EUROPEAN TELECOMMUNICATION STANDARD

DRAFT
pr **ETS 300 655**
December 1995

Source: ETSI TC-SPS

Reference: DE/SPS-02027

ICS: 33.100.60

Key words: ASN.1

ASN.1 library definition; Version 1.1

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE
Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE
X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 92 94 42 00 - Fax: +33 93 65 47 16

Contents

Blank page

Foreword

This draft European Telecommunication Standard (ETS) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Public Enquiry phase of the ETSI standards approval procedure.

This ETS was generated using a template provided by TCR-TR 046. The procedures defined there were used to add elements to the library, ensuring that its rules apply to the contents of this ETS.

NOTE: TCR-TR 046 is only available to ETSI members.

An electronic version of the ETSI ASN.1 library is available from the ETSI PEX helpdesk:

Phone: +33 92 94 43 18
Fax: +33 93 65 38 51
email: pex@etsi.fr

Proposed transposition dates	
Date of latest announcement of this ETS (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

Blank page

1 Scope

This European Telecommunication Standard (ETS) defines the ETSI ASN.1 library. The library has been set up for two reasons:

- capture common application element definitions within ETSI in order to reduce the overall protocol maintenance effort;

- enlarge the reusability of ETSI protocols.

2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1] CCITT Recommendation X.208 (1988): "Specification of abstract syntax notation one (ASN.1)" (technically aligned with ISO 8824).

[2] ITU-T Recommendation X.680 (1994): "Information technology - Open System Interconnection - Abstract Syntax Notation One (ASN.1): Specification of Basic Notation" (also published as ISO 8824-1).

[3] ETS 300 351 (1994): "ETSI object identifier tree; Rules and registration procedures".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ETS, the following definitions apply:

ASN.1 definition: "Definitions" for short are ASN.1 type and value definitions that have been checked by an ASN.1 tool (see **Error! Reference source not found.** for a list of such tools). They have to conform to ITU-T Recommendation X.680 [2].

Common Application Element (CAE): An ASN.1 type definition or ASN.1 value definition that can or is commonly used in other ASN.1 modules.

ETSI-LIB: The most recent ETS containing the current version of the ASN.1 library, hence this ETS.

LIB-INDEX: The most recent ETR containing the current version of index to the ASN.1 library, hence ETR 210.

Library Maintenance Organization (LMO): An organization maintaining the ASN.1 library and the ASN.1 library Index.

library module: An ASN.1 module containing one or several Common Application Element definitions.

library procedures: A set of procedures that modify the ASN.1 library as well as the ASN.1 library Index in terms of contents and structure.

library rules: A set of rules applicable to the ASN.1 library that preserves the soundness and structure of the library.

validated ASN.1: ASN.1 definitions are valid if they conform with the guidelines defined in ETR 060. For the purpose of this ETS these guidelines are to be considered as binding. Validation is done by the LMO.

3.2 Abbreviations

For the purposes of this ETS, the following definitions apply:

ASN.1 Abstract Syntax Notation One

4 ETSI library definition

The ASN.1 definitions contained in this version of the library have been extracted from the standards and recommendations listed in annex A. They have been checked to conform with ASN.1 by one of the evaluated tools recommended for the use within ETSI (see annex C for details).

The module "ETSI-Library" is the main module of the library. Every reference from other standards to definitions contained herein shall be made using the ASN.1 import mechanism and the corresponding object identifier value of this main module. No other module of this standard shall be referenced.

NOTE 1: **Error! Reference source not found.** [3] describes the structure of the ETSI object identifier tree. The ASN.1 library of ETSI is given a dedicated branch unlike other ETSs which have their ETS number incorporated in the object identifier value. However, the current revision of ETS 300 351 [3] does not reflect the existence of the library.

The ASN.1 definitions contained in this ETS can be automatically extracted from its electronic form. The resulting ASN.1 modules should be used in order to verify any other standard or recommendation with references to this ETS.

An index of users of this standard is found in LIB-INDEX, which lists for every definition contained in this ETS the corresponding standards and recommendations that import this definition. Additionally it lists standards and recommendations that do not import these definitions but rather re-define them themselves.

NOTE 2: In order to achieve its intended use, the index needs to be re-issued whenever a new version of this ETS is created. Furthermore, it has to be re-issued to reflect a changed outside world (e.g. new users).

4.1 ASN.1 module definitions of the library version 1.1

This version of the library is the interface to the standards and recommendations listed in LIB-INDEX, no changes shall be applied to any of the definitions contained herein without agreement of all the users (and possibly re-definers) of this definition.

NOTE 1: ASN.1 definitions ending with e.g. "-v2-3" are kept for compatibility purposes from an earlier version of this library, in the above example from version 2.3. Any definition without such a suffix is the most recent one, standards using older versions of the library have the choice to register for both, the original and the most recent one.

