A MITEL
PRODUCT
GUIDE

Unify OpenScape UC Application V10

Logging and Troubleshooting Guide

Service Documentation
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Mitel

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1 History of Changes

Issue	Changes	Date
1	First issue of the guide.	12/2021
2	Update link for the Trace Info file, in chapter 10.5.	05/2023
3	Update chapter 2.1. Most commonly used symphonia loggers and examples with information about “log4j_spnego_security.xml”.	02/2024
4	Update chapter 2.1 Most commonly used symphonia loggers and examples with information about "log4j_provisioning.xml". Create a new chapter: 12.6 How to collect OpenScape Mobile (OSMO) diagnostic data	06/2024
5	Create a new chapter: 10.10 Manual steps for tracing the UC DesktopApp	03/2025
6	Update chapter 7: Added instructions and command syntax for exporting the symLicenseMgmt table. Update chapter 11.3: Added file path locations for Openfire server and database logs.	01/2026

2 OpenScape UC commonly used loggers and examples

2.1 Most commonly used symphonia loggers and examples

This is a list of the most common symphonia loggers, including examples:

- **log4j_backup_restore.xml** - Logger to be used to troubleshoot backup/ restore issues of Data or Filesystem. Example: Backup of UC data, fails to complete.
- **log4j_bcom.xml** - Logger to be used to troubleshoot call process issues. Example: OWC user A calls OWC user B, but cannot answer the call via call control.
- **log4j_bcom-integrated.xml** - same as above, but to be used in integrated simplex deployments.
- **log4j_bcom-ms.xml** - Logger to be used to troubleshoot call issues and media server issues (If UC media server is on the same server as the BE).
- **log4j_bcom-ms-integrated.xml** - same as above, but to be used in integrated simplex deployments.
- **log4j_cmp_administration.xml** - Logger to be used to troubleshoot CMP related issues. Example: When trying to login to CMP, you get an error that the system is not ready for login or user doesn’t have permission to log in.
- **log4j_conferencing.xml** - Logger to be used to troubleshoot conference issues. User A creates a conference via OWC, adds B and C, but when the conference starts, only user B is alerted.
- **log4j_contactservice.xml** - Logger to troubleshoot contact service related issues (global address book, LDAP). Example: When I search for a contact in the address book, I get a timeout.
- **log4j_domain.xml** - Logger to be used to troubleshoot devices assigned to UC users. Example: UC user A has +1234 number assigned via CMP, but in OWC that device is not visible.
- **log4j_dsa.xml** - Logger that troubleshoots assistant related issues. Example: When I try to create a user via CMP, OSV assistant, I get an exception and the user isn’t created.
- **log4j_groupwareservice_contacts_full.xml** - Logger to troubleshoot groupware (Exchange) and contact service related issues. Example: I cannot see in the WebClient my private groupware contacts nor search for them.
- **log4j_licensemanagement.xml** - Logger to troubleshoot licensing related issues. Example: I assigned a new UC licensing file for UC users, but the licenses are not activated.
- **log4j_mediaserver_full_log.xml** - Logger to troubleshoot media server issues. Example: After a 1 hour conference, some participants loose speech path.
- **log4j_openbranch_administration.xml** - Logger to troubleshoot OSB assistant related issues. Example: In CMP->OSB, I cannot list my OSBs.
- **log4j_openscape_sbc_administration.xml** - Logger to troubleshoot OSB assistant related issues. Example: In CMP->OSB, I cannot list my SBCs.
- **log4j_presence.xml** - Logger to troubleshoot presence related issues (IM, user presence, media presence). Example: My presence status turns without any action to unavailable.
- **log4j_pwf_bcom.xml** - Logger to troubleshoot preferred devices and call process. Example: I have set a device list with 3 devices and I receive a call, the first 2 devices ring, but the third doesn’t.

- **log4j_remotelogging.xml** - Logger to be used, to troubleshoot, symphonia logs transfer via sftp to Trace Manager. Example: symphonia logs are not delivered to TM.
- **log4j_rules_pwf.xml** - Logger to be used, to troubleshoot cases when setting rules which change prefer devices via UC client. Example: When applying a rule, in which when my presence status is available the call should go to my mobile, the office phone rings.
- **log4j_usermanagement.xml** - Logger to be used, to troubleshoot UM related issues. Example: When trying to provision users via UM, the IM address field is empty
- **log4j_mediaserver_oscc-rtc.xml** - Logger to be used for WebRTC related issues and can be activated on Media Server nodes. Example: WebRTC call related issues, screen sharing, registration etc.
- **log4j_provisioning.xml** - Logger used for scenarios where a new user is created via SPML soap request / OSILA.
- **log4j_spnego_security.xml** - Logger to be used to troubleshoot SSO. After enabling the log4j file log4j_spnego_security.xml (and restarting symphonia), the kerberos communication is logged in the file /var/siemens/common/log/osgi.log. Additionally, more log messages are written to the symphonia.log.

2.2 Most commonly used WebClient logs

2.2.1 Backend Logs

- **AddressService.log** - It is logging the actions/activities concerning the search and add of contacts.
- **CallerIdService.log** - It is logging the presentation of number/name in journal and call control.
- **DomainMgmtService.log** - It is logging the UC users information, such as preferred device, timezone, external identifiers, etc, devices.
- **JMailService.log** - It is logging information about the missed call notification functionality via email to the UC user.
- **JrnService.log** - It is logging information about the journal functionality.
- **PCMuxService.log** - It is logging information about user presence, media/phone presence, and instant message.
- **PSMService.log** - It is logging information about call control, call processing via UC client.
- **XprProxy.log** - It is logging information concerning voicemail/Xpressions related functionality.

2.2.2 Frontend Logs

- **HttpdPortal.log** - It is logging information about the http post and get requests of http traffic between the client browser and the FE server. You can find related info such as user login, compatibility settings of browser used.
- **HttpdPortalAccess.log** - It is logging information for owc servlets and user agents of clients.

- **MsgBrokerService.log** - It is logging eventing information of any action performed in the client and passes it the respective BE webclient delegates. Example: when someone changes the presence status,
- **MsgBrokerService** will catch this event in the frontend and then pass the necessary information to the PCMuxService in the BE.
- **WebtierControllerLog4j.log** - It is logging information about EA Cockpit functionality.

IMPORTANT:

Please note that in case of Integrated simplex and Small Deployment, all above BE and FE logs exist only on the BE server.

Please note that when troubleshooting a Web Client related issue, make sure to have Web Client logs in Level 5 (Debug mode).

Please note that when troubleshooting Smart Client issues (new WebClient Interface), you also need the openscapeuc.log.

---

3 OpenScape UC logs collection

3.1 OpenScape UC systemVersionInfo

There is a lightweight tool to get all the essential information named `systemVersionInfo` which can be applied during runtime of the system without affecting performance significantly.

The tool `systemVersionInfo` is basically a stripped collect.sh tool without collecting the GBytes of logging information. It provides a collection of versioning information plus the essential configuration information.

The tool can be applied as follows:

```
cd /opt/siemens/servicetools/install/bin
```

`./systemVersionInfo.sh systemVersionInfo` creates Master tar files in `/tmp/`

e.g.

Creating Master tar file: `/tmp/sysVInfo-ucsmall-2013-02-05-T112213-CET.tar`

Please collect this sysVInfo file.

3.2 OpenScape UC collect.sh script

The `collect.sh` script automatically collects log and dump information of OpenScape UC application. It can be found under `/opt/siemens/servicetools/install/bin`

```
/opt/siemens/servicetools/install/bin # ./collect.sh
```

Try `collect.sh -h` for more information.

Selecting logfiles containing traces:

```
START ..... Sun May 15 19:23:07 EEST 2016
END ....... Mon May 16 17:50:45 EEST 2016
..... .....
--------------------------------------------------------------------------------
Creating Dump tar file: /tmp/dumpfiles-ucsmall-2016-05-16-T175049-EEST.tar
Total bytes written: 13148160 (13MiB, 501MiB/s)
--------------------------------------------------------------------------------
Creating Master tar file: /tmp/logfiles-ucsmall-2016-05-16-T175049-EEST.tar
Total bytes written: 164290560 (157MiB, 97MiB/s)
```

Collected files will be under /tmp/

You can also use collect.sh -C -H in order to collect core dumps and heap dumps.

3.3 Taking network traces with minimal footprint

It is recommended to use tcpdump instead of tethereal or tshark for long term sniffer traces on UC boxes for several reasons:

- **tshark** (command line version of wireshark) is not available as an installed default package on all SLES versions.
- **tethereal** (command line version of a GUI package ethereal) has a significant footprint on the system performance and especially memory usage when it comes to Display filters (which is a legacy part of the GUI package).
- **tethereal** and **thsark** are based on **tcpdump** in the end anyhow.
- **lab tests** clearly show that the footprint of tcpdump is neglectable.

A typical setup of long term sniffer traces should follow this pattern.

nohup tcpdump -i any -C 20 -W 50 -s 0 -w /tmp/capture-uc-be. 'not port 22' >/dev/null 2>&1 &

Some comments on the different parts of the command line:

`nohup' runs the given command with hangup signals ignored, so that the command can continue running in the background after you log out.

-i any On Linux systems with 2.2 or later kernels, an interface argument of "any" can be used to capture packets from all interfaces. Note that captures on the "any" device will not be done in promiscuous mode.

-C 20 Before writing a raw packet to a savefile, check whether the file is currently larger than file_size and, if so, close the current savefile and open a new one. Savefiles after the first savefile will have the name specified with the -w flag, with a number after it, starting at 1 and continuing upward. The units of file_size are millions of bytes (1,000,000 bytes, not 1,048,576 bytes).

-W 50 Used in conjunction with the -C option, this will limit the number of files created to the specified number, and begin overwriting files from the beginning, thus creating a 'rotating' buffer. In addition, it will name the files with enough leading 0s to support the maximum number of files, allowing them to sort correctly.

-s 0 Setting snaplen to 0 sets it to the default of 65535, for backwards compatibility with recent older versions of tcpdump.

-w /tmp/capture-uc-be. Write the raw packets to file rather than parsing and printing them out.

'not port 22' to prevent shooting yourself in the foot. This is your capture filter. For full discussion, please see man tcpdump

>/dev/null 2>&1 https://www.xaprb.com/blog/2006/06/06/what-does-devnull-21-mean/

& start it in the background and get another prompt (process can be killed). Omit & for no background tracing.

