generic send constraint

Parameter Name	Parameter Value	Comments
mun	pdu	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : FC00 (comp : Component)
PDU Type : FAC_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Send PDU. FACILITY message using the dummy call reference to transport component according to ETS 300 196, subclause 8.3.2.2 (bearer independent, connectionless).

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR10		(1)
mt	’01100010’B		
fie	{ fIEs (comp) }		(2)
fac	–		
noid	–		
dsp	–		
cdpn	–		
cdps	–		

Detailed Comments : (1) dummy call reference.
(2) Facility i.e with component to be sent.

PDU Constraint Declaration

Constraint Name : FC01 (comp : Component)
PDU Type : FAC_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receive PDU. FACILITY message using the dummy call reference to transport component according to ETS 300 196, subclause 8.3.2.2 (bearer independent, connectionless).

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR10		(1)
mt	’01100010’B		
fie	SUPERSET ({ fIEr (comp) })		
fac	–		
noid	*		
dsp	–		
cdpn	*		
cdps	*		

Detailed Comments : (1) dummy call reference.
(2) Facility i.e containing a component.

PDU Constraint Declaration

Constraint Name : FC02 (comp : Component)
PDU Type : FAC_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receive PDU. FACILITY message using the dummy call reference to transport component according to ETS 300 196, subclause 8.3.2.2 (bearer independent, connectionless).

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR10		(1)
mt	’01100010’B		
fie	SUPERSET ({ fIEr (comp) })		
fac	–		
noid	*		
dsp	–		
cdpn	?		
cdps	*		

Detailed Comments : (1) dummy call reference.
(2) Facility i.e containing a component.

PDU Constraint Declaration

Constraint Name : FC03 (comp : Component)
PDU Type : FAC_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receive PDU. FACILITY message using the dummy call reference to transport component according to ETS 300 196, subclause 8.3.2.2 (bearer independent, connectionless).

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR10		(1)
mt	’01100010’B		
fie	SUPERSET ({ fIEr (comp) })		
fac	–		
noid	*		
dsp	–		
cdpn	–		
cdps	*		

Detailed Comments : (1) dummy call reference.
(2) Facility i.e containing a component.

PDU Constraint Declaration

Constraint Name : IN4 (CALL_REF : BIT7OR15)
PDU Type : INFO_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receive PDU

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR32 (CALL_REF)		
mt	’01111011’B		
sci	*		
cau	*		
fie	–		
fac	*		
noid	*		
dsp	*		
kpf	*		
cdpn	*		
ronn	–		

Detailed Comments : &COMMON_N12
PDU with "don’t care" values.

PDU Constraint Declaration

Constraint Name : GFP_MSG (CALL_REF : BIT7OR15)
PDU Type : GFP_MSG_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receive PDU

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR32 (CALL_REF)		
mt	?		
ie_list	*		

Detailed Comments : &COMMON_N12
PDU with a valid CREF. Used for test cases where PDUs must be absorbed by the tester;

PDU Constraint Declaration

Constraint Name : NO3 (CALL_REF : BIT7OR15)
PDU Type : NOTIFY_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receive PDU

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR32 (CALL_REF)		
mt	’01101110’B		
noid	NOID1		
dsp	*		
ronn	–		

Detailed Comments : &COMMON_N12
PDU with "don’t care" values.

PDU Constraint Declaration

Constraint Name : RST1 (FLAG : INTEGER ; CALL_REF : BIT7OR15 ; CLASS_VAL : INTEGER)
PDU Type : RESTART_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receive PDU

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR18 (FLAG , CALL_REF)		
mt	’01000110’B		
chi	–		
dsp	–		
ri	RI1 (CLASS_VAL)		

Detailed Comments : &COMMON_N12
PDU without optional information elements;
PDU that should indicate ’all interfaces’ or ’single interface’.

PDU Constraint Declaration

Constraint Name : RST3(FLAG: INTEGER; CALL_REF: BIT7OR15; CLASS_VAL: INTEGER)
PDU Type : RESTART_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receive PDU

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR18(FLAG,CALL_REF)		
mt	’01000110’B		
chi	ASSIGN_CHI_RS(CHI_RS_Rb,CHI_RS_Rp,BASIC)		
dsp	–		
ri	RI1(CLASS_VAL)		

Detailed Comments : &COMMON_N09
PDU without optional parameters;
This PDU should only be received, if CLV indicates ’indicated channels’.

