



OpenScape Office V3

Description

Call data recording

Call date records structure

Version 1.0

OpenScape Office V3

Call Detailed Recording

Call Data Record Structure

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Content

- Overview 4
- OpenScape Office Call Data Recording 4
- OpenScape Office Settings 5
 - Enabling / Disabling of Central Call Detail Recording..... 5
 - Configure Information Depth and Output Format 6
- Transfer of Call Data Records 7
 - Download Request 7
 - Download Response..... 7
 - DeleteRequest..... 7
 - DeleteResponse 8
 - Sequence Chart..... 8
- CDR Output Format10
 - Common CDR-field sequence (w/o US).....10
 - CDR field sequence US only.....10
 - Compressed and Uncompressed Output Format11
 - Compressed Format.....11
 - Uncompressed Format.....11
- CDR Field Description12
 - Field 1: Date12
 - Field 2: Time.....12
 - Field 3: Trunk Number12
 - Field 4: Station Number12
 - Field 5: Ring Duration13
 - Field 6: Call Duration13
 - Field 7: Dialed / Received Number.....13
 - Field 8: Charging information13
 - Field 9: Additional information about Call.....14
 - Field 10: Account / Project Code (PKZ).....14
 - Field 11: Used MSN (Multiple Subscriber Number15
 - Field 12: Line Access Code15
 - Field 13: LCR Route15
 - Field 14 (17 for US): Dialed / received station number15
 - Field 14 (US): PRI Nodal Service.....16
 - Field 15 (US): PWI WATS Band.....16
 - Field 16 (US): PRI CIC.....16
 - End of CDR16

Disclaimer

This document describes the Call Data recording and the structure of the Call Data Records of:

- OpenScape Office LX / MX V3

The information provided in this document contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products.

Availability and technical specifications are subject to change without notice.

Overview

OpenScope Office internally records Call Related Data (CDR) for trunk lines. Recording can be enabled / disabled in general. The information depth and output format can be set within OpenScope Office system administration.

OpenScope Office transfers collected Call Data Records (CDR) in a file and in plain ASCII via Ethernet LAN with TCP/IP to an external computer for further processing. It does not support continuous online transmission of CDRs as HiPath 3000 does. If online transmission of CDRs is requested, the CSTA interface of OpenScope Office has to be used.

OpenScope Office Call Data Recording

For every completed call and/or every incoming call, a call data record is created. The call data records are not numbered. A separate call data record is recorded for a new call segment (for example, as a result of transferring or forwarding to another subscriber).

Recording is not performed for:

- premature termination of the call attempt.
- call attempts that are not allowed (LCR, denied lists).

In the case of networked systems, the call detail record is saved at the system which caused the charges. Charges for internal network connections are not recorded.

The administrator can activate the following options within the system administration:

- Compressed output
- Suppress last four digits - The last four digits of the destination are suppressed.
- Log incoming calls
- Call Duration
- On Ringing - Start logging on beginning the call
- Output MSN - The used MSN is logged.
- Decimal format
- Display amounts instead of units
- Outgoing without connection
For example, this gives the calling party proof that the destination station did not accept the attempted call (marked in the output log with the call time 00:00:00). This option applies to ISDN connections and to all subscribers.
- Output LCR number outgoing or dialed number incoming
If this flag is activated, an additional phone number field is added to the call data record. It contains:
 - for an outgoing call: the LCR phone number that was actually sent to the exchange following conversion by LCR
 - for an incoming call: the internal phone number of the station required, that is, the first station dialed.

Remarks:

If call charges accrue before the call is set up (as occurs in Austria, for instance), these are recorded and irrespective of whether or not "Outgoing without connection" is set.

Call Detail Recording Central takes connections via QSIG trunks into account only if a trunk code has been configured for them.

