

# OpenScape Business

## Troubleshooting Guide

A31003-P3000-S100-07-7620

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# 1 History of changes

Changes mentioned in the following list are cumulative.

| Impacted chapters   | Change description   |
|---|--|
| <a href="#">Encrypted payload and encrypted signaling issues</a> on page 14 | New chapter about encrypted payload and encrypted signaling issues |

What can I do in case of an issue?

## 2 What can I do in case of an issue?

Check hints and warnings on the landing-page first.

The screenshot displays the OpenScope Business X8 web interface. The top left section, titled 'OpenScope Business X8', shows system information: IP Address (192.168.101.1), Customer name (-), System Date (17/11/17 08:10), System Up Date (09/11/17 10:45), and a note that this is the MASTER node. Below this, the 'SDHC Health Status' is shown as a red dot, indicating a problem. The top right section, 'Licensing', displays a warning: 'Activation license period is expired and no license is found. Please activate the license file.' The 'Inventory' section on the far right shows counts for Active User (2), UPD Stations (2), IP Clients (0), ISDN / Analog (0), Deskshare User (0), and Mobility (0). The bottom left section, 'Documents', contains a note about documentation. The bottom right section, 'Applications', lists various services and their IP addresses. The bottom center section, 'Notifications', shows a red bar indicating a 'SIP Provider' issue.

**System**

IP Address: 192.168.101.1  
Customer name: -  
System Date: 17/11/17 08:10  
System Up Date: 09/11/17 10:45  
This system is the MASTER node  
NodeID: 1  
Sync. Status: Data in sync.  
Upstream (Kbps): 0  
**SDHC Health Status**  
The last backup from 19/10/17 08:42 was successful.

**Licensing**

Locking ID: 001AC77100F  
SIEL ID: 360.yyy  
MAC ID: 00-1A-2B-1-1234  
Confirmation Code:  
Activation license period is expired and no license is found. Please activate the license file.

**Inventory**

|                |   |
|----------------|---|
| Active User    | 2 |
| UPD Stations   | 2 |
| IP Clients     | 0 |
| ISDN / Analog  | 0 |
| Deskshare User | 0 |
| Mobility       | 0 |

**Applications**

Package with UC Smart on OSBiz UC Booster Server

|                        |               |
|------------------------|---------------|
| AppBooster Server:     | 192.168.101.2 |
| UC Smart:              | 192.168.101.2 |
| Application Launcher:  | 192.168.101.2 |
| CSTA Connector:        | 192.168.101.2 |
| OpenDirectory Service: | 192.168.101.2 |
| UC Suite / XMPP:       | -             |
| Gate View:             | 192.168.101.2 |
| Web Collaboration:     | Demo Mode     |

**Software**

SW Version: osbiz\_v2\_R4.0.0\_465

**Documents**

The documentation for your system can be found here...

**Note**

**Notifications**

SIP Provider 1

### 3 Which information and data is needed for an efficient clearing within Unify

- Detailed description of the customer's problem scenario
  - Is the issue reproducible?
  - Describe exactly what happens, including details
  - Call handling via Handset/Headset/Application?
  - Which user (subscriber no.) was involved? When (exact time stamp)? Other users involved as well?
  - Try again with another device or PC. Is the issue reproducible here as well?
  - Check call flow and try to simplify the scenario
- List of all involved components including corresponding software versions
  - including Client PC details for OS 32/64bit and MS Office versions/ service packs
- Provide at least „default“ traces of system and applications
  - UC-Suite/MyPortal/MyAttendant/MyAgent/MyPortalSmart
- Make use of additional trace profiles / trace info
  - Depending on the problem scenario, additional trace profiles can be used
  - For sporadic issues that are solved with a system restart and come up again after some time, corresponding traces should be activated AND **customer should provide traces from the system restart until the problem happens again**
  - Specific to undesirable System Restarts, it is vital to collect also Core Logs from the faulty environment.
- Always download complete trace data package
  - Diagnostic backup / KDS / trace data

## 4 Trace settings / recommendations

### Basic Trace- / Ticket data which is required

- If possible please activate RSP.servicelink
  - Please enable remote access for Unify and provide credentials
- Manager E user credentials and password
- WBM user credentials and password
- If applicable: Linux user credentials and root access password
- Customer KDS
- Diagnostic backup
- **Plus** : additional trace data, depending on problem scenario. More details on subsequent pages.

**Remark:** For scenarios where OSBiz environment contains multiple nodes interworking in a Network configuration, it is required that diagnostics are collected from all involved nodes that take part in a specific scenario.

- To reduce the amount of data to be transferred to Unify, trace slices for certain time frames can be downloaded from the system. Check that you've captured the correct time frame on when the issue has occurred.
- **After downloading all trace data it's mandatory to switch trace profiles back to default!!**
  - **Only Trace Profile Basic and Voice\_Fax\_connection are allowed to stay active**

### Certified Environments:

Prior to escalating a customer ticket, please consult the Overview Certification portal for compliance:

[https://sp2013.myatos.net/sites/ucc/organization/product-house/technology\\_partner/Pages/overview-certification.aspx](https://sp2013.myatos.net/sites/ucc/organization/product-house/technology_partner/Pages/overview-certification.aspx)

### Compliant VoIP Providers by Countries:

[https://wiki.unify.com/wiki/Collaboration\\_with\\_VoIP\\_Providers#Tested\\_VoIP\\_Providers\\_by\\_Countries](https://wiki.unify.com/wiki/Collaboration_with_VoIP_Providers#Tested_VoIP_Providers_by_Countries)



## 5 Additional trace data depending on the use-case scenario

### 5.1 General telephony issues

#### Trace Profiles

- Basic
- Voice\_Fax\_connection

#### Add-on trace profiles depending on problem scenario

- Feature\_Service\_activation  
issues with feature activation from phone or application side and issues with call processing in general such as CDL, CFU, Path Replacement, etc.
- Network\_Call\_Routing\_LCR  
issues with call routing
- Actors\_Sensors\_Door-Opener  
issues with actors/sensors/door opener
- CDR\_Charging\_data  
issues with CDR