4 BCom (call scenarios) troubleshooting

- **How to find Bcom Events in symphonia log:**

```
[com.siemens.symphonia.bcom.bcomsvc.impl.RMRSessionManagerImpl] <LogId
BCom="1" /> fireEventViaRMR: fired
```

- **How to find CSTA Requests/Events in symphonia log:**

  ```
  com.siemens.symphonia.bcom.cstaconnector.adaptor.TcpEndPoint
  ```

- **How to search for CSTA Events in symphonia log:**

  Search in log for "/> ***"

  Example for an outgoing call:

  ```
  OSV-CSTA-IP:1040" /> ***SENT: 1335
   <MakeCall><callingDevice>
  OSV-CSTA-IP:1040" /> ***RECEIVED: 1335 <?xml
   version="1.0" encoding="UTF-
  8"?><MakeCallResponse
  OSV-CSTA-IP:1040" /> ***RECEIVED: 9999 <?xml
   version="1.0" encoding="UTF-
  8"?><ServiceInitiatedEvent
  OSV-CSTA-IP:1040" /> ***RECEIVED: 9999 <?xml
   version="1.0" encoding="UTF-
  8"?><OriginatedEvent
  OSV-CSTA-IP:1040" /> ***RECEIVED: 9999 <?xml
   version="1.0" encoding="UTF-
  8"?><NetworkReachedEvent
  OSV-CSTA-IP:1040" /> ***RECEIVED: 9999 <?xml
   version="1.0" encoding="UTF-
  8"?><DeliveredEvent
  OSV-CSTA-IP:1040" /> ***RECEIVED: 9999 <?xml
   version="1.0" encoding="UTF-
  8"?><EstablishedEvent
  OSV-CSTA-IP:1040" /> ***RECEIVED: 9999 <?xml
   version="1.0" encoding="UTF-
  8"?><ConnectionClearedEvent
  ```

- **How to find CSTA link status events in symphonia logs:**

```
[com.siemens.symphonia.bcom.bcomsvc.delegate.EventsFromProviderDelegate]
```

- **How to find active call counts in symphonia logs: (useful for media presence issues):**

  "active calls"

  Example:

  INFO [com.siemens.symphonia.presence.bcom.impl.BComHandlingWorker] **handleNewConnection**:: User test@system **has 1 active calls**

  INFO [com.siemens.symphonia.presence.bcom.impl.BComHandlingWorker] **handleTerminatedConnection**:: User test@system **has 0 active calls**

- **How to check that a user's devices (ONS and additional resources) are monitored by BCom:**

  On BE node go to `/opt/siemens/servicetools/bcom`

  Execute:

  ```
  showBComStatus BE_IP_ADDRESS administrator@system
   "ADMIN_PASSWORD" | grep
  "userid@system"
  ```

  The output should be like this:

  ```
  [INFO] DiscoverService(BComApi): url =
  https://BE_IP_ADDRESS:4709/com/siemens/symphonia/
  clientproxy/RemoteDiscovery
  [INFO] DiscoverService(BComApi): got https://
  FE_IP_ADDRESS/FQDN:4709
  [INFO] ws.url =
  https://FE_IP_ADDRESS/FQDN:4709/com/siemens/symphonia/
  bcom/bcomapisvc/generated/interf/BCo
  mApi
  [INFO] wsEvent.url =
  https://FE_IP_ADDRESS/FQDN:4709/com/siemens/symphonia/
  bcom/bcomapisvc/generated/interf/BCo
  mApi Device +302105566777 [ Pbx +302105566777 ]
   monitored userid@system
  Device 3021055667771;phone-
  context=private.private.302105566@system [ Pbx
   3021055667771 ]
  monitored userid@system Device 3021055667772;phone-
  context=private.private.302105566@system
  [ Pbx 3021055667772 ] monitored userid@system
  ```

  [INFO] httpsSetupDone

  [INFO] DiscoverService(BComApi): url =
- **WebClient tips:**

  How to find Call control windows of a specific user in MsgBrokerService log of WebClient FE:

  Send to: username@system Message: {{"id":"CallInfo"

  How to find Calls initiated by WebClient in MsgBrokerService log of WebClient FE:

  INFO [CC-PlugIn-1] msg: {"id":"MakeCall",

CSTA Request	CSTA Event	Bcom Event
MakeCall Request		
	ServiceInitiatedEvent	NewCommunicationEvent
	OriginatedEvent	DialtoneEvent
	OfferedEvent	InitiatedEvent
AcceptCall Request		
	DeliveredEvent	AlertingEvent/ RingbackEvent

CSTA Request	CSTA Event	Bcom Event
AnswerCall Request		
	EstablishedEvent	ConnectedEvent
ClearConnection Request		
	ConnectionClearEvent	TerminatedEvent

5 MySQL commands for quick troubleshooting

Login and navigate:

mysql -u root -p Enter password:

To retrieve the password execute:

```
/opt/siemens/servicetools/install/bin/installlib.sh
persistence.getDBMSdata -Dmagic=db
```

mysql> SHOW DATABASES;

```
+----------------------+
| Database |
+----------------------+
| information_schema |
| BATCHJOB |
| OPENBRANCHAPP |
| OSVSYNCH |
| dsaadminappcontroller |
| dsargconnectionconfig |
| mysql |
| openscapesbc |
| performance_schema |
| symAlarmMgmt |
| symBackup |
| symCmpOsee |
| symCmpSettings |
| symConferencing |
| symContactList |
| symDomain |
| symFaultMgmt |
| symGroupware |
| symGroupwareEWS |
| symInventory |
| symLicenseMgmt |
| symPresence |
| symPresenceTarget |
| symRegistration |
| symRules |
| symSSLMgmt |
| symScheduler |
| symSnmpTrap |
| symStorage |
| symTellMeWhen |
| symWorkflow |
| symXpressions |
| symcadb |
| sys |
| um4kemsdk |
| umLdapSettings |
| umLocality |
| ums |
+----------------------+
mysql> use symConferencing;
mysql> show TABLES;
```

```
+---------------------------+
| Tables_in_symConferencing |
+---------------------------+
| AccessCodes |
| BridgeNumbers |
| BridgeNumbersTenantConfig |
| Compatibility |
| ConferenceProperties |
| Conferences |
| Documents |
| Invitees |
| Occurrences |
| QRTZ_BLOB_TRIGGERS |
| QRTZ_CALENDARS |
| QRTZ_CRON_TRIGGERS |
| QRTZ_FIRED_TRIGGERS |
| QRTZ_JOB_DETAILS |
| QRTZ_LOCKS |
| QRTZ_PAUSED_TRIGGER_GRPS |
| QRTZ_SCHEDULER_STATE |
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| QRTZ_SIMPLE_TRIGGERS |
| QRTZ_SIMPROP_TRIGGERS |
| QRTZ_TRIGGERS |
| RecordingProperties |
| Recordings |
| symConferencingDBVersion |
| symMessages |
+---------------------------+
mysql> select * from Conferences where
 ConferenceUri='conf.13516';
```

5.1 Examples of queries in case we need to collect general Conferencing related information or for specific users

Querying all conferences in the system, sorted by a field and output to a file

mysql -u root -p -D symConferencing -e "select ConferenceUri, CreatorOwner, Count,

ScheduleTime, CreationDate from Conferences order by ScheduleTime;" >>

/tmp/all_conf_output_by_.txt

Number of configured conferences per user

mysql -u root -p -D symConferencing -e "select CreatorOwner, count(*) from Conferences group

by CreatorOwner;" > /tmp/confperuser.txt eg.

CreatorOwner count(*) user1@system 6 user2@system 6 user3@system 97 user4@system 27

Query conferences for a specific user

If you want to export a specific database you can execute the following command

mysql -u root -p-D symConferencing -e "select ConferenceUri, CreatorOwner, SUBJECT from

Conferences WHERE Creatorowner="@system';"

5.2 If you want to export a specific database you can execute the following command

mysqldump -u root -p symPresence > presence.sql

Enter password:

5.3 To export the complete MySQL DB

mysqldump -u root -p --extended-insert=FALSE --single-transaction --all-databases > alldb.sql

Enter password:

5.4 To export a single table from Openfire DB e.g. ofPrivacyList

mysqldump -u root -p --extended-insert=FALSE --single-transaction openfire_db

ofPrivacyList>export_ofPrivacyList.sql If not changed, root password can be found under

/root/.mysql.pass or .mysql_secret .

5.5 To export the complete Openfire DB

mysqldump -u root -p --extended-insert=FALSE --single-transaction openfire_db > of_db.sql

5.6 To retrieve information on when UC users logged in last time

SELECT UserURI, FROM_UNIXTIME(LastLogonTime/1000) AS 'LogonDateReadable' FROM

symDomain.symUserAuthentication Auth WHERE

LastLogonTime>0;

You can use "order by UserURI" in order to sort by the userid.

SELECT UserURI, FROM_UNIXTIME(LastLogonTime/1000) AS 'LogonDateReadable' FROM

symDomain.symUserAuthentication Auth WHERE LastLogonTime>0 order by UserURI;

5.7 How to retrieve all the users who did not use their UC account over a long period of time (inactive users)

SELECT UserURI FROM symDomain.symUserAuthentication WHERE lastlogontime + 31536000000

< ((UNIX_TIMESTAMP()*1000)); where 31536000000 stands for 365 days in milliseconds The above

query will also fetch users that have never logged in.

To find out these users separately execute:

SELECT UserURI FROM symDomain.symUserAuthentication WHERE lastlogontime = 0;

You can always enhance the commands with "order by UserURI" at the end in order to sort by the userid.

5.8 How to find out which UC users have been locked

SELECT symDomain.symUsers.UserId FROM symDomain.symUsers WHERE

symDomain.symUsers.UUIDKey IN (SELECT UserKey FROM symDomain. symUserAttributeValues

WHERE symDomain.symUserAttributeValues.AttributeTypeKey = 'sym.attribute.user.10' AND

symDomain. symUserAttributeValues.AttributeValue = 1);

You can use the following query to unlock them:

UPDATE symDomain.symUserAttributeValues SET

symDomain.symUserAttributeValues.AttributeValue = 0 WHERE

symDomain.symUserAttributeValues. AttributeTypeKey = 'sym.attribute.user.10' AND

symDomain.symUserAttributeValues.AttributeValue = 1;

5.9 MySQL commands to retrieve detailed database output only in case it has been identified that there is a DB problem

GLOBAL STATUS

SHOW GLOBAL STATUS;

mysql -u root -p --table -e "show global status;" > global_status.txt

GLOBAL VARIABLES

SHOW GLOBAL VARIABLES;

mysql -u root -p --table -e "show global variables;" > global_variables.txt

INNODB STATUS

SHOW ENGINE INNODB STATUS;

mysql -u root -p --table -e "show engine innodb status;" > engine_innodb.txt

FULL PROCESSLIST

SHOW FULL PROCESSLIST;

mysql -u root -p --table -e "show full processlist;" > full_processlist.txt

6 E/A Cockpit related info

6.1 How to reload the E/A Cockpit application

Open a web browser and use the following URL:

http://:7789/eacockpitosc/main?reload=true

6.2 Log entry for checking that E/A Cockpit has started loading the groups

2018-01-29 11:07:54,755 DEBUG [EACockpit_GroupsResolver] loadGroups; 68;

createGroupsFromSOAP BEGIN ###

6.3 Log entry for checking interruption in the loading procedure

(maybe during the loading procedure the administrator has changed one of the groups and the action

caused the loading procedure to be interrupted) 2018-01-29 11:08:02,077 INFO

[EACockpit_GroupsResolver] #### Reload interrupted ###

6.4 Log entry for checking that a changed group was reloaded

2018-01-29 11:08:08,260 DEBUG [EACockpit_GroupsResolver] loadGroups; 611;

groupToReloadName = 499131847877_8390_8445_8391 In general, the administrator must wait for

the application to finish the group load procedure prior to doing any changes to groups.

Please check for

/opt/siemens/HiPathCA/config/common/global.cfg which should include

Log size depending on 8k scenario

```
<?x if(<?x $IS_HP8K ?> == "1") ?>
<?x setvar (LOG_INIT_LEVEL4J = "5" ) ?>
<?x setvar (LOG_INIT_LEVEL = "5" ) ?>
<?x setvar (LOG_INIT_MAXDAYS = "3" ) ?>
<?x setvar (LOG_INIT_MAXFILESPERDAY = "15" ) ?>
<?x else ?>
<?x setvar (LOG_INIT_LEVEL4J = "5" ) ?>
<?x setvar (LOG_INIT_LEVEL = "5" ) ?>
<?x setvar (LOG_INIT_MAXDAYS = "5" ) ?>
<?x setvar (LOG_INIT_MAXFILESPERDAY = "30" ) ?>
<?x endif ?>
```

as well as

/opt/siemens/HiPathCA/config/services/default/ServiceController/default/resources/log4j.xml including

the following sequence

<logger name="com.siemens.symphonia.eacockpit">

<level value="DEBUG"/> </logger>

Dedicated logs for the EA-Cockpit functionality can be found under:

/var/siemens/common/log/WebClient/.../WebTierControllerLog4j..log or

/var/siemens/common/log/WebClient/.../WebEngineControllerLog4j..log

Please also provide the configuration files:

/opt/siemens/HiPathCA/WebSpace/Portal/webapps/eacockpit-osc/WEB-INF/groups/*

7 How to solve consumed licenses inconsistencies

In case, for example, “Feature name” “OpenScape UC Appl User” appears as 0 out of XYZ or the number of used licenses value appears greater than the maximum amount available, proceed with activating the License Management Service healing mechanism.