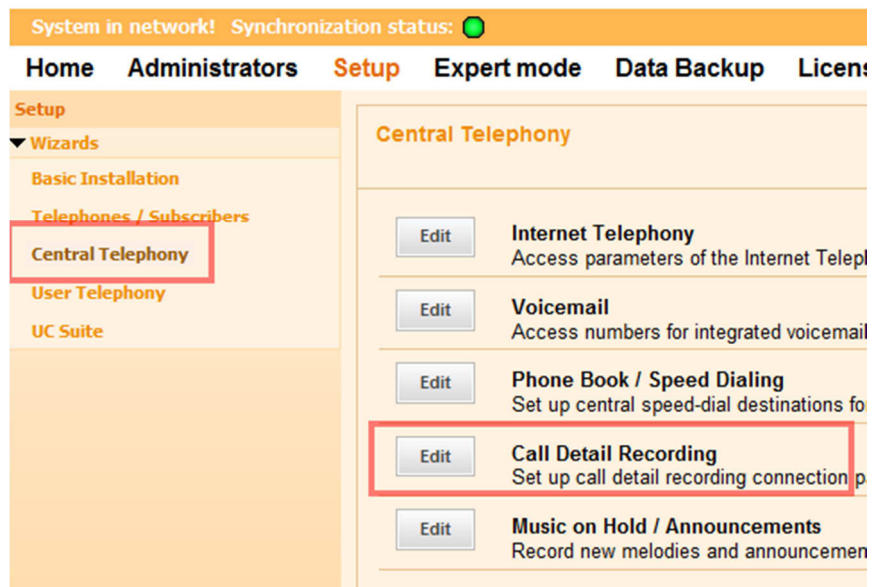
Call charge pulses are converted into monetary amounts using the call charge factor that is set by the administrator as the currency amount per call charge unit/pulse.

OpenScape Office Settings

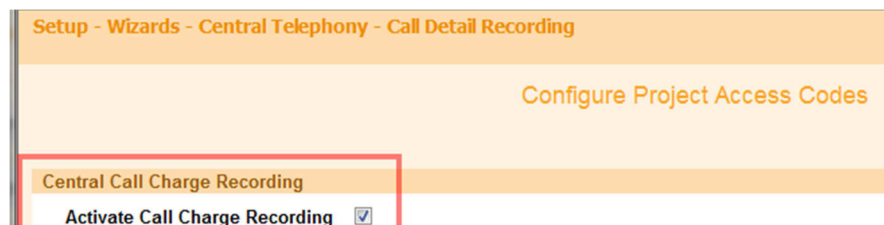
Enabling / Disabling of Central Call Detail Recording

The Call Detail Recording wizard can be used to activate the central recording of call charges.

Log on to OpenScape Office Assistant.
Click Wizards > Central Telephony.



Click Edit to start the Call Detail Recording wizard.



Click OK & Next followed by Finish.

Configure Information Depth and Output Format

Log on to OpenScope Office Assistant with the Expert profile.