### 5.2 TDM/Analog/ISDN phone issues

#### Trace Profiles

- Basic
- Voice\_Fax\_connection
- For TDM related issues activate: Calls\_with\_System\_Device\_Upn
- For analog trunk telephony or analog trunk card related issues activate: Calls\_with\_Analog\_Subscriber\_Trunks
- For ISDN trunk telephony or ISDN trunk card related issues activate: Calls\_with\_ISDN\_Subscriber\_Trunks

#### Add-on trace profiles depending on problem scenario

- Display\_problems  
issues with phone display notifications
- Device trace (see trace guide TDM phone Wiki.unify.com)  
[http://wiki.unify.com/images/0/0f/Service\\_Info\\_How\\_to\\_trace OST\\_TDM\\_3.pdf](http://wiki.unify.com/images/0/0f/Service_Info_How_to_trace OST_TDM_3.pdf)

### 5.3 HFA phone issues

#### Trace Profiles

- Basic
- Voice\_Fax\_connection
- Calls\_with\_System\_Device\_HFA

## Additional trace data depending on the use-case scenario

### Add-on trace profiles depending on problem scenario

- Display\_problems  
issues with phone display notifications
- Gateway\_stream\_overview  
issues with payload
- Wireshark traces
- Full Network Topology
- Device trace (see *trace guide HFA phone*, [wiki.unify.com](http://wiki.unify.com))

[http://wiki.unify.com/images/c/c7/Service\\_Info\\_How\\_to\\_trace\\_HFA-Update\\_V3R0.pdf](http://wiki.unify.com/images/c/c7/Service_Info_How_to_trace_HFA-Update_V3R0.pdf)

[https://wiki.unify.com/wiki/File:Service\\_Info\\_How\\_to\\_trace\\_CP-HFA.pdf](https://wiki.unify.com/wiki/File:Service_Info_How_to_trace_CP-HFA.pdf)

## 6 Add-on trace profiles depending on problem scenario

### SIP phone issues

- Basic
  - Voice\_Fax\_connection
  - SIP\_Interconnection\_Subscriber\_ITSP
  - SIP\_Registration

### Add-on trace profiles depending on problem scenario

- Network plan overview
- List of network components involved
- Wireshark traces
- Firewall configuration
- Device trace (see trace guide SIP phone Wiki.unify.com)

[http://wiki.unify.com/images/a/a7/Service\\_Info\\_How\\_to\\_trace\\_SIP\\_2.pdf](http://wiki.unify.com/images/a/a7/Service_Info_How_to_trace_SIP_2.pdf)

## 7 Additional trace data depending on the use-case scenario

### 7.1 Poor voice quality/dropped calls

#### Trace Profiles

- Basic
- Voice\_Fax\_connection
- Trace Profile Gateway\_Stream\_detailed
- Resources\_MOH\_Conferencing  
(only in case of MOH or announcement issues)
- TCP dump/Wireshark

#### After consultation with support team

- Network plan overview
- List of network components involved
- Firewall configuration

### 7.2 Device Tones issues, Tones within the call, MoH issues

- Check **Always use DSP** flag: must be deactivated for network trunks, applies only for ITSP with enabled encryption:  
**Expert mode > Trunks/Routing > Rout > Networking > Change routing parameters > Always use DSP**
- Check **Tones from CO** flag: generally must be deactivated – it assumes that tones will always be generated within payload from the CO:  
**Expert mode > Basic Settings > System Flags**
- **Internal Music On Hold** flag under:  
**Expert Mode > Auxiliary Equipment > Music on Hold (MoH)**

### 7.3 Display Handling issues:

The 'Display\_problems' trace profile is needed to get meaningful information logged for such use cases.

### 7.4 CDR issues per individual Output Format:

Indicate the CDR system output format under:

**Expert Mode > Telephony Server > Basic Settings > Call Charges > Call Charges - Output Format**

- When the Output Format is set as **HTTPS**, the system acts as a server. (gez.txt also required)
- If option **LAN-TCP-Client** is chosen then the PBX acts as a client .

Per individual setup, troubleshooting requires that the problematic scenario is captured with the following additional components/levels:

- While PBX acts as a server:
  - Default logs plus:
  - CDR\_Charging\_data Trace Profile in Level 9
  - FP\_CHARGE-DATA in Level 9
  - FP\_CP-NET in Level 9
  - FP\_CP-SUB in Level 9
- While PBX acts as a client:
  - All the above plus:
  - FP\_API-IWU in Level 9
  - FP\_API-SPU in Level 9

## 7.5 ITSP (SIP provider) issues

### Trace Profiles

- Basic
- Voice\_Fax\_connection
- SIP\_Interconnection\_Subscriber\_ITSP
- SIP\_Registration

In case of poor voice quality/dropped calls please set SPP trace component level to 9 temporarily

**Expert Mode > Maintenance > Traces > Trace Components > SPP > 9**

### After consultation with support team

- TCP dump/Wireshark
- Network plan overview
- List of network components involved
- Firewall configuration

## 7.6 General payload issues or interworking scenarios

Including SIP/SIPQ connections, scenarios where OSBiz interacts with ITSPs, network systems, OSV system, Circuit, Skype4Business, and so on.

### Trace Profiles

- Basic
- Voice\_Fax\_connection
- SIP\_Interconnection\_Subscriber\_ITSP
- SIP\_Registration
- Feature\_Service\_activation

### Extra info

- TCP dump/Wireshark
- Network plan overview
- List of network components involved

## **Additional trace data depending on the use-case scenario**

Encrypted payload and encrypted signaling issues

- Firewall configuration

## **7.7 Encrypted payload and encrypted signaling issues**

For encrypted payload and encrypted signaling cases the following traces are required:

### **Trace Profiles**

- Wireshark traces with secure trace certificate are mandatory

### **Add-on trace profiles depending on the problem:**

- When SIP stations are involved
  - Basic traces with SIP interconnection subscriber ITSP profile active.
- When HFA stations are involved
  - Basic traces with Voice Fax connection profile active.
- When TDM stations are involved
  - Basic traces with Gateway Stream detailed profile active.