PDU Constraint Declaration

Constraint Name : RSA2(FLAG: INTEGER; CALL_REF: BIT7OR15; CHL: BITSTRING; BCH: OCTETSTRING)
PDU Type : RESTART_ACK_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Send PDU

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR18(FLAG,CALL_REF)		
mt	’01001110’B		
chi	ASSIGN_CHI_RS(CHI_RS_Sb(CHL,BCH),CHI_RS_Sp(CHL,BCH),BASIC)		
dsp	–		
ri	RI4		

Detailed Comments : &COMMON_N09
PDU without optional parameters;
CHI mandatory for this PDU, as RI indicates ’indicated channels’

PDU Constraint Declaration

Constraint Name : RSA5 (FLAG : INTEGER ; CALL_REF : BIT7OR15 ; CLASS_VAL : INTEGER)
PDU Type : RESTART_ACK_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Send PDU

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR18 (FLAG , CALL_REF)		
mt	’01001110’B		
chi	–		
dsp	–		
ri	RI1 (CLASS_VAL)		

Detailed Comments : &COMMON_N12
PDU without optional information elements;
PDU that indicates ’all interfaces’ or ’single interface’.

PDU Constraint Declaration

Constraint Name : SQ3 (CALL_REF : BIT7OR15)
PDU Type : ST_ENQ_PDU
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receive PDU

Field Name	Field Value	Field Encoding	Comments
pd	’00001000’B		
cr	CR32 (CALL_REF)		
mt	’01110101’B		
dsp	*		

Detailed Comments : &COMMON_N12
PDU with "don’t care" values.

CM Constraint Declaration

Constraint Name : N00_Ready

CM Type : CP_M

Derivation Path :

Comments : to indicate that the preamble to N00 is finished at the PTC

Parameter Name	Parameter Value	Comments
CM_content	"N00_Ready"	

Detailed Comments : &COMMON_N09

IV

Dynamic Part

Test Case Dynamic Behaviour

Test Case Name : SET_N01_001

Group : Network_ST/Registration/

Purpose : Ensure that the IUT in the Idle state, on receipt of a FACILITY message containing a Facility information element with a ModifyPin invoke component include the oldPin, the newPin and the servedUserNr parameters, sends a FACILITY message containing a Facility information element with a ModifyPin return result component and enters the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.3.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinResult (inv_ID)))	P	(3)
5		?TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return result component.

Test Case Dynamic Behaviour

Test Case Name : SET_N01_002

Group : Network_ST/Registration/

Purpose : Ensure that the IUT in the Idle state, on receipt of a FACILITY message containing a Facility information element with a ModifyPin invoke component include the oldPin, the newPin and the servedUserNr parameter including an invalid number, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating 'invalidServedUserNr" component and enters the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.3.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_NEWPIN , PX_INVALID_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , invalidServedUserNr)))	P	(3)
5		?TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Case Dynamic Behaviour

Test Case Name : SET_N01_003

Group : Network_ST/Registration/

Purpose : Ensure that the IUT in the Idle state, on receipt of a FACILITY message containing a Facility information element with a ModifyPin invoke component, and no telecommunication service using a PIN is subscribed to, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating 'pinNotProvided" component and enters the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.3.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , pinNotProvided)))	P	(3)
5		?TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Case Dynamic Behaviour

Test Case Name : SET_N01_004

Group : Network_ST/Registration/

Purpose : Ensure that the IUT in the Idle state, on receipt of a Facility message containing a Facility information element with a ModifyPin invoke component, and the served user has exceeded the number of times (blocking limit N) that an invalid PIN can be used, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating "userControlBlocked" component and enters the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.3.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_INVALID_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , userControlBlocked)))	P	(3)
5		?TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Case Dynamic Behaviour

Test Case Name : SET_N01_005

Group : Network_ST/Registration/

Purpose : Ensure that the IUT in the Idle state, on receipt of a Facility message containing a Facility information element with a ModifyPin invoke component containing an oldPin parameter that does match the currently registered PIN, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating "invalidPin" component and enters the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.3.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_INVALID_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , invalidPin)))	P	(3)
5		?TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Case Dynamic Behaviour

Test Case Name : SET_N01_006

Group : Network_ST/Registration/

Purpose : Ensure that the IUT in the Idle state, on receipt of a Facility message containing a Facility information element with a ModifyPin invoke component containing a newPin parameter with a wrong format, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating "invalidNewPin" component and enters the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.3.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_INVALID_NEWPIN , PX_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , invalidNewPin)))	P	(3)
5		?TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Case Dynamic Behaviour

Test Case Name : SET_N01_007

Group : Network_ST/Registration/

Purpose : Ensure that the IUT in the Idle state, on receipt of a Facility message containing a Facility information element with a ModifyPin invoke component containing a newPin parameter with a primitive PIN, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating "primitivePin" component and enters the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.3.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_PRIMITIVEPIN , PX_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , primitivePin)))	P	(3)
5		?TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Case Dynamic Behaviour

Test Case Name : SET_N01_008

Group : Network_ST/Registration/

Purpose : Ensure that the IUT in the Idle state, on receipt of a Facility message containing a Facility information element with a ModifyPin invoke component containing a newPin parameter that is identical to the currently registered PIN, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating "newPinIsOldPin" component and enters the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.3.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_OLDPIN , PX_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , newPinIsOldPin)))	P	(3)
5		?TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Case Dynamic Behaviour

Test Case Name : SET_N03_001

Group : Network_ST/Possible_fraudulent_use/PIN/

Purpose : Ensure that the IUT in the Idle state , to indicate that one or more attempts (but less that the blocking limit N whereby all procedures using a PIN are blocked) have be made to use an invalid PIN, and MSN is not provided to the served user, sends a FACILITY message (subclause 8.3.2.4 of [6]) containing a Facility information element with a PossibleFraudulentPinUse invoke component, and no Called Party information element, and remains in the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_PIN1			(1)
2		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
3		L ? FACr CANCEL T_REGISTRATE	Mr (FC03 (ModifyPinResult (inv_ID)))		(3)
4		START TWAIT			
5		L ? FACr CANCEL TWAIT	Mr (FC03 (PossFraudPinUseInv1 (inv_ID)))	P	(4)
6		? TIMEOUT TWAIT		F	
7		? TIMEOUT T_REGISTRATE		F	
8		? TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Preamble − FACILITY message with incorrect PIN
(2) FACILITY message with dummy call reference containing a ModifyPin invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.
(4) FACILITY message with dummy call reference containing a PossibleFraudulentPinUse invoke component.

Test Case Dynamic Behaviour

Test Case Name : SET_N03_002

Group : Network_ST/Possible_fraudulent_use/PIN/

Purpose : Ensure that the IUT in the Idle state , to indicate that the network option applies to automatically reinitialize the blocked PIN security tool after a predefined time period, with the served user not yet receiving a notification of possible fraudulent use while use of the PIN was not blocked, and MSN is not provided to the served user, sends a FACILITY message (subclause 8.3.2.4 of [6]) containing a Facility information element with a PossibleFraudulentPinUse invoke component, and no Called Party information element, and remains in the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_PIN2			(1)
2		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
3		L ? FACr CANCEL T_REGISTRATE	Mr (FC03 (ModifyPinResult (inv_ID)))		(3)
4		START TWAIT			
5		L ? FACr CANCEL TWAIT	Mr (FC03 (PossFraudPinUseInv1 (inv_ID)))	P	(4)
6		? TIMEOUT TWAIT		F	
7		? TIMEOUT T_REGISTRATE		F	
8		? TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Preamble − FACILITY message with incorrect PIN
(2) FACILITY message with dummy call reference containing a ModifyPin invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.
(4) FACILITY message with dummy call reference containing a PossibleFraudulentPinUse invoke component.