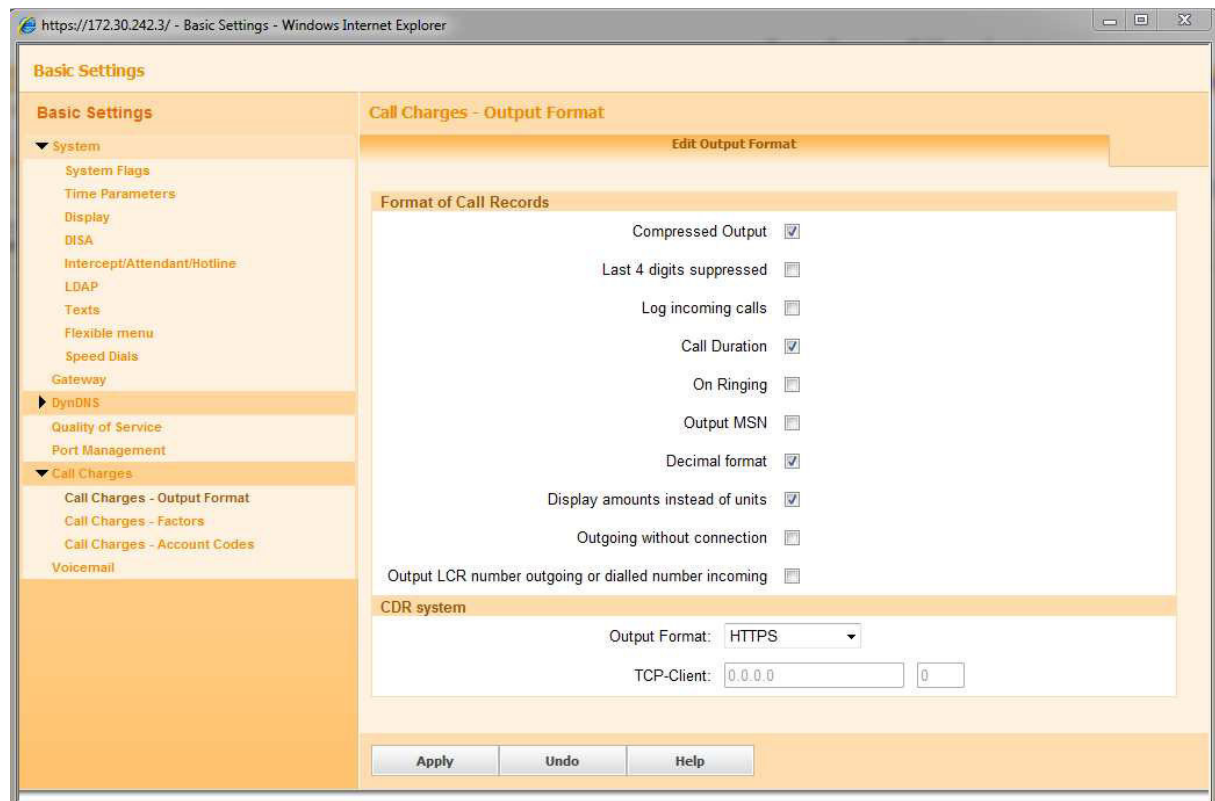
Click Telephony > Basic Settings in the navigation tree.

Click Basic Settings > Call Charges > Call Charges -

For each parameter enter the desired value

Click Apply followed by OK.

More information about configuration can be retrieved from the OpenScope Office administrator documentation.



Note:

CDR system:

Only HTTPs Output Format is supported, this format is also used by external applications like:

- Accounting Manager
- Teledata Office V4

Transfer of Call Data Records

CRD transmission of OpenScape Office uses Ethernet LAN interface with HTTPS. OpenScape Office is addressed via its IP address and port 443 (default) for HTTPS.

Example: <https://ip-address/xyz>
<https://ip-address:443/xyz>

Download Request

The file download request is defined as:

HTTP header:	Request method = GET
URL:	https://ip-adress/management/portlet
Parameter:	portlet=hipath-accountingdownload::HiPathAccountingDownloadPortlet
	entity=accounting
	action=get
	username= user
	password= password

Example: https://192.148.108.151/management/portlet/?portlet=hipath-accountingdownload::HiPathAccountingDownloadPortlet&entity=accounting&action=get&username=administrator@system&password=01*Test!

Download Response

HTTP header:	ContentType = "text/plain"
	attachment filename = " file-name "
	data= content of the charging file

response-code	meaning
SC_OK(200)	successful
SC_BAD_REQUEST(400)	Parameter missing in request
SC_UNAUTHORIZED(401)	Logon failed of wrong username/password
SC_INTERNAL_SERVER_ERROR(500)	Internal Error

DeleteRequest

After successful transmission of a CDR file, the CDRs within OpenScape Office should be deleted in order to avoid doublets.

The delete request is defined as:

HTTP header:	Request method = POST
URL:	https://ip-adress/management/portlet
Parameter:	portlet=hipath-accountingdownload::HiPathAccountingDownloadPortlet
	entity=accounting
	action=delete