4.1.1 Interface module

The ASN.1 source lines are preceded by line-numbers at the left margin in order to enable the usage of the cross-reference in annex B.

```
1  ETSI-Library {ccitt identified-organization etsi(0) etsi-library(2)
2                asn1-module(0) tcrtr-version1(1) ets-version1(1)}
3  DEFINITIONS IMPLICIT TAGS
4
5  ::=
6
7  BEGIN
8
9  EXPORTS
10    etsiPrefix,
11
12    -- from Addressing-Data-Elements
13    PresentedAddressScreened,
14    PresentedAddressUnscreened,
15    PresentedNumberScreened,
16    PresentedNumberUnscreened,
17    Address,
```

```
   PartyNumber,
   PartySubaddress,
   ScreeningIndicator,

   -- from Basic-Service-Elements
   BasicService,

   -- from MAP-SS-DataTypes
   SS-Status, -- CHANGED DEFINITION

   -- from MAP-SS-Code
   SS-Code,   -- CHANGED DEFINITION

   -- from MobileDomainDefinitions
   mobileDomainId,
   gsm-NetworkId,
   gsm-AccessId,
   gsm-OperationAndMaintenanceId,
   gsm-MessagingId,
   CommonComponentId,

   -- from InDomainDefinitions
   inDomainId,
   in-NetworkId,
   in-UptId,
   IN-CommonComponentId
;


-- BEGIN Addressing-Data-Elements (ETS 300 196-1)

   PresentedAddressScreened ::=
      CHOICE {
         presentationAllowedAddress             [0] AddressScreened,
         presentationRestricted                 [1] NULL,
         numberNotAvailableDueToInterworking    [2] NULL,
         presentationRestrictedAddress          [3] AddressScreened
      }

   PresentedAddressUnscreened ::=
      CHOICE {
         presentationAllowedAddress             [0] Address,
         presentationRestricted                 [1] NULL,
         numberNotAvailableDueToInterworking    [2] NULL,
         presentationRestrictedAddress          [3] Address
      }

   PresentedNumberScreened ::=
      CHOICE {
         presentationAllowedNumber              [0] NumberScreened,
         presentationRestricted                 [1] NULL,
         numberNotAvailableDueToInterworking    [2] NULL,
         presentationRestrictedNumber           [3] NumberScreened
      }

   PresentedNumberUnscreened ::=
      CHOICE {
         presentationAllowedNumber              [0] PartyNumber,
         presentationRestricted                 [1] NULL,
         numberNotAvailableDueToInterworking    [2] NULL,
         presentationRestrictedNumber           [3] PartyNumber
      }

   AddressScreened ::=
      SEQUENCE {
         partyNumber                            PartyNumber,
         screeningIndicator                     ScreeningIndicator,
         partySubaddress                        PartySubaddress  OPTIONAL
      }

   NumberScreened ::=
      SEQUENCE {
         partyNumber                            PartyNumber,
         screeningIndicator                     ScreeningIndicator
      }

   Address ::=
      SEQUENCE {
         partyNumber                            PartyNumber,
         partySubaddress                        PartySubaddress  OPTIONAL
      }

   PartyNumber ::=
      CHOICE {
         unknownPartyNumber                     [0] NumberDigits,
```

```
         -- the numbering plan is the default numbering plan of the network.
         -- It is recommended that this value is used.
         publicPartyNumber                    [1] PublicPartyNumber,
         -- the numbering plan is according to CCITT Recommendation E.163 and E.164.
         dataPartyNumber                      [3] NumberDigits,
         telexPartyNumber                     [4] NumberDigits,
         privatePartyNumber                   [5] PrivatePartyNumber,
         nationalStandardPartyNumber          [8] NumberDigits
      }

   PublicPartyNumber ::=
      SEQUENCE {
         publicTypeOfNumber                   PublicTypeOfNumber,
         publicNumberDigits                   NumberDigits
      }

   PrivatePartyNumber ::=
      SEQUENCE {
         privateTypeOfNumber                  PrivateTypeOfNumber,
         privateNumberDigits                  NumberDigits
      }

   NumberDigits ::=
      NumericString (SIZE(1..20))

   PublicTypeOfNumber ::=
      ENUMERATED {
         unknown (0),
         -- if used number digits carry prefix indicating type of number according
         -- to national recommendations
         internationalNumber (1),
         nationalNumber (2),
         networkSpecificNumber (3),
         subscriberNumber (4),
         abbreviatedNumber (6)
         -- valid only for called party number at the outgoing access, network
         -- substitutes appropriate number.
      }

   PrivateTypeOfNumber ::=
      ENUMERATED {
         unknown (0),
         level2RegionalNumber (1),
         level1RegionalNumber (2),
         pTNSpecificNumber (3),
         localNumber (4),
         abbreviatedNumber (6)
      }

   PartySubaddress ::=
      CHOICE {
         userSpecifiedSubaddress              UserSpecifiedSubaddress,
         -- not recommended
         nsapSubaddress                       NSAPSubaddress
         -- according to CCITT Recommendation X.213
      }

   UserSpecifiedSubaddress ::=
      SEQUENCE {
         subaddressInformation                SubaddressInformation,
         oddCountIndicator                    BOOLEAN  OPTIONAL
         -- used when the coding of subaddress is BCD
      }

   NSAPSubaddress ::=
      OCTET STRING (SIZE(1..20))
      -- specified according to CCITT Recommendation X.213. Some networks may
      -- limit the subaddress value to some other length, e.g. 4 octets

   SubaddressInformation ::=
      OCTET STRING (SIZE(1..20))
      -- coded according to user requirements. Some networks may limit the subaddress
      -- value to some other length, e.g. 4 octets
```

```
   ScreeningIndicator ::=
      ENUMERATED {
         userProvidedNotScreened (0),
         -- number was provided by a remote user terminal equipment, and has been
         -- screened by a network that is not the local public or local private network.
         userProvidedVerifiedAndPassed (1),
         -- number was provided by a remote user terminal equipment (or by a remote private
         -- network), and has been screened by the local public or local private network.
      -- userProvidedVerifiedAndFailed (2), not used, value reserved
         networkProvided (3)
         -- number was provided by local public or local private network
      }

-- END Addressing-Data-Elements


-- BEGIN Basic-Service-Elements (ETS 300 196-1)

   BasicService ::=
      ENUMERATED {
         allServices (0),
         speech (1),
         unrestrictedDigitalInformation (2),
         audio3k1Hz (3),
         unrestrictedDigitalInformationWithTonesAndAnnouncements (4),
         telephony3k1Hz (32),
         teletex (33),
         telefaxGroup4Class1 (34),
         videotexSyntaxBased (35),
         videotelephony (36),
         telefaxGroup2-3 (37),
         telephony7kHz (38)
         -- basic services for GSM or BroadBand shall be added here
      }

-- END Basic-Service-Elements


-- BEGIN MAP-SS-Code (prETS 300 599)

-- !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
-- !! SS-Code and SS-Status have been adopted to a clearer ASN.1 structure.  !!
-- !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

   SS-Code ::= CHOICE {
      allSS                                [0] NULL,
      lineIdentification                   [1] LineIdentification,
      callOffering                         [2] CallOfferingOrForwarding,
      callCompletion                       [3] CallCompletion,
      multiParty                           [4] MultiParty,
      communityOfInterest                  [5] CommunityOfInterest,
      charging                             [6] Charging,
      additionalInfoTransfer               [7] AdditionalInfoTransfer,
      callRestriction                      [8] CallRestriction,
      plmnSpecific                         [9] INTEGER (0 .. 15)
   }

   LineIdentification ::= BIT STRING {
      callingLineIdentificationPresentation (0),
      callingLineIdentificationRestriction (1),
      connectedLineIdentificationPresentation (2),
      connectedLineIdentificationRestriction (3),
      maliciousCallIdentification (4)
      } (SIZE (1..8))

   allLineIdentification LineIdentification ::= '11111111'B

   CallOfferingOrForwarding ::= BIT STRING {
      -- call offerings
      callTransfer (0),
      mobileAccessHunting (1),
      -- unconditional call forward
      callForwardingUnconditional (3),
      -- conditional call forward
      callForwardingOnSubscriberBusy (5),
      callForwardingOnNoReply (6),
      callForwardingOnSubscriberNotReachable (7)
      } (SIZE (1..8))

   allCallOffering CallOfferingOrForwarding ::= '11111111'B

   allUnconditionalForwarding CallOfferingOrForwarding ::= '11111111'B

   allCondForwarding CallOfferingOrForwarding ::= '11111111'B
```

```
   allCallForwarding CallOfferingOrForwarding ::= '11111111'B

   allCallOfferingAndForwardingSS CallOfferingOrForwarding ::= '11111111'B

   CallCompletion ::= BIT STRING {
      callWaiting (0),
      callHold (1),
      callCompletionOnBusySubscriber (2)
      } (SIZE (1..8))

   allCallCompletionSS CallCompletion ::= '11111111'B

   MultiParty ::= BIT STRING {
      multiParty (0)
      } (SIZE (1..8))

   allMultiPartySS MultiParty ::= '11111111'B

   CommunityOfInterest ::= BIT STRING {
      closedUserGroup (0)
      } (SIZE (1..9))

   allCommunityOfInterestSS CommunityOfInterest ::= '11111111'B

   Charging ::= BIT STRING {
      adviceOfChargeInformation (0),
      adviceOfChargeCharging (1)
      } (SIZE (1..8))

   allChargingSS Charging ::= '11111111'B

   AdditionalInfoTransfer ::= BIT STRING {
      userToUserSignalling (0)
      } (SIZE (1..8))

   allAdditionalInfoTransferSS AdditionalInfoTransfer ::= '11111111'B

   CallRestriction ::= BIT STRING {
      barringOfOutgoingCalls (0),
      barringOfAllOutgoingCalls (1),
      barringOfOutgoingInternationalCalls (2),
      barringOfOutgoingInternationalCallsExceptHomePLMN (3),
      barringOfIncomingCalls (4),
      barringOfAllIncomingCalls (5),
      barringOfIncomingCallsWhenRoamingOutsideHomePLMN (6)
      } (SIZE (1..8))

   allCallRestrictionSS CallRestriction ::= '11111111'B

-- END MAP-SS-Code


-- BEGIN MAP-SS-DataTypes (prETS 300 599)

   SS-Status ::= BIT STRING {
      quiescent (3),   -- 0 means operative
      provisioned (2), -- 0 means not provisioned
      registered (1),  -- 0 means not registered
      active (0)       -- 0 means not active
      } (SIZE (8))

-- END MAP-SS-DataTypes


-- BEGIN MobileDomainDefinitions (ETR 091)

   mobileDomainId MainTreeDefinition ::= {etsiPrefix mobileDomain(0)}

   -- Mobile Subdomains

   gsm-NetworkId SubTreeDefinition ::=   {mobileDomainId gsm-Network(1)}
   gsm-AccessId SubTreeDefinition ::=    {mobileDomainId gsm-Access(2)}
   gsm-OperationAndMaintenanceId SubTreeDefinition ::=
                                         {mobileDomainId gsm-Operation-Maintenance(3)}
   gsm-MessagingId SubTreeDefinition ::= {mobileDomainId gsm-Messaging(4)}

   -- Common Component Ids for structuring Mobile Subdomains

```

```
   CommonComponentId ::=
      INTEGER {
         ac-Id (0),
         as-Id (1),
         ase-Id (2),
         moduleId (3),
         er-Id (4)
      } (0..9)

-- END MobileDomainDefinitions


-- BEGIN InDomainDefinitions (ETR 090)

   inDomainId   MainTreeDefinition ::=    {etsiPrefix inDomain(1)}

   -- IN Subdomains

   in-NetworkId SubTreeDefinition  ::=    {inDomainId in-Network(1)}
   in-UptId SubTreeDefinition      ::=    {inDomainId in-Upt(2)}

   -- Common Component Ids for structuring IN Subdomains

   IN-CommonComponentId ::=
      INTEGER {
         moduleId (0),
         ac-Id (1)
      } (0..9)

-- END InDomainDefinitions


-- BEGIN ETSI-LibraryDomain

etsiPrefix OBJECT IDENTIFIER ::= {ccitt identified-organization etsi(0)}

MainTreeDefinition ::= OBJECT IDENTIFIER

SubTreeDefinition ::= OBJECT IDENTIFIER

etsiLibrary MainTreeDefinition ::= {etsiPrefix etsi-library(2)}

-- END ETSI-LibraryDomain

END
```

Annex A (informative): Expanded source of ETSI library

For every (Value)Assignment in the root ASN.1 module all the used defined types and defined values, which are defined within the ASN.1 module or imported from ASN.1 modules, are replaced by the constructs this type or value is composed of.