Go to CMP > Maintenance > Inventory > Nodes > select backend node > Show services status > search for *icense* > open “License Management Service” > set value of ActivateHealingMechanism to true and Save the change.

Check that under CMP > Maintenance > Licenses > Information the consumed Licenses are now valid based on uploaded license file.

Restart of the License Management Service NOT required.

After validation of the licenses, change ActivatedHealingMechanism value back to false

For issues related to licensing and license files, an export of the symLicenseMgmt table needs to be provided.

```
mysqldump -u root -p symLicenseMgmt > licensemgmt.sql
Enter password:
```

8 How to generate a Media Server nativeRTPunit backtrace file

This is mandatory when escalating issues to MS team that are related to nativeRTPunit crashes.

The backtrace file needs to be generated for each nativeRTPunit crash file (*.core).

Go to /opt/siemens/mediaserver/application_host/bin and you will see the core file generated e.g. ft2ucms-nativeRTPunit-x-3907.core

Then execute for this core file:

gdb -ex "set pagination off" -ex "thread appl all bt" -ex "q" ./nativeRTPunit-x86_64 ./ft2ucmsnativeRTPunit-x-3907.core > backtrace-3907.txt

9 OpenScape UC - outages related to resources

9.1 Javacore collection for high CPU issues

- Execute “**top -H**” let it run for some seconds > get the output.
- Execute “**top**” and note the PID of the java process.
- Execute “**kill -3**” on this PID. For the Framework process you can also directly execute:
  `kill -3 $(cat /var/run/siemens/symosgi.pid)`

  Check under /var/siemens/common/log/dumps if the javacore and phd file are created after the “kill -3” command. Execute the kill command until the files are created.
- Get the following:

  1) Collect.sh from the node.

  2) The directory “/var/siemens/common/log/dumps”. Zip it and send it. The dumps zip file created from the collect.sh does not contain all files, so we need the complete directory.

  Otherwise execute /opt/siemens/servicetools/install/bin/collect.sh with -C -H ("sh collect.sh -CH" or "sh collect.sh -C -H")

When **strace** for the Framework process is required execute:
`strace -f -p $(cat /var/run/siemens/symosgi.pid) -o /root/strace.out`

Let it run for some seconds and then exit the command with Ctrl-C.

Other useful commands:

```
uptime ps aux --sort -rss
free -m vmstat 2 10 ps aux --sort=-pcpu |head -n6
```

9.2 Sort swap usage by process

This is a very useful command to display all processes that are swapping sorted by largest to smallest value.

for file in /proc/*/status ; do awk '/VmSwap|Name/{printf $2 " " $3}END{ print ""}' $file; done | sort -k 2 -n -r | less

9.3 How to check if a system is virtual and what kind of virtualization is used

9.3.1 Using files from collect.sh

```
install-logs/symphonia-install.log sysinfo/dmesg.txt
 sysinfo/cpuinfo
(search for txt: hypervisor) sysinfo/lspci
```

In case of VMWare, you'll see references like "VMware Virtual Machine Communication Interface", "VMware PCI", "VMware SVGA", "VMware VMXNET3 Ethernet Controller".

in case of Microsoft Azure cloud solution (NOT supported by Unify) you'll see references like "Microsoft Corporation Hyper-V virtual VGA", "Microsoft HyperV", "Microsoft Corporation Virtual Machine".

9.3.2 Using ssh and Linux commands

```
/var/siemens/common/log/install/symphonia-install.log proc/
cpuinfo (search
for txt: hypervisor) dmidecode -t system|grep 'Manufacturer
\|Product'
```

Manufacturer: VMware, Inc.

Product Name: VMware Virtual Platform

lspci

00:07.7 System peripheral: VMware Virtual Machine Communication Interface (rev 10)

00:0f.0 VGA compatible controller: VMware SVGA II Adapter

00:11.0 PCI bridge: VMware PCI bridge (rev 02)

00:15.0 PCI bridge: VMware PCI Express Root Port (rev 01)

9.4 How to check VM reservations and ballooning

Assuming that Linux VMWare tools are installed on the UC nodes, execute on each affected node:

```
vmware-toolbox-cmd stat cpures vmware-toolbox-
cmd stat cpulimit vmware-toolbox-cmd stat speed
vmware-toolbox-cmd stat memres vmware-toolbox-
cmd stat memlimit vmware-toolbox-cmd stat balloon
```

10 OpenScape UC - Fusion, WebRTC and Web clients

10.1 OpenScape UC WebClient logging

For nearly all WebClient related issues runtime logs are needed. For all deployments except Integrated Simplex they are located in /var/siemens/common /log/webclient. For the Integrated Simplex they are located under /log/webclient/.

The logs are needed in debug-level usually to get the most information out of them and to resolve the issue as soon as possible.

For a more detailed WebClient trace including DEBUG and TRACE messages the variables.

LOG_INIT_LEVEL4J and LOG_INIT_LEVEL need to be set to a value of 5 in the following section of /opt/siemens/HiPathCA/config/common/global.cfg

For this please edit file .../HiPathCA/config/common/global.cfg and make sure the log-config-section looks as follows:

```
# Log size depending on 8k scenario
<?x if(<?x $IS_HP8K ?> == "1") ?>
<?x setvar (LOG_INIT_LEVEL4J = "5" ) ?>
<?x setvar (LOG_INIT_LEVEL = "5" ) ?>
<?x setvar (LOG_INIT_MAXDAYS = "3" ) ?>
<?x setvar (LOG_INIT_MAXFILESPERDAY = "15" ) ?>
<?x else ?>
<?x setvar (LOG_INIT_LEVEL4J = "5" ) ?>
<?x setvar (LOG_INIT_LEVEL = "5" ) ?>
<?x setvar (LOG_INIT_MAXDAYS = "5" ) ?>
<?x setvar (LOG_INIT_MAXFILESPERDAY = "30" ) ?> <?x endif ?
>
```

After changing the global.cfg according to the above example, you need to restart WebClient on all nodes of the deployment.

For the new design of the WebClient interface (openscapeuc.log) please change the value for the root-logger in /opt/siemens/HiPathCA/config/common / log4j-webtier.xml to ALL:

```
<root>
<priority value="ALL"
 class="com.cycos.media.logging.log4j.ExtendedLevel"/>
 <appender-ref
ref="R"/>
</root>
```

These logs can be found under /var/siemens/common/log/webclient/openscapeuc for all deployments apart from Integrated Simplex. For large deployments, look for them on the Frontend nodes.

For the Integrated Simplex deployment, they can be found under `/log/webclient/openscapeuc/`.

Activate webtier log level ALL for openscapeuc logs on the fly (without UC restart)

This can be done from UC V9R4 FR38 and later versions.

The administrator is able to reload the log4j settings after having manually edited the **log4jwebtier.xml** file (located under **/opt/siemens/HiPathCA/config /common/log4j-webtier.xml** on each FE node or in the offboard node in case of a Small deployment) and set the log level to ALL.

After that in order to reload the updated log4j configurations the following script should be executed on each FE node (or in the offboard node in case of a Small deployment):

```
/opt/siemens/HiPathCA/bin/reloadWebLog4j.sh
```

After the scenario reproduction, change the log level back to UNEXPECTED and execute the reload script.

UI debugger logs

Before starting executing a scenario, start the UI debugger on the WebClient (hold Ctrl on the keyboard and click on your profile and select > Open debugg er) then begin with the scenario and keep the window opened until the scenario execution is finished.

10.2 Fusion4Office/Fusion4Notes client - trace information

#1: Fusion Traces guide

The Fusion has its own Trace guide.

Here the last one V2.15 (it's always available within last F4O released. Example: INF-21-000234).

https://nuxeo.unify.com/nuxeo/site/kmoss/DocumentDownload/view/raw/ce3f32fa-81fd-45aa-b215-33289fc30b28

#2: Fusion logs

The logs must be activated via Diagnosis tool.

```
C:\Program Files (x86)\Unify\Fusion for MS Office\FusionPlugins\tools
\OpenScapeClientDiagnosis.exe
```

#3: Fusion and other Clients are NOT compatible.

FUSION for OFFICE or FUSION for NOTES cannot be installed(work) if already have other Clients installed like ODC-PE, DI-Tool, etc.

To work, you must UNINSTALL completely the previous Clients, clean/delete regedit keys about it (if uninstall did not clean it automatically) and only after that install the F4O or F4N.

#4: DUMP 32 bit

Fusion (when having problems like CRASH or FREEZING) must have collected (along Fusion logs) the DUMP of it too. But, since Fusion it's a 32 bit app, it must be collected a DUMP 32 bit (NOT 64).

Several ways to do that, the easiest is via Windows Task Manager variant 32 bit:

Even if you are using a 64 bits Windows, use the 32-bit TASK MANAGER, because the processes of OpenScape are in 32 bit.

So, let's assume you are running our Fusion Client and a problem(CRASH or FREEZE) happens.

Here are the steps to collect the DUMP 32bit faster:

1) Open the Windows Task Manager for 32-bit:

   Since today's most OS are 64-bit, we need to use other Task Manager than the standard one open via CTRL+SHIFT+ESC (that would be for 64 bit). - Open an Explorer Window - Move to the folder C:\Windows\SysWOW64 - Run(double-click) over the exe file " TaskMgr.exe

2) Select the Desired process to collect the DUMP:

   With the Task Manager (32 bit) open, goes to desired process to have the DUMP collected. - (via Mouse Rightclick) select the option "Create Dump File" and wait for creation of DUMP file

   For complete details/screenshots, please check the Fusion Trace Guide.

10.3 Fusion4Office client - general hints

Fusion shutdown in the ODC traces:

```
2019-11-12 15:22:14,591 OC STMEN 00000000001 Exit click received
(...)
2019-11-12 15:22:14,592 OC OPTIC 00000000001 CanClose (L) - true
2019-11-12 15:22:14,593 OC OPTIC 00000000001 ShutDown (E)
```

Contact card:

Fusion can show the UC presence in the Contact Card of Outlook. It uses the Outlook IM address (which should be the same as the email address). Use the tag ACCAI to find contact card information on ODC traces:

```
2019-12-19 07:22:45,256 OC ACCAI 00000000016 DEBUG
[occaInterface.Connector.ContactDirectoryService_PresenceStateChanged]
ContactDirectoryService_PresenceStateChanged - user: (user@system) status
(OSC_Away)
```

Cached mode:

Outlook conference add-in supports Exchange Cached Mode on or off.

When the cached mode is on, the add-in requests the user information like phone and email address from Outlook/Exchange When the cached mode if off, the add-in requests the user information like phone and email address from UC.

Keyset:

In general Fusion does not support keyset. However, it's possible to configure the Fusion SIP subscriber to be a primary line, just to avoid double registration in the network (very useful for Citrix environments, where the users go from a thin client to another)

10.4 Fusion4Office client - SIP analysis hints for the ODC traces

To find a SIP packet is like that:

Engine, Unify.Sip.SipEngine: Packet:

It will show:

- The direction of the packet: if is going out from the client (Outbound) or coming to the client (inbound) The registrar address

- The port
- The protocol
- The subscriber number
- The user agent

If it's a response for a request, it might be 200 (OK), 401 (Unauthorized), etc.

