ERICSSON

Release 15 SGW-CDR ASN.1 Format

PRINTOUT DESCRIPTION

22/190 83-AXB 250 12-V3 Uen AG

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Contents

1 Introduction

This document presents the ASN.1 format for release 15 SGW-CDRs generated by the EPG.

For more information on CDRs, see CDR Format for the GGSN and PGW and CDR Format for the SGW.

2 ASN.1 Format

```
SgwR15Ber DEFINITIONS IMPLICIT TAGS ::= BEGIN

GPRSRecord ::= CHOICE
{
   sGWRecord         [78] SGWRecord
}

SGWRecord ::= SET
{
   recordType                          [0] RecordType,
   servedIMSI                          [3] IMSI OPTIONAL,
   s-GWAddress                         [4] GSNAddress,
   chargingID                          [5] ChargingID,
   servingNodeAddress                  [6] SEQUENCE OF GSNAddress,
   accessPointNameNI                   [7] AccessPointNameNI OPTIONAL,
   pdpPDNType                          [8] PDPType OPTIONAL,
   servedPDPPDNAddress                 [9] PDPAddress OPTIONAL,
   listOfTrafficVolumes               [12] SEQUENCE OF ChangeOfCharCondition
   recordOpeningTime                  [13] TimeStamp,
   duration                           [14] CallDuration,
   causeForRecClosing                 [15] CauseForRecClosing,
   recordSequenceNumber               [17] INTEGER OPTIONAL,
   nodeID                             [18] NodeID OPTIONAL,
   localSequenceNumber                [20] LocalSequenceNumber,
   servedMSISDN                       [22] MSISDN OPTIONAL,
   chargingCharacteristics            [23] ChargingCharacteristics,
   servingNodePLMNIdentifier          [27] PLMN-Id OPTIONAL,
   servedIMEISV                       [29] IMEI OPTIONAL,
   rATType                            [30] RATType OPTIONAL,
   mSTimeZone                         [31] MSTimeZone OPTIONAL,
   sGWChange                          [34] SGWChange OPTIONAL,
   servingNodeType                    [35] SEQUENCE OF ServingNodeType,
   p-GWAddressUsed                    [36] GSNAddress OPTIONAL,
   p-GWPLMNIdentifier                 [37] PLMN-Id OPTIONAL,
   pDNConnectionChargingID            [40] ChargingID OPTIONAL,
   iMSIunauthenticatedFlag            [41] NULL OPTIONAL,
   servedPDPPDNAddressExt             [43] PDPAddress OPTIONAL,
   lowPriorityIndicator               [44] NULL OPTIONAL,
   s-GWiPv6Address                    [48] GSNAddress OPTIONAL,
   servingNodeiPv6Address             [49] SEQUENCE OF GSNAddress OPTIONAL,
   p-GWiPv6AddressUsed                [50] GSNAddress OPTIONAL,
   cPCIoTEPSOptimisationIndicator     [59] CPCIoTEPSOptimisationIndicator OPT
   uNIPDUCPOnlyFlag                   [60] UNIPDUCPOnlyFlag OPTIONAL,
   servingPLMNRateControl             [61] ServingPLMNRateControl OPTIONAL,
   pDPPDNTypeExtension                [62] PDPPDNTypeExtension OPTIONAL,
   mOExceptionDataCounter             [63] MOExceptionDataCounter OPTIONAL,
```

```
   listOfRANSecondaryRATUsageReports [64] SEQUENCE OF RANSecondaryRATUsageRepor
}

PDPPDNTypeExtension            ::= INTEGER
AccessPointNameNI              ::= IA5String (SIZE(1..63))
AddressString                  ::= OCTET STRING (SIZE (1..20))
CallDuration                   ::= INTEGER
UNIPDUCPOnlyFlag               ::= BOOLEAN
CPCIoTEPSOptimisationIndicator ::= BOOLEAN
CauseForRecClosing ::= INTEGER
{
   normalRelease                                (0),
   abnormalRelease                              (4),