Test Case Dynamic Behaviour

Test Case Name : SET_N03_003

Group : Network_ST/Possible_fraudulent_use/PIN/

Purpose : Ensure that the IUT in the Idle state , to indicate that one or more attempts (but less that the blocking limit N whereby all procedures using a PIN are blocked) have be made to use an invalid PIN, and MSN is provided to the served user, sends a FACILITY message (subclause 8.3.2.4 of [6]) containing a Facility information element with a PossibleFraudulentPinUse invoke component, and a Called Party information element including the multiple subscriber number of the served user, and remains in the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_PIN1			(1)
2		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
3		L ? FACr CANCEL T_REGISTRATE	Mr (FC02 (ModifyPinResult (inv_ID)))		(3)
4		START TWAIT			
5		L ? FACr CANCEL TWAIT	Mr (FC02 (PossFraudPinUseInv1 (inv_ID)))	P	(4)
6		? TIMEOUT TWAIT		F	
7		? TIMEOUT T_REGISTRATE		F	
8		? TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Preamble − FACILITY message with incorrect PIN
(2) FACILITY message with dummy call reference containing a ModifyPin invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.
(4) FACILITY message with dummy call reference containing a PossibleFraudulentPinUse invoke component.

Test Case Dynamic Behaviour

Test Case Name : SET_N03_004

Group : Network_ST/Possible_fraudulent_use/PIN/

Purpose : Ensure that the IUT in the Idle state , to indicate that the network option applies to automatically reinitialize the blocked PIN security tool after a predefined time period, with the served user having not yet received a notification of possible fraudulent use while use of the PIN was not blocked, and MSN is provided to the served user, sends a FACILITY message (subclause 8.3.2.4 of [6]) containing a Facility information element with a PossibleFraudulentPinUse invoke component, and a Called Party information element, and remains in the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_PIN2			(1)
2		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
3		L ? FACr CANCEL T_REGISTRATE	Mr (FC02 (ModifyPinResult (inv_ID)))		(3)
4		START TWAIT			
5		L ? FACr CANCEL TWAIT	Mr (FC02 (PossFraudPinUseInv1 (inv_ID)))	P	(4)
6		? TIMEOUT TWAIT		F	
7		? TIMEOUT T_REGISTRATE		F	
8		? TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Preamble − FACILITY message with incorrect PIN
(2) FACILITY message with dummy call reference containing a ModifyPin invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.
(4) FACILITY message with dummy call reference containing a PossibleFraudulentPinUse invoke component.

Test Case Dynamic Behaviour

Test Case Name : SET_N04_001

Group : Network_ST/Possible_fraudulent_use/TAN/

Purpose : Ensure that the IUT in the Idle state , to indicate that one or more attempts (but less that the blocking limit N whereby all procedures using a TAN are blocked) have be made to use an invalid TAN, and MSN is not provided to the served user, sends a FACILITY message (subclause 8.3.2.4 of [6]) containing a Facility information element with a PossibleFraudulentTanUse invoke component, and no Called Party information element, and remains in the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.8

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_TAN1			(1)
2		L ! FAC START T_ACTIVATE	Ms (FC00 (ActivationRCInv1 (inv_ID , PX_SERVEDUSERNR , PX_OLDPIN , PX_TAN)))		(2)
3		L ? FACr CANCEL T_ACTIVATE	Mr (FC03 (ActivationRCResult (inv_ID)))		(3)
4		START TWAIT			
5		L ? FACr CANCEL TWAIT	Mr (FC03 (PossFraudTanUseInv1 (inv_ID)))	P	(4)
6		? TIMEOUT TWAIT		F	
7		? TIMEOUT T_ACTIVATE		F	
8		? TIMEOUT T_ACTIVATE		F	

Detailed Comments :

(1) Preamble − FACILITY message with incorrect TAN
(2) FACILITY message with dummy call reference containing a ActivationRC invoke component.
(3) FACILITY message with dummy call reference containing a ActivationRC return error component.
(4) FACILITY message with dummy call reference containing a PossibleFraudulentTanUse invoke component.