In the example below the Client is sending a REGISTER to 10.114.78.130:5061. The protocol is TLS.

```
2020-01-09 11:09:17,212 OC SIP 00000000031 Engine, Unify.Sip.SipEngine: Packet:
Outbound, 10.114.78.130:5061, REGISTER sip:
10.114.78.130:5061;transport=tls SIP/2.0
                                 Via: SIP/2.0/TLS
10.114.100.173:49556;branch=z9hG4bK7e5d549e6926e961d Max
Forwards: 70
                                 From: "302108189043"
<sip:302108189043@10.114.78.130>;tag=0c33b8b6ed;epid=SCbe2f52
                                 To: "302108189043"
 <sip:302108189043@10.114.78.130>
                                 Call-ID: 0fde1be46b1540a3
                                 CSeq: 581773214 REGISTER
                                 Contact: "302108189043"
<sip:302108189043@10.114.100.173:49556;transport=tls>;audio;video;text;expires=3600
                                 User-Agent: Siemens.Sip Engine/7.3.6.0 simple-
uaCSTA
                                 X-Siemens-IID: 802MAC=9829A66A13F1
```

If the subscriber requires Digest Authentication (password), it's common that the REGISTER fails. Then Fusion tries again:

```
2020-01-09 11:09:17,466 OC SIP 00000000031 Engine, Unify.Sip.SipEngine: Packet:
 Inbound,
10.114.78.130:5061, SIP/2.0 401 Unauthorized
                    Warning: 399 10.114.78.130 "Authentication: Failed to
 validate DA
credentials - 13."
                    Via: SIP/2.0/TLS
10.114.100.173:49556;branch=z9hG4bK7e5d549e6926e961d
                    From: "302108189043"
<sip:302108189043@10.114.78.130>;tag=0c33b8b6ed;epid=SCbe2f52
                    Call-ID: 0fde1be46b1540a3
                    CSeq: 581773214 REGISTER
                    To: "302108189043"
<sip:302108189043@10.114.78.130>;tag=snl_94AWSmT29u
                    WWW-Authenticate: Digest realm="sen", nonce="2325959361-
e7da44db35952a35fd506d2be8e78d3c", stale=true, algorithm=MD5, qop="auth"
                    Content-Length: 0
(…)
2020-01-09 11:09:17,482 OC SIP 00000000032 resend the previous request, now
 including
authentication credentials
2020-01-09 11:09:17,490 OC SIP 00000000031 Engine, Unify.Sip.SipEngine: Packet:
Outbound, 10.114.78.130:5061, REGISTER sip:
10.114.78.130:5061;transport=tls SIP/2.0
                    Via: SIP/2.0/TLS
10.114.100.173:49556;branch=z9hG4bK56f1429a6e4c43767 MaxForwards: 70
```

```
                    From: "302108189043"
<sip:302108189043@10.114.78.130>;tag=0c33b8b6ed;epid=SCbe2f52
                    To: "302108189043" <sip:302108189043@10.114.78.130>
                    Call-ID: 0fde1be46b1540a3
                    CSeq: 581773215 REGISTER
                    Authorization: Digest
username="302108189043",realm="sen",nonce="2325959361-
e7da44db35952a35fd506d2be8e78d3c",uri="sip:10.114.78.130:5061;transport=tls",
response="9ec93
0043af595fc24535b7ab94a458d",algorithm=MD5, qop=auth,cnonce="e1f8d9d3",nc=00000001
                    Contact: "302108189043"
<sip:302108189043@10.114.100.173:49556;transport=tls>;audio;video;text;expires=3600
                    User-Agent: Siemens.Sip Engine/7.3.6.0 simple-uaCSTA
                    X-Siemens-IID: 802MAC=9829A66A13F1
```

To check the current status of the registration, use the following search term: *Line, State=*

It will show results like this:

```
Line 4745: 2020-01-09 11:09:14,179 OC SIP 00000000025 Line, State=Unregistered
Registrar=:0: create line with configuration

AuthenticationUser=302108189043, AuthenticationPassword=[********],
 AuthenticationRealm=,
Authenticate=True, LocalHost=, LocalPort=5060, DefaultOutboundDomain=,
 GatewayHost=,
GatewayPort=5060, UseDefaultOutboundProxyOrDomain=False,
 RegistrationExpireTimeout=3600,
EnableAnat=False, AlternativeAddress=

Line 5052: 2020-01-09 11:09:15,519 OC SIP 00000000025 Line, State=Unregistered
Registrar=:0: executing 'Register("sip:302108189043@10.
114.78.130:5061","302108189043",True)' ...

Line 5053: 2020-01-09 11:09:15,521 OC SIP 00000000025 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: no proxy host set, use registrar
 host instead

Line 5055: 2020-01-09 11:09:15,523 OC SIP 00000000025 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: Clearing Resolver Cache.

Line 5073: 2020-01-09 11:09:15,977 OC SIP 00000000025 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: StartListenOnSocket: listening for
 incoming
messages on ip address 10.114.100.173:5060

Line 5082: 2020-01-09 11:09:15,998 OC SIP 00000000007 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: adding subscription with
 EventName='servermode-backup',
Target='302108189043', Type='', SubType='' and Implicit='True' ...

Line 5083: 2020-01-09 11:09:15,998 OC SIP 00000000007 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: ... new event -> add the
 subscription

Line 5085: 2020-01-09 11:09:15,998 OC SIP 00000000007 Line, State=Registering
```

```
Registrar=10.114.78.130:5061 User=302108189043: adding subscription with
 EventName='servermode-normal',
Target='302108189043', Type='', SubType='' and Implicit='True' ...

Line 5086: 2020-01-09 11:09:15,998 OC SIP 00000000007 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: ... new event -> add the
 subscription

Line 5091: 2020-01-09 11:09:16,756 OC SIP 00000000009 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: registering with configuration
AuthenticationUser=302108189043, AuthenticationPassword=[********],
 AuthenticationRealm=,

Authenticate=True, LocalHost=10.114.100.173, LocalPort=5060,
 DefaultOutboundDomain=,
GatewayHost=, GatewayPort=5060,

UseDefaultOutboundProxyOrDomain=False, RegistrationExpireTimeout=3600,
 EnableAnat=False,
AlternativeAddress=

Line 5093: 2020-01-09 11:09:16,767 OC SIP 00000000032 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: do not route REGISTER request

Line 5094: 2020-01-09 11:09:16,768 OC SIP 00000000032 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: CreateSiemensIidHeader (E): IP
address='10.114.100.173'

Line 5096: 2020-01-09 11:09:17,195 OC SIP 00000000032 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: CreateSiemensIidHeader (L):
Unify.Sip.SipGeneralHeader

Line 5139: 2020-01-09 11:09:17,493 OC SIP 00000000032 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043:
OnDigestClientAuthManagerTransactionChanged

Line 5154: 2020-01-09 11:09:17,749 OC SIP 00000000032 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: not waiting to register anymore

Line 5155: 2020-01-09 11:09:17,749 OC SIP 00000000032 Line, State=Registering
Registrar=10.114.78.130:5061 User=302108189043: registration successful

Line 5162: 2020-01-09 11:09:17,754 OC SIP 00000000032 Line, State=Registered
Registrar=10.114.78.130:5061 User=302108189043: Discover if the server supports
 uaCsta for this
line

Line 5460: 2020-01-09 11:09:18,389 OC SIP 00000000008 Line, State=Registered
Registrar=10.114.78.130:5061 User=302108189043: Server supports uaCsta
 feature=True

Line 17374: 2020-01-09 12:01:02,748 OC SIP 00000000032 Line, State=Registered
Registrar=10.114.78.130:5061 User=302108189043: registration is expiring ->
 reregister

Line 17375: 2020-01-09 12:01:02,749 OC SIP 00000000032 Line, State=Registered
```

```
Registrar=10.114.78.130:5061 User=302108189043: CreateSiemensIidHeader (E): IP
address='10.114.100.173'

Line 17377: 2020-01-09 12:01:03,181 OC SIP 00000000032 Line, State=Registered
Registrar=10.114.78.130:5061 User=302108189043: CreateSiemensIidHeader (L):
Unify.Sip.SipGeneralHeader

Line 17405: 2020-01-09 12:01:03,446 OC SIP 00000000032 Line, State=Registered
Registrar=10.114.78.130:5061 User=302108189043:
OnDigestClientAuthManagerTransactionChanged

Line 17406: 2020-01-09 12:01:03,446 OC SIP 00000000032 Line, State=Registered
Registrar=10.114.78.130:5061 User=302108189043: there is no client transaction so
 don't store the
new client transaction

Line 17435: 2020-01-09 12:01:03,698 OC SIP 00000000032 Line, State=Registered
Registrar=10.114.78.130:5061 User=302108189043: not waiting to register anymore

Line 17436: 2020-01-09 12:01:03,699 OC SIP 00000000032 Line, State=Registered
Registrar=10.114.78.130:5061 User=302108189043: received success event but it is
 in 'Registered'
state
```

SIP provider unregistering procedure:

```
2019-11-12 15:22:15,069 OC SCSIP 00000000001 [ServiceProvider.UnRegister] (E)
```

Then Fusion unsubscribes the CPG (and/or MLHG)

```
2019-11-12 15:22:15,111 OC SIP 00000000057 Engine, Unify.Sip.SipEngine: Packet:
Outbound, 10.10.2.163:5061, SUBSCRIBE sip:*7@10.2.163:5061;transport=tls SIP/2.0
(…)
2019-11-12 15:22:15,113 OC SIP 00000000057 Engine, Unify.Sip.SipEngine: Packet:
 Inbound,
10.10.2.163:5061, SIP/2.0 200 OK
```

From this moment on, Fusion shuts down its handlers from CPG and Hunt Group, as OSV is not supposed to send anything related to it anymore. After that the unREGISTER is sent. The unREGISTER is like the REGISTER, but with the parameter “expires=0”:

```
2020-01-16 18:47:47,845 OC SIP 00000000031 Engine, Unify.Sip.SipEngine: Packet:
Outbound, 10.114.78.130:5061, REGISTER sip:
10.114.78.130:5061;transport=tls SIP/2.0
A31003-S50A0-S100-03-7620, 02/2024
30 OpenScape UC V10, Logging and Troubleshooting Guide
             Via: SIP/2.0/TLS
10.114.100.173:62230;branch=z9hG4bK51e766aa12b206022 Max
Forwards: 70
             From: "302108189043"
<sip:302108189043@10.114.78.130>;tag=a37fb0e063;epid=SCbe2f52
             To: "302108189043" <sip:302108189043@10.114.78.130:5061>
             Call-ID: edd336dd43415553
             CSeq: 244567583 REGISTER
             Authorization: Digest
username="302108189043",realm="sen",nonce="2957457362-
542b1989f00d974b908265ae7a3c3cd7",uri="sip:10.114.78.130:5061;transport=tls",response="e4
```

```
95215f459996bbdf0795f759e9",algorithm=MD5, qop=auth,cnonce="15dfc71d",nc=00000002
            Contact: "302108189043"
<sip:302108189043@10.114.100.173:62230;transport=tls>;audio;video;text;expires=0
            User-Agent: Siemens.Sip Engine/7.3.6.0
            X-Siemens-IID: 802MAC=9829A66A13F1
```