The fully expanded ASN.1 root module is itself a correct and equivalent representation of the ETSI library.

It allows to see at all nested definitions at once.

```
--         Expanded ASN.1 Module 'ETSI-Library'
--SIEMENS ASN.1 Compiler       P2.10  (94-11-02 10:25:17)
--             Date: 95-05-22 Time: 18:29:37

ETSI-Library { 0 4 etsi (0) etsi-library (2) asn1-module (0) tcrtr-version1 (1) ets-version1 (1)
}

DEFINITIONS

::=

BEGIN

EXPORTS
   etsiPrefix,
   PresentedAddressScreened,
   PresentedAddressUnscreened,
   PresentedNumberScreened,
   PresentedNumberUnscreened,
   Address,
   PartyNumber,
   PartySubaddress,
   ScreeningIndicator,
   BasicService,
   SS-Status,
   SS-Code,
   mobileDomainId,
   gsm-NetworkId,
   gsm-AccessId,
   gsm-OperationAndMaintenanceId,
   gsm-MessagingId,
   CommonComponentId,
   inDomainId,
   in-NetworkId,
   in-UptId,
   IN-CommonComponentId
;


PresentedAddressScreened ::= CHOICE {
   presentationAllowedAddress [0] IMPLICIT SEQUENCE {
      partyNumber CHOICE {
         unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
         publicPartyNumber [1] IMPLICIT SEQUENCE {
            publicTypeOfNumber ENUMERATED {
               unknown     (0),
               internationalNumber  (1),
               nationalNumber  (2),
               networkSpecificNumber  (3),
               subscriberNumber  (4),
               abbreviatedNumber  (6)},
            publicNumberDigits NumericString  (SIZE (1..20))},
         dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
         telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
         privatePartyNumber [5] IMPLICIT SEQUENCE {
            privateTypeOfNumber ENUMERATED {
               unknown     (0),
               level2RegionalNumber  (1),
               level1RegionalNumber  (2),
               pTNSpecificNumber  (3),
               localNumber  (4),
               abbreviatedNumber  (6)},
            privateNumberDigits NumericString  (SIZE (1..20))},
         nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
      screeningIndicator ENUMERATED {
         userProvidedNotScreened  (0),
         userProvidedVerifiedAndPassed  (1),
         networkProvided  (3)},
      partySubaddress CHOICE {
         userSpecifiedSubaddress SEQUENCE {
            subaddressInformation OCTET STRING (SIZE (1..20)),
```

```
            oddCountIndicator BOOLEAN OPTIONAL},
         nsapSubaddress OCTET STRING (SIZE (1..20))} OPTIONAL},
   presentationRestricted [1] IMPLICIT NULL,
   numberNotAvailableDueToInterworking [2] IMPLICIT NULL,
   presentationRestrictedAddress [3] IMPLICIT SEQUENCE {
      partyNumber CHOICE {
         unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
         publicPartyNumber [1] IMPLICIT SEQUENCE {
            publicTypeOfNumber ENUMERATED {
               unknown     (0),
               internationalNumber  (1),
               nationalNumber  (2),
               networkSpecificNumber  (3),
               subscriberNumber  (4),
               abbreviatedNumber  (6)},
            publicNumberDigits NumericString  (SIZE (1..20))},
         dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
         telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
         privatePartyNumber [5] IMPLICIT SEQUENCE {
            privateTypeOfNumber ENUMERATED {
               unknown     (0),
               level2RegionalNumber  (1),
               level1RegionalNumber  (2),
               pTNSpecificNumber  (3),
               localNumber  (4),
               abbreviatedNumber  (6)},
            privateNumberDigits NumericString  (SIZE (1..20))},
         nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
      screeningIndicator ENUMERATED {
         userProvidedNotScreened  (0),
         userProvidedVerifiedAndPassed  (1),
         networkProvided  (3)},
      partySubaddress CHOICE {
         userSpecifiedSubaddress SEQUENCE {
            subaddressInformation OCTET STRING (SIZE (1..20)),
            oddCountIndicator BOOLEAN OPTIONAL},
         nsapSubaddress OCTET STRING (SIZE (1..20))} OPTIONAL}}

PresentedAddressUnscreened ::= CHOICE {
   presentationAllowedAddress [0] IMPLICIT SEQUENCE {
      partyNumber CHOICE {
         unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
         publicPartyNumber [1] IMPLICIT SEQUENCE {
            publicTypeOfNumber ENUMERATED {
               unknown     (0),
               internationalNumber  (1),
               nationalNumber  (2),
               networkSpecificNumber  (3),
               subscriberNumber  (4),
               abbreviatedNumber  (6)},
            publicNumberDigits NumericString  (SIZE (1..20))},
         dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
         telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
         privatePartyNumber [5] IMPLICIT SEQUENCE {
            privateTypeOfNumber ENUMERATED {
               unknown     (0),
               level2RegionalNumber  (1),
               level1RegionalNumber  (2),
               pTNSpecificNumber  (3),
               localNumber  (4),
               abbreviatedNumber  (6)},
            privateNumberDigits NumericString  (SIZE (1..20))},
         nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
      partySubaddress CHOICE {
         userSpecifiedSubaddress SEQUENCE {
            subaddressInformation OCTET STRING (SIZE (1..20)),
            oddCountIndicator BOOLEAN OPTIONAL},
         nsapSubaddress OCTET STRING (SIZE (1..20))} OPTIONAL},
   presentationRestricted [1] IMPLICIT NULL,
   numberNotAvailableDueToInterworking [2] IMPLICIT NULL,
   presentationRestrictedAddress [3] IMPLICIT SEQUENCE {
      partyNumber CHOICE {
         unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
         publicPartyNumber [1] IMPLICIT SEQUENCE {
            publicTypeOfNumber ENUMERATED {
               unknown     (0),
               internationalNumber  (1),
               nationalNumber  (2),
               networkSpecificNumber  (3),
               subscriberNumber  (4),
               abbreviatedNumber  (6)},
            publicNumberDigits NumericString  (SIZE (1..20))},
         dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
         telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
         privatePartyNumber [5] IMPLICIT SEQUENCE {
```

```
            privateTypeOfNumber ENUMERATED {
               unknown     (0),
               level2RegionalNumber  (1),
               level1RegionalNumber  (2),
               pTNSpecificNumber  (3),
               localNumber  (4),
               abbreviatedNumber  (6)},
            privateNumberDigits NumericString  (SIZE (1..20))},
         nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
      partySubaddress CHOICE {
         userSpecifiedSubaddress SEQUENCE {
            subaddressInformation OCTET STRING (SIZE (1..20)),
            oddCountIndicator BOOLEAN OPTIONAL},
         nsapSubaddress OCTET STRING (SIZE (1..20))} OPTIONAL}}

PresentedNumberScreened ::= CHOICE {
   presentationAllowedNumber [0] IMPLICIT SEQUENCE {
      partyNumber CHOICE {
         unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
         publicPartyNumber [1] IMPLICIT SEQUENCE {
            publicTypeOfNumber ENUMERATED {
               unknown     (0),
               internationalNumber  (1),
               nationalNumber  (2),
               networkSpecificNumber  (3),
               subscriberNumber  (4),
               abbreviatedNumber  (6)},
            publicNumberDigits NumericString  (SIZE (1..20))},
         dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
         telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
         privatePartyNumber [5] IMPLICIT SEQUENCE {
            privateTypeOfNumber ENUMERATED {
               unknown     (0),
               level2RegionalNumber  (1),
               level1RegionalNumber  (2),
               pTNSpecificNumber  (3),
               localNumber  (4),
               abbreviatedNumber  (6)},
            privateNumberDigits NumericString  (SIZE (1..20))},
         nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
      screeningIndicator ENUMERATED {
         userProvidedNotScreened  (0),
         userProvidedVerifiedAndPassed  (1),
         networkProvided  (3)}},
   presentationRestricted [1] IMPLICIT NULL,
   numberNotAvailableDueToInterworking [2] IMPLICIT NULL,
   presentationRestrictedNumber [3] IMPLICIT SEQUENCE {
      partyNumber CHOICE {
         unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
         publicPartyNumber [1] IMPLICIT SEQUENCE {
            publicTypeOfNumber ENUMERATED {
               unknown     (0),
               internationalNumber  (1),
               nationalNumber  (2),
               networkSpecificNumber  (3),
               subscriberNumber  (4),
               abbreviatedNumber  (6)},
            publicNumberDigits NumericString  (SIZE (1..20))},
         dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
         telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
         privatePartyNumber [5] IMPLICIT SEQUENCE {
            privateTypeOfNumber ENUMERATED {
               unknown     (0),
               level2RegionalNumber  (1),
               level1RegionalNumber  (2),
               pTNSpecificNumber  (3),
               localNumber  (4),
               abbreviatedNumber  (6)},
            privateNumberDigits NumericString  (SIZE (1..20))},
         nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
      screeningIndicator ENUMERATED {
         userProvidedNotScreened  (0),
         userProvidedVerifiedAndPassed  (1),
         networkProvided  (3)}}}

PresentedNumberUnscreened ::= CHOICE {
   presentationAllowedNumber [0] CHOICE {
      unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
      publicPartyNumber [1] IMPLICIT SEQUENCE {
         publicTypeOfNumber ENUMERATED {
            unknown     (0),
            internationalNumber  (1),
            nationalNumber  (2),
            networkSpecificNumber  (3),
            subscriberNumber  (4),
```

```
            abbreviatedNumber  (6)},
         publicNumberDigits NumericString  (SIZE (1..20))},
      dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
      telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
      privatePartyNumber [5] IMPLICIT SEQUENCE {
         privateTypeOfNumber ENUMERATED {
            unknown     (0),
            level2RegionalNumber  (1),
            level1RegionalNumber  (2),
            pTNSpecificNumber  (3),
            localNumber  (4),
            abbreviatedNumber  (6)},
         privateNumberDigits NumericString  (SIZE (1..20))},
      nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
   presentationRestricted [1] IMPLICIT NULL,
   numberNotAvailableDueToInterworking [2] IMPLICIT NULL,
   presentationRestrictedNumber [3] CHOICE {
      unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
      publicPartyNumber [1] IMPLICIT SEQUENCE {
         publicTypeOfNumber ENUMERATED {
            unknown     (0),
            internationalNumber  (1),
            nationalNumber  (2),
            networkSpecificNumber  (3),
            subscriberNumber  (4),
            abbreviatedNumber  (6)},
         publicNumberDigits NumericString  (SIZE (1..20))},
      dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
      telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
      privatePartyNumber [5] IMPLICIT SEQUENCE {
         privateTypeOfNumber ENUMERATED {
            unknown     (0),
            level2RegionalNumber  (1),
            level1RegionalNumber  (2),
            pTNSpecificNumber  (3),
            localNumber  (4),
            abbreviatedNumber  (6)},
         privateNumberDigits NumericString  (SIZE (1..20))},
      nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))}}

AddressScreened ::= SEQUENCE {
   partyNumber CHOICE {
      unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
      publicPartyNumber [1] IMPLICIT SEQUENCE {
         publicTypeOfNumber ENUMERATED {
            unknown     (0),
            internationalNumber  (1),
            nationalNumber  (2),
            networkSpecificNumber  (3),
            subscriberNumber  (4),
            abbreviatedNumber  (6)},
         publicNumberDigits NumericString  (SIZE (1..20))},
      dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
      telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
      privatePartyNumber [5] IMPLICIT SEQUENCE {
         privateTypeOfNumber ENUMERATED {
            unknown     (0),
            level2RegionalNumber  (1),
            level1RegionalNumber  (2),
            pTNSpecificNumber  (3),
            localNumber  (4),
            abbreviatedNumber  (6)},
         privateNumberDigits NumericString  (SIZE (1..20))},
      nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
   screeningIndicator ENUMERATED {
      userProvidedNotScreened  (0),
      userProvidedVerifiedAndPassed  (1),
      networkProvided  (3)},
   partySubaddress CHOICE {
      userSpecifiedSubaddress SEQUENCE {
         subaddressInformation OCTET STRING (SIZE (1..20)),
         oddCountIndicator BOOLEAN OPTIONAL},
      nsapSubaddress OCTET STRING (SIZE (1..20))} OPTIONAL}

NumberScreened ::= SEQUENCE {
   partyNumber CHOICE {
      unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
      publicPartyNumber [1] IMPLICIT SEQUENCE {
         publicTypeOfNumber ENUMERATED {
            unknown     (0),
            internationalNumber  (1),
            nationalNumber  (2),
            networkSpecificNumber  (3),
            subscriberNumber  (4),
            abbreviatedNumber  (6)},
```

```
         publicNumberDigits NumericString  (SIZE (1..20))},
      dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
      telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
      privatePartyNumber [5] IMPLICIT SEQUENCE {
         privateTypeOfNumber ENUMERATED {
            unknown     (0),
            level2RegionalNumber  (1),
            level1RegionalNumber  (2),
            pTNSpecificNumber  (3),
            localNumber  (4),
            abbreviatedNumber  (6)},
         privateNumberDigits NumericString  (SIZE (1..20))},
      nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
   screeningIndicator ENUMERATED {
      userProvidedNotScreened  (0),
      userProvidedVerifiedAndPassed  (1),
      networkProvided  (3)}}

Address    ::= SEQUENCE {
   partyNumber CHOICE {
      unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
      publicPartyNumber [1] IMPLICIT SEQUENCE {
         publicTypeOfNumber ENUMERATED {
            unknown     (0),
            internationalNumber  (1),
            nationalNumber  (2),
            networkSpecificNumber  (3),
            subscriberNumber  (4),
            abbreviatedNumber  (6)},
         publicNumberDigits NumericString  (SIZE (1..20))},
      dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
      telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
      privatePartyNumber [5] IMPLICIT SEQUENCE {
         privateTypeOfNumber ENUMERATED {
            unknown     (0),
            level2RegionalNumber  (1),
            level1RegionalNumber  (2),
            pTNSpecificNumber  (3),
            localNumber  (4),
            abbreviatedNumber  (6)},
         privateNumberDigits NumericString  (SIZE (1..20))},
      nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))},
   partySubaddress CHOICE {
      userSpecifiedSubaddress SEQUENCE {
         subaddressInformation OCTET STRING (SIZE (1..20)),
         oddCountIndicator BOOLEAN OPTIONAL},
      nsapSubaddress OCTET STRING (SIZE (1..20))} OPTIONAL}

PartyNumber ::= CHOICE {
   unknownPartyNumber [0] IMPLICIT NumericString  (SIZE (1..20)),
   publicPartyNumber [1] IMPLICIT SEQUENCE {
      publicTypeOfNumber ENUMERATED {
         unknown     (0),
         internationalNumber  (1),
         nationalNumber  (2),
         networkSpecificNumber  (3),
         subscriberNumber  (4),
         abbreviatedNumber  (6)},
      publicNumberDigits NumericString  (SIZE (1..20))},
   dataPartyNumber [3] IMPLICIT NumericString  (SIZE (1..20)),
   telexPartyNumber [4] IMPLICIT NumericString  (SIZE (1..20)),
   privatePartyNumber [5] IMPLICIT SEQUENCE {
      privateTypeOfNumber ENUMERATED {
         unknown     (0),
         level2RegionalNumber  (1),
         level1RegionalNumber  (2),
         pTNSpecificNumber  (3),
         localNumber  (4),
         abbreviatedNumber  (6)},
      privateNumberDigits NumericString  (SIZE (1..20))},
   nationalStandardPartyNumber [8] IMPLICIT NumericString  (SIZE (1..20))}

PublicPartyNumber ::= SEQUENCE {
   publicTypeOfNumber ENUMERATED {
      unknown     (0),
      internationalNumber  (1),
      nationalNumber  (2),
      networkSpecificNumber  (3),
      subscriberNumber  (4),
      abbreviatedNumber  (6)},
   publicNumberDigits NumericString  (SIZE (1..20))}
```

```