## **7.8 FAX issues with analog or ISDN fax devices**

### **Trace Profiles**

- Basic
- Voice\_Fax\_connection
- SIP\_Interconnection\_Subscriber\_ITSP  
(only in case of ITSP trunks)
- TCP dump  
(only in case of ITSP trunks)

### **Additional Data**

- fax file transmitted
- fax file received
- involved components (fax device type/fax server type, ISDN or ITSP trunk)

## **7.9 FAX issues with UC Suite Fax**

### **Trace Profile(s)**

- Basic
- Voice\_Fax\_connection
- TCP dump/Wireshark
- SIP\_Interconnection\_Subscriber\_ITSP
- CSTA\_application

### **Additional data**

- Fax file transmitted

- Fax file received

Please ensure that during trace download the following flags are set

- UC Suite Protocols
- Application Protocols

(add also CSTA\_application traces)

Since OpenScape Business V2 R2, UC Suite Logging is enhanced. With this change most of the errors can be analysed with default traces.

The enhanced UC Traces should be only activated if GVS / development requests it. Please deactivate them directly after finishing the trace scenario.

## 7.10 CMI Cordless

### Trace Profile

- Basic
- Voice\_Fax\_connection
- CMI

### Additional data

**Expert mode > Maintenance > Cordless > BS Diagnostic data**, download file.

Provide:

- Software version and handset id/name from CMI mobile device (Menu \*#06#)
- Site plan with overview of the stations
- In case there are trace data needed from the SLCN/SLMUC/SLC16N board as well please follow the the guidelines on the next pages ( Checklists for CMI in OSBIZ) and add those to the system trace package

### Descriptive data needed

- The history of the problem: in which Software version did the problem appear
- Provide software version and handset id/name from CMI mobile device (Menu \*#06#)\_
- Are there any HW, SW or configuration changes took place in the meantime?

E.g. a change in the network of the customer should not be related to DECT, even a SW update if there is no new version of the DECT code. In general this is very critical information as the the CMI team insists to have this as it helps to speed up their investigation.

- Site network plan with overview of the stations.

### Hint for GO

Identify with customer similar scenarios with other phone devices: i.e. if a problem is reproducible with a UP0, then it does not look like to be a DECT specific problem so it needs to be escalated in OSBiz GVS instead of CMI GVS.

## 7.11 Checklists for CMI in OSBIZ

Requests for OSBiz Tracedata *Version: 2.01, Issue Date: the 13th of November 2018, Mircea Mucha.*

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**NOTICE:** "SLC" term implies either SLC16N for X5 or SLCN or SLMUC for X8.

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### 7.11.1 OSBiz-Systems (X8/X5/X3/X1) Cordless Diagnostics requirements

#### General requirements

In case of Cordless problems please turn on the following tracer settings:

- System: X8/X5/X3/X1: CMI-Trace profile (this enables at least DH-CMI and ILW-DECT with Level 9)
- System: X and BS are connected to SLC line cards (collect SLC-Trace directly after problem occurred; see description below)

#### Call related problems

The following info is required for call and handset related problems:

- The detailed, actual problem description including the following info:
  - Who has called whom including:
  - Extension numbers
  - Display Names
  - Problem time
  - Terminal-types (phone type S4, SL4 and so on)
  - Software Version of System (e.g. osbizv2 R0.4.0\_xxx)
  - If possible software version of the terminals
  - Info if it is an external or internal call (DECT/DECT DECT/internal DECT/external)
  - Description about the call progress (who has initiated the call, a call back, etc.)
- If a call was disconnected unexpected then:
  - Info seen on display of the DECT handset/partner phone
  - tones heard on both sides e. g. "busy tone, ringing tone ..."
- If the connection has a bad quality, please describe the malfunction
  - Like clicking noise, voice dropouts, echo, voice delay, low noise [you can hear your partner, but with noise in background] or strong noise [you can hear only a loud noise and not your partner])
  - Noise duration (instant noise e.g. ~1 second or during the whole call). If possible provide a recording of the noise.
- Additional info
- Is the problem reproducible?
- Is possible to take a photo from the display content or a video from the total problem sequence
- Info about the position of the DECT user at the site plan (BS location)
- Info if the DECT user has moved during the call



- For internal users' info about configured call distribution features like Teams, MULAP, Call Pickup, and so on.
- Did problem occur after a new BS was reached?

The statistical distribution of the problem:

- How often does the problem occur on a day?
- What is the relationship between good and bad DECT calls?
- Is there a relationship between DECT problems and a dedicated location, e.g. a staircase?
- Is there a relationship between DECT problems and a determinate base station?

The current site plan (position plan) of the base stations including information about special environment conditions, e.g. reinforced concrete ceiling, wire-reinforced glass wall, closeness of strong electric consumers, closeness of other radio technology like WLAN, other DECT systems or medical equipment like X-Ray, CT, etc. Please check the radio coverage at the location where the problem occurs (FRAQ and RSSI values concerning OSBizV2 service documentation).

### Minimum needed data from system:

- Trace from problem time (see min. Tracer settings)
  - System trace
  - SLC-trace in case of BS connected to SLC-card
- BS-Statistic data (please specify time; like last data collection at 2015-11-10 15:20)
- Answered questionnaire (see above)
- KDS of actual system at problem time (collected when the problem occurred)
- Remote connection details e.g. RSP should they exist
- Network plan (location of BSS) mandatory in case of voice quality problems, call disconnections, coverage issues.

## 7.11.2 Example of call related problems

This is a sample of call related problems. It is given only as an example.

- the DECT user "Meyer with the internal phone number 123 with an SL4 with SW Version V1 R2.1.0 has called the external partner "Lehmann" with the number 00987654321
- user 123 calls 00987654321
- user 123 got a ringing tone
- user 00987654321 accepts the call and is successfully connected with 123
- the user talks five minutes without problems
- after five minutes hears the user 123 a strong noise and user 00987654321 was disconnected
- the problem occurs at 2015-11-19 at 17:50
- the problem is not reproducible
- the user with the handset 123 sits during telephone call in the room number 9
- the user 123 is in a MULAP with the OpenStage Phone 100
- the problem occurs two times per day.
- there is an average of 500Dectcalls per day.

## Additional trace data depending on the use-case scenario

- the problem occurs mostly at the seventh floor.
- the problem occurs mostly at the proximity of base station two.