A call is shown as an INVITE, where the media is negotiated to a level that all the sides support. There are ports, codecs (see a= and m= below), the kind of call (Bellcore-dr1 indicates an internal call, while Bellcore-dr2 indicates an external call) and of course the caller and the called.

```
2020-01-14 15:29:34,234 OC SIP 00000000031 Engine, Unify.Sip.SipEngine: Packet:
 Inbound,
10.114.78.130:5061, INVITE sip:
302108189043@10.114.100.173:62043;transport=tls SIP/2.0
                Via: SIP/2.0/TLS
10.114.78.130:5061;branch=z9hG4bK91f4.73e146ba78943e60336af251d7720e93.0;i=727
Max-Forwards: 69
                Contact: <sip:135@10.114.78.130:5061;transport=tls>
                To: <sip:042@10.114.100.173:62043;transport=tls>
                From: "Edilson
Santos"<sip:135@10.114.78.130;transport=tls>;tag=snl_9vl4POvmv7
                Call-ID: SEC11-a0519ac-140519ac-1-T7TzRFGY18v2
                CSeq: 1235 INVITE
                Accept-Language: en;q=0.0
                Alert-Info: <Bellcore-dr1>
                Allow: REGISTER, INVITE, ACK, BYE, CANCEL, NOTIFY, REFER,
INFO
                Content-Type: application/sdp
                Date: Tue, 14 Jan 2020 18:29:32 GMT
                Supported: resource-priority
                P-Asserted-Identity: "Edilson Santos" <sip:135@10.114.78.130>
                X-Siemens-Call-Type: ST-insecure
                Diversion: "Treml Rafael"
<sip:042@10.114.78.130>;reason=deflection;counter=1
                Resource-Priority: invalid-000000.0
                Content-Length: 2511
                X-Siemens-OSS: OpenScape SBC V10 R0.02.00-1
                v=0
                o=3021081891352 1003 1579026569057 IN IP4 172.25.8.68
s=MediaServer 93.0.7.0-2           c=IN IP4 10.114.78.130
t=0 0                        m=audio 35056 RTP/AVP 9 0 8 18 96
a=rtpmap:9 G722/8000               a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000               a=rtpmap:18 G729/8000
a=fmtp:18 annexb=no              a=rtpmap:96 telephone-event/8000
a=ptime:20                   a=label:audio.0
a=msid:- audio.0
                         a=crypto:1 AES_CM_128_HMAC_SHA1_80
inline:aJRjkYVV7hMf+h5zRRm9dnb2HwxQfwF2cP1UGTil
                         a=rtcp-mux m=audio 35350
RTP/SAVP 9 0 8 18 96               a=rtpmap:9 G722/8000
a=rtpmap:0 PCMU/8000               a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
                         a=fmtp:18 annexb=no
a=rtpmap:96 telephone-event/8000            a=ptime:20
a=label:audio.0                    a=msid:- audio.0
```

```
                        a=crypto:1 AES_CM_128_HMAC_SHA1_80
inline:aJRjkYVV7hMf+h5zRRm9dnb2HwxQfwF2cP1UGTil
                        a=rtcp-mux
                        a=key-mgmt:mikey
AQAVgAAS+4ECAAAAAAAAAAAAAABQmrHZAAAAAAUBAAVtaWtleQsA4ciHDAAAAAAKFHjqzC9g
XVjpwVvzTSDz
/LwXqMyiAQAAADYCAQEDBAAAAKAEBAAAAHALBAAAAFAAAQEBBAAAAIAJAQAGAQAFAQAIA
QEKAQEHAQEMBAAAAAAAAAAkABAAEHQwOXKv
5xGiMzQNXKqVHnkADrR69R7AC3Hm3qYKO3M4AA==
                        a=crypto:1 AES_CM_128_HMAC_SHA1_80
inline:xsDYBVa+mblAbGb4NDQYUs0J9XwTQ3ZLwiNHWu1B
                        m=video 35194 RTP/AVP 96 97 98 99
a=rtpmap:96 H264/90000          a=fmtp:96 level-asymmetry-allowed=1;
packetization-mode=1; profile-level-id=42001F          a=rtpmap:97
rtx/90000                a=fmtp:97 apt=96
a=rtpmap:98 H264/90000           a=fmtp:98 level-asymmetry-allowed=1;
profile-level-id=42001F          a=rtpmap:99 rtx/90000
a=fmtp:99 apt=98                 a=rtcp-fb:* goog-remb
a=rtcp-fb:* ccm fir              a=rtcp-fb:* ccm tmmbr
A31003-S50A0-S100-03-7620, 02/2024
32 OpenScape UC V10, Logging and Troubleshooting Guide
a=rtcp-fb:* nack                 a=rtcp-fb:* nack pli
a=recvonly                       a=label:video.0
                        a=crypto:1 AES_CM_128_HMAC_SHA1_80
inline:uLCMipQYMoCpeKoG2F2/ar1rIr9asonnxTkCpnjR
                        a=rtcp-mux m=video 35120
RTP/SAVP 96 97 98 99              a=rtpmap:96 H264/90000
a=fmtp:96 level-asymmetry-allowed=1; packetization-mode=1; profile-level-id=42001F
a=rtpmap:97 rtx/90000             a=fmtp:97 apt=96
a=rtpmap:98 H264/90000            a=fmtp:98 level-asymmetry-allowed=1;
profile-level-id=42001F           a=rtpmap:99 rtx/90000
a=fmtp:99 apt=98                  a=rtcp-fb:* goog-remb
a=rtcp-fb:* ccm fir               a=rtcp-fb:* ccm tmmbr
 a=rtcp-fb:* nack         a=rtcp-fb:* nack
pli a=recvonly            a=label:video.0
 a=crypto:1 AES_CM_128_HMAC_SHA1_80
inline:uLCMipQYMoCpeKoG2F2/ar1rIr9asonnxTkCpnjR
                        a=rtcp-mux
                        a=key-mgmt:mikey
AQAVgLzr8V0CAAAAAAAAAAAAAABsTQFkAAAAAAUBAAVtaWtleQsA4ciHDAAAAAAKFGPaiWHk
OOf7PZbkbQmWkuQSKqG+AQAAADYCAQEDBAAA
AKAEBAAAAHALBAAAAFAAAQEBBAAAAIAJAQAGAQAFAQAIAQEKAQEHAQEMBAAAAAAAAAk
ABAAEPqkEJ12jP6giU+wVduxRHIADihmQRc+OmY y69ikqORSAA==
                        a=crypto:1 AES_CM_128_HMAC_SHA1_80
inline:0EEUMZRhdlioUItzQsal7T+QCmVR9eewJHsP7Vc3
```

Important note: If Fusion is connected to UC, there is no outgoing call. Fusion informs UC to make a call, which informs OSV and Fusion receives a call with autoanswer;delay=0. That doesn't give the user the impression that the call is in fact incoming.

Example: Outgoing call to +554133416635 goes actually like an incoming (inbound) call, an INVITE with info=alert-autoanswer;delay=0.

```
2020-01-16 23:52:03,986 OC SIP 00000000031 Engine, Unify.Sip.SipEngine: Packet:
 Inbound,
10.114.78.130:5061, INVITE sip:302108189043@10.
```

```
114.100.173:58214;transport=tls SIP/2.0
Via: SIP/2.0/TLS
10.114.78.130:5061;branch=z9hG4bK128f.da28e14b3a8e4f3db0421b67d7e270c8.0;i=97794
 MaxForwards: 69
Contact: <sip:042@10.114.78.130:5061;transport=tls>
To: <sip:302108189043@10.114.100.173:58214;transport=tls>
From: "CTI Assisted"<sip:042@10.114.78.130;transport=tls>;tag=snl_EXS2Tf0N8z
Call-ID: SEC11-a0519ac-140519ac-1-H2Dvx8CLaGW9
CSeq: 1235 INVITE
Accept-Language: en;q=0.0
Alert-Info: <http://www.example.com/us.ringtone.beep>;info=alert-
autoanswer;delay=0
Allow: REGISTER, INVITE, ACK, BYE, CANCEL, NOTIFY, REFER, INFO
Date: Fri, 17 Jan 2020 02:52:04 GMT
Supported: resource-priority
P-Asserted-Identity: "CTI Assisted" <sip:042@10.114.78.130>
Resource-Priority: invalid-000000.0
Content-Length: 0
X-Siemens-OSS: OpenScape SBC V10 R0.02.00-1
```

For a video call, there are two ways to make it HD:

First:

```
a=fmtp:96 profile-level-id=42C01F;packetization-mode=0;max-
br=5144
```

Where:

1F = H.264 level 3.1

1e = H.264 level 3.0

14 = H.264 level 2.0

The higher the level, the higher the resolution.

Second:

it's also valid to send a low level with additional parameters with proper values (like max-mbps, max-fs on the values). Fusion and RFC support that:

a=fmtp:97 profile-level-id=42e014;max-mbps=108000;max-fs=3600;max-dpb=5400;max

br=2500;max-fps=3000;packetization-mode=1;max-rcmd-nalusize=196608

10.5 ODC-PE (Personal Edition) client - trace information

#1: ODC-PE Traces guide

The ODC-PE has its own Trace guide.

Here the last one V2.16 (it's always available within last ODC-PE released. Example: INF-23-000015).

https://nuxeo.unify.com/nuxeo/site/proxy/nxdoc/view/raw/400a11a4-d665-44f1-9773-6d0501f24368

#2: ODC-PE logs

The logs must be activated via Diagnosis tool.

C:\Program Files (x86)\Unify\OpenScape Desktop Client\tools \OpenScapeClientDiagnosis.exe

PS: If for some reason the Diagnosis is not working you can activate manually (via regedit) following the instructions within Trace Guide.

#3: ODC-PE and other Clients are NOT compatible.

ODC-PE cannot be installed(work) if already have other Clients installed like Fusion for Office or Fusion for Notes, etc.

To work, you must UNINSTALL completely the previous Clients, clean/delete regedit keys about it (if uninstall did not clean it automatically) and only after that install the ODC-PE.

#4: ODC-PE SIP and HFA are not compatible.

ODC-PE once installed as SIP or HFA Stackless, can not create a profile for the other provider.

Examples:

Installed ODC-PE SIP => you cannot create a profile for HFA

Installed ODC-PE HFA => you cannot create a profile for SIP.

#5: DUMP 32 bit

ODC-PE (when having problems like CRASH or FREEZING) must have collected (along with ODC-PE logs) the DUMP of it too. But, since ODC-PE it's a 32 bit app, it must be collected a DUMP 32 bit (NOT 64).

Several ways to do that, the easiest is via Windows Task Manager variant 32 bit:

Even if you are using a 64 bits Windows, use the 32-bit TASK MANAGER, because the processes of OpenScape are in 32 bit.

So, let's assume you are running our Desktop Client and a problem happens.

