3GPP TSG_CN **Tdoc NP-000288**
Plenary Meeting #8, Dusseldorf, Germany
21st – 23rd June 2000.

Source: **TSG_N WG4**

Title: **CRs to 3G Work Item "Call Deflection"**

Agenda item: **6.10.4**

Document for: **APPROVAL**

Introduction:

This document contains **"2"** CRs on **Work Item "Call Deflection",** that have been agreed by **TSG_N WG4,** and are forwarded to **TSG_N Plenary** meeting #8 for approval.

TDoc	SPEC	CR	REV	PHAS	VERS	SUBJECT	CAT	NEW_VERS
N4-000305	04.80	A017		R98	7.2.0	Correction of definition of Deflected-to number	F	7.3.0
N4-000306	24.080	004		R99	3.2.0	Correction of definition of Deflected-to number	A	3.3.0

3GPP TSG-CN WG4
Rotenburg GERMANY
22-26 May 2000

Document N4-000305
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

04.80	CR	A017	Current Version:	7.2.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	CN#08	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic	X	

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*

(U)SIM		ME	X	UTRAN / Radio		Core Network	X

Source: N4 **Date:** 17.05.00

Subject: Correction of definition of Deflected-to number

Work item: Call Deflection

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	X
D	Editorial modification			Release 99	
				Release 00	

Reason for change: Currently the deflected-to number is defined as an ISDN-AddressString. With this definition the maximum length of a deflected-to number is 16 digits. This would prevent a served subscriber from using deflected-to number in unknown format together with international or national prefixes and/or additional service/carrier information. It is most likely that those numbers will be longer than 16 digits.

Clauses affected: 4.4.2

Other specs affected:

Other 3G core specifications	X	→ List of CRs:	24.080
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments: This change request is considered as an essential correction since the usage of the service in its current form is very limited. Therefore category C1 is proposed.

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4.4 Data types and identifiers

4.4.1 General

The data types used in the SS protocol specifications are described in the ASN.1 module provided in subclause 4.4.2, while subclause 4.4.3 provides an overview of the identifiers used in SS ASN.1 specifications.

Since size constraints are subject to modifications named values have been defined in the following module for the upper boundaries of the value ranges associated to several sub-type specifications.