Test Case Dynamic Behaviour

Test Case Name : SET_N04_002

Group : Network_ST/Possible_fraudulent_use/TAN/

Purpose : Ensure that the IUT in the Idle state , to indicate that the network option applies to automatically reinitialize the blocked TAN security tool after a predefined time period, with the served user not yet receiving a notification of possible fraudulent use while use of the TAN was not blocked, and MSN is not provided to the served user, sends a FACILITY message (subclause 8.3.2.4 of [6]) containing a Facility information element with a PossibleFraudulentTanUse invoke component, and no Called Party information element, and remains in the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.8

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_TAN2			(1)
2		L ! FAC START T_REGISTRATE	Ms (FC00 (ActivationRCInv1 (inv_ID , PX_SERVEDUSERNR , PX_OLDPIN , PX_TAN)))		(2)
3		L ? FACr CANCEL T_REGISTRATE	Mr (FC03 (ActivationRCResult (inv_ID)))		(3)
4		START TWAIT			
5		L ? FACr CANCEL TWAIT	Mr (FC03 (PossFraudTanUseInv1 (inv_ID)))	P	(4)
6		? TIMEOUT TWAIT		F	
7		? TIMEOUT T_REGISTRATE		F	
8		? TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Preamble − FACILITY message with incorrect PIN
(2) FACILITY message with dummy call reference containing a ModifyPin invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.
(4) FACILITY message with dummy call reference containing a PossibleFraudulentPinUse invoke component.

Test Case Dynamic Behaviour

Test Case Name : SET_N04_003

Group : Network_ST/Possible_fraudulent_use/TAN/

Purpose : Ensure that the IUT in the Idle state , to indicate that one or more attempts (but less that the blocking limit N whereby all procedures using a TAN are blocked) have be made to use an invalid TAN, and MSN not provided to the served user, sends a FACILITY message (subclause 8.3.2.4 of [6]) containing a Facility information element with a PossibleFraudulentTanUse invoke component, and no Called Party information element, and remains in the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.8

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_TAN1			(1)
2		L ! FAC START T_ACTIVATE	Ms (FC00 (ActivationRCInv1 (inv_ID , PX_SERVEDUSERNR , PX_OLDPIN , PX_TAN)))		(2)
3		L ? FACr CANCEL T_ACTIVATE	Mr (FC02 (ActivationRCResult (inv_ID)))		(3)
4		START TWAIT			
5		L ? FACr CANCEL TWAIT	Mr (FC02 (PossFraudTanUseInv1 (inv_ID)))	P	(4)
6		? TIMEOUT TWAIT		F	
7		? TIMEOUT T_ACTIVATE		F	
8		? TIMEOUT T_ACTIVATE		F	

Detailed Comments :

(1) Preamble − FACILITY message with incorrect TAN
(2) FACILITY message with dummy call reference containing a ActivationRC invoke component.
(3) FACILITY message with dummy call reference containing a ActivationRC return error component.
(4) FACILITY message with dummy call reference containing a PossibleFraudulentTanUse invoke component.

Test Case Dynamic Behaviour

Test Case Name : SET_N04_004

Group : Network_ST/Possible_fraudulent_use/TAN/

Purpose : Ensure that the IUT in the Idle state , to indicate that the network option applies to automatically reinitialize the blocked TAN security tool after a predefined time period, with the served user not yet receiving a notification of possible fraudulent use while use of the TAN was not blocked, and MSN is provided to the served user, sends a FACILITY message (subclause 8.3.2.4 of [6]) containing a Facility information element with a PossibleFraudulentTanUse invoke component, and no Called Party information element, and remains in the Idle state.

Configuration :

Default : DF_SET

Comments : Subclause 9.8

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_TAN2			(1)
2		L ! FAC START T_REGISTRATE	Ms (FC00 (ActivationRCInv1 (inv_ID , PX_SERVEDUSERNR , PX_OLDPIN , PX_TAN)))		(2)
3		L ? FACr CANCEL T_REGISTRATE	Mr (FC02 (ActivationRCResult (inv_ID)))		(3)
4		START TWAIT			
5		L ? FACr CANCEL TWAIT	Mr (FC02 (PossFraudTanUseInv1 (inv_ID)))	P	(4)
6		? TIMEOUT TWAIT		F	
7		? TIMEOUT T_REGISTRATE		F	
8		? TIMEOUT T_REGISTRATE		F	

Detailed Comments :

(1) Preamble − FACILITY message with incorrect PIN
(2) FACILITY message with dummy call reference containing a ModifyPin invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.
(4) FACILITY message with dummy call reference containing a PossibleFraudulentPinUse invoke component.