Here are the steps to collect the DUMP 32bit faster:

1) Open the Windows Task Manager for 32-bit:

   Since today's most OS are 64-bit, we need to use other Task Manager than the standard one open via CTRL+SHIFT+ESC (that would be for 64 bit). - Open an Explorer Window - Move to the folder C:\Windows\SysWOW64 - Run(double-click) over the exe file " TaskMgr.exe

2) Select the Desired process to collect the DUMP:

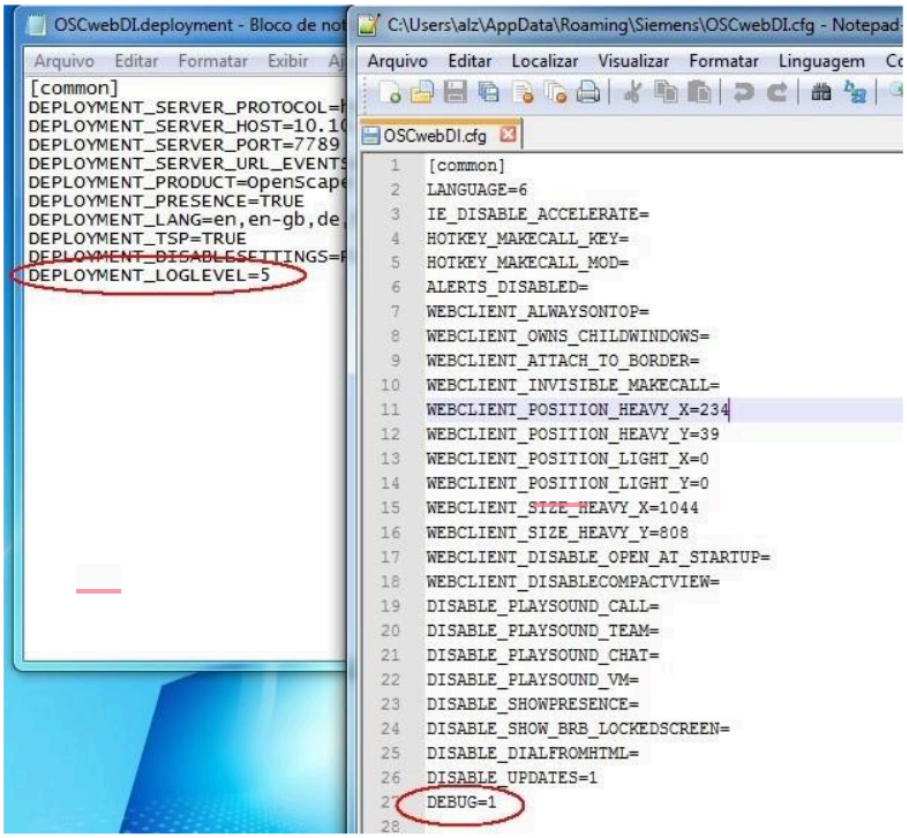
   With the Task Manager (32 bit) open, goes to desired process to have the DUMP collected. - (via Mouse Rightclick) select the option "Create Dump File" and wait for creation of DUMP file. For complete details/screenshots, please check the OpenScape Desktop client Trace Guide.

10.6 DI-Tool - collecting logs

1) Edit **OSCwebDI.deployment** file located in the same directory of the executable **OSCwebDI.exe** and set the log level to **5**.

   DEPLOYMENT_LOGLEVEL=5

2) Edit **%appdata%\Siemens\OSCwebDI.cfg** and add the following parameter in the end of the file: **DEBUG=1**

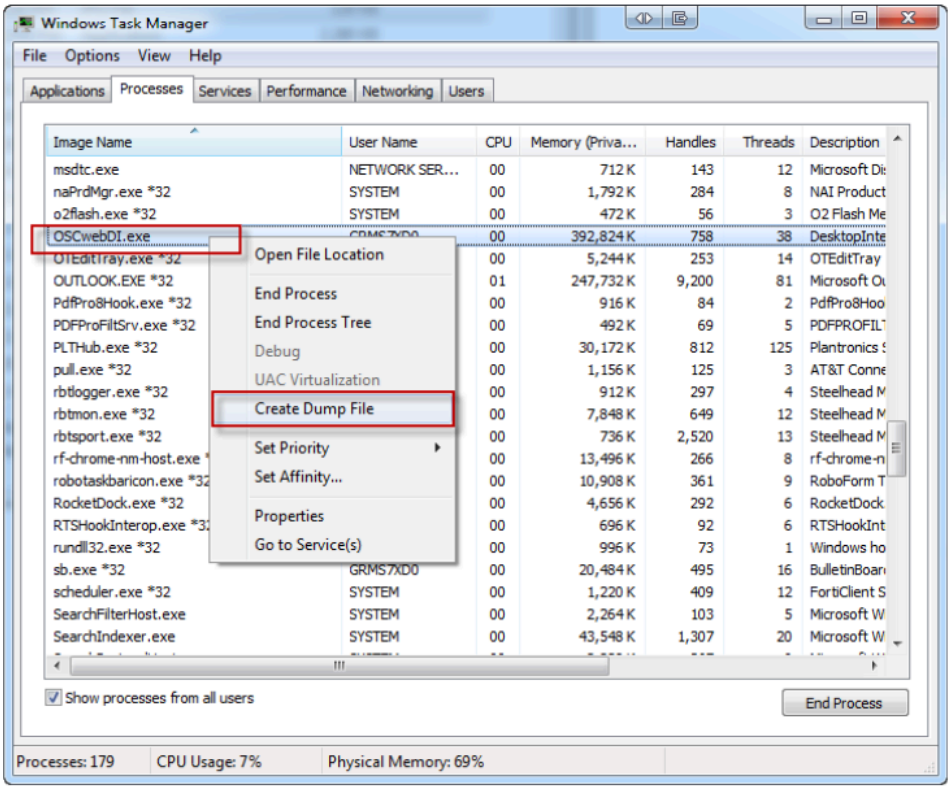


After the above configuration, **restart** DI-Tool in order new loggers be active.

Log files are stored under **%appdata%\Siemens**

Collect DI-Tool Memory Dumps

Memory dumps can be collected using Windows Task Manager:



Please note that for the memory dump collection a compliant Task Manager should be used:

- If the computer is **32bit** and DI-Tool **32bit** is used, use the **regular Windows Task Manager**
- If the computer is **64bit** and DI-Tool **64bit** is used, use the **regular Windows Task Manager**
- If, for any reason, the computer is **64bit** and the DI-Tool is **32bit**, use the **C:\Windows\SysWOW64\taskmgr.exe**.

10.7 WebRTC - necessary logs for analysis

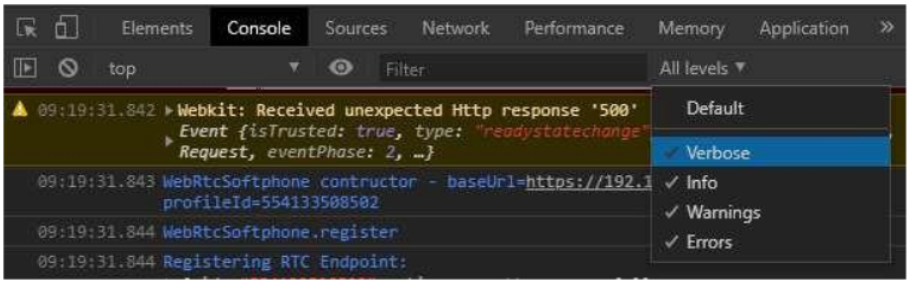
- It's always useful to have the full **collect.sh**
- Symphonia logs activated in UC MS for WC WebRTC troubleshoot should be the **log4j_mediaserver_oscc-rtc.xml"**
- Important configuration files for WebRTC in UC MS are the ones below:

```
/opt/siemens/mediaserver/application_host/providers/turn/turn.component.xml
/opt/siemens/mediaserver/application_host/providers/tomcat/tomcat.component.xml
```

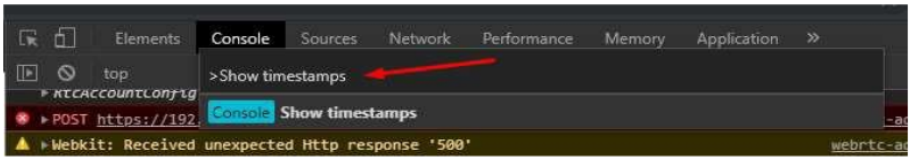
In order to check the basic functionality of WebRTC, proceed with the following steps:

1) Open Chrome or Firefox and navigate to the Web Client page.
2) Open the "Developer tools" (F12), go to the console tab and enable all log levels.

3) The register event should be verified in debug tools.Enable all log levels in browser debugging tool.



4) Add timestamp to debug tools using the option “Run Command” (Ctrl+Shift +P) and command “show timestamps”



10.8 WebRTC - how to view registered subscribers

On OSV as root:

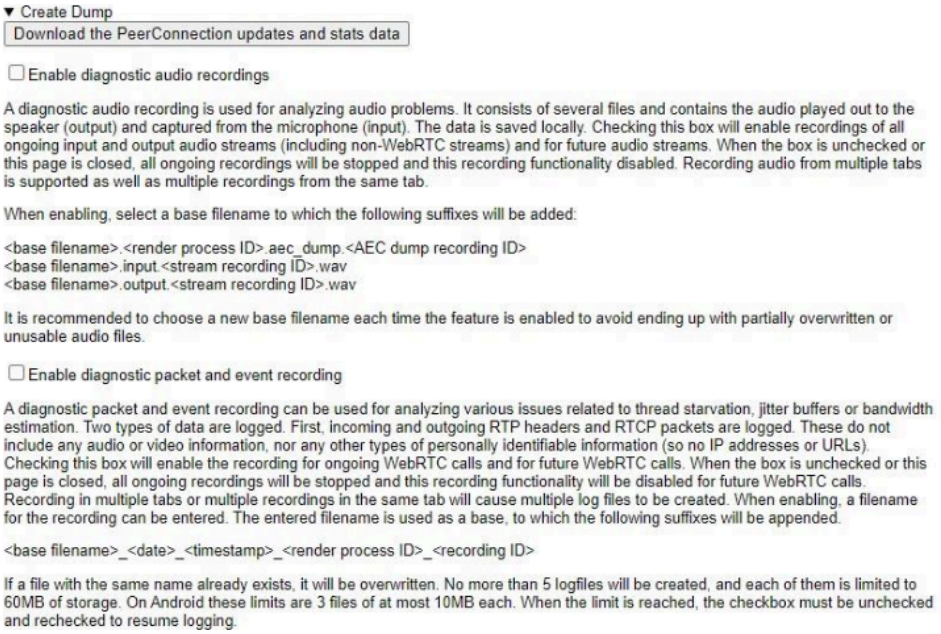
/opt/solid/bin/solsql -x **pwdfile:/opt/solid/RtpDb/dba.secrets** -e "select ALIAS, DEVICE_ADDR, DEVICE_PORT, REG_STATE, CONTACT_URI from

EPT_CONTACT_DEVICE_T where DEVICE_ADDR like 'MS_IP_ADDRESS'" 'tcp 16760' dba

10.9 WebRTC - get all stats for an active WebRTC call

Run this on Chrome browser during an active WebRTC call: `chrome://webrtc-internals/`

Create the dump.



10.10 Manual steps for tracing the UC DesktopApp

Follow the steps below to collect traces from the UC DesktopApp:

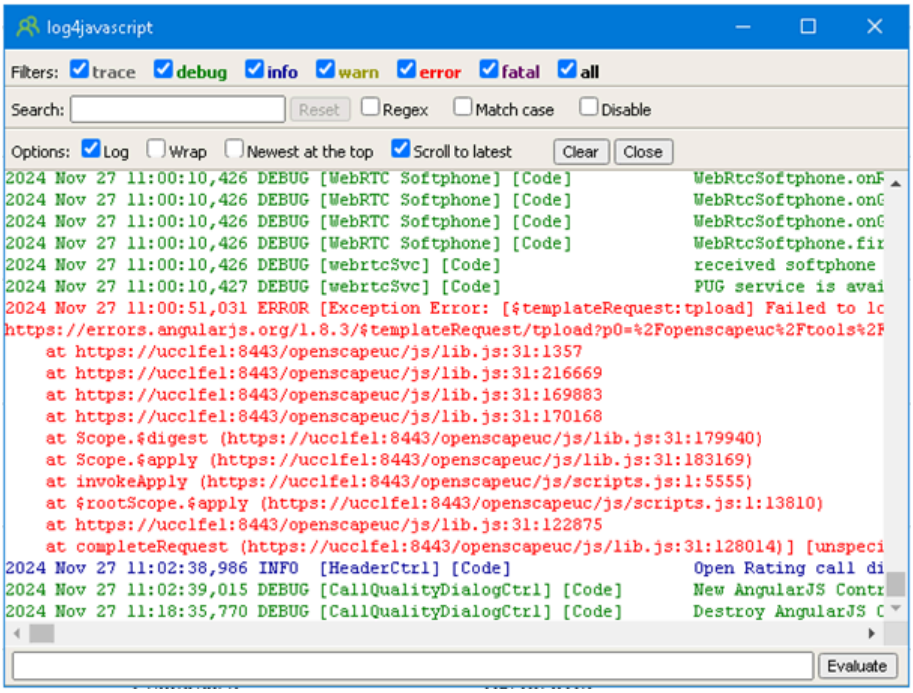
1) Open the UC Desktop App.
2) Open the debugging menu by simultaneously pressing the `Ctrl` key and clicking on your username in the top right corner.