Floor plan: /Network plan:

Attachments: trace.20151119-174500.log.gz

Or complete data set: 172.30.242.200-gw-2015-11-19-diagfiles.tgz

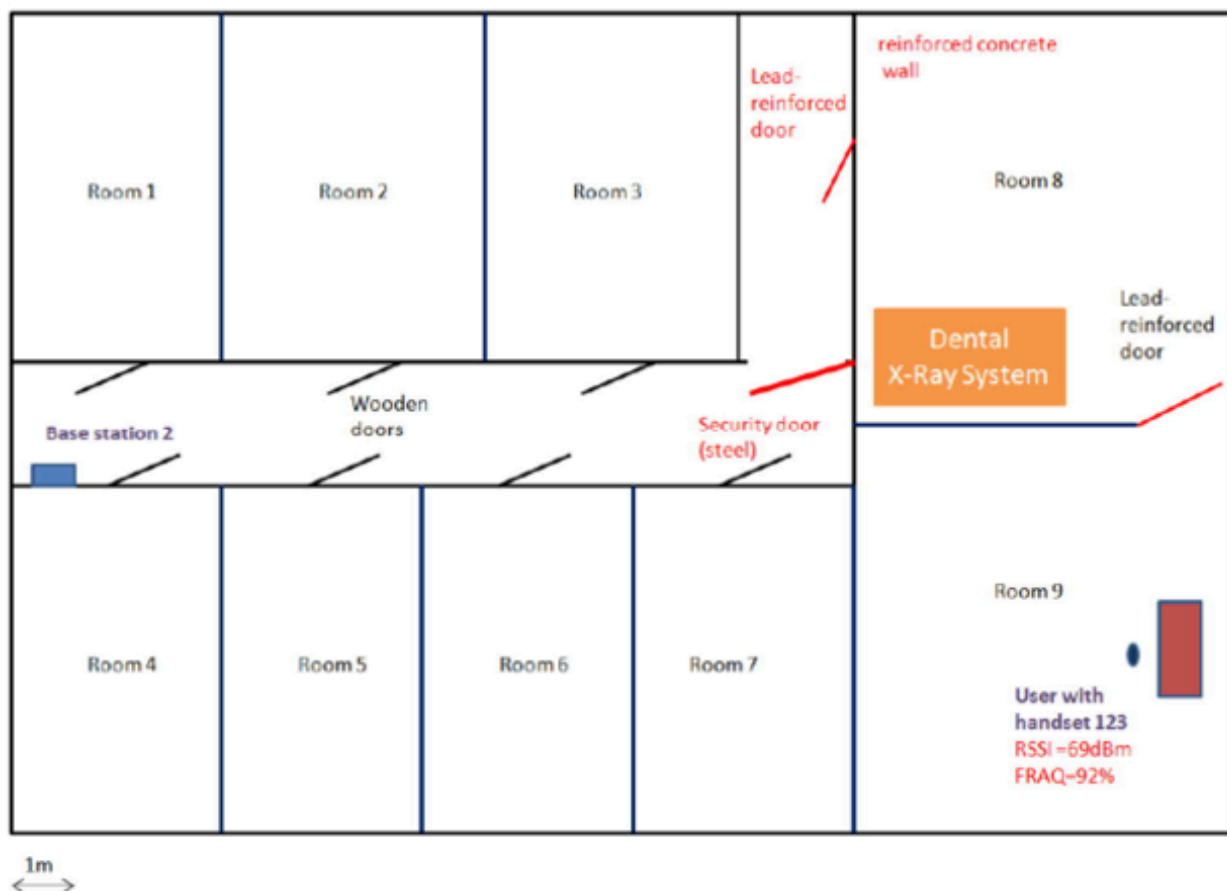
photo\_location\_bs2.jpg

BS-Static data: bssdata.zip

KDS of customer

### Floor plan:

7.floor



## 7.11.3 Collecting the SLC-Trace

Please note the following important information:

- 1) The SLC trace transfer is needed when we have SLC16N (X5) or SLCN (X8) or SLMUC (X8). When we have integrated DECT, e.g. SLU8, SLU8N or SLUC8, the traces are written directly to system log, there is no need for trace transfer, so no need for SLC16N component activation.
- 2) Remember that FP\_LW-SLC16N trace component is different from other components: the SLC traces are recorded in the card always and they stop recording when the FP\_LW-SLC16N component is enabled (this prevents

the existing trace information to be overwritten) and transfer from the card to the system takes place. In other words, when you check the below parameter you stop the traces on the cards and start the transfer from the cards to the central system log. When this transfer is finished, the FP\_LW-SLC16N trace component must be disabled (uncheck). This action stops the transfer from the SLC cards to the central system and starts the tracing on the SLC cards for future usage.

- 3) Please note that the memory on the SLC cards is limited to 4MB. For this reason, please enable theFP\_LW-SLC16N component as soon as possible after the problem occurred. Depending on the traffic(the load) which is on the switch, the transfer must be started from a few minutes to a few hours,otherwise the traces are overwritten.

It is imperative to download the SLCN traces immediately after error occurrence. The reason is the SLCN trace buffer is very small and on systems with substantial traffic only about 15 minutes of history can be captured.

If you want to make several scenarios, it is preferable to collect the SLCN traces after each, to avoid traces to be overwritten.

### 7.11.3.1 Collecting traces from the SLC boards in OSBiz Systems

#### Prerequisites

Login: Expert Mode

Trace in SLC is always running in SLC, but to get the trace information (which is in the boards) into system trace (central system) the trace must be uploaded from SLC to system trace. This will be done in the following way

#### Step by Step

- 1) Start upload from SLC to System trace buffer
  - a) Under **Expert Mode > Maintenance > Traces > Trace Components > FP\_LW\_SLC16N** enter the following:  
Trace level: 1  
Trace on: Check mark
  - b) Press the **Apply** button.  
After this, a small window might appear, depending on the browser. Now the trace is being uploaded from SLC to system trace buffer. This might take some time (approx. 20 min or more, depending on the amount of SLC-boards in the system).  
  
When all data has been uploaded then an entry in the "Eventlog" under "messages" file will be made.
  - c) Go to **Expert Mode > Maintenance > Events > Event Log** and click on **Load**.  
With this action, the event log file will be downloaded.
  - d) Go inside the archive and look on the file `messages` located under the folder `log`.
  - e) In this file, search for the text `finished`.  
You should see a text like `SLC trace transfer finished`. This means that the SLC transfer was successful.