PrivatePartyNumber ::= SEQUENCE {
   privateTypeOfNumber ENUMERATED {
      unknown     (0),
      level2RegionalNumber  (1),
      level1RegionalNumber  (2),
      pTNSpecificNumber  (3),
      localNumber  (4),
      abbreviatedNumber  (6)},
   privateNumberDigits NumericString  (SIZE (1..20))}

NumberDigits ::= NumericString  (SIZE (1..20))

PublicTypeOfNumber ::= ENUMERATED {
   unknown     (0),
   internationalNumber  (1),
   nationalNumber  (2),
   networkSpecificNumber  (3),
   subscriberNumber  (4),
   abbreviatedNumber  (6)}

PrivateTypeOfNumber ::= ENUMERATED {
   unknown     (0),
   level2RegionalNumber  (1),
   level1RegionalNumber  (2),
   pTNSpecificNumber  (3),
   localNumber  (4),
   abbreviatedNumber  (6)}

PartySubaddress ::= CHOICE {
   userSpecifiedSubaddress SEQUENCE {
      subaddressInformation OCTET STRING (SIZE (1..20)),
      oddCountIndicator BOOLEAN OPTIONAL},
   nsapSubaddress OCTET STRING (SIZE (1..20))}

UserSpecifiedSubaddress ::= SEQUENCE {
   subaddressInformation OCTET STRING (SIZE (1..20)),
   oddCountIndicator BOOLEAN OPTIONAL}

NSAPSubaddress ::= OCTET STRING (SIZE (1..20))

SubaddressInformation ::= OCTET STRING (SIZE (1..20))

ScreeningIndicator ::= ENUMERATED {
   userProvidedNotScreened  (0),
   userProvidedVerifiedAndPassed  (1),
   networkProvided  (3)}

BasicService ::= ENUMERATED {
   allServices  (0),
   speech      (1),
   unrestrictedDigitalInformation  (2),
   audio3k1Hz  (3),
   unrestrictedDigitalInformationWithTonesAndAnnouncements  (4),
   telephony3k1Hz  (32),
   teletex     (33),
   telefaxGroup4Class1  (34),
   videotexSyntaxBased  (35),
   videotelephony  (36),
   telefaxGroup2-3  (37),
   telephony7kHz  (38)}

SS-Code    ::= CHOICE {
   allSS      [0] IMPLICIT NULL,
   lineIdentification [1] IMPLICIT BIT STRING {
      callingLineIdentificationPresentation  (0),
      callingLineIdentificationRestriction  (1),
      connectedLineIdentificationPresentation  (2),
      connectedLineIdentificationRestriction  (3),
      maliciousCallIdentification  (4)} (SIZE (1..8)),
   callOffering [2] IMPLICIT BIT STRING {
      callTransfer  (0),
      mobileAccessHunting  (1),
      callForwardingUnconditional  (3),
      callForwardingOnSubscriberBusy  (5),
      callForwardingOnNoReply  (6),
      callForwardingOnSubscriberNotReachable  (7)} (SIZE (1..8)),
   callCompletion [3] IMPLICIT BIT STRING {
      callWaiting  (0),
      callHold    (1),
      callCompletionOnBusySubscriber  (2)} (SIZE (1..8)),
   multiParty [4] IMPLICIT BIT STRING {
      multiParty  (0)} (SIZE (1..8)),
   communityOfInterest [5] IMPLICIT BIT STRING {
      closedUserGroup  (0)} (SIZE (1..9)),
```

```
   charging   [6] IMPLICIT BIT STRING {
      adviceOfChargeInformation  (0),
      adviceOfChargeCharging  (1)} (SIZE (1..8)),
   additionalInfoTransfer [7] IMPLICIT BIT STRING {
      userToUserSignalling  (0)} (SIZE (1..8)),
   callRestriction [8] IMPLICIT BIT STRING {
      barringOfOutgoingCalls  (0),
      barringOfAllOutgoingCalls  (1),
      barringOfOutgoingInternationalCalls  (2),
      barringOfOutgoingInternationalCallsExceptHomePLMN  (3),
      barringOfIncomingCalls  (4),
      barringOfAllIncomingCalls  (5),
      barringOfIncomingCallsWhenRoamingOutsideHomePLMN  (6)} (SIZE (1..8)),
   plmnSpecific [9] IMPLICIT INTEGER (0..15)}

LineIdentification ::= BIT STRING {
   callingLineIdentificationPresentation  (0),
   callingLineIdentificationRestriction  (1),
   connectedLineIdentificationPresentation  (2),
   connectedLineIdentificationRestriction  (3),
   maliciousCallIdentification  (4)} (SIZE (1..8))

allLineIdentification BIT STRING {
   callingLineIdentificationPresentation  (0),
   callingLineIdentificationRestriction  (1),
   connectedLineIdentificationPresentation  (2),
   connectedLineIdentificationRestriction  (3),
   maliciousCallIdentification  (4)} (SIZE (1..8)) ::= '11111111'B

CallOfferingOrForwarding ::= BIT STRING {
   callTransfer  (0),
   mobileAccessHunting  (1),
   callForwardingUnconditional  (3),
   callForwardingOnSubscriberBusy  (5),
   callForwardingOnNoReply  (6),
   callForwardingOnSubscriberNotReachable  (7)} (SIZE (1..8))

allCallOffering BIT STRING {
   callTransfer  (0),
   mobileAccessHunting  (1),
   callForwardingUnconditional  (3),
   callForwardingOnSubscriberBusy  (5),
   callForwardingOnNoReply  (6),
   callForwardingOnSubscriberNotReachable  (7)} (SIZE (1..8)) ::= '11111111'B

allUnconditionalForwarding BIT STRING {
   callTransfer  (0),
   mobileAccessHunting  (1),
   callForwardingUnconditional  (3),
   callForwardingOnSubscriberBusy  (5),
   callForwardingOnNoReply  (6),
   callForwardingOnSubscriberNotReachable  (7)} (SIZE (1..8)) ::= '11111111'B

allCondForwarding BIT STRING {
   callTransfer  (0),
   mobileAccessHunting  (1),
   callForwardingUnconditional  (3),
   callForwardingOnSubscriberBusy  (5),
   callForwardingOnNoReply  (6),
   callForwardingOnSubscriberNotReachable  (7)} (SIZE (1..8)) ::= '11111111'B

allCallForwarding BIT STRING {
   callTransfer  (0),
   mobileAccessHunting  (1),
   callForwardingUnconditional  (3),
   callForwardingOnSubscriberBusy  (5),
   callForwardingOnNoReply  (6),
   callForwardingOnSubscriberNotReachable  (7)} (SIZE (1..8)) ::= '11111111'B

allCallOfferingAndForwardingSS BIT STRING {
   callTransfer  (0),
   mobileAccessHunting  (1),
   callForwardingUnconditional  (3),
   callForwardingOnSubscriberBusy  (5),
   callForwardingOnNoReply  (6),
   callForwardingOnSubscriberNotReachable  (7)} (SIZE (1..8)) ::= '11111111'B

CallCompletion ::= BIT STRING {
   callWaiting  (0),
   callHold    (1),
   callCompletionOnBusySubscriber  (2)} (SIZE (1..8))
```

```
allCallCompletionSS BIT STRING {
   callWaiting  (0),
   callHold    (1),
   callCompletionOnBusySubscriber  (2)} (SIZE (1..8)) ::= '11111111'B

MultiParty ::= BIT STRING {
   multiParty  (0)} (SIZE (1..8))

allMultiPartySS BIT STRING {
   multiParty  (0)} (SIZE (1..8)) ::= '11111111'B

CommunityOfInterest ::= BIT STRING {
   closedUserGroup  (0)} (SIZE (1..9))

allCommunityOfInterestSS BIT STRING {
   closedUserGroup  (0)} (SIZE (1..9)) ::= '11111111'B

Charging   ::= BIT STRING {
   adviceOfChargeInformation  (0),
   adviceOfChargeCharging  (1)} (SIZE (1..8))

allChargingSS BIT STRING {
   adviceOfChargeInformation  (0),
   adviceOfChargeCharging  (1)} (SIZE (1..8)) ::= '11111111'B

AdditionalInfoTransfer ::= BIT STRING {
   userToUserSignalling  (0)} (SIZE (1..8))

allAdditionalInfoTransferSS BIT STRING {
   userToUserSignalling  (0)} (SIZE (1..8)) ::= '11111111'B

CallRestriction ::= BIT STRING {
   barringOfOutgoingCalls  (0),
   barringOfAllOutgoingCalls  (1),
   barringOfOutgoingInternationalCalls  (2),
   barringOfOutgoingInternationalCallsExceptHomePLMN  (3),
   barringOfIncomingCalls  (4),
   barringOfAllIncomingCalls  (5),
   barringOfIncomingCallsWhenRoamingOutsideHomePLMN  (6)} (SIZE (1..8))

allCallRestrictionSS BIT STRING {
   barringOfOutgoingCalls  (0),
   barringOfAllOutgoingCalls  (1),
   barringOfOutgoingInternationalCalls  (2),
   barringOfOutgoingInternationalCallsExceptHomePLMN  (3),
   barringOfIncomingCalls  (4),
   barringOfAllIncomingCalls  (5),
   barringOfIncomingCallsWhenRoamingOutsideHomePLMN  (6)} (SIZE (1..8)) ::= '11111111'B

SS-Status  ::= BIT STRING {
   quiescent   (3),
   provisioned  (2),
   registered  (1),
   active      (0)} (SIZE (8))

mobileDomainId OBJECT IDENTIFIER ::= { 0 4 etsi (0) mobileDomain (0) }

gsm-NetworkId OBJECT IDENTIFIER ::= { 0 4 etsi (0) mobileDomain (0) gsm-Network (1) }

gsm-AccessId OBJECT IDENTIFIER ::= { 0 4 etsi (0) mobileDomain (0) gsm-Access (2) }

gsm-OperationAndMaintenanceId OBJECT IDENTIFIER ::= { 0 4 etsi (0) mobileDomain (0) gsm-
Operation-Maintenance (3) }

gsm-MessagingId OBJECT IDENTIFIER ::= { 0 4 etsi (0) mobileDomain (0) gsm-Messaging (4) }

CommonComponentId ::= INTEGER {
   ac-Id       (0),
   as-Id       (1),
   ase-Id      (2),
   moduleId    (3),
   er-Id       (4)} (0..9)

inDomainId OBJECT IDENTIFIER ::= { 0 4 etsi (0) inDomain (1) }

in-NetworkId OBJECT IDENTIFIER ::= { 0 4 etsi (0) inDomain (1) in-Network (1) }

in-UptId   OBJECT IDENTIFIER ::= { 0 4 etsi (0) inDomain (1) in-Upt (2) }

IN-CommonComponentId ::= INTEGER {
   moduleId    (0),
   ac-Id       (1)} (0..9)

etsiPrefix OBJECT IDENTIFIER ::= { 0 4 etsi (0) }
```

```
MainTreeDefinition ::= OBJECT IDENTIFIER

SubTreeDefinition ::= OBJECT IDENTIFIER

etsiLibrary OBJECT IDENTIFIER ::= { 0 4 etsi (0) etsi-library (2) }

END
```

