ADVENAGE
ICT SOLUTIONS & CONSULTING

SMS Gateway Router 1.0

Specification of Accounting CDRs for B2B Settlement

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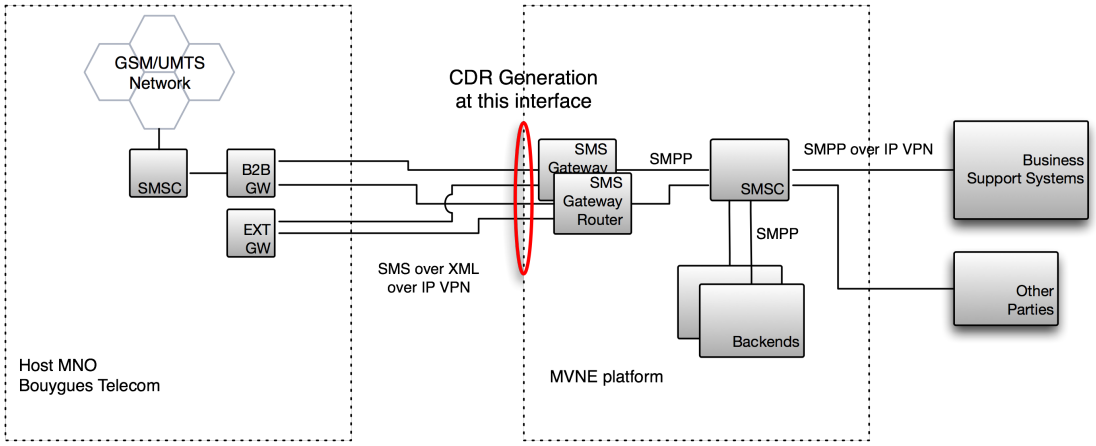
1 Introduction

This specification describes the format of Accounting CDRs generated by the SMS Gateway Router on the the interface between the SMS Gateway Router Channels BYTXML and BYTEXTGW. These channels implement the interfaces between the SMS Gateway Router and the Bouygues Telecom Systems B2B Gateway and STI External Gateway. The context is depicted by the figure below:



The CDRs produced for these channels are not rated.

The CDRs are collected in a database and handed over from time to time to a work-flow engine transferring the CDR data in files to partners of the MVNO via FTP for B2B settlement purposes.

In case that the partner's FTP server is unavailable, the transmission will be retried until successful delivery was confirmed by the peer's FTP server.

This document describes the format of the files transferred to the partners of the MVNO. This includes file name conventions, basic file format and the format of the CDRs in the file.

An accomplishing application note describes rules for CDR collection intervals and FTP file delivery intervals.

2 CDR file format specification

The CDR collection process of SMS Gateway Router collects all available information on SMS reception and delivery in real-time at the interface between SMS Gateway Router and Bouygues Telecom. This information is collected in a database. From time to time a CDR export process exports this data from the database.

The selection of CDRs to be exported is mainly ruled by time. This causes CDR export files to be generated at defined intervals including data from a particular start time-stamp to an end time-stamp. Each export file has a individual sequence number.

In particular situations CDRs might arrive late at the database – meaning after the regular export of this time interval has already been completed. These records are still collected and delivered at a later time in long term intervals – usually monthly – with overlapping timestamps for start and end of the collection interval but with a uniques sequence number of the export.

Usually a single CDR will never be delivered twice to partners.

2.1 File naming conventions

An example of a CDR export file is given below:

```
KFR_SMSB2BRECORD_20081118192500_20081119192500_1013.csv
```

This file is for the domain “KFR”, includes records from the table “SMSB2BRECORD”, the start time-stamp is “November 18th 2008 19:25:00 UTC”, the end time-stamp is “November 19th 2008 19:25:00 UTC”, the sequence number of this file is “1013”. The (fixed) trailer of the filename is “.csv”.

During the time the file is transferred from the MVNE site to partner's site, the filename will be extended to

```
KFR_SMSB2BRECORD_20081118192500_20081119192500_1013.csv.tmp
```

After the file transfer completed, the file will be renamed to

```
KFR_SMSB2BRECORD_20081118192500_20081119192500_1013.csv
```

The partner is expected to process only files with the trailer “.csv”, but not “.csv.tmp”.

2.2 General file format

CDR export files are text files separated into lines. A line is ended by <CR> <LF> or in the UNIX notation “\r\n”.

The format of CDR export files comprises three sections:

- Header
- CDR (main) part
- Trailer

The content of the header section is an attribute value list. Attributes and values are separated by the equal sign '='.

The example below illustrates the header section:

```
DOMAIN=KFR
TABLE=SMSB2BRECORD
VERSION=V1.0.1
PERIODSTART=20081118192500
PERIODEND=20081119192500
SEQNO=1013
```

The first entry describes the domain (“KFR” in this example), the second entry describes the exported table (“SMSB2BRECORD” in this example), the third entry describes the version of CDR file format used (“V1.0.1” in this example), the fourth entry describes the start time-stamp of the CDR export file (“20081118192500” in this example), the ffth entry describes the end time-stamp of the CDR export fle (“20081119192500” in this example), the sixth entry describes the sequence number of the export file (“1013” in this example).

The header is separated from the CDR part of the file by an empty line.

The (main) CDR part of the file is described by the following section in detail. The CDR part of the file might be empty.

The CDR part of the file is separated from the trailing part by an empty line.

The example below illustrates the trailing section:

```
ROWCOUNT=10
```

The trailing part of the CDR file is an attribute value list with only a single entry – the number of CDRs in the (main) CDR section.

2.3 Format of CDRs in the file

The (main) CDR part of a CDR export file comprises the CDRs for the particular time interval. An example illustrates this section:

```
0973696D2D7372762D3108000000000000000001;1;33668741168;3322208;6;20081101004923;20081101004923;20081101014923
0973696D2D7372762D3108000000000000000004;4;3322208;33668741168;7;20081101004927;20081101004927;20081101014927
0973696D2D7372762D3108000000000000000005;5;33668741168;3322209;6;20081101010825;20081101010825;20081101020825
0973696D2D7372762D3108000000000000000008;8;3322209;33668741168;7;20081101010829;20081101010829;20081101020829
0973696D2D7372762D3108000000000000000009;9;33668741168;3322208;6;20081101011455;20081101011455;20081101021455
0973696D2D7372762D310800000000000000000C;12;3322208;33668741168;7;20081101011459;20081101011459;20081101021459
```

Each line includes an individual CDR, separated by semicolons into columns:

Name	Format	Description
refid	ASCII string	Unique reference to the CDR
seq_no	64 bit unsigned integer as numeric ASCII string	Unique sequence number of the CDR in the particular database
CgPN	Numeric ASCII string	Calling Party Number (A-Number) in international format
CdPN	Numeric ASCII string	Called Party Number (B-Number) in international format
Message type	Numeric ASCII string	6 means SM MO 7 means SM MT

		0 means unknown
Mediation time	Numeric ASCII string	The time of mediation in the format: "%Y%m%d%H%M%S" as UTC time
CDR time stamp	Numeric ASCII string	The CDR time stamp (service delivery time) in the format: "%Y%m%d%H%M%S" as UTC time
CDR time stamp as local time stamp	Numeric ASCII string	The CDR time stamp (service delivery time) in the format: "%Y%m%d%H%M%S" as local time This information is provided for information purposes only. The relevant time stamp is “CDR time stamp”.