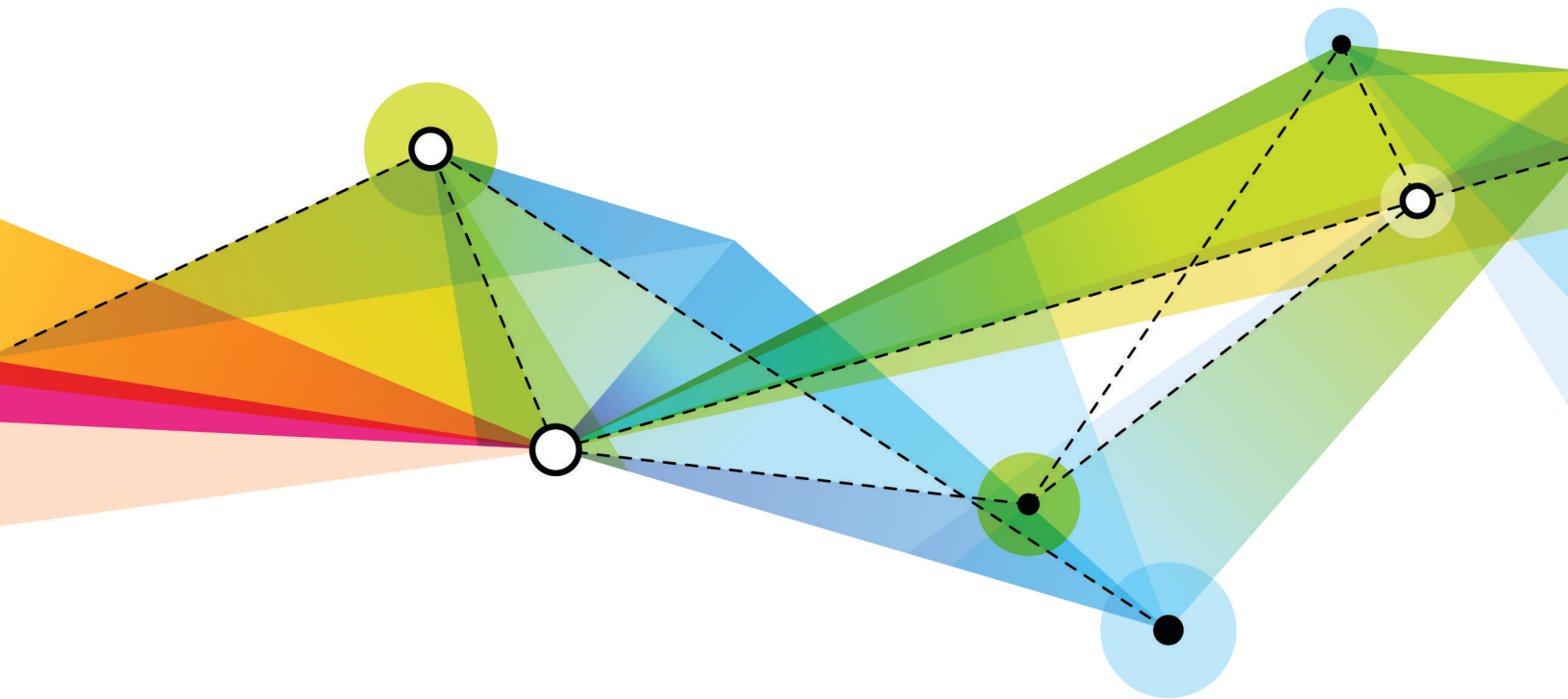




Smile CDR Import Format

Specification and Documentation



Edition: 1.2

Release date: February 4, 2016

Smile version: 5.4

Published by Inomial Pty Ltd

Suite 801, 620 Bourke St, Melbourne, Vic 3000, Australia

www.inomial.com • +61 3 9663 3554 • sales@inomial.com • support@inomial.com

Copyright © 2016, Inomial Pty Ltd. Commercial in confidence.

Call data record specification

The Smile Call Data Record (CDR) import format is for importing billable events for subscriptions into Smile.