Annex B (informative): Cross reference of the ETSI library

For every ASN.1 item such as identifier, type-reference or value-reference the cross-reference allows to locate all occurrences by means of module-name and line numbers. For that purpose line numbers are printed at the left margin in front of each ASN.1 source line starting with 1 for every module.

The items are sorted alphabetically in the cross-reference in a case-insensitive manner. Occurrences of an item are its definition and all its usages such as in exports, imports or within a type or value assignment.

For every item additional information is provided such as kind of item (identifier, value reference, type reference), and tag, associated type and value if applicable.

The cross-reference for a root module includes all modules referred to directly or indirectly via imports.

```
abbreviatedNumber.....................identifier of Named Number, 6
   DEFINED in ETSI-Library           :    137

abbreviatedNumber.....................identifier of Named Number, 6
   DEFINED in ETSI-Library           :    149

active................................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    320

ac-Id.................................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    342

ac-Id.................................identifier of Named Number, 1
   DEFINED in ETSI-Library           :    366

additionalInfoTransfer................identifier of [7] AdditionalInfoTransfer
   DEFINED in ETSI-Library           :    229

AdditionalInfoTransfer................type reference BIT STRING
   DEFINED in ETSI-Library           :    293
      USED in ETSI-Library           :    229   297

Address...............................type reference SEQUENCE
   DEFINED in ETSI-Library           :     94
      USED in ETSI-Library           :     17    59    62

AddressScreened.......................type reference SEQUENCE
   DEFINED in ETSI-Library           :     81
      USED in ETSI-Library           :     51    54

adviceOfChargeCharging................identifier of Named Number, 1
   DEFINED in ETSI-Library           :    288

adviceOfChargeInformation.............identifier of Named Number, 0
   DEFINED in ETSI-Library           :    287

allAdditionalInfoTransferSS...........value reference AdditionalInfoTransfer, '11111111'B
   DEFINED in ETSI-Library           :    297

allCallCompletionSS...................value reference CallCompletion, '11111111'B
   DEFINED in ETSI-Library           :    272

allCallForwarding.....................value reference CallOfferingOrForwarding, '11111111'B
   DEFINED in ETSI-Library           :    262

allCallOffering.......................value reference CallOfferingOrForwarding, '11111111'B
   DEFINED in ETSI-Library           :    256

allCallOfferingAndForwardingSS........value reference CallOfferingOrForwarding, '11111111'B
   DEFINED in ETSI-Library           :    264

allCallRestrictionSS..................value reference CallRestriction, '11111111'B
   DEFINED in ETSI-Library           :    309

allChargingSS.........................value reference Charging, '11111111'B
   DEFINED in ETSI-Library           :    291

allCommunityOfInterestSS..............value reference CommunityOfInterest, '11111111'B
   DEFINED in ETSI-Library           :    284

allCondForwarding.....................value reference CallOfferingOrForwarding, '11111111'B
   DEFINED in ETSI-Library           :    260
```

```
allLineIdentification..................value reference LineIdentification, '11111111'B
   DEFINED in ETSI-Library           :    242

allMultiPartySS.......................value reference MultiParty, '11111111'B
   DEFINED in ETSI-Library           :    278

allServices...........................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    197

allSS.................................identifier of [0] NULL
   DEFINED in ETSI-Library           :    222

allUnconditionalForwarding.............value reference CallOfferingOrForwarding, '11111111'B
   DEFINED in ETSI-Library           :    258

ase-Id................................identifier of Named Number, 2
   DEFINED in ETSI-Library           :    344

as-Id.................................identifier of Named Number, 1
   DEFINED in ETSI-Library           :    343

audio3k1Hz............................identifier of Named Number, 3
   DEFINED in ETSI-Library           :    200

barringOfAllIncomingCalls..............identifier of Named Number, 5
   DEFINED in ETSI-Library           :    305

barringOfAllOutgoingCalls..............identifier of Named Number, 1
   DEFINED in ETSI-Library           :    301

barringOfIncomingCalls.................identifier of Named Number, 4
   DEFINED in ETSI-Library           :    304

barringOfIncomingCallsWhenRoamingOutsideidentifier of Named Number, 6
   DEFINED in ETSI-Library           :    306

barringOfOutgoingCalls.................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    300

barringOfOutgoingInternationalCalls.....identifier of Named Number, 2
   DEFINED in ETSI-Library           :    302

barringOfOutgoingInternationalCallsExcepidentifier of Named Number, 3
   DEFINED in ETSI-Library           :    303

BasicService..........................type reference ENUMERATED
   DEFINED in ETSI-Library           :    195
      USED in ETSI-Library           :     23

callCompletion........................identifier of [3] CallCompletion
   DEFINED in ETSI-Library           :    225

CallCompletion........................type reference BIT STRING
   DEFINED in ETSI-Library           :    266
      USED in ETSI-Library           :    225   272

callCompletionOnBusySubscriber.........identifier of Named Number, 2
   DEFINED in ETSI-Library           :    269

callForwardingOnNoReply................identifier of Named Number, 6
   DEFINED in ETSI-Library           :    252

callForwardingOnSubscriberBusy.........identifier of Named Number, 5
   DEFINED in ETSI-Library           :    251

callForwardingOnSubscriberNotReachable..identifier of Named Number, 7
   DEFINED in ETSI-Library           :    253

callForwardingUnconditional............identifier of Named Number, 3
   DEFINED in ETSI-Library           :    249

callHold..............................identifier of Named Number, 1
   DEFINED in ETSI-Library           :    268

callingLineIdentificationPresentation...identifier of Named Number, 0
   DEFINED in ETSI-Library           :    235

callingLineIdentificationRestriction....identifier of Named Number, 1
   DEFINED in ETSI-Library           :    236

callOffering..........................identifier of [2] CallOfferingOrForwarding
   DEFINED in ETSI-Library           :    224
```

```
CallOfferingOrForwarding..............type reference BIT STRING
   DEFINED in ETSI-Library           :    244
      USED in ETSI-Library           :    224   256   258   260   262   264

callRestriction.......................identifier of [8] CallRestriction
   DEFINED in ETSI-Library           :    230

CallRestriction.......................type reference BIT STRING
   DEFINED in ETSI-Library           :    299
      USED in ETSI-Library           :    230   309

callTransfer..........................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    246

callWaiting...........................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    267

charging..............................identifier of [6] Charging
   DEFINED in ETSI-Library           :    228

Charging..............................type reference BIT STRING
   DEFINED in ETSI-Library           :    286
      USED in ETSI-Library           :    228   291

closedUserGroup.......................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    281

CommonComponentId.....................type reference INTEGER
   DEFINED in ETSI-Library           :    340
      USED in ETSI-Library           :     37

communityOfInterest...................identifier of [5] CommunityOfInterest
   DEFINED in ETSI-Library           :    227

CommunityOfInterest...................type reference BIT STRING
   DEFINED in ETSI-Library           :    280
      USED in ETSI-Library           :    227   284

connectedLineIdentificationPresentation.identifier of Named Number, 2
   DEFINED in ETSI-Library           :    237

connectedLineIdentificationRestriction..identifier of Named Number, 3
   DEFINED in ETSI-Library           :    238

dataPartyNumber.......................identifier of [3] NumberDigits
   DEFINED in ETSI-Library           :    107

er-Id.................................identifier of Named Number, 4
   DEFINED in ETSI-Library           :    346

etsi..................................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    374

etsiLibrary.........................value reference MainTreeDefinition, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library           :    380

etsiPrefix..........................value reference OBJECT IDENTIFIER, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library           :    374
      USED in ETSI-Library           :     10   328   354   380

ETSI-Library..........................module reference
   DEFINED in ETSI-Library           :      1

etsi-library..........................identifier of Named Number, 2
   DEFINED in ETSI-Library           :    380

gsm-Access............................identifier of Named Number, 2
   DEFINED in ETSI-Library           :    333

gsm-AccessId........................value reference SubTreeDefinition, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library           :    333
      USED in ETSI-Library           :     34

gsm-Messaging.........................identifier of Named Number, 4
   DEFINED in ETSI-Library           :    336

gsm-MessagingId.....................value reference SubTreeDefinition, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library           :    336
      USED in ETSI-Library           :     36

gsm-Network...........................identifier of Named Number, 1
   DEFINED in ETSI-Library           :    332
```

```
gsm-NetworkId.....................value reference SubTreeDefinition, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library          :    332
      USED in ETSI-Library          :     33

gsm-OperationAndMaintenanceId........value reference SubTreeDefinition, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library          :    334
      USED in ETSI-Library          :     35

gsm-Operation-Maintenance............identifier of Named Number, 3
   DEFINED in ETSI-Library          :    335

inDomain.............................identifier of Named Number, 1
   DEFINED in ETSI-Library          :    354

inDomainId.........................value reference MainTreeDefinition, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library          :    354
      USED in ETSI-Library          :     40   358   359

internationalNumber..................identifier of Named Number, 1
   DEFINED in ETSI-Library          :    133

IN-CommonComponentId.................type reference INTEGER
   DEFINED in ETSI-Library          :    363
      USED in ETSI-Library          :     43

in-Network...........................identifier of Named Number, 1
   DEFINED in ETSI-Library          :    358

in-NetworkId.......................value reference SubTreeDefinition, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library          :    358
      USED in ETSI-Library          :     41

in-Upt...............................identifier of Named Number, 2
   DEFINED in ETSI-Library          :    359

in-UptId...........................value reference SubTreeDefinition, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library          :    359
      USED in ETSI-Library          :     42

level1RegionalNumber.................identifier of Named Number, 2