4.4.2 ASN.1 data types

This subclause provides an ASN.1 module defining the abstract data types in operations and errors specification. Only data types which are specific for the present document are defined. All other data types are imported from MAP together with the import of operations and errors.

```
SS-DataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Access (2) modules (3)
   ss-DataTypes (2) version5 (5)}

DEFINITIONS

IMPLICIT TAGS ::=

BEGIN

-- exports all data types defined in this module

IMPORTS

SS-Code
FROM MAP-SS-Code {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Network (1) modules (3)
   map-SS-Code (15) version5 (5)}

-- imports MAP-SS-DataTypes
SS-Status, USSD-DataCodingScheme, USSD-String, CCBS-Feature
-- USSD-DataCodingScheme, USSD-String were introduced because of CNAP.
FROM MAP-SS-DataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Network (1) modules (3)
   map-SS-DataTypes (14) version5 (5)}

CUG-Index,
NotificationToMSUser
FROM MAP-MS-DataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Network (1) modules (3)
   map-MS-DataTypes (11) version5 (5)}

maxSignalInfoLength,
ISDN-AddressString,
ISDN-SubaddressString,
AlertingPattern,
LCSClientExternalID,
AddressString
FROM MAP-CommonDataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Network (1) modules (3)
   map-CommonDataTypes (18) version5 (5)}

LocationType,
LCSClientName,
LCS-QoS,
Horizontal-Accuracy,
ResponseTime,
Ext-GeographicalInformation
FROM MAP-LCS-DataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0)
   gsm-Network (1) modules (3) map-LCS-DataTypes (25) version5 (5)}

;

-- data types definition

SS-UserData ::= IA5String (SIZE (1.. maxSignalInfoLength))

NotifySS-Arg ::= SEQUENCE{
```

```
    ss-Code                     [1]     SS-Code OPTIONAL,
    ss-Status                   [4]     SS-Status OPTIONAL,
    ss-Notification             [5]     SS-Notification OPTIONAL,
    callIsWaiting-Indicator     [14]    NULL OPTIONAL,
    callOnHold-Indicator        [15]    CallOnHold-Indicator OPTIONAL,
    mpty-Indicator              [16]    NULL OPTIONAL,
    cug-Index                   [17]    CUG-Index OPTIONAL,
    clirSuppressionRejected     [18]    NULL OPTIONAL,
    ... ,
    ect-Indicator               [19]    ECT-Indicator OPTIONAL,
    nameIndicator               [20]    NameIndicator OPTIONAL,
    ccbs-Feature                [21]    CCBS-Feature OPTIONAL,
    alertingPattern             [22]    AlertingPattern OPTIONAL}

--  The nameIndicator is defined because of CNAP.

ForwardChargeAdviceArg ::= SEQUENCE{
    ss-Code                     [0]     SS-Code,
    chargingInformation         [1]     ChargingInformation,
    ...}

SS-Notification ::= OCTET STRING (SIZE (1))

--    Bit 8 7 6 5 4 00000 (Unused)

--  Bit 3   Call is forwarded indication to A-subscriber
--      (calling subscriber)
--  0   No information content
--  1   Outgoing call has been forwarded to C

--  Bit 2   Call is forwarded indication to B-subscriber
--      (forwarding subscriber)
--  0   No information content
--  1   Incoming call has been forwarded to C

--  Bit 1   Call is forwarded indication to C-subscriber
--      (forwarded-to subscriber)
--  0   No information content
--  1   Incoming call is a forwarded call

ChargingInformation ::= SEQUENCE{
    e1  [1] E1 OPTIONAL,
    e2  [2] E2 OPTIONAL,
    e3  [3] E3 OPTIONAL,
    e4  [4] E4 OPTIONAL,
    e5  [5] E5 OPTIONAL,
    e6  [6] E6 OPTIONAL,
    e7  [7] E7 OPTIONAL,
    ...}

E1 ::= INTEGER (0..max10TimesUnitsPerTime)
max10TimesUnitsPerTime INTEGER ::= 8191

E2 ::= INTEGER (0..max10TimesTimeInterval)
max10TimesTimeInterval INTEGER ::= 8191

E3 ::= INTEGER (0..max100TimesScalingFactor)
max100TimesScalingFactor INTEGER ::= 8191

E4 ::= INTEGER (0..max10TimesIncrement)
max10TimesIncrement INTEGER ::= 8191

E5 ::= INTEGER (0..max10TimesIncrementPerDataInterval)
max10TimesIncrementPerDataInterval INTEGER ::= 8191

E6 ::= INTEGER (0..maxNumberOfSegmentsPerDataInterval)
maxNumberOfSegmentsPerDataInterval INTEGER ::= 8191

E7 ::= INTEGER (0..max10TimesInitialTime)
max10TimesInitialTime INTEGER ::= 8191

CallOnHold-Indicator    ::= ENUMERATED {
            callRetrieved (0),
            callOnHold (1)}

ForwardCUG-InfoArg ::= SEQUENCE {
    cug-Index           [0] CUG-Index OPTIONAL,
    suppressPrefCUG     [1] NULL OPTIONAL,
    suppressOA          [2] NULL OPTIONAL,
    ...}

ECT-Indicator   ::= SEQUENCE {
```

```
    ect-CallState       [0] ECT-CallState,
    rdn [1] RDN OPTIONAL,
    ...}

ECT-CallState   ::= ENUMERATED {
        alerting (0),
        active (1)}

