
Source: SA5 (Telecom Management)
Title: 2 Rel-4 & Rel-5 CRs 32.215 (PS charging): Correcting definition of traffic data volume CDR field & Specify usage of the LRSN to avoid loss of billing data
Document for: Approval
Agenda Item: 7.5.3

Doc-1 st -Level	Spec	CR	R	Phase	Subject	Cat	Ver Cur	Ver New	Doc-2 nd -Level	Workite m
SP-020288	32.215	013	-	Rel-4	Correcting definition of traffic data volume CDR field & Specify usage of the LRSN to avoid loss of billing data	F	4.2.1	4.3.0	S5-024165	OAM-CH
SP-020288	32.215	014	-	Rel-5	Correcting definition of traffic data volume CDR field & Specify usage of the LRSN to avoid loss of billing data	A	5.0.0	5.1.0	S5-024166	OAM-CH

CHANGE REQUEST

⌘ **32.215 CR 013** ⌘ rev **-** ⌘ Current version: **4.2.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title: ⌘ Correcting definition of traffic data volume CDR field & Specify usage of the LRSN to avoid loss of billing data

Source: ⌘ SA5

Work item code: ⌘ OAM-CH

Date: ⌘ 24/05/2002

Category: ⌘ **F**

Release: ⌘ **REL-4**

Use one of the following categories:

- F** (correction)
- A** (corresponds to a correction in an earlier release)
- B** (addition of feature),
- C** (functional modification of feature)
- D** (editorial modification)

Detailed explanations of the above categories can be found in 3GPP [TR 21.900](#).

Use one of the following releases:

- 2** (GSM Phase 2)
- R96** (Release 1996)
- R97** (Release 1997)
- R98** (Release 1998)
- R99** (Release 1999)
- REL-4** (Release 4)
- REL-5** (Release 5)

Reason for change: ⌘

1. Correct the definitions of the traffic data volume CDR fields to ensure that accurate timestamp information is available for billing and other CDR-based operational needs.
2. Specify proper usage of the Local Record Sequence Number (LRSN) to avoid loss of billing data.

Summary of change: ⌘

1. For the timestamp in each traffic data volume container, state that this is the time of closure of the data volume container.
2. State explicitly that the LRSN is unique *per partial record* with a node.

Consequences if not approved: ⌘

1. Timestamp information could have different meaning for different vendors' implementations.
2. Unable to use the local record sequence number (LRSN) field to detect missing records from a GSN. (Incorrect usages, e.g. to allocate LRSN per PDP context, rather than per partial record, makes use of LRSN to detect missing partial records.)

Clauses affected: ⌘ 5.15, 5.16

Other specs affected: ⌘ Other core specifications ⌘ Test specifications
 O&M Specifications ⌘ Mirror CR in the scope of 32.215 REL-5.

Other comments: ⌘

5.15 List of Traffic Data Volumes

This list includes one or more containers, each includes the following fields:

Data Volume Uplink, Data Volume Downlink, Change Condition and Change Time.

Data Volume, Uplink and/or **Downlink**, includes the number of octets transmitted during the use of the packet data services in the uplink and/or downlink direction, respectively.

Change Condition defines the reason for closing the container (see TS 32.200 [3] Clause 6), such as tariff time change, QoS change or closing of the CDR.

Change Time is a time stamp, which defines the moment when the ~~new volume counts are started~~ container is closed or the CDR is closed. All the active PDP contexts do not need to have exactly the same time stamp e.g. due to same tariff time change (variance of the time stamps is implementation and traffic load dependent, and is out of the scope of standardisation).

5.16 Local Record Sequence Number

This field includes a unique record number created by this node. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within one node, which is identified either by field Node ID or by record-dependent node address (SGSN address, GGSN address, Recording Entity).

The field can be used e.g. to identify missing records in post processing system.

CHANGE REQUEST

⌘ **32.215 CR 014** ⌘ rev **-** ⌘ Current version: **5.0.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title: ⌘ Correcting definition of traffic data volume CDR field & Specify usage of the LRSN to avoid loss of billing data

Source: ⌘ SA5

Work item code: ⌘ OAM-CH

Date: ⌘ 24/05/2002

Category: ⌘ **A**

Release: ⌘ **REL-5**

Use one of the following categories:

- F** (correction)
- A** (corresponds to a correction in an earlier release)
- B** (addition of feature),
- C** (functional modification of feature)
- D** (editorial modification)

Detailed explanations of the above categories can be found in 3GPP [TR 21.900](#).

Use one of the following releases:

- 2** (GSM Phase 2)
- R96** (Release 1996)
- R97** (Release 1997)
- R98** (Release 1998)
- R99** (Release 1999)
- REL-4** (Release 4)
- REL-5** (Release 5)

Reason for change: ⌘

1. Correct the definitions of the traffic data volume CDR fields to ensure that accurate timestamp information is available for billing and other CDR-based operational needs.
2. Specify proper usage of the Local Record Sequence Number (LRSN) to avoid loss of billing data.

Summary of change: ⌘

1. For the timestamp in each traffic data volume container, state that this is the time of closure of the data volume container.
2. State explicitly that the LRSN is unique *per partial record* with a node.

Consequences if not approved: ⌘

1. Timestamp information could have different meaning for different vendors' implementations.
2. Unable to use the local record sequence number (LRSN) field to detect missing records from a GSN. (Incorrect usages, e.g. to allocate LRSN per PDP context, rather than per partial record, makes use of LRSN to detect missing partial records.)

Clauses affected: ⌘ 5.15, 5.16

Other specs affected: ⌘ Other core specifications ⌘ Test specifications
 O&M Specifications ⌘ Mirror CR in the scope of 32.215 REL-4.

Other comments: ⌘

5.15 List of Traffic Data Volumes

This list includes one or more containers, each includes the following fields:

Data Volume Uplink, Data Volume Downlink, Change Condition and Change Time.

Data Volume, Uplink and/or **Downlink**, includes the number of octets transmitted during the use of the packet data services in the uplink and/or downlink direction, respectively.

Change Condition defines the reason for closing the container (see TS 32.200 [3] Clause 6), such as tariff time change, QoS change or closing of the CDR.

Change Time is a time stamp, which defines the moment when the ~~new volume counts are started~~ container is closed or the CDR is closed. All the active PDP contexts do not need to have exactly the same time stamp e.g. due to same tariff time change (variance of the time stamps is implementation and traffic load dependent, and is out of the scope of standardisation).

5.16 Local Record Sequence Number

This field includes a unique record number created by this node. The number is allocated sequentially for each partial CDR (or whole CDR) including all CDR types. The number is unique within one node, which is identified either by field Node ID or by record-dependent node address (SGSN address, GGSN address, Recording Entity).

The field can be used e.g. to identify missing records in post processing system.