



A MITEL
PRODUCT
GUIDE

Unify OpenScape 4000 Assistant V11

Integrated Phone Software Management

Administrator Documentation

06/2024

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1 Overview

The Integrated Phone Software Management (IPSM) application can be used to update the new OpenScape DeskPhone CP device family which is delivered with SIP software only.

If there is no Deployment Service (DLS) available on site, the IPSM application can be used to perform so called **cross software update from SIP to HFA**. After the subscriber is configured on OpenScape 4000 RMX (for example over Configuration Management), the device can be started and connected to the network.

In case of installation of unconfigured device ("fresh" installation), the user is asked to configure its own IP, DLS IP (in this case the Assistant CLAN IP for IPSM connection) and subscriber number. Optionally: DHCP can be used to provide IP and DLS/IPSM IP address.

As soon as the IPSM (DLS) IP is configured or changed, the phone device will contact the Assistant IPSM application to check whether it has the correct loadware type (SIP or HFA) and version depending on the RMX configuration. If not, the appropriate loadware is automatically deployed to the device from the IPSM image store.

In any case, the device must provide its subscriber number to IPSM for correct device identification. The subscriber number will be checked against the RMX configuration.

1.1 Prerequisites

- Configured CPXXX HFA phones in RMX (AMO SB CSU)
- Assistant Configuration Management synchronous (Upload in Assistant done, status SYNCHRONOUS)
- Connectivity:
 - from phone device to Assistant Customer LAN (CLAN): TCP port 18443
 - from Assistant CLAN to phone device: TCP/HTTP port 8085
 - from phone device to Platform Portal IP: TCP/HTTPS 443

2 Configuration

Complete configuration consists of following steps:

- [Update Service \(IPSM/DLS\) IP address](#)
- [Switch on IP Phones Software Management](#)
- [Connect the CPXXX device into network](#)
- [Cross update of the loadware in IPSM GUI](#)

2.1 Update Service (IPSM/DLS) IP address

As a first step, the Assistant CLAN IP has to be configured into the phone device.

You can perform it either:

- 1) Via **DHCP** ([page 8](#)) or
- 2) **Manually** (after device boot, [page 9](#))
 - Via Web Base Management of the device
 - Directly on the device

2.1.1 Set DHCP for sending IPSM IP to devices

Activate vendor encapsulation option and set it to send IPSM IP address.

The vendor encapsulated options consist of:

- **hexadecimal value** for the option number (for instance, