MAGRATHEA TELECOMMUNICATIONS LTD CDR FILE DEFINITION

Magrathea Call Detail Record files

This document details the fields available in all CDR files which are CSV files available for download the day after calls are made.

Depending on the call type, the files may be generated for calls associated with your client code or account number, but in either case it is possible for both inbound and outbound calls to be in the same file. Many clients will have several files produced for download.

Please note that not all fields will contain values or be applicable to all call types, so blank or zero values are expected in some fields and values can differ when the call was inbound or outbound or where VoIP call paths are involved.

A single zip file will be produced containing one or more CSV files which each represents call records for a particular client code or account number which is included as the *reference* in the filename.

The ZIP file is named:

cdrext-YYYYMMDD.zip

Within this, the call record files are named:

cdrext-<reference>-YYYYMMDD.csv

In addition, a single Code Reference file will be included within the zip file named:

codes-YYYYMMDD.ref

Call Identification

cdrref string(16)
The unique Magrathea internal call reference. If the call is inbound, then the value included here will be present in the SIP INVITE for the call in the header *X-CALLINFO* to allow you to match the CDR with the SIP call

Where the *cdrref* value in the CDR file is given as **611A1A2CL1CA63C7** the SIP header will be:

      X-CALLINFO: cdr=611A1A2CL1CA63C7;

If you have questions about a call then including this value in any support request enables identification of the specific call, without needing any other information and can avoid issues with time synchronisation, time zone differences or finding one call among several similar calls.

This header is not currently available in SIP messaging for outbound calls.

calldate date
The date the call was made in the format *dd/mm/yyyy*

calltime time
The start time of the call in the format *hh:mm:ss* representing UK local time which will be GMT(UTC) or BST (UTC+01:00).

Caller ID, Telephone Numbers and Targets

anumber string (32)
The Network Number as supplied by the originating network.
For calls that originated as VOIP this may be set to the Network Number or the wholesale account number in use, followed by the Network Number supplied.
This value must not be disclosed to an end-user.

NOTE: Privacy is now in its own field.

privacy boolean (Y/N)
Privacy was requested when this is set to 'Y'. This means that the originator requested privacy (withheld CLI) on this call and therefore CLI must not be disclosed to any end-user.

bnumber string (32)
The number that was dialled which caused the call to be processed by Magrathea.
Numbers ported to Magrathea will have a 'P' as the first character.
Outbound IP originated calls will show 'VOIP'

dialled string (32)
The full number that the call was routed to, including country code when this was from number translation or dial-through.
For inbound calls this will show the target as set in the Magrathea NTSAPI. Due to the length limit of 32 characters some VoIP and other non-numeric targets may not be fully stored.

PN string (32)
The Presentation Number included with the call, where available. If this is blank then no specific presentation number was included with the call.
NOTE: if *privacy=Y* then this value must not be disclosed to an end-user.

NN string (32)
The Network Number included with the call.
For future use – this is currently blank as this value is not stored separately from *anumber* in the call records but may be added at a future date.
This value must not be disclosed to an end user.

LDLI string (32)
The Network Number of the line that performed the last diversion when call diversion has taken place, or the last Diversion header where more than one is present (Last Diverted Line Identity).
This value must not be disclosed to an end user.

Call Status

result integer

The outcome of the call. CDR records now include both successful, answered and chargeable calls as well as calls which did not generate a charge (unanswered or failed calls) to aid diagnosis of issues.

The values are mapped as closely as possible to SIP response codes so a value of *200* means the call was answered whereas a value of *180* means the call had reached the Ringing state before it was terminated.

SIP Response *402* (Payment Required) is not commonly used in SIP signalling and as a result this is not sent as a SIP response for calls with surcharges. However, the value *402* is used in this file to indicate that the call was rejected because the surcharge applicable was higher than the limit set for the call type.

The value stored internally by Magrathea in many cases reflects the PSTN termination code where the call has a PSTN leg. Translation to an appropriate SIP response value is required for some PSTN calls to enable these to be included. In some cases, the mapping used to generate this file may differ from the actual SIP Response returned with the call.

cpacc integer

Time (in seconds) after initial setup that the call was answered.
For calls that were not answered, this will be minus one (-1)
For calls that were answered almost immediately, this will be zero which is a valid value indicating the call was answered.

cpstop integer

Time (in seconds) after initial setup that the call was cleared
For calls cleared almost immediately by either party, this will be zero. Where the call is cleared almost immediately, some other parameters may not be stored as once the call is terminated, processing ceases so blank or zero values in some items of this file are to be expected where cpstop is less than or equal to one if the call was not answered.

duration integer

The total duration (in seconds) of the chargeable length of the call. For some Hosted and Onward Routed number ranges this will be zero, in which case the connected duration can be calculated using *cpstop-cpacc*.

Call Charges

debit decimal

The wholesale cost for the outbound leg of the call (GB Pounds). For some account/client configurations (eg Chargeable NTS) this will be zero and the *inbound* and *outbound* values will apply.

inbound decimal

The wholesale cost for the inbound leg of the call (GB Pounds) where the account/client configuration splits the costs into inbound and outbound.
For calls where the inbound leg is not chargeable, this will be zero.

outbound decimal

The wholesale cost for the outbound leg of the call (GB Pounds) where the account/client configuration splits the costs into inbound and outbound.
For VoIP destinations, this will be zero.

surcharge decimal

The wholesale cost *per minute* (GB Pounds) of any applicable surcharge because of the origination Network Number supplied with the call.
Unlike other costs, which are totals, this is a per-minute value which is used to indicate the surcharge element of the call. For all calls which incur a surcharge the total surcharge cost for the entire call duration has already been calculated and included in other cost-based fields.

Call Location

Magrathea classifies calls by the origination, destination and surcharge location and the method of doing so differs, depending on how the call was generated.

These codes are arbitrary and assigned by Magrathea and do not have any meaning outside of Magrathea's systems to aid call processing, authorisation, and billing.

They are provided here to assist clients in understanding how Magrathea have categorised calls but can be safely ignored by most clients.

As a brief introduction to the most used values:

- For calls VoIP calls sent to Magrathea for outbound termination, *origination* will be set to 650.

- For inbound calls received by Magrathea for onward termination to VoIP, *destination* will be set to 650.

- For calls where the Network Number was Missing, incorrect or unable to be determined *surchargeorigin* will be set to 2999

For full information on the mapping of code values to location names for the day on which the CDR file was produced, please see the code reference file included within the zip file each day.

origination integer
Magrathea code for the originating location of the call

destination integer
Magrathea code for the target destination of the call

surchargeorigin integer
Magrathea code for the surcharge location, where one is identified.

When the Network Number provided incurs a surcharge, this indicates the originating location of the call on which that surcharge amount has been based.

For calls where no surcharge is applicable, this will be zero

Magrathea Code Reference file

The Code Reference file provides a lookup listing the numeric values included in any *origination*, *destination* or *surchargeorigin* fields within the file.

Each code is listed followed by a comma and then the textual description of the location which is referenced.

For example:

        316,UK national
        324,UK Vodafone Mobile
        650,VoIP Termination
        2999,!Missing/unknown/corrupt/Modified

This file will be provided daily as codes may change or be updated and so the only valid reference file to provide a description of the code is the one which is provided within the zip file with the call records.

You should not rely on the codes remaining static or assume that calls coded with a particular location will remain the same for future call attempts.