- 2) To start again the SLC traces, for future usage, go back to **Expert Mode > Maintenance > Traces > Trace Components > FP\_LW\_SLC16N** and enter the following:

| Option      | Description  |
|-------------|--------------|
| Trace Level | 0            |
| Trace on    | Uncheck mark |

Press the **Apply** button.

- 3) Get the Diagnosis-Files.

Specify a given time interval or get all data to cover the period since the problem occurred until the time when the SLC trace transfer finished.

- To get the Diagnosis file, go to **Service Center > Diagnostics > Trace** and click on **Diagnostics Logs**.
- Choose a period which will include the time when the problem occurred and the time when the SLC transfer finished.

Be careful of the next possible mistake. Let's suppose that the error occurred at 10:02. The SLC transfer started at 10:57, the transfer finished at 11:16. We must collect at least the period from 10:00 till 11:15. Please note that the interval is from 15 to 15 minutes. 11:15 means that the interval beginning with 11:15 (till 11:29:59) is included. Mistake: if it is collected only the interval from 10:00 till 10:15 (which indeed includes the time when the problem occurred) is not enough because the events from the SLC boards from 10:00 till 10:15 have been transferred to the central syslog after the transfer started (at: 10:57) and finished (at 11:16). Even so, it is not sure that the SLC traces are OK, are not overwritten. The collection of these traces was stopped at 10:57.

### 7.11.3.2 Collecting SLC traces in a nutshell

#### Step by Step

- 1) Disable FP\_LW-SLC16N trace component to allow tracing in the SLC cards.
- 2) Enable CMI trace profile.
- 3) Do the tests and finish them (in case of a sporadic problem, wait until the problem occurs).
- 4) Enable FP\_LW-SLC16N trace component that starts trace transfer (and stops SLC tracing).
- 5) Wait until the message **SLC trace transfer finished** appears  
That means that going in **Expert Mode > Maintenance > Events > Event Log > Load** a file like: `<ip-address>-gw-year-month-dayevent.tgz` will be downloaded. Inside there are 2 folders: `evtlog` and `log`. Open the file `messages` from the folder `log` and check if the text `SLC trace transfer finished` exists. If it is found it means that the SLC traces from the boards have been transferred. If this message is not found or it is an old message like this, then wait and check again after 5 minutes.

6) Deliver the traces

- a) Go to **Service Center > Diagnostics > Trace** and click on **Diagnostics Logs**.

The downloaded file `oso_diagnostic.tgz` contains traces and events.

- b) Another possibility is to go to **Expert Mode > Maintenance > Traces > Trace Log** and select a period to include the time when the problem occurred and time when the transfer finished and then click on **Load**.

The downloaded file is a file with the name: `oso_diagnostic.tgz`. Deliver also the last events log file you downloaded. (a file like `<ip-address>-gw-2017-month-day-event.tgz`). The first method (using **Service Center**) collects more data than the second and is preferable.

7) Disable FP\_LW-SLC16N trace component to allow tracing in the cards for future use.

When the problem is 100% reproducible under certain conditions, ideally, to have only the traces from the desired scenarios and not unnecessary data from the past, if it is possible, do the following:

- a) Disable FP\_LW-SLC16N trace component to allow tracing in the SLC cards
- b) Enable CMI trace profile
- c) Enable FP\_LW-SLC16N trace component that starts trace transfer and get previous unnecessary data.
- d) Wait for "SLC trace transfer finished" message and clear all the data captured (trace-logs and events).
- e) Disable FP\_LW-SLC16N trace component.
- f) Do the tests and finish them (or wait until the problem occurred)
- g) Enable FP\_LW-SLC16N trace component that starts trace transfer.
- h) Wait for "SLC trace transfer finished" message
- i) Collect and deliver the traces.
- j) Disable FP\_LW-SLC16N trace component to allow tracing in the cards for future use.

Traces following at least the 1st method are necessary; the 2nd method would be perfect.

### 7.11.3.3 Collecting traces from the SLMUC boards in OSBiz Systems

The trace mechanism for CMI is described below.

A new trace mechanism and a new trace component has been implemented: **FP\_LW-SLMUC** for receiving traces from SLMUC cards.

Until now the trace data were stored in a cyclic 4MB buffer on the card and when it was necessary the trace buffer was transferred to the system. This often meant the trace data did not contain a reported call scenario due to the time frame being overwritten. With the new trace mechanism, the data are written in the system trace real time so long as the system trace is available.

To configure the new mechanism, the user can set the level of trace details (1, 3, 6 or 9):

- Level 1: captures only errors reported by the card

## Additional trace data depending on the use-case scenario

- Level 3: captures basic messages from Layer 2 and the OSBiz side in addition to Level 1
- Level 6: captures more detailed messages regarding Base Stations, Portable parts and cards
- Level 9: captures all messages

**Activation:** FP\_LW-SLMUC set to 1, 3, 6 or 9, check the Trace ON Box and click **Send**.

**Deactivation:** FP\_LW-SLMUC set to 0, uncheck the Trace ON Box and click **Send**.

---

**NOTICE:** Since the new mechanism increases the HDLC traffic of the system, the user should use the advanced level details with caution and only for the time that it is necessary. The big HDLC traffic by the traces causes delays to the calls and to the Dect menu. This is an indication to reduce the trace level detail. The new trace mechanism is currently available only for SLMUC cards.

---

### SLCN and SLMUC Old Trace Mechanism - FP\_LW-SLC16N component

The old trace mechanism is still available for SLMUC cards and is the only trace mechanism available for SLCN cards. With this mechanism, the latest 4MB of trace data stored in the cyclic buffer are transferred from the cards to the system after activating the transfer. The advantage of this mechanism is that the traces are always written into the trace buffer of the card without causing traffic to the system but only the last 4MB of trace are available.

**Transfer Activation:** FP\_LW-SLC16N set to 1, check the Trace ON Box and click Send.

---

**NOTICE:** The traces are always written to the trace buffer except from the time that the transfer is ongoing. As soon as the transfer finishes, trace is stored in the buffer again.