File format

The Smile CDR import format is a Comma Separated Values (CSV) file containing three record types:

- **header**—contains the column names for the entry records
- **entry**— contains the actual RCR data of interest, one entry for each RCR
- **footer**—contains summary data that can be used to verify successful transfer of the file

Commas separating unused columns at the end of a line may not be omitted.

Refer to RFC 4180 (<http://www.ietf.org/rfc/rfc4180.txt>) for a detailed definition of CSV file formats. Note that Smile will accept a broader definition than this file. For example, any popular newline format (CR/LF) is accepted.

Header

The first line of the file must contain the names of the columns as defined in Entries, separated by commas.

A header record has a Record Type of 'H' or 'Record Type'.

```
Record Type,External Entry ID,SID,Identifier,Identifier Type[,...]
```

Entry

An entry record contains the actual import data of interest. One entry record for each RCR.

An entry record has a Record Type of 'E'.

Table 1: Entry record field definition

Col	Field name	Data type	Description	Required?
0	Record Type	Text	'E' for a CDR entry	Yes
1	External Entry ID	Text	A unique identifier for the entry, generated by the external system	No, defaults to Smile-generated ID (including line number and file)

Col	Field name	Data type	Description	Required?
2	SID	Number	The target service ID of the subscription. This must be blank or match the importers configuration.	No, defaults to importer configuration
3	Identifier	Text	The "identifier" that is used to guide the entry to the right subscription. The "Charged party".	Yes
4	Identifier Type	Text	Describes the type of Identifier in the "Identifier" field. Allowed values: <ul style="list-style-type: none"> • USN • Username. Depending upon importer configuration, this will look up the username, subservices or both • UoAttributeType = X (where X is the uoAttributeType codeName - this part is case sensitive) 	Yes
5	Start Timestamp	Timestamp ISO Standard	An ISO 8601 formatted timestamp, YYYY-MM-DDThh:mm:ss.sss+Z. For example: 2010-01-01T01:00:00.000+11:00	Yes
6	Call Type	Text	The type of activity record. Allowed values: <ul style="list-style-type: none"> • Data • SMS • MMS • Fax • WAP • Forwarded Voice • Voice • Event count • Unknown • Imported Charge 	Yes
7	CDR Caller Number	Text	The originator of this CDR, for example, the phone number that made the call. See CDR Caller Type	No
8	CDR Caller Type	Text	The type of the caller record. Allowed values: <ul style="list-style-type: none"> • E164 - ITU-T E.164 formatted phone number (e.g. 6121234678) 	If CDR Caller number is specified

Col	Field name	Data type	Description	Required?
			<ul style="list-style-type: none"> FNN - Australian Full National Number formatted phone number (e.g. 0212345678) Untyped <p>Note: When using E164 or FNN, the caller field must contain only digits.</p>	
9	CDR Called Number	Text	<p>The destination of this CDR, for example, the phone number that received the call.</p> <p>See CDR Called Type</p>	No
10	CDR Called Type	Text	<p>The type of the called record. Allowed values:</p> <ul style="list-style-type: none"> E164 - ITU-T E.164 formatted phone number (e.g. 6121234678) FNN - Australian Full National Number formatted phone number (e.g. 0212345678) Untyped 	If CDR Called Number is specified
11	Bytes received	Number	The total bytes received from the subscription by the vendor. This number can be very large and must be non-negative.	No
12	Bytes sent	Number	The total bytes sent to the subscription by the vendor. This number can be very large and must be non-negative.	No
13	Duration	Number	The billable duration of the activity record, in seconds. This is the difference between the start timestamp and the time that the usage finished. Must be positive, zero second duration allowed.	No, defaults to 1 second
14	Pages	Number	For fax services, the number of pages transmitted or received. Must be non-negative.	No
15	Count	Number	If applicable, the event count. Must be non-negative	No
16	External tariff code	Text	If available, the upstreams rating tariff code may be provided to Smile as a hint on how to rate the entry	No