    NameIndicator ::= SEQUENCE {
        callingName     [0] Name OPTIONAL,
        ...}

    Name ::= CHOICE {
        namePresentationAllowed     [0] NameSet,
        presentationRestricted      [1] NULL,
        nameUnavailable             [2] NULL,
        namePresentationRestricted  [3] NameSet}

    NameSet ::= SEQUENCE {
        dataCodingScheme        [0] USSD-DataCodingScheme,
        lengthInCharacters      [1] INTEGER,
        nameString              [2] USSD-String,
        ...}

-- NameIndicator, Name and NameSet are defined because of CNAP.
-- The USSD-DataCodingScheme shall indicate use of the default alphabet through the
-- following encoding:
--    bit  7   6   5   4   3   2   1   0
--       | 0   0   0   0 | 1   1   1   1|

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

RemotePartyNumber   ::= SEQUENCE {
    partyNumber             [0] ISDN-AddressString,
    partyNumberSubaddress   [1] ISDN-SubaddressString OPTIONAL,
    ...}

AccessRegisterCCEntryArg    ::= SEQUENCE {
    ...}

CallDeflectionArg   ::= SEQUENCE {
    deflectedToNumber       [0] AddressString,
    deflectedToSubaddress   [1] ISDN-SubaddressString OPTIONAL,
    ...}

UserUserServiceArg ::= SEQUENCE {
    uUS-Service     [0] UUS-Service,
    uUS-Required    [1] BOOLEAN,
    ... }

UUS-Service ::= ENUMERATED {
    uUS1 (1),
    uUS2 (2),
    uUS3 (3),
    ... }

-- exception handling:
-- In case of UUS-Service with any other value, indicated as "UUS required",
-- but not understood by the MS, the call will be cleared.

LocationNotificationArg ::= SEQUENCE {
    notificationType    [0] NotificationToMSUser,
    locationType        [1] LocationType,
    lcsClientExternalID [2] LCSClientExternalID     OPTIONAL,
    lcsClientName       [3] LCSClientName           OPTIONAL,
    ...}
-- exception handling:
-- At reception of an unrecognised notificationType value the receiver shall reject the
-- operation with a return error cause of unexpected data value.
-- At reception of an unrecognised locationType value the receiver shall reject the
-- operation with a return error cause of unexpected data value.


LocationNotificationRes ::= SEQUENCE {
    verificationResponse        [0] VerificationResponse OPTIONAL,
    ...}

VerificationResponse::= ENUMERATED {
    permissionDenied    (0),
```

```
    permissionGranted   (1),
    ... }

-- exception handling:
-- an unrecognized value shall be treated the same as value 0 (permissionDenied)

LCS-MOLRArg ::= SEQUENCE {
    molr-Type           [0] MOLR-Type,
    locationMethod      [1] LocationMethod          OPTIONAL,
    lcs-QoS             [2] LCS-QoS                 OPTIONAL,
    lcsClientExternalID [3] LCSClientExternalID     OPTIONAL,
    mlc-Number          [4] ISDN-AddressString      OPTIONAL,
    gpsAssistanceData   [5] GPSAssistanceData       OPTIONAL,
    ...}
-- The parameter locationMethod shall be included if and only if the molr-Type is set to value
-- deCipheringKeys or assistanceData.
-- The parameter gpsAssistanceData shall be included if and only if the molr-Type is set to value
-- assistanceData and LocationMethod is set to value assistedGPS.

MOLR-Type::= ENUMERATED {
    locationEstimate            (0),
    assistanceData              (1),
    deCipheringKeys             (2),
    ... }
-- exception handling:
-- an unrecognized value shall be rejected by the receiver with a return error cause of
-- unexpected data value.

LocationMethod::= ENUMERATED {
    msBasedEOTD         (0),
    msAssistedEOTD      (1),
    assistedGPS         (2),
    ... }
-- exception handling:
-- an unrecognized value shall be rejected by the receiver with a return error cause of
-- unexpected data value.

GPSAssistanceData::= OCTET STRING (SIZE (1..38))
-- Octets 1 to 38 are coded in the same way as the octets 3 to 7+2n of Requested GPS Data IE
-- in GSM 09.31.

LCS-MOLRRes::= SEQUENCE {
    locationEstimate        [0] Ext-GeographicalInformation     OPTIONAL,
    decipheringKeys         [1] DecipheringKeys                 OPTIONAL,
    ...}
-- Parameter locationEstimate shall be included if and only if the
-- molr-Type in LocationRequestArg was set to value locationEstimate.
-- Parameter decipheringKeys shall be included if and only if the molr-Type
-- in LocationRequestArg was set to value deCipheringKeys.
--


DecipheringKeys::= OCTET STRING (SIZE (15))
-- Octets in DecipheringKeys are coded in the same way as the octets 3 to 17 of Deciphering Key IE
-- in GSM 09.31. I.e. these octets contain Current Deciphering Key, Next Deciphering Key and
-- Ciphering Key Flag.



END
```