---

To capture traces from X8 with SLMUC and SLCN cards proceed as follows:

### Step by Step

#### 1) Old trace mechanism - **FP\_LW-SLC16N** component:

- a) Activate CMI Profile.  
This option must be always activated.
- b) Continue by executing the scenario.
- c) Transfer Activation: Trigger the transfer of the traces from the cards to the system  
If the Trace ON box is checked, uncheck the box, click Send and then check the box and click Send in order to start the transfer.
- d) Wait until the data from all cards are transferred to the system: check messages for "SLC Trace Transfer" message
- e) Get the trace log.

**2) New trace mechanism - FP\_LW-SLMUC component:****a) Activate CMI Profile.**

This option must be always activated.

**b) Activation: Activate the trace mechanism****c) Continue by executing the scenario.****d) Deactivation: Deactivate the trace mechanism.**

This is recommended in order to avoid unnecessary HDLC traffic.

**e) Get the trace log.**


---

**NOTICE:** If the system has a combination of SLCN and SLMUC, then the new trace mechanism will be activated only at SLMUC. The SLCN cards will continue storing the trace in the local buffer.

---

## 7.12 License issues

### Trace Profile

- Basic
- Voice\_Fax\_connection
- License\_problem
- Validate that under WBM:

**Expert Mode > Maintenance > Traces > License Component > CLA**, the Trace Level is set to **ALL**.

---

**INFO:** Licensing logs have a relatively brief history and information could be rotated when tracing intensively. It is advised to collect logs as close as possible to the time stamp of a reported issue so as not to lose vital license diagnostics.

---

### Additional data

- original .lic file
- Screen shots of License Manager and Home screen where applicable.

## 7.13 System startup issues after software activation / software update

### Trace Profile

- Basic
- Voice\_Fax\_connection
- Core Logs (if generated)

---

**NOTICE:** Please contact your support team

---

## 7.14 UC Smart issues

### Trace Profile

- Basic
- Voice\_Fax\_connection
- UC\_Smart
- Smart\_VM
- CSTA\_application

### Additional data

- List of all involved components with software versions including client PC details for OS 32/64bit and MS Office versions/service packs
- Get client PC and OS details from local PC: **Start > execute > dxdiag**
- UC Smart Client Logs from local PC
- Screen shot from UC Smart application including date and time

Please ensure that during trace download the following flag is set, **Application Protocols** (add also **CSTA\_application** traces).

## 7.15 MyPortal/MyPortal for Outlook/MyAgent/MyAttendant

### Trace Profile

- Basic
- Voice\_Fax\_connection
- CSTA\_application (only for CC and myAgent scenarios)

### Additional data

List of all involved components with software versions including client PC details for OS 32/64bit and MS Office versions/service packs.

UC Suite Client Logs from local PC

Screen shot from UC Suite application including date and time. The time of occurrence is vital.

---

**NOTICE:** When capturing a client's screen shot e.g. from myAgent, please provide the whole screen (customers often crop it). The time at the bottom right of the screen shot is important for analysis.

---

Windows Eventlog complete saved as (\*.evtx)

Please ensure that during trace download the following flags are set: **UC Suite-Protocols, Application Protocols**.

### Reference also sections on Process Dump and VSL troubleshooting

Since OpenScape Business V2 R2 UC Suite Logging is enhanced. With this change most of the errors can be analysed with default traces.

The enhanced UC Traces should be only activated if GVS / development requests it. Please deactivate them directly after finishing the trace scenario.



## 7.16 UC Suite Clients Crash or Freeze – Process Dump

Procdump (<https://docs.microsoft.com/en-us/sysinternals/downloads/procdump>) gives us a snapshot of what an application is doing at any time. Procdump should be used for OLI/myAgent/FaxPrinterDriver when the application either crashes or freezes/becomes unresponsive.

### Step by Step

- 1) Extract the contents of `procdump.rar` to any folder on your PC.
- 2) Using CMD, navigate to that folder.
- 3) Depending on the type of error being investigated, type one of the following commands:
  - a) When the application is frozen:
    - For Outlook: `procdump.exe -ma outlook.exe`
    - For myAgent: `procdump.exe -ma myagent.exe`
  - b) When the application crashes:  
Type the following before the application crashes (or before you start the application)
    - For Outlook: `procdump.exe -ma -w -e outlook.exe`
    - For myAgent: `procdump.exe -ma -w -e myagent.exe`
- 4) Provide the `DMP` file in the folder where you extracted it, along with the client log files and Windows machine's `EventLogs`
- 5) Install DebugDiag from the following link: <https://www.microsoft.com/en-us/download/details.aspx?id=49924>
- 6) Once installed, right click on the `DMP` file and select **DebugDiag Analysis**.  
Please store this data and attache it to the ticket.

## 7.17 Troubleshooting VSL issues

- When VSL Crashes are experienced (system/vsl/csp, etc.):  
Set the flag **Core Logs** prior to collecting/downloading system traces.
- For problems with UC Suite **Fax printer Driver**:  
Collect and provide Fax Printer Driver logs over client machine's  
path: `C:\ProgramData\CommunicationsClients\CC-Logs\OSBizUser[e.g.406]\FaxPrinterDriver`
- For UC Clients **Auto Update** issues:  
Collect contents of the following paths from the client machine:
  - `C:\ProgramData\CommunicationsClients\AutoUpdate`  
Contains traces for the migration process from V2R6 to V2R7 clients
  - `C:\ProgramData\CommunicationsClients\CC-Logs\AutoUpdate`  
Contains traces from auto update background service
  - `C:\Users\<USER>\CC-Logs\AutoUpdate`  
Contains traces from the auto update graphical user interfaceIn case of AutoUpdate related issues, please include all three path contents.

### 7.17.1 myPortal@Work (UC Smart, UC Suite) client issues

You need to provide the following traces

#### Step by Step

1) System traces with Trace Profiles:

- Basic
- VoiceFaxConnection
- SIP-Interconnection-Subscriber-ITSP

and additionally enable the following Trace Components:

- ERH\_H323\_REG lvl 3
- HFAM level 6
- MSTU level 9
- MSTU\_RTPPROXY level 9
- NSA lvl 6
- TC lvl 3
- SPP lvl 6
- MSH lvl 6
- LLC\_CALL lvl 3
- IPNC lvl 6
- MPH lvl 6

2) RTPProxy traces.