	username= user
	password= password

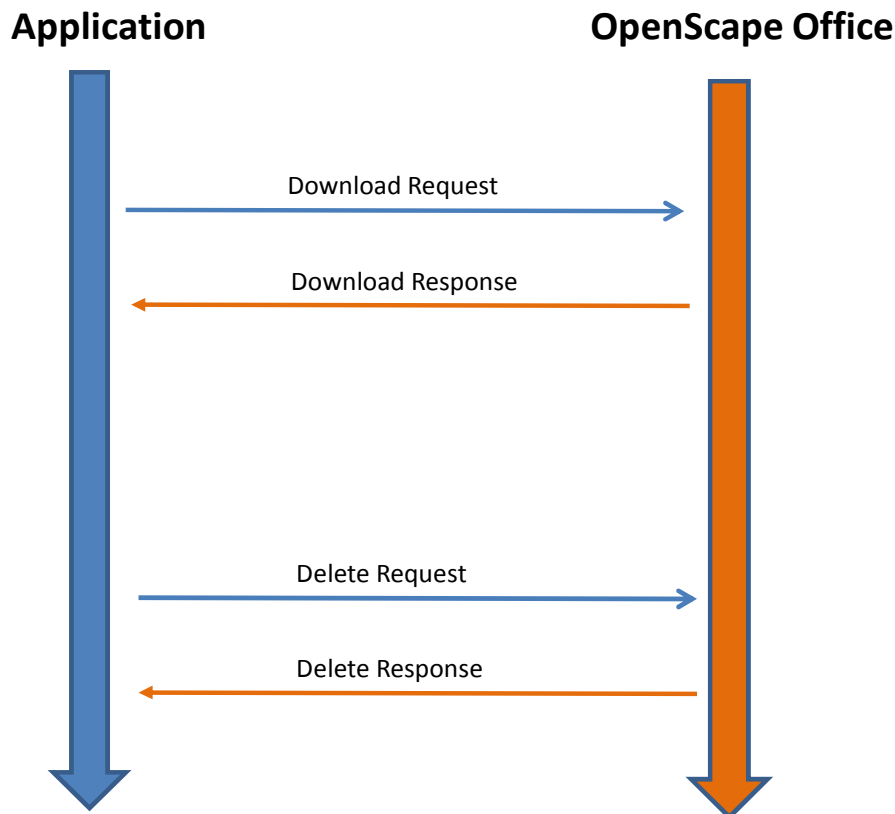
Example:

https://192.148.108.151/management/portlet/?portlet=hipath-accountingdownload::HiPathAccountingDownloadPortlet&entity=accounting&action=delete&username=administrator@system&password=01*Test!

DeleteResponse

response-code	meaning
SC_OK(200)	successful
SC_BAD_REQUEST(400)	Parameter missing in request
SC_UNAUTHORIZED(401)	Logon failed of wrong username/password
SC_INTERNAL_SERVER_ERROR(500)	Internal Error

Sequence Chart



The application gets the accounting data by sending a Download Request to a OpenScape Office system. The header of the Download Response includes the name of the accounting file, the data stream includes the content of this file.

If there is no charging information available at the OpenScape Office the data stream is empty. This will result in an accounting file which is also empty.

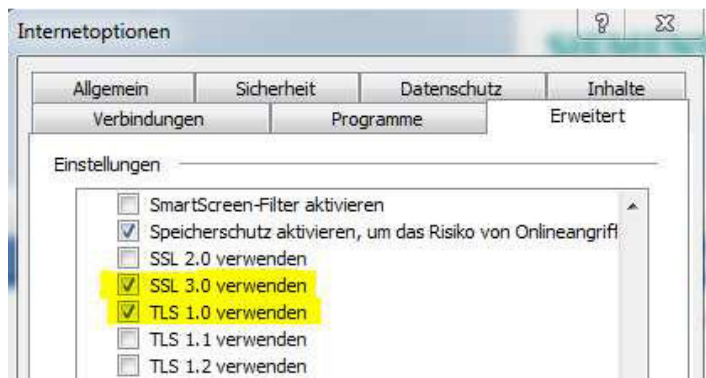
To complete the Download the application should send a DeleteRequest to the OpenScape Office system.

If the Download fails the application can repeat the Download by sending a new DownloadRequest.

Note:

To define the start time of the CDR recording it is recommended to perform a GET and a DELETE request before recording call data.

When using a Microsoft Windows based application TLS V1 and SSL V3 protocol must be enabled. Enabling can be done within the settings of the Internet Explorer.



CDR Output Format

An OpenScape Office CDR contains several fields for specific data of the call. Fields are delimited by the “|” sign. The field content is filled with the appropriate information of the call. If information for a field is missing, a “blank” sign is inserted instead.

The field sequence is country specific. Differences to the general field sequence exist in the US version of OpenScape Office.