3GPP TSG-CN WG4
Rotenburg GERMANY
22-26 May 2000

Document N4-000306
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

24.080	CR	004	Current Version:	3.2.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	CN#08	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic	X	

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*

(U)SIM		ME	X	UTRAN / Radio		Core Network	X

Source: N4 **Date:** 17.05.00

Subject: Correction of definition of Deflected-to number

Work item: Call Deflection

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release	X		Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: Currently the deflected-to number is defined as an ISDN-AddressString. With this definition the maximum length of a deflected-to number is 16 digits. This would prevent a served subscriber from using deflected-to number in unknown format together with international or national prefixes and/or additional service/carrier information. It is most likely that those numbers will be longer than 16 digits.

Clauses affected: 4.4.2

Other specs affected:

Other 3G core specifications	X	→ List of CRs:	
Other GSM core specifications		→ List of CRs:	04.80
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments: This change request is considered as an essential correction since the usage of the service in its current form is very limited. Therefore category C1 is proposed.


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4.4 Data types and identifiers

4.4.1 General

The data types used in the SS protocol specifications are described in the ASN.1 module provided in subclause 4.4.2, while subclause 4.4.3 provides an overview of the identifiers used in SS ASN.1 specifications.

Since size constraints are subject to modifications named values have been defined in the following module for the upper boundaries of the value ranges associated to several sub-type specifications.