Test Step Dynamic Behaviour

Test Step Name : PR30001
Group : Network_Steps/
Objective : To bring the IUT to the state N0.
Default :
Comments : use with CONFIG1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+INIT_VARIABLES			(1)
2		L!DL_REL_RQ START TAC			layer2 release
3		L?DL_REL_CO CANCEL TAC, START TNOAC		(P)	UA or DM received ; layer 2 released
4		L?DL_EST_IN CANCEL TNOAC		(P)	SABME received
5		+WAIT_RESTART			
6		?TIMEOUT TNOAC			
7		L!DL_EST_RQ START TAC			re−establishment
8		L?DL_EST_CO CANCEL TAC		(P)	UA received ; data link established
9		+WAIT_RESTART			
10		L?DL_REL_IN		(I)	DM received ; IUT still busy
11		?TIMEOUT TAC		(I)	no response
12		?TIMEOUT TAC		(I)	no response
		INIT_VARIABLES			
13		[BASIC]			
14		(CREF1:='0000001'B, CREF2:='0000010'B, GLOB_CREF:='0000000'B, bch_num1:='10001001'B)			
15		[NOT BASIC]			
16		(CREF1:='000000000000001'B, CREF2:='000000000000010'B, GLOB_CREF:='000000000000000'B, bch_num1:=INT_TO_BIT(CH_NUM1,7))			
		WAIT_RESTART			
17		[PX_WAIT_RESTART]			
18		START TAC(PX_T_RESTART)			

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Test Step Dynamic Behaviour

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
19	LR	L?RESTARTr	A_RST1(0,GLOB_CREF,6)		Single interface
20		L!RESTART_ACK	A_RSA5(1,GLOB_CREF,6)		
21		GOTO LR			
22		L?RESTARTr	A_RST1(0,GLOB_CREF,7)		All interfaces
23		L!RESTART_ACK	A_RSA5(1,GLOB_CREF,7)		
24		GOTO LR			
25		L?RESTARTr [NOT BASIC] (r_bch_num:=RESTARTr.mun.chi.chi_e5_ch, r_bch_l:=RESTARTr.mun.chi.chi_l)	A_RST3(0,GLOB_CREF,0)		Indicated channels
26		L!RESTART_ACK	A_RSA2(1,GLOB_CREF,r_bch_l,r_bch_num)		
27		GOTO LR			
28		L?RESTARTr [BASIC] (r_bch_num:= RESTARTr.mun.chi.chi_e3_cs)	A_RST3(0,GLOB_CREF,0)		Indicated channels
29		L!RESTART_ACK	A_RSA2(1,GLOB_CREF,r_bch_l,r_bch_num)		
30		GOTO LR			
31		?TIMEOUT TAC			
32		START TWAIT			
33		CPA1?CP_M CANCEL TWAIT	N00_Ready		
34		?TIMEOUT TWAIT			
35		[NOT PX_WAIT_RESTART]			

Detailed Comments : &COMMON_N10
The layer 2 of the IUT must have a TEI assigned value before the execution of this preamble.
The procedure to assign the TEI value to the IUT is matter for the test laboratory.
(1) The local subtree INIT_VARIABLES is used to assign initial values to test case variables taking into account the used interface configuration.

Test Step Dynamic Behaviour

Test Step Name : PR_PIN1

Group : Network_Steps/PIN_PREAMBLES/

Objective : Ensure that the IUT in the Idle state, on receipt of a Facility message containing a Facility information element with a ModifyPin invoke component containing an oldPin parameter that does match the currently registered PIN, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating "invalidPin" component and enters the Idle state.

Default :

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_INVALID_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , invalidPin)))	(P)	(3)
5		?TIMEOUT T_REGISTRATE		(F)	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Step Dynamic Behaviour

Test Step Name : PR_PIN2

Group : Network_Steps/PIN_PREAMBLES/

Objective : Ensure that the IUT in the Idle state, on receipt of a Facility message containing a Facility information element with a ModifyPin invoke component containing an oldPin parameter that does match the currently registered PIN, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating "invalidPin" component and enters the Idle state. This sequence of events is repeated until the PIN security tool becomes blocked.