---

**NOTICE:** Upon Start RtpProxy Trace payload for all active myportal@work VoIP calls will be dropped.

---

- 3) TCPDump (system side), depending on the nature of the issue, also wireshark from client side.
- 4) From the client machine where myPortal@work is installed and under **Settings > Debug settings**, collect the client's logs after problematic scenario has been reproduced.
- 5) Where applicable and necessary to demonstrate a defect, capture screen shots of the UI or a video.
- 6) From the System side, make sure that **Application Protocols** and **UC Suite Protocols** are selected when system diagnostics are collected since LAS logs are vital for investigation.
- 7) State Timestamps of the actions/scenario and users' parameters involved to identify inside logs.

### 7.17.2 myPortal to Go issues

- State the Mode used, that is, Deskphone, VoIP, Device @home, GSM calls (only in Dual mode mobility)
- LAS/CSTA modules involved so important to have Application Protocols logs. If Booster server exists, system diagnostics are needed from BS side since MPTG connects with that server.
- myPortal to Go client app logs.

Additional Checklist at customer site:

- OSBiz is connected to the Internet
- DNS properly configured
- Validate that Notifications are allowed from device and from underlined network.
- Indicate WSI Application Server status
- Wireshark diagnostics

### 7.17.2.1 APNS validations for MyPortal To Go

#### Prerequisites

To get the APNS mechanism working, the following administration steps are required:

#### Step by Step

- 1) The latest myPortal to go (iOS) version from App Store needs to be installed.
- 2) Please make sure that the app has all required permissions (**iOS settings > apps section > myPortal to go**).
- 3) In OpenScape Business, we recommend to use the latest release software.
- 4) OpenScape Business (and Booster Card/Server if present) require internet access, as they need to be able to send notifications to Apple's public APNS service. This requires also a proper DNS server configuration, which allows OSBiz to resolve public internet domain names like "gateway.push.apple.com".
- 5) If the company firewall restricts outbound internet access, then please make sure that the firewall is open for APNS related ports.
- 6) The iOS device needs an active internet connection to receive and handle APNS notifications.

#### Next steps

Regarding WiFi availability when the iPhone is locked:

- Please check if specific power saving settings are in use. For example, the iOS option **Low Power Mode** may have an impact if enabled, especially when the device's battery status is low.
- It is also strongly advised that the iPhone device is restarted.

---

**NOTICE:** All hints above are related to iOS only.

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As an additional troubleshooting method, there is also a Mac OSX app which a customer can install for testing APNS connectivity from their network. Example: Push Diagnostics by Twocanoes Software, Inc. which can be found in the MAC App Store.

## 7.18 Application Launcher issues

- Traces for Client App. Launcher:  
**Local Disk > Users > <User> > AppData > Roaming > Tray\_Tool > trace.atr**

## Additional trace data depending on the use-case scenario

### Skype for Business

- Traces for Server App. Launcher:

From the System side, make sure that **Application Protocols** is selected when system diagnostics are collected.

#### Remarks

App Launcher trace file can get easily corrupted as it is "dynamically" copied. The result will be to get empty decoded view of the trace by using the special Development tool for examining App Launcher logs.

Corruptions can happen usually when an engineer copies the traces but the Application Launcher application is still running in the background or if it is terminated not gracefully e.g. via Windows Task Manager.

After a critical error or after a specific time period, Application Launcher updates the trace file, but if during the update it is terminated or someone copies this file then the trace file could get corrupted or the copied file might be incomplete.

In order to avoid this, which makes the investigation harder and lengthens processing time, you are advised trying to gracefully terminate the app by right-clicking its icon at the task bar to allow for proper update of its contents.

If corruption has already taken place and in order to avoid maintaining it, please completely delete the log file while the app is not running and then start up App Launcher to have it properly regenerated.

## 7.19 Skype for Business

#### Trace Profile

- Basic
- Voice\_Fax\_connection
- SIP\_Interconnection\_Subscriber\_ITSP
- TCP dump/Wireshark

#### Trace components

FP\_CP-Port-User: level 9

FP\_DH-SIP: level 9 (only for OpenScape Business X variant)

In case of registration issue with ITSP/lines please activate following profile in addition:

- SIP\_Registration

## 7.20 Connected CSTA Applications

#### Trace Profile

- Basic
- CSTA\_application

Please ensure that during trace download the following flag is set: **Application Protocols**.

## 7.21 TAPI Service Provider

- Please activate the following flags first on the TAPI PC and restart the Telephony-Service before reproducing the issue

**Control Panel > Phone and Modem > Advanced > OpenScape Business TAPI > Configure > Advanced**

**Debug-trace options:** on with verbose level

**Write trace to file when Debug-trace is turned on**

- Depending on the TAPI operation mode choose the following traces on the OSBiz system
  - **OSBiz TAPI CSTA**  
UC Suite-Protocols  
Application Protocols (add also **CSTA\_application** traces)
  - **OSBiz TAPI UC Smart**  
Application Protocols (add also **CSTA\_application** traces)
- Over the client machine end, please include Windows Event Viewer Logs.

## 7.22 Accounting Manager issues

To activate, set Registry key:

```
HKEY_CURRENT_USER\Software\Siemens\Accounting Tool  
\Accounting Tool TraceToFile, REG_DWORD, value 1
```

The generated trace file can be found under:

```
%LOCALAPPDATA%\VirtualStore\Program Files (x86)\Accounting  
Manager\Trace.log
```

- Depending on the CDR output format, consult also the relevant CDR troubleshooting section for the respective CDR diagnosis data over system side.
- Include screen shots of the Accounting Manager configuration and particularly any active Filters.
- Indicate that OSBiz Central Call Charge Recording flag **Activate Call Charge Recording** is set and also indicate the configuration under **Expert Mode > Telephony Server > Basic Settings > Call Charges**

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**NOTICE:** In particular situations it could be required that prior to fetching CDRs from within Accounting Manager, GVS will have to first remotely connect and collect from the PBX via ssh the generated `gez.txt` file to analyze CDR record formation. This file gets deleted when Accounting Manager retrieves the CDRs.