4.4.2 ASN.1 data types

This subclause provides an ASN.1 module defining the abstract data types in operations and errors specification. Only data types which are specific for this specification are defined. All other data types are imported from MAP together with the import of operations and errors.

```
SS-DataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Access (2) modules (3)
   ss-DataTypes (2) version6 (6)}

DEFINITIONS

IMPLICIT TAGS ::=

BEGIN

-- exports all data types defined in this module

IMPORTS

SS-Code
FROM MAP-SS-Code {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Network (1) modules (3)
   map-SS-Code (15) version6 (6)}

-- imports MAP-SS-DataTypes
SS-Status, USSD-DataCodingScheme, USSD-String, CCBS-Feature
-- USSD-DataCodingScheme, USSD-String were introduced because of CNAP.
FROM MAP-SS-DataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Network (1) modules (3)
   map-SS-DataTypes (14) version6 (6)}

CUG-Index,
NotificationToMSUser
FROM MAP-MS-DataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Network (1) modules (3)
   map-MS-DataTypes (11) version6 (6)}

maxSignalInfoLength,
ISDN-AddressString,
ISDN-SubaddressString,
AlertingPattern,
LCSClientExternalID,
AddressString
FROM MAP-CommonDataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0) gsm-Network (1) modules (3)
   map-CommonDataTypes (18) version6 (6)}

LocationType,
LCSClientName,
LCS-QoS,
Horizontal-Accuracy,
ResponseTime,
Ext-GeographicalInformation
FROM MAP-LCS-DataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0)
   gsm-Network (1) modules (3) map-LCS-DataTypes (25) version6 (6)}

;

-- data types definition

SS-UserData ::= IA5String (SIZE (1.. maxSignalInfoLength))

NotifySS-Arg ::= SEQUENCE{
```

```
    ss-Code                     [1]     SS-Code OPTIONAL,
    ss-Status                   [4]     SS-Status OPTIONAL,
    ss-Notification             [5]     SS-Notification OPTIONAL,
    callIsWaiting-Indicator     [14]    NULL OPTIONAL,
    callOnHold-Indicator        [15]    CallOnHold-Indicator OPTIONAL,
    mpty-Indicator              [16]    NULL OPTIONAL,
    cug-Index                   [17]    CUG-Index OPTIONAL,
    clirSuppressionRejected     [18]    NULL OPTIONAL,
    ... ,
    ect-Indicator               [19]    ECT-Indicator OPTIONAL,
    nameIndicator               [20]    NameIndicator OPTIONAL,
    ccbs-Feature                [21]    CCBS-Feature OPTIONAL,
    alertingPattern             [22]    AlertingPattern OPTIONAL}

--  The nameIndicator is defined because of CNAP.

ForwardChargeAdviceArg ::= SEQUENCE{
    ss-Code                     [0]     SS-Code,
    chargingInformation         [1]     ChargingInformation,
    ...}

SS-Notification ::= OCTET STRING (SIZE (1))

--    Bit 8 7 6 5 4 00000 (Unused)

--  Bit 3   Call is forwarded indication to A-subscriber
--      (calling subscriber)
--  0   No information content
--  1   Outgoing call has been forwarded to C

--  Bit 2   Call is forwarded indication to B-subscriber
--      (forwarding subscriber)
--  0   No information content
--  1   Incoming call has been forwarded to C

--  Bit 1   Call is forwarded indication to C-subscriber
--      (forwarded-to subscriber)
--  0   No information content
--  1   Incoming call is a forwarded call

ChargingInformation ::= SEQUENCE{
    e1  [1] E1 OPTIONAL,
    e2  [2] E2 OPTIONAL,
    e3  [3] E3 OPTIONAL,
    e4  [4] E4 OPTIONAL,
    e5  [5] E5 OPTIONAL,
    e6  [6] E6 OPTIONAL,
    e7  [7] E7 OPTIONAL,
    ...}

E1 ::= INTEGER (0..max10TimesUnitsPerTime)
max10TimesUnitsPerTime INTEGER ::= 8191

E2 ::= INTEGER (0..max10TimesTimeInterval)
max10TimesTimeInterval INTEGER ::= 8191

E3 ::= INTEGER (0..max100TimesScalingFactor)
max100TimesScalingFactor INTEGER ::= 8191

E4 ::= INTEGER (0..max10TimesIncrement)
max10TimesIncrement INTEGER ::= 8191

E5 ::= INTEGER (0..max10TimesIncrementPerDataInterval)
max10TimesIncrementPerDataInterval INTEGER ::= 8191

E6 ::= INTEGER (0..maxNumberOfSegmentsPerDataInterval)
maxNumberOfSegmentsPerDataInterval INTEGER ::= 8191

E7 ::= INTEGER (0..max10TimesInitialTime)
max10TimesInitialTime INTEGER ::= 8191

CallOnHold-Indicator    ::= ENUMERATED {
            callRetrieved (0),
            callOnHold (1)}

ForwardCUG-InfoArg ::= SEQUENCE {
    cug-Index           [0] CUG-Index OPTIONAL,
    suppressPrefCUG     [1] NULL OPTIONAL,
    suppressOA          [2] NULL OPTIONAL,
    ...}

ECT-Indicator   ::= SEQUENCE {
```

```
    ect-CallState       [0] ECT-CallState,
    rdn [1] RDN OPTIONAL,
    ...}

ECT-CallState   ::= ENUMERATED {
        alerting (0),