Common CDR-field sequence (w/o US)

Field-position	Description
1	Date (at end of call)
2	Time (at end of call)
3	Number of seized trunk
4	Internal station number
5	Ring duration of incoming call
6	Duration of call or call segment
7	Dialed or received external station number
8	Call charge pulse/amount
9	Additional information (such as incoming call, outgoing call, transferred call, conference, DISA, call setup charges)
10	PKZ
11	MSN Only for a point-to-multipoint connection: used
12	Access code
13	LCR route used, dial rule
14	Dialed or received station number: (optional depending on configuration)

CDR field sequence US only

Field-position	Field Length (Bytes)	Description
1	8	Date (at end of call)
2	8	Time (at end of call)
3	3	Number of seized trunk
4	16	Internal station number
5	8	Ring duration of incoming call
6	8	Duration of call or call segment
7	Max. 25	Dialed or received external station number
8	11	Call charge pulse/amount
9	2	Additional information (such as incoming call, outgoing call, transferred call, conference, DISA, call setup charges)
10	Max. 11	PKZ
11	Max. 11	MSN Only for a point-to-multipoint connection: used
12	6	Access code
13	2	LCR route used, dial rule
14 (US)	2	PRI Nodal Service (US only)
15 (US)	1	PWI WATS-Band (US only)
16 (US)	3	PRI CIC (US only)
17 (US)	25	Dialed or received station number: (optional depending on configuration)

Compressed and Uncompressed Output Format

OpenScape Office supports only the “Compressed” output format.
Coding is done in ASCII 8-Bit in general

Compressed Format

The fields are delimited by a | sign.

The end of a CDR is indicated by CR LF (carriage return, line feed)

Examples: Compressed Format

1. Example “Output LCR number ... is set

```
20.06.12|13:11:35|201|33388|00:02|00:00:07|0123456789||1|||||
```

2. Example “Output LCR number ... is not set

```
20.06.12|13:21:14|202|33388|00:05|00:00:12|0123456789||1|||||
```

Uncompressed Format

The uncompressed format as known from HiPath 3000, where unavailable information and missing characters are replaced by blanks, is not supported by OpenScape Office.

If the “Uncompressed” format is chosen within the administration the CDR output is done in compressed format nevertheless, but with following differences to “Compressed” format.

1. The first line of the Output file contains the field meaning in plain ASCII.
2. Only fields 1 to 13 (not US) are available within the CDR
3. The uncompressed format cannot be processed by the Accounting Manager of OpenScape Office

Examples: Uncompressed Format

1. Example “Output LCR number ... is set

```
Datum|Uhrzeit|Lt|Tln|Ruf|Dauer|Rufnummer|Betrag|I|
20.06.12|12:53:45|201|33388|00:04|00:00:04|01706340803||1|
```

2. Example “Output LCR number ... is not set

```
Datum|Uhrzeit|Lt|Tln|Ruf|Dauer|Rufnummer|Betrag|I|
20.06.12|13:38:27|202|33388|00:02|00:00:05|01706340803||1|
```

CDR Field Description

Field 1: Date

Field #	Max # of Characters	Description
1	8	Date (at end of call): DD.MM.YY DD = day: value range 01 ... 31, MM = month: value range 01 ... 12, YY = year: value range 00 ... 99

Field 2: Time

Field #	Max # of Characters	Description
2	8	Time at the end of a call segment or an unanswered incoming call: hh:mm:ss hh = hours: value range 00 ... 23, mm = minutes: value range 00 ... 59, ss = seconds: value range 00 ... 59

Field 3: Trunk Number

Field #	Max # of Characters	Description
3	3	Trunk: trunk number nnn nnn value range 1 ... 250

Field 4: Station Number

Field #	Max # of Characters	Description
4	16	Stations: internal station number nnnnnn nnnnnn value range 0000000 ... 9999999. For unanswered calls, this is the last station called (e.g., a hunt group, call forwarding, call forwarding—no answer). For group calls, this is the last station entered. For answered calls, the station that accepted the call is shown. A programmed SNO prefix (with networking only) is not output. The internal station number may be preceded by a max. 7-digit node number. If the total resulting from the node number and the station number is greater than sixteen, only the last sixteen digits of the number are output.