   volumeLimit                                 (16),
   timeLimit                                   (17),
   servingNodeChange                           (18),
   rATChange                                   (22),
   sGSNPLMNIDChange                            (24)
}
ChangeCondition ::= ENUMERATED
{
   recordClosure                                (2),
   servingPLMNRateControlChange                 (19)
}
ChangeOfCharCondition ::= SEQUENCE
{
   dataVolumeGPRSUplink                         [3] DataVolumeGPRS,
   dataVolumeGPRSDownlink                       [4] DataVolumeGPRS,
   changeCondition                              [5] ChangeCondition,
   changeTime                                   [6] TimeStamp,
   userLocationInformation                      [8] OCTET STRING OPTIONAL,
   ePCQoSInformation                            [9] EPCQoSInformation OPTIONAL
}
ChargingCharacteristics ::= OCTET STRING (SIZE (2))
ChargingID ::= INTEGER (0..4294967295)
DataVolumeGPRS ::= INTEGER
EPCQoSInformation ::= SEQUENCE
{
   qCI                      [1] INTEGER,
   maxRequestedBandwithUL   [2] INTEGER OPTIONAL,
   maxRequestedBandwithDL   [3] INTEGER OPTIONAL,
   guaranteedBitrateUL      [4] INTEGER OPTIONAL,
   guaranteedBitrateDL      [5] INTEGER OPTIONAL,
   aRP                      [6] INTEGER OPTIONAL,
   aPNAggregateMaxBitrateUL [7] INTEGER OPTIONAL,
   aPNAggregateMaxBitrateDL [8] INTEGER OPTIONAL,
   extendedMaxRequestedBWUL [9] INTEGER OPTIONAL,
   extendedMaxRequestedBWDL [10] INTEGER OPTIONAL,
   extendedGBRUL            [11] INTEGER OPTIONAL,
   extendedGBRDL            [12] INTEGER OPTIONAL,
   extendedAPNAMBRUL        [13] INTEGER OPTIONAL,
```

```
   extendedAPNAMBRDL        [14] INTEGER OPTIONAL
}
GSNAddress ::= IPAddress
IMEI ::= TBCD-STRING (SIZE (8))
IMSI ::= TBCD-STRING (SIZE (3..8))
IPAddress ::= CHOICE
{
   iPBinaryAddress                                IPBinaryAddress
}
IPBinaryAddress ::= CHOICE
{
   iPBinV4Address                               [0] OCTET STRING (SIZE(4)),
   iPBinV6Address                               [1] OCTET STRING (SIZE(16))
}
ISDN-AddressString ::= AddressString (SIZE(1..9))
LocalSequenceNumber ::= INTEGER (0..4294967295)
MSISDN ::= ISDN-AddressString
MSTimeZone ::= OCTET STRING (SIZE (2))
NodeID ::= IA5String (SIZE(1..20))
PDPAddress ::= CHOICE
{
   iPAddress                                    [0] IPAddress
}
PDPType ::= OCTET STRING (SIZE(1))
PLMN-Id ::= OCTET STRING (SIZE(3))
RATType ::= INTEGER (0..255)
RecordType ::= INTEGER
{
   sGWRecord                                   (84)
}
ServingNodeType ::= ENUMERATED
{
   sGSN                                         (0),
   mME                                          (5)
}
SGWChange        ::= BOOLEAN
TBCD-STRING      ::= OCTET STRING
TimeStamp        ::= OCTET STRING (SIZE(9))

ServingPLMNRateControl ::= SEQUENCE
{
    sPLMNDLRateControlValue [0] INTEGER,
    sPLMNULRateControlValue [1] INTEGER
}

MOExceptionDataCounter ::= SEQUENCE
{
    counterValue         [0] INTEGER,
    counterTimestamp     [1] TimeStamp
}
```

```
RANSecondaryRATUsageReport ::= SEQUENCE
{
   dataVolumeUplink    [1] DataVolumeGPRS,
   dataVolumeDownlink  [2] DataVolumeGPRS,
   rANStartTime        [3] TimeStamp,
   rANEndTime          [4] TimeStamp,
   secondaryRATType    [5] SecondaryRATType OPTIONAL,
   chargingID          [6] ChargingID OPTIONAL
}

SecondaryRATType ::= INTEGER
{
   nR       (0),
   reserved (1)
}

END
```