        active (1)}

    NameIndicator ::= SEQUENCE {
        callingName     [0] Name OPTIONAL,
        ...}

    Name ::= CHOICE {
        namePresentationAllowed     [0] NameSet,
        presentationRestricted      [1] NULL,
        nameUnavailable             [2] NULL,
        namePresentationRestricted  [3] NameSet}

    NameSet ::= SEQUENCE {
        dataCodingScheme        [0] USSD-DataCodingScheme,
        lengthInCharacters      [1] INTEGER,
        nameString              [2] USSD-String,
        ...}

-- NameIndicator, Name and NameSet are defined because of CNAP.
-- The USSD-DataCodingScheme shall indicate use of the default alphabet through the
-- following encoding:
--    bit  7   6   5   4   3   2   1   0
--       | 0   0   0   0 | 1   1   1   1|

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

RemotePartyNumber   ::= SEQUENCE {
    partyNumber             [0] ISDN-AddressString,
    partyNumberSubaddress   [1] ISDN-SubaddressString OPTIONAL,
    ...}

AccessRegisterCCEntryArg    ::= SEQUENCE {
    ...}

CallDeflectionArg   ::= SEQUENCE {
    deflectedToNumber       [0] AddressString,
    deflectedToSubaddress   [1] ISDN-SubaddressString OPTIONAL,
    ...}

UserUserServiceArg ::= SEQUENCE {
    uUS-Service     [0] UUS-Service,
    uUS-Required    [1] BOOLEAN,
    ... }

UUS-Service ::= ENUMERATED {
    uUS1 (1),
    uUS2 (2),
    uUS3 (3),
    ... }

-- exception handling:
-- In case of UUS-Service with any other value, indicated as "UUS required",
-- but not understood by the MS, the call will be cleared.

LocationNotificationArg ::= SEQUENCE {
    notificationType    [0] NotificationToMSUser,
    locationType        [1] LocationType,
    lcsClientExternalID [2] LCSClientExternalID     OPTIONAL,
    lcsClientName       [3] LCSClientName           OPTIONAL,
    ...}
-- exception handling:
-- At reception of an unrecognised notificationType value the receiver shall reject the
-- operation with a return error cause of unexpected data value.
-- At reception of an unrecognised locationType value the receiver shall reject the
-- operation with a return error cause of unexpected data value.


LocationNotificationRes ::= SEQUENCE {
    verificationResponse        [0] VerificationResponse OPTIONAL,
    ...}

VerificationResponse::= ENUMERATED {
    permissionDenied    (0),
```

```
    permissionGranted   (1),
    ... }

-- exception handling:
-- an unrecognized value shall be treated the same as value 0 (permissionDenied)

LCS-MOLRArg ::= SEQUENCE {
    molr-Type           [0] MOLR-Type,
    locationMethod      [1] LocationMethod          OPTIONAL,
    lcs-QoS             [2] LCS-QoS                 OPTIONAL,
    lcsClientExternalID [3] LCSClientExternalID     OPTIONAL,
    mlc-Number          [4] ISDN-AddressString      OPTIONAL,
    gpsAssistanceData   [5] GPSAssistanceData       OPTIONAL,
    ...}
-- The parameter locationMethod shall be included if and only if the molr-Type is set to value
-- deCipheringKeys or assistanceData.
-- The parameter gpsAssistanceData shall be included if and only if the molr-Type is set to value
-- assistanceData and LocationMethod is set to value assistedGPS.

MOLR-Type::= ENUMERATED {
    locationEstimate            (0),
    assistanceData              (1),
    deCipheringKeys             (2),
    ... }
-- exception handling:
-- an unrecognized value shall be rejected by the receiver with a return error cause of
-- unexpected data value.

LocationMethod::= ENUMERATED {
    msBasedEOTD         (0),
    msAssistedEOTD      (1),
    assistedGPS         (2),
    ... }
-- exception handling:
-- an unrecognized value shall be rejected by the receiver with a return error cause of
-- unexpected data value.

GPSAssistanceData::= OCTET STRING (SIZE (1..38))
-- Octets 1 to 38 are coded in the same way as the octets 3 to 7+2n of Requested GPS Data IE
-- in GSM 09.31.

LCS-MOLRRes::= SEQUENCE {
    locationEstimate        [0] Ext-GeographicalInformation     OPTIONAL,
    decipheringKeys         [1] DecipheringKeys                 OPTIONAL,
    ...}
-- Parameter locationEstimate shall be included if and only if the
-- molr-Type in LocationRequestArg was set to value locationEstimate.
-- Parameter decipheringKeys shall be included if and only if the molr-Type
-- in LocationRequestArg was set to value deCipheringKeys.
--


DecipheringKeys::= OCTET STRING (SIZE (15))
-- Octets in DecipheringKeys are coded in the same way as the octets 3 to 17 of Deciphering Key IE
-- in GSM 09.31. I.e. these octets contain Current Deciphering Key, Next Deciphering Key and
-- Ciphering Key Flag.



END
```