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## 7.23 Issue involving OpenScape Contact Center

For OSBiz scenarios where OSCC is involved and in order to avoid multiple requests, along with OSBiz Diagnostics with "Application Protocols"<sup>1</sup> set, please collect the following OSCC diagnostics:

- OSCC design db
- OSCC telephony server trace (full level)
- OSCC call director server trace (full level)
- OSCC routing server trace (INFO level)
- CMS trace (full level)
- OSCC error log
- Windows Event Logs (OSCC)
- /var/log/messages+warn (CMS)

## 7.24 ODS/ODBC issues

- Name, exact version, 32bit/64bit variant of the 3rd Party Datasource used by a customer.
- An indication from within the 3rd Party datasource, of the column **Data Types** used.
- Size/records of the datasource and its location (i.e. integrated to the ODBC Bridge server or remotely located on a separate server).
- Firewall/ports allowed over ODBC Bridge and Datasource servers.
- A validation of UniqueIDs not containing null or duplicate values.
- A rough estimate of end user size pulling LDAP searches.
- An indication of any special characters used in both column headers and data contents. This should consider also "regular" characters but on data deviating typical syntax, e.g. tel.# +30{210}xxxxxxx instead of +30 (210) xxxxxx
- If ODBC Bridge remote access is not possible, along with ODBC Bridge configuration and logs, please provide also System DSN configuration of the associated ODBC driver configuration.
- Where found valuable, a wireshark of the communication in between ODS and ODBC Bridge Server and ODBC to Datasource Server.
- Validate if the following ODBC functions are indeed supported by the Database Management System (DBMS) and the corresponding ODBC driver used: SQLAllocHandle, SQLBindCol, SQLConnect, SQLDisconnect, SQLDriverConnect, SQLExecDirect, SQLFetch, SQLFreeHandle, SQLFreeStmt, SQLGetDiagRec, SQLGetInfo, SQLSetConnectAttr, SQLSetEnvAttr, SQLGetEnvAttr, SQLGetFunctions, SQLGetStmtAttr, SQLNumResultCols, SQLGetTypeInfo, SQLColAttribute, SQLGetData, SQLTables.

## 7.25 DLI issues

- If a DLI issue is reproducible, please set the trace component **DLI\_WORKPOINT** to level 3 and perform the use case anew. Once the

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<sup>1</sup> Enable **CSTA\_application** prior to executing the scenario.

### Additional trace data depending on the use-case scenario

OpenScape Business and Circuit interconnection issues:

scenario completes, collect the logs and reduce trace component back to default level.

- For the matching timestamps, Phone diagnostics of a sample failing device is also required for the investigation of DLI issues.

## 7.26 OpenScape Business and Circuit interconnection issues:

In case of OpenScape Business and Circuit interconnection issues enable and provide the following trace components:

- PCC level 9
- API\_CTI level 9
- SIP\_SA level 9

---

**NOTICE:** For issues regarding payload problems follow the relevant directions as already mentioned in chapter [General payload issues or interworking scenarios](#) on page 13.

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## 8 Diagnosis on OpenScape Business Attendant/BLF

### How to collect the Attendant Trace

- 1) In the folder `Attendant/Debug` start `debugview.exe`.
- 2) Set the Filter in Debugview to **Uno\*** (predefined in Debugview)
- 3) Enable **Capture/Capture Win32**, **Options/Clock Time**, **Options/Show Milliseconds**.
- 4) Open Attendant and go to the menu **Help/About**.
- 5) Click on the picture. In the Status line you will see a **T**.

Now the trace is active and you will see any information in the debugview window. Click on **File** and choose **Save as** to save the captured data into a file.

DebugView is a Freeware Tool from Microsoft Sysinternals.

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**IMPORTANT:** OSBiz Attendant start-up sequence is quite important when troubleshooting e.g. connectivity issues. It is strongly advised that Debugview is started prior to running OSBiz Attendant in order to capture the start-up messages of the application.

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### Additional data

- Description of the failure scenario with timestamps of the actions, users involved etc.
- If required screen shots or a video of the UI
- System Diagnostics at the matching time stamp of the issue
- Device Diagnostics: as defined in the 'Trace Guide' and per individual device family type, see <https://wiki.unify.com/wiki/Devices>

Suggested device Trace parameters:

- WSI service on DEBUG
- Communications on DEBUG



## 9 Diagnosis on VoiceMail issues

Identify initially what type of VM is used (SmartVM, IVM, VSL VM)

### 1) OSBiz X

- a) Application mode is UC Smart > Voicemail capabilities are provided by SmartVM feature (ISDN ports).
- b) Application mode is UC Suite > Voicemail capabilities are provided by VSL.

### 2) OSBiz S

- a) Application mode is UC Smart > Voicemail capabilities are provided by SmartVM feature (MEB trunks).
- b) Application mode is UC Suite > Voicemail capabilities are provided by VSL.

If problems appear while recording a message in VM, make sure scenario is included in traces.

If problems appear while playing back a message from VM, then make sure that both recorded and playback scenarios are included in traces.

- Wireshark when ITSP and/or HFA subscribers are involved.
- UC Suite protocols when UC Suite VM is used.

## 10 CallBridge Diagnosis

To enable the CallBridge traces, the following registry keys need to be changed:

Set:

**HKLM > SOFTWARE > Siemens > CallBridge Unified CorNet > Trace > DBGTrace** to value 1.

also parameter:

**HKLM > SOFTWARE > Siemens > CallBridge Unified CorNet > Trace > DBGTraceEnh** to value 1.

Execute the DebugView tool (can be found in Microsoft's Windows Sysinternals site), navigate to the **Capture** menu and make sure that both **Capture Win32** and **Capture Global Win32** options are checked.

Restart the Windows telephony service and perform the problematic use case stating timestamps and scenario parameters.

Collect/save the DebugView trace and provide TAPI diagnostics along with the OSBiz traces.

# 11 Remote Access RSP.servicelink

## Why RSP.servicelink

**RSP.servicelink** is the preferred connectivity method for all products of the actual Unify portfolio offering easy to install, easy to use secure broadband remote access.

## Customers benefits with RSP.servicelink

- Highest security
- Secure outgoing connection set up
- Broadband connection
- One connectivity for all actual products
- SSL-VPN
- Easy setup
- Cost efficiency
- Suited for monitoring
- Future proof platform