   A drop-down menu opens and the following debug options are displayed:

   a) **Save log file** - exports the log file directly and opens the target folder on the client PC.
   b) **Open Debugger** - opens the debugger window.
   c) **WebRTC Debug Options** - opens an additional dialog window with several configurable options.
   d) **Atmosphere Logging** - provides a Loglevel which will be required by support team (GVS/DEV) in case of issues.
   e) **Clear local data** - clears all data retrieved from the UC server and reloads the DesktopApp.
   f) **Open simulator** - tool owned by DEV team.
   g) **Please rate the quality of your call** - allows you to rate the quality of the last call.
3) To use the debugger, click **Open Debugger**.

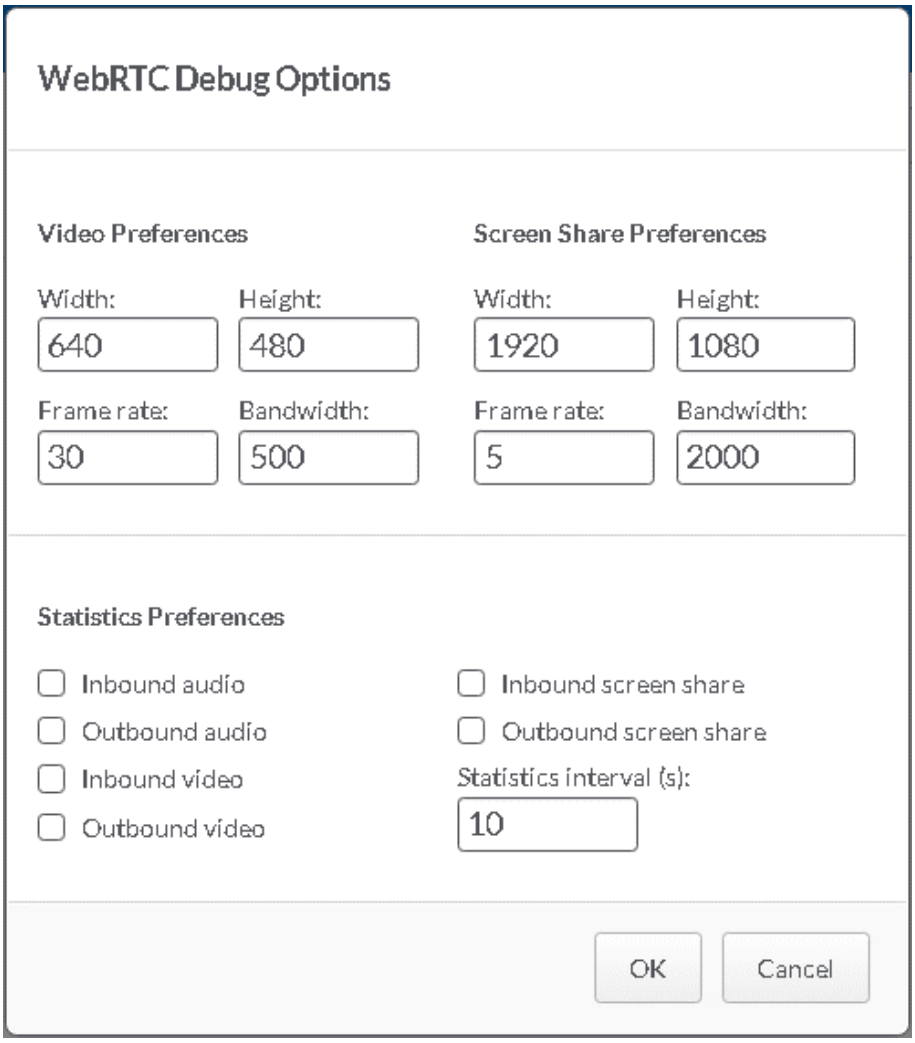
   The Debugger window opens and the contents of the current logfile are displayed, depending on which filters are active. You can also use the

Debugger window to export the logfile. For this, select all contents of the logfile and copy them to a text editor.



4) To use the debug options for WebRTC, click **WebRTC Debug Options**.

The **WebRTC Debug Options** window opens and you can configure the settings for video, screen share and statistics. A configuration example for the debug options preferences is displayed in the image below:



11 OpenScape UC - integration with external servers

11.1 Facade server - trace information

General:

Set Trace Settings "TRACE" in facade.properties and restart the Façade Server.

All logs are located under `/usr/local/tomcat6/logs/`

In addition to the server logs, wireshark traces (at least with the configured serverPort in the properties.ini) are required.

Tomcat logs: catalina.out catalina.(date).log host-manager.(date).log localhost.(date).log

Facade Server logs: facade_(0...9).log

11.2 Facade server - calculate amount of UC logins

On the Facade server execute: grep "ExtendedLogon userName=" /usr/local/tomcat6/logs/* | gawk -F= '{print $2}' | sort -u | awk 'BEGIN {count=0;} $0 ~/(@)/ {count++;} END {print count;}'

Additionally, you can run the following command on the Facade server: grep "ExtendedLogon userName=" /usr/local/tomcat6/logs/*

As result you will get one line per logon request. You can export the result into a file an import it into excel for further evaluation.

11.3 Openfire related information

UC has a mechanism for detecting connectivity problems with Openfire.

There are three basic scenarios:

- Openfire server becomes unreachable.
- Openfire server shuts down and restarts.
- A Client session stream is disconnected by Openfire for some reason.

1) Openfire server becomes unreachable

UC implements a heartbeat to the Openfire server to check the Openfire status. If Openfire does not respond to the heartbeat, the UC server will go in an “Openfire disconnected” state and the following statuses will be set for all local users in UC:

Presence Status: Unavailable

Media Status: Unknown IM Status: Unknown

(1) Please note that in a Presence Networking environment, because the Openfire server is down, the change of Presence/Media/IM Statuses cannot be propagated to other UCs. This means that the aforementioned status will be changed for the Users that are located in that UC (local users) and the change will only be depicted to the local Users that are monitoring other local users. Users on other UCs that have connectivity with the Openfire or they

belong to a different XMPP domain (other Openfire) will not see any change of Presence for those users.

Once the UC server identifies that the connection with Openfire is restored, UC will go into an “Openfire connected” state, and if required, it will reconnect the Connection Manager module and will re-login all UC users. From this point onwards Presence will function as normal.

2) **Openfire server shuts down and restarts**

In the event of an Openfire server shut-down, UC will receive a “system-shutdown” stanza and it will go in an “Openfire disconnected” state. The same as in (a) will apply. Please note that because Openfire does not send Unavailable Presence Stanzas for its users when shutting down, note (1) still applies for all users that are located to each UC that the Openfire serves.

3) **A Client session stream is disconnected by Openfire for some reason**

In some error cases, Openfire might require for a specific client session (logged in) user to be disconnected. This can be also triggered by the administrator on the Openfire GUI.

In this case the Openfire will send a “close stream” () stanza to UC. The UC server will attempt to immediately reconnect and re-login the specific user. This should not fail. If the reconnect or the re-login process fails, then there is a high possibility of corruption within Openfire and manual operation would be needed.

Openfire related logs can be found under the following locations on the Openfire node:

- Openfire logs: `/opt/openfire/logs/`
- Openfire DB logs: `/var/lib/mysql`

11.4 UCMA and Presence service synchronization between UC and Skype for Business

UCMA provides the presence synchronization between UC and Skype for Business (S4B), which was formerly known as Microsoft Lync. Configuration details can be found on the UC administrator documentation.

It’s always the required way to synchronize the presence states from UC and S4B, except when:

- UC Very Large Deployment is used
- S4B Server is on the cloud (Office 365).

In such cases, the Fusion presence synchronization offered by Fusion can be used.

Relevant data for troubleshooting:

- All the ucmaproxyws.log files from C:\Windows\ucmaproxyws (UCMA Proxy)
- log (log4j_presence.xml)
- Event logs from the UCMA Proxy

S4B is always the lead presence. This means that the presence in UC will be as follows when the S4B user is logged off:

- “offline” (UCMA 5.0 – scs_osc_officecomminicator_ucmaproxy-90_*) or
- “away” (UCMA 2.0 – scs_osc_officecomminicator_ucmaproxy-72_*).

When S4B is logged on, it's possible to change the presence either from UC or S4B and the presence should be in sync.

If the presence synchronization stops, normally it's enough just to restart the WebSite on the UCMA Proxy. Of course, logs should be collected.

If this is not enough, please check if the C:\Windows\ucmaproxyws \ucmaproxyws.log is being generated.

If so, find for errors in such logs or in IIS on Windows Event Viewer. Crashes in the w3csvc (IIS) would appear there

If the logs are not being generated, please review all the steps on the UC Administrator manual, specially:

- See in UCMA Proxy>inetmgr>[Server] Home> Server Certificates if the UCMA certificate is expired. If so, please renew it using by clicking it and choosing "Renew". Once the renewed certificate is available, apply it on the UCMA Proxy (don't forget the "Manage Private Keys" option) and import it again on UC using the commands provided.
- Check if the permissions to the "NETWORK SERVICE" or "IIS Default APP Pool" are granted. The documentation mentions the Windows versions that required the first or the latter.