   DEFINED in ETSI-Library          :    146

level2RegionalNumber.................identifier of Named Number, 1
   DEFINED in ETSI-Library          :    145

lineIdentification...................identifier of [1] LineIdentification
   DEFINED in ETSI-Library          :    223

LineIdentification...................type reference BIT STRING
   DEFINED in ETSI-Library          :    234
      USED in ETSI-Library          :    223   242

localNumber..........................identifier of Named Number, 4
   DEFINED in ETSI-Library          :    148

MainTreeDefinition...................type reference OBJECT IDENTIFIER
   DEFINED in ETSI-Library          :    376
      USED in ETSI-Library          :    328   354   380

maliciousCallIdentification..........identifier of Named Number, 4
   DEFINED in ETSI-Library          :    239

mobileAccessHunting..................identifier of Named Number, 1
   DEFINED in ETSI-Library          :    247

mobileDomain.........................identifier of Named Number, 0
   DEFINED in ETSI-Library          :    328

mobileDomainId.....................value reference MainTreeDefinition, OBJECT IDENTIFIER VALUE
   DEFINED in ETSI-Library          :    328
      USED in ETSI-Library          :     32   332   333   335   336

moduleId.............................identifier of Named Number, 3
   DEFINED in ETSI-Library          :    345

moduleId.............................identifier of Named Number, 0
   DEFINED in ETSI-Library          :    365

multiParty...........................identifier of [4] MultiParty
   DEFINED in ETSI-Library          :    226

MultiParty...........................type reference BIT STRING
   DEFINED in ETSI-Library          :    274
      USED in ETSI-Library          :    226   278
```

```
multiParty.............................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    275

nationalNumber.........................identifier of Named Number, 2
   DEFINED in ETSI-Library           :    134

nationalStandardPartyNumber............identifier of [8] NumberDigits
   DEFINED in ETSI-Library           :    110

networkProvided........................identifier of Named Number, 3
   DEFINED in ETSI-Library           :    186

networkSpecificNumber..................identifier of Named Number, 3
   DEFINED in ETSI-Library           :    135

nsapSubaddress.........................identifier of NSAPSubaddress
   DEFINED in ETSI-Library           :    156

NSAPSubaddress.........................type reference OCTET STRING
   DEFINED in ETSI-Library           :    167
      USED in ETSI-Library           :    156

NumberDigits...........................type reference NumericString
   DEFINED in ETSI-Library           :    125
      USED in ETSI-Library           :    102   107   108   110   116   122

numberNotAvailableDueToInterworking.....identifier of [2] NULL
   DEFINED in ETSI-Library           :     53

numberNotAvailableDueToInterworking.....identifier of [2] NULL
   DEFINED in ETSI-Library           :     61

numberNotAvailableDueToInterworking.....identifier of [2] NULL
   DEFINED in ETSI-Library           :     69

numberNotAvailableDueToInterworking.....identifier of [2] NULL
   DEFINED in ETSI-Library           :     77

NumberScreened.........................type reference SEQUENCE
   DEFINED in ETSI-Library           :     88
      USED in ETSI-Library           :     67    70

oddCountIndicator......................identifier of BOOLEAN
   DEFINED in ETSI-Library           :    163

partyNumber............................identifier of PartyNumber
   DEFINED in ETSI-Library           :     83

partyNumber............................identifier of PartyNumber
   DEFINED in ETSI-Library           :     90

partyNumber............................identifier of PartyNumber
   DEFINED in ETSI-Library           :     96

PartyNumber............................type reference CHOICE
   DEFINED in ETSI-Library           :    100
      USED in ETSI-Library           :     18    75    78    83    90    96

partySubaddress........................identifier of PartySubaddress
   DEFINED in ETSI-Library           :     85

partySubaddress........................identifier of PartySubaddress
   DEFINED in ETSI-Library           :     97

PartySubaddress........................type reference CHOICE
   DEFINED in ETSI-Library           :    152
      USED in ETSI-Library           :     19    85    97

plmnSpecific...........................identifier of [9] INTEGER
   DEFINED in ETSI-Library           :    231

presentationAllowedAddress.............identifier of [0] AddressScreened
   DEFINED in ETSI-Library           :     51

presentationAllowedAddress.............identifier of [0] Address
   DEFINED in ETSI-Library           :     59

presentationAllowedNumber..............identifier of [0] NumberScreened
   DEFINED in ETSI-Library           :     67

presentationAllowedNumber..............identifier of [0] PartyNumber
   DEFINED in ETSI-Library           :     75

presentationRestricted.................identifier of [1] NULL
   DEFINED in ETSI-Library           :     52
```

```
presentationRestricted.................identifier of [1] NULL
   DEFINED in ETSI-Library           :     60

presentationRestricted.................identifier of [1] NULL
   DEFINED in ETSI-Library           :     68

presentationRestricted.................identifier of [1] NULL
   DEFINED in ETSI-Library           :     76

presentationRestrictedAddress..........identifier of [3] AddressScreened
   DEFINED in ETSI-Library           :     54

presentationRestrictedAddress..........identifier of [3] Address
   DEFINED in ETSI-Library           :     62

presentationRestrictedNumber...........identifier of [3] NumberScreened
   DEFINED in ETSI-Library           :     70

presentationRestrictedNumber...........identifier of [3] PartyNumber
   DEFINED in ETSI-Library           :     78

PresentedAddressScreened...............type reference CHOICE
   DEFINED in ETSI-Library           :     49
      USED in ETSI-Library           :     13

PresentedAddressUnscreened.............type reference CHOICE
   DEFINED in ETSI-Library           :     57
      USED in ETSI-Library           :     14

PresentedNumberScreened................type reference CHOICE
   DEFINED in ETSI-Library           :     65
      USED in ETSI-Library           :     15

PresentedNumberUnscreened..............type reference CHOICE
   DEFINED in ETSI-Library           :     73
      USED in ETSI-Library           :     16

privateNumberDigits....................identifier of NumberDigits
   DEFINED in ETSI-Library           :    122

privatePartyNumber.....................identifier of [5] PrivatePartyNumber
   DEFINED in ETSI-Library           :    109

PrivatePartyNumber.....................type reference SEQUENCE
   DEFINED in ETSI-Library           :    119
      USED in ETSI-Library           :    109

privateTypeOfNumber....................identifier of PrivateTypeOfNumber
   DEFINED in ETSI-Library           :    121

PrivateTypeOfNumber....................type reference ENUMERATED
   DEFINED in ETSI-Library           :    142
      USED in ETSI-Library           :    121

provisioned............................identifier of Named Number, 2
   DEFINED in ETSI-Library           :    318

pTNSpecificNumber......................identifier of Named Number, 3
   DEFINED in ETSI-Library           :    147

publicNumberDigits.....................identifier of NumberDigits
   DEFINED in ETSI-Library           :    116

publicPartyNumber......................identifier of [1] PublicPartyNumber
   DEFINED in ETSI-Library           :    105

PublicPartyNumber......................type reference SEQUENCE
   DEFINED in ETSI-Library           :    113
      USED in ETSI-Library           :    105

publicTypeOfNumber.....................identifier of PublicTypeOfNumber
   DEFINED in ETSI-Library           :    115

PublicTypeOfNumber.....................type reference ENUMERATED
   DEFINED in ETSI-Library           :    128
      USED in ETSI-Library           :    115

quiescent..............................identifier of Named Number, 3
   DEFINED in ETSI-Library           :    317

registered.............................identifier of Named Number, 1
   DEFINED in ETSI-Library           :    319

screeningIndicator.....................identifier of ScreeningIndicator
   DEFINED in ETSI-Library           :     84
```

```
screeningIndicator.....................identifier of ScreeningIndicator
   DEFINED in ETSI-Library           :     91

ScreeningIndicator.....................type reference ENUMERATED
   DEFINED in ETSI-Library           :    177
      USED in ETSI-Library           :     20    84    91

speech.................................identifier of Named Number, 1
   DEFINED in ETSI-Library           :    198

SS-Code................................type reference CHOICE
   DEFINED in ETSI-Library           :    221
      USED in ETSI-Library           :     29

SS-Status..............................type reference BIT STRING
   DEFINED in ETSI-Library           :    316
      USED in ETSI-Library           :     26

subaddressInformation..................identifier of SubaddressInformation
   DEFINED in ETSI-Library           :    162

SubaddressInformation..................type reference OCTET STRING
   DEFINED in ETSI-Library           :    172
      USED in ETSI-Library           :    162

subscriberNumber.......................identifier of Named Number, 4
   DEFINED in ETSI-Library           :    136

SubTreeDefinition......................type reference OBJECT IDENTIFIER
   DEFINED in ETSI-Library           :    378
      USED in ETSI-Library           :    332   333   334   336   358   359

telefaxGroup2-3........................identifier of Named Number, 37
   DEFINED in ETSI-Library           :    207

telefaxGroup4Class1....................identifier of Named Number, 34
   DEFINED in ETSI-Library           :    204

telephony3k1Hz.........................identifier of Named Number, 32
   DEFINED in ETSI-Library           :    202

telephony7kHz..........................identifier of Named Number, 38
   DEFINED in ETSI-Library           :    208

teletex................................identifier of Named Number, 33
   DEFINED in ETSI-Library           :    203

telexPartyNumber.......................identifier of [4] NumberDigits
   DEFINED in ETSI-Library           :    108

unknown................................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    130

unknown................................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    144

unknownPartyNumber.....................identifier of [0] NumberDigits
   DEFINED in ETSI-Library           :    102

unrestrictedDigitalInformation.........identifier of Named Number, 2
   DEFINED in ETSI-Library           :    199

unrestrictedDigitalInformationWithTonesAidentifier of Named Number, 4
   DEFINED in ETSI-Library           :    201

userProvidedNotScreened................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    179

userProvidedVerifiedAndPassed..........identifier of Named Number, 1
   DEFINED in ETSI-Library           :    182

userSpecifiedSubaddress................identifier of UserSpecifiedSubaddress
   DEFINED in ETSI-Library           :    154

UserSpecifiedSubaddress................type reference SEQUENCE
   DEFINED in ETSI-Library           :    160
      USED in ETSI-Library           :    154

userToUserSignalling...................identifier of Named Number, 0
   DEFINED in ETSI-Library           :    294

videotelephony.........................identifier of Named Number, 36
   DEFINED in ETSI-Library           :    206
```

```
videotexSyntaxBased.....................identifier of Named Number, 35
   DEFINED in ETSI-Library           :    205
```