Default :

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3	L1	L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_INVALID_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
4		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , invalidPin)))		(3)
5		(BNPIN := (BNPIN + 1) MOD PX_BLOCKINGPIN_LIMIT)			
6		[BNPIN > 0]			
7		GOTO L1			
8		[BNPIN = 0]			
9		L ! FAC START T_REGISTRATE	Ms (FC00 (ModifyPinInv1 (inv_ID , PX_OLDPIN , PX_NEWPIN , PX_SERVEDUSERNR)))		(2)
10		L ? FACr CANCEL T_REGISTRATE	Mr (FC01 (ModifyPinError (inv_ID , userControlBlocked)))	(P)	(3)
11		START T_REINITPIN			
12		? TIMEOUT T_REINITPIN			
13		?TIMEOUT T_REGISTRATE		(F)	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Step Dynamic Behaviour

Test Step Name : PR_TAN1

Group : Network_Steps/TAN_PREAMBLES/

Objective : Ensure that the IUT in the Idle state, on receipt of a Facility message containing a Facility information element with a ModifyPin invoke component containing an oldPin parameter that does match the currently registered PIN, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating "invalidPin" component and enters the Idle state.

Default :

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3		L ! FAC START T_ACTIVATE	Ms (FC00 (ActivationRCInv1 (inv_ID , PX_SERVEDUSERNR , PX_OLDPIN , PX_INVALID_TAN)))		(2)
4		L ? FACr CANCEL T_ACTIVATE	Mr (FC01 (ActivationRCError (inv_ID , invalidPin)))	(P)	(3)
5		?TIMEOUT T_ACTIVATE		(F)	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ModifyPIN invoke component.
(3) FACILITY message with dummy call reference containing a ModifyPIN return error component.

Test Step Dynamic Behaviour

Test Step Name : PR_TAN2

Group : Network_Steps/TAN_PREAMBLES/

Objective : Ensure that the IUT in the Idle state, on receipt of a Facility message containing a Facility information element with a ModifyPin invoke component containing an oldPin parameter that does match the currently registered PIN, sends a FACILITY message containing a Facility information element with a ModifyPin return error indicating "invalidPin" component and enters the Idle state. This sequence of events is repeated until the PIN security tool becomes blocked.

Default :

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR30001			(1)
2		(inv_ID := RANDOM_INVOKE_ID ())			
3	L1	L ! FAC START T_ACTIVATE	Ms (FC00 (ActivationRCInv1 (inv_ID , PX_SERVEDUSERNR , PX_OLDPIN , PX_INVALID_TAN)))		(2)
4		L ? FACr CANCEL T_ACTIVATE	Mr (FC01 (ActivationRCError (inv_ID , invalidPin)))		(3)
5		(BNTAN := (BNTAN + 1) MOD PX_BLOCKINGTAN_LIMIT)			
6		[BNTAN > 0]			
7		GOTO L1			
8		[BNTAN = 0]			
9		L ! FAC START T_ACTIVATE	Ms (FC00 (ActivationRCInv1 (inv_ID , PX_SERVEDUSERNR , PX_OLDPIN , PX_TAN)))		(2)
10		L ? FACr CANCEL T_ACTIVATE	Mr (FC01 (ActivationRCError (inv_ID , userControlBlocked)))	(P)	(3)
11		START T_REINITTAN			
12		? TIMEOUT T_REINITTAN			
13		?TIMEOUT T_ACTIVATE		(F)	

Detailed Comments :

(1) Bring IUT to state N00.
(2) FACILITY message with dummy call reference containing a ActivationRC invoke component.
(3) FACILITY message with dummy call reference containing a ActivationRC return error component.

Default Dynamic Behaviour

Default Name : DF_SET
Group :
Objective : Default subtree for all tests
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		L ? DL_REL_IN		(I)	DL failure
2		L ? DL_EST_IN		(I)	DL reset
3		+ IGNORE_MESSAGES			ignore
4		RETURN			return to test case
5		L ? OTHERWISE		(F)	
		IGNORE_MESSAGES			
6		L ? INFOr	A_IN4 (CREF1)		ignore
7		L ? NOTIFYr	A_NO3 (CREF1)		ignore
8		L ? ST_ENQr	A_SQ3 (CREF1)		ignore
9		L ? GFP_MSGr	A_GFP_MSG (CREF1)		ignore

Detailed Comments :