The S4B certificate must be fully accepted by UC. If it's not the case, this information will appear in the first lines of the ucmaproxyws.log. Exceptions like "TLS Channel cannot be established" will appear. Below you can see a clean start, showing versions, server name, port, the S4B server, the certification authority, etc:

```
2020-01-13 16:54:56,147 [6]
--------------------------------------------------------------------------------
UccProxyWS started: buildVersion=90.01.0001
--------------------------------------------------------------------------------
2020-01-13 16:54:56,179 [6] UccProxy:SessionParameter:sessionRefreshPeriod=3000
2020-01-13 16:54:56,179 [6] UccProxy:SessionParameter:=1
2020-01-13 16:54:56,179 [6] UccProxy:SessionParameter:OcsServer=skype.fusion6.net
2020-01-13 16:54:56,179 [6] UccProxy:SessionParameter:OcsServer.Port=5061
2020-01-13 16:54:56,179 [6]
 UccProxy:SessionParameter:AppServer.FQDN=ucma.fusion6.net
2020-01-13 16:54:56,179 [6]
 UccProxy:SessionParameter:AppServer.CertIssuer=fusion6-AD-CA
2020-01-13 16:54:56,179 [6]
UccProxy:SessionParameter:TrustedApplication.Contact.Gruu=sip:ucma.fusion6.net@fusion6.net;
gruu;opaque=srvr:openscape:mPeOPpZ9GFmPjWVD8vFyDwAA
2020-01-13 16:54:56,179 [6] UccProxy:SessionParameter:TrustedApplication.Port=5061
2020-01-13 16:54:56,179 [6] UccProxy:WebMethod:SessionOpen
A31003-S50A0-S100-03-7620, 02/2024
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2020-01-13 16:54:56,179 [6] UccProxy:WebMethod:SessionOpen, opening new Session
2020-01-13 16:54:56,179 [6] UccSession ctor()
2020-01-13 16:54:56,179 [6] UcmaConnector Ctor()
2020-01-13 16:54:56,179 [6] BlockingQueue InputQueueTask base ctor called with
 workerCount: 20
2020-01-13 16:54:56,179 [6] BlockingQueue EstablishUserEndpointThread base ctor
 called with
workerCount: 20
2020-01-13 16:54:56,194 [6] UcmaConnector Open() new Session
2020-01-13 16:54:56,194 [6]
sessionId=Session#0_637145312961791493:SessionParaemeter:sessionRefreshPeriod=3000
```

```
2020-01-13 16:54:56,194 [6]
 sessionId=Session#0_637145312961791493:SessionParaemeter:=1
2020-01-13 16:54:56,194 [6]
sessionId=Session#0_637145312961791493:SessionParaemeter:OcsServer=skype.fusion6.net
2020-01-13 16:54:56,194 [6]
sessionId=Session#0_637145312961791493:SessionParaemeter:OcsServer.Port=5061
2020-01-13 16:54:56,194 [6]
sessionId=Session#0_637145312961791493:SessionParaemeter:AppServer.FQDN=ucma.fusion6.ne
t
2020-01-13 16:54:56,194 [6]
sessionId=Session#0_637145312961791493:SessionParaemeter:AppServer.CertIssuer=fusion6-
ADCA
2020-01-13 16:54:56,194 [6]
sessionId=Session#0_637145312961791493:SessionParaemeter:TrustedApplication.Contact.Gruu
=sip:ucma.fusion6.net@fusion6.net;
gruu;opaque=srvr:openscape:mPeOPpZ9GFmPjWVD8vFyDwAA
2020-01-13 16:54:56,194 [6]
sessionId=Session#0_637145312961791493:SessionParaemeter:TrustedApplication.Port=5061
2020-01-13 16:54:56,210 [6] GetLocalCertificate for ucma.fusion6.net issued by
 fusion6-AD-CA
2020-01-13 16:54:56,226 [6] GetLocalCertificate: certificate from store: C=BR,
 S=PR, L=Curitiba,
O=Unify, OU=UCMA, CN=ucma.fusion6.net
2020-01-13 16:54:56,226 [6] GetLocalCertificate: certIssuedTo
 (X509NameType.DnsName) =
ucma.fusion6.net
2020-01-13 16:54:56,226 [6] InitializeCollaborationPlatform:
Gruu=sip:ucma.fusion6.net@fusion6.net;gruu;opaque=srvr:openscape:mPeOPpZ9GFmPjWVD8vFyD
wAA
2020-01-13 16:54:56,601 [6]
sessionId=Session#0_637145312961791493:collaborationPlatform.BeginStartup
(…)
```

Each user configured to use the presence synchronization via UCMA will have an endpoint established. See the flow of it for the user sip:madruga@**fusion6.net**:

2020-01-13 16:54:57,444 [6] No UserAgent for sip:**madruga@fusion6.net**, creating new agent and calling establishEndpoint

2020-01-13 16:54:57,444 [EstablishUserEndpointThread T-6] Adding element userId=sip:**madruga@fusion6.net**, UserEndpointEstablished=False for processing

2020-01-13 16:54:57,444 [EstablishUserEndpointThread T-6] EstablishUserEndpoint: Try to establish UserEndpoint...userId=sip:**madruga@fusion6.net**

2020-01-13 16:54:57,444 [EstablishUserEndpointThread T-6] registerEvents entered: userId=sip:**madruga@fusion6.net**

2020-01-13 16:54:57,444 [EstablishUserEndpointThread T-6] userId=sip:**madruga@fusion6.net**, registerEvents entered: sip:**madruga@fusion6.net**

2020-01-13 16:54:57,444 [EstablishUserEndpointThread T-6] userId=sip:**madruga@fusion6.net**, registerEvents entered: sip:**madruga@fusion6.net**

2020-01-13 16:54:57,444 [EstablishUserEndpointThread T-6] userId=sip:**madruga@fusion6.net, registerEvents**

2020-01-13 16:54:57,444 [6] establishEndpoint Called for sip:**madruga@fusion6.net**

2020-01-13 16:54:57,444 [InputQueueTask T-4] Adding element userId=sip:**madruga@fusion6.net**, UserEndpointEstablished=False

requestId=4, userId=sip:**madruga@fusion6.net**, userAccount=, userPassword is set=False, initialPresenceStatus=unknown

2020-01-13 16:54:57,444 [InputQueueTask T-4] sessionId=Session#0_637145312961791493:processRequest:userId= sip:**madruga@fusion6.net**, UserEndpointEstablished=False

requestId=4, userId=sip:**madruga@fusion6.net**, userAccount=, userPassword is set=False, initialPresenceStatus=unknown

2020-01-13 16:54:57,444 [EstablishUserEndpointThread T-8] Adding element userId=sip:**madruga@fusion6.net**, UserEndpointEstablished=False for processing

2020-01-13 16:54:57,444 [EstablishUserEndpointThread T-8] EstablishUserEndpoint:UserEndpoint is in connecting status:userId=sip:**madruga@fusion6.net**

2020-01-13 16:54:57,460 [6] userId=sip:**madruga@fusion6.net**:LocalEndpointStateChanged:PreviousState=Idle, State=Establishing

2020-01-13 16:54:59,038 [6] userId=sip:**madruga@fusion6.net**:LocalEndpointStateChanged:PreviousState=Establishing, State=Established

(...)

The presence states are indicated as numbers:

Availability number	Dscription
3500	Available
6500	Busy
9500	Do not disturb
12500	Be right back
15500	Away
18500	Offline

See more details in https://learn.microsoft.com/en-us/previous-versions/office/developer/lync-2010/hh380072(v%3Doffice.14)

Lync presence states like “in a conference”, “in a presentation”, “on a call”, etc are called “enhanced presence” and, although they have different numbers, are related to the ones mentioned above.

Presence changes can be seen in the ucmaproxyws.log. The status 3500 below means “Available” and can be identified below as “status=active”:

Presence changes can be seen in the ucmaproxyws.log. The status 3500 below means “Available” and can be identified below as “status=active”:

2020-01-13 17:31:04,639 [108] LocalOwnerPresence_PresenceNotificationReceived: *** new event received for sip:madruga@**fusion6.net** *** 2020-01-13 17:31:04,639 [108]

CreateUserStatusChangedEvent: for userId: 'sip:madruga@**fusion6.net**' AggregatedPresenceState with value: 3500

2020-01-13 17:31:04,639 [108] CreateUserStatusChangedEvent: creating

UserStatusChangedEvent...

2020-01-13 17:31:04,639 [108] CreateUserStatusChangedEvent: UserStatusChangedEvent created: userId=sip:madruga@**fusion6.net**, status=userId=sip:madruga@**fusion6.net**, status=active, media=unknown, note=, location=, timezone=

2020-01-13 17:31:04,639 [108] LocalOwnerPresence_PresenceNotificationReceived: try to fire UserStatusChangedEvent

Similar entries (with the numbers) can be seen in the symphonia.log (log4j_presence.xml). Always check both logs to see if there are synchronization issues.

2020-01-13 17:30:52,403 DEBUG [com.siemens.symphonia.presence.impl.Presence31Impl] Client Service request setUserPresenceStatus Begin:: presentity:madruga@system userStatus:3500

The messages may change a bit depending on the side that triggers the change (S4B or UC).

12 OpenScape Mobile related information

12.1 WebEntry Server OSMO Pro required configuration

Several customers use WebEntry Server as application firewall.

The following configuration should exist in WebEntry Servers in order for OSMO Pro to work:

+ SSLProxyEngine On

+ SSLProxyVerify none

+ SSLProxyCheckPeerCN off

+ SSLProxyCheckPeerName off + SSLProxyCheckPeerExpire off enable "**Set-Cookie**" for "**OpenScapeUC**" and "**JSESSIONID**" all traffic after **"OSMO url"/osc-servlets/*** should be allowed.

12.2 REST API

The base URL that used for REST API requests is `http(s)://<domain>/owc-servlets/`

All HTTP status response coded that returned at the requested URLs should send to the client as is without any change in the HTTP status codes. Because this can cause application not able to work properly.

12.3 Authentication

For authentication the required cookies are the ones with names:

- OpenScapeUC
- JSESSIONID

12.4 Eventing

For proper application operation it is also required to be able to establish a WebSocket connection at:

```
ws(s)://<domain>/owc-servlets/ws?
<subscribed-topics>
```

This is a connection that requires support of `101 Switching Protocols`

12.5 Secure Eventing

For secure eventing SSL connections it is required to have proper wright permissions in the application install location otherwise the following error appears:

```
E OSMO : [CertificateUtils] saveCertificate - Error writing
 certificate
```

This issue was noticed in an MDM environment of managed iOS devices.

12.6 How to collect OpenScape Mobile (OSMO) diagnostic data

In case of issues related to the OpenScape Mobile application, the following client logs must be collected:

- **OSMO, iOS:**

  On the Advanced settings screen, set the log level to **max**.

  Then, follow the steps below to send the log files to the support team directly from the OpenScape Mobile application:

  1) Open the OpenScape Mobile application and navigate to **Settings** > **Advanced** > **Log File Management**.
  2) Press the menu button, then tap **Send**.
- **OSMO, android:**

  Before capturing the scenario, navigate to the Settings area of the OpenScape Mobile app, set the log level to **max** and clear the logs.

  Log out the user you want to perform the scenario with from the OSMO application and kill the app from system task manager.

  Start the OSMO application again, log in with your user and perform the scenario.

  Once the scenario is completed, navigate to the Settings area of the OpenScape Mobile app and tap **Send log with e-mail**.

To send the logs, you can either use the default `To` email address that your system administrator has configured on your system, or replace it with another one of your choice.

13 How to solve web collaboration issues

Using an external Web Collaboration server, the clients (Web Client, Fusion etc) are **unable to download** the fastviewer executable and the FE page shows "**503 Service Unavailable**" or **it takes too long** to download the file.

Most common root cause is that the ports configured for the communication between the FE servers and the external Windows server hosting the Web Collaboration application, are blocked by a Firewall.

Default port 80, 443 or any other manually configured port need to be opened in the Firewall between FE nodes and the Fastviewer server.

The second most common root cause is that the certificate of the external Web Collaboration is not imported in the FE nodes or is imported but not properly exported from the Windows Fastviewer server.

In that case, we can see an exception like the one below (openscapeuc.log):

```
2017-07-11 11:29:53,117 UNEXPECTED [CallControlServlet] -
getWebConferenceVersion: request https://webconf.com/clientversion failed
(was computed from
https://webconf.com/client/fastclient_i_r878210__m147.exe)
javax.ws.rs.ProcessingException: javax.net.ssl.SSLHandshakeException:
com.ibm.jsse2.util.j: PKIX path building failed: java.security.cert.
CertPathBuilderException: PKIXCertPathBuilderImpl could not build a valid
CertPath.; internal cause is:
java.security.cert.CertPathValidatorException: The certificate issued by
CN=global-server, DC=global, DC=datacenter, DC=com is not trusted; internal
cause is: java.security.cert.CertPathValidatorException: Certificate
chaining error
```

The best way to solve this is to have the FE server itself retrieve the certificate from the external Web Collaboration server.

To do this, execute the following, on each FE node:

```
echo -n | openssl s_client -connect EXTERNAL_WEB_COLLAB_IP_ADDRESS:PORT | sed -ne
'/-BEGIN CERTIFICATE-/,/END CERTIFICATE-/p' > /tmp/fastviewer.pem
/opt/siemens/share/ibm-java-x86_64-71/jre/bin/keytool -import -noprompt -file
/tmp/fastviewer.pem -alias fastviewer_cert -keystore /opt/siemens/share/ibm-java
x86_64-71/jre/lib/security/cacerts -storepass changeit
```

Then accept to "Trust this certificate" by typing "yes" and the external Web Collaboration server certificate will be added in the UC node.

Restart symphonia or just "/etc/init.d/symphoniad restart WebClient_FE".