Annex C (informative): Bibliography

The rules and procedures stated in the following references were applied to this ETS:

- TCR-TR 046: "ASN.1 library rules and procedures; Version 1".

NOTE 1: TCR-TR 046 is only available to ETSI members.

- ETR 060 (1995): "Signalling Protocols and Switching (SPS); Guidelines for using Abstract Syntax Notation One (ASN.1) in telecommunication application protocols".

The following references are given for informative purposes.

- TCR-TR 019 (1994): "Signalling Protocols and Switching (SPS); Evaluation of ASN.1 tools for use as syntax and semantics checkers".

NOTE 2: TCR-TR 019 is only available to ETSI members.

- ETR 210: "ASN.1 library index; Version 1.1.1".

The following references are given for information purposes. They were the source for extracting the ASN.1 definitions contained herein:

- ETR 090 (1993): "ETSI object identifier tree; Common domain; Intelligent network (IN) domain".

- ETR 091 (1993): "ETSI object identifier tree; Common domain, Mobile domain".

- ETS 300 196-1 (1993): "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

- ETS 300 564 (1995): "European digital cellular telecommunications system (Phase 2); Mobile radio interface layer 3; Supplementary services specification; Formats and coding (GSM 04.80)".

- ETS 300 599 (1995): "European digital cellular telecommunications system (Phase 2); Mobile Application Part (MAP) specification (GSM 04.80)".

- ETS 300 612-2: European digital cellular telecommunications system (Phase 2); Network Management (NM); Part 2: Common aspects of GSM/DCS 1800; Network Management (GSM 12.01)".

- ETS 300 622: European digital cellular telecommunications system (Phase 2); Base Station System (BSS) Management Information (GSM 12.20)".

History

Document history			
December 1995	Public Enquiry	PE 97:	1995-12-04 to 1996-04-12
May 1996	Converted into Adobe Acrobat Portable Document Format (PDF)		