		<p>administrator as the currency amount (including any applicable surcharges) per call charge unit/pulse. The following applies when setting the call charge factor:</p> <ul style="list-style-type: none"> • With calculation detail: call charge factor = 100% + any applicable surcharge • Without calculation detail: call charge factor = amount/unit + any applicable surcharge <p>The system records the call charges with or without a surcharge depending on the calculation detail: The output always occurs whenever call charges accrue for the call segment (e.g., even for transferred calls).</p>
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Field 9: Additional information about Call

Field #	Max # of Characters	Description
9	2	<p>Information element: additional information Value range: 0 – 9</p> <p>Meaning:</p> <p>1 = Incoming connection (Voice / 3.1 kHz Audio Call) 2 = Outgoing connection (Voice / 3.1 kHz Audio Call) 3 = Incoming connection (Other Services) 4 = Outgoing connection (Other Services) 5 = Incoming connection, routed 6 = Outgoing connection, routed 7 = int/ext/ext conference with incoming connection / transit through external transfer 8 = Conference with outgoing connection / Transit through external transfer 9 = Outgoing connection via call forwarding to external destination 0 = Call information (caller list) is output immediately on receiving an incoming call (the output can be suppressed). This can be used, for instance, for a database search from a PC. In cases where multiple stations are called, a separate line is output for each individual station (without ring duration, call duration, call charge information). +20 = Offset as a code for call setup charges (connection setup without call duration) +30 = Offset as a code for a follow-up data record in the case of – a call duration > 24 h. – contiguous call segments with the same line/station number (e.g., after transferring a call or clearing a conference). +40 = Offset for a data record with transit code (by an extension in the subsystem). Can occur in combination with offset +30. +50 = Offset as a code for DISA calls +70 = combination of offsets +30 and +40</p>

Field 10: Account / Project Code (PKZ)

Field #	Max # of Characters	Description
10	11	<p>Projektcode PKZ pppppppppppp</p>

		<p>p digit of PKZ, Value range 0..9</p> <ul style="list-style-type: none"> Es werden 11 Zeichen linksbündig ausgegeben. Dieser Wert entspricht dem Wert der vom Benutzer für dieses Gespräch eingegebenen PKZ. Wurde keine PKZ eingegeben, so werden 11 Blanks ausgegeben. Ist die PKZ kürzer als 11 Stellen, so werden die restlichen Stellen mit Blanks aufgefüllt.
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Field 11: Used MSN (Multiple Subscriber Number

Field #	Max # of Characters	Description
11	11	<p>MSN Mmmmmmmmmmm</p> <p>M digit of MSN value range 0..9</p> <ul style="list-style-type: none"> Es werden 11 Zeichen für die bei gehenden Gesprächen benutzte MSN rechtsbündig ausgegeben, sofern der Teilnehmer eine Musap-Taste programmiert hat. Nicht vorhandene Stellen werden dabei durch führende Blanks ersetzt. Ist keine MSN-Information vorhanden (z.B. PzP-Anschluß), so werden anstelle dieser Zeichen 11 Blanks ausgegeben. Bei gehenden Gesprächen eines MULAP - Teilnehmers wird die Rufnummer der belegten MULAP ausgegeben.

Field 12: Line Access Code

Field #	Max # of Characters	Description
12	5	<p>Access Code bbbbb</p> <p>b digit of Access Codes: value range 0..9</p>

Field 13: LCR Route

Field #	Max # of Characters	Description
13	2	<p>LCR – Route rr.</p> <p>rr Index of LCR route Value range 1..254</p>

Field 14 (17 for US): Dialed / received station number

Field #	Max # of Characters	Description
14	25	Dialed or received station number (if available):

About Unify

Unify is one of the world's leading communications software and services firms, providing integrated communications solutions for approximately 75 percent of the Fortune Global 500. Our solutions unify multiple networks, devices and applications into one easy-to-use platform that allows teams to engage in rich and meaningful conversations. The result is a transformation of how the enterprise communicates and collaborates that amplifies collective effort, energizes the business, and enhances business performance. Unify has a strong heritage of product reliability, innovation, open standards and security.

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