Col	Field name	Data type	Description	Required?
17	External wholesale charge	Decimal (Unbounded)	Decimal, ex-tax charge from the up-stream provider. Sometimes this is used for reconciliation or for charging a markup.	No
18	Chargeable	Text	Whether this usage is chargeable or not. If the usage is not chargeable, Smile will not rate it. Allowed values: <ul style="list-style-type: none"> • true • t • false • f 	No, defaults to true
19	Role	Text	A flag indicating the role of the subscriber in this activity record (caller or called). "Source" for caller, "Destination" for called. Note: Only "Source" is currently supported.	No, defaults to Source (caller)
20	IP Address	Text	The IP address allocated to the subscription for this session, if applicable	No
21	Call ID	Text	If available, the SIP (or other) call ID	No
22	External Session ID	Number	The session ID for this activity record. Multiple records with the same Session ID belong to the same session. The session ID must be unique globally to this importer. Note also that CDRs in the same session must have the same SID, identifier, identifier type, call type, caller, called, external tariff code, chargeable ip address and call ID. See "Notes on Session IDs and Flag-falls" below.	No. If not provided, each entry is considered to be a separate session
23	Flagfall	Text	Whether this entry represents the start of a session. Rating configuration may cause flagfall charges to be raised. Note that only one entry in the same session may have flagfall = true. Allowed values: <ul style="list-style-type: none"> • true • t • false • f See "Notes on Session IDs and Flag- falls" below.	If External Session ID is specified, otherwise defaults to true

Col	Field name	Data type	Description	Required?
24	Source	Text	If applicable, a string representing the source of the call or session	No
25	Destination	Text	If applicable, a string representing the destination of the call or session	No
26	Description	Text	A textual description of the activity record. Text in this field will be preserved and included on an invoice. This field is mostly used for externally generated charges which should be on-billed.	No
27	Extra Username	Text	If available, a textual identifier representing the end user. Not used for username lookups.	No
28	Bytes sent rate	Decimal (Unbounded)	The bytes sent rate, usually a percentile rate. Must be non-negative.	No
29	Bytes received rate	Decimal (Unbounded)	The bytes received rate, usually a percentile rate. Must be non-negative.	No
30	Sample rate	Decimal (Unbounded)	An additional sample rate defined by the external system	No

Footer

The CDR import CSVs last row is always a footer record. The footer records contain summary data about the download that can be used to verify successful transfer of the file.

A footer record has a Record Type of 'F'.

Table 2: Footer field definition

Col	Field name	Data type	Description	Required?
0	Record Type	Text	'F' for footer record	Yes
1	Entry Count	Number	The number of entries in this file	Yes

Notes on session IDs and flagfall

This import format supports importing usage for long-held sessions across multiple files. This is useful when importing usage data for DSL subscriptions where a session may span days or weeks, potentially across rating periods.

When a session ID is provided, Smile groups the usage together and treats it as a single session. This allows session limits to affect rating, shaping and other session-related behaviours without needing to wait until the session has ended, and permits rating to be performed as the usage is logged rather than at the end of the session.

Example file

```
"Record Type","External Entry Id","SID","Identifier","Identifier
Type","Start timestamp","Call Type","CDR Caller Number","CDR
Caller Type","CDR Called Number","CDR Called Type","Bytes
Received","Bytes sent","Duration","Pages","Count","External
Tariff Code"," External wholesale charge","
chargeable","role","IP Address","Call Id","External Session
ID","Flagfall","Source","Destination","Description","Extra
Username","Bytes Sent Rate","Bytes received rate","Sample Rate"
"E","external1","13","user1","Username","2010-01-01T00:00:00+10:00",
"Voice","61212345678","E164","61312345678","E164",,"60",,"1",
"national","1.00",,"Source",,"123","TRUE",,,,,,,,,
"E","external2",,"user2","Username","2010-01-01T00:00:00.001+10:00",
"Voice","0212345678","FNN","0312345678","fnn",,"60",,"1",
"national","1.00","false",,,,,,,,,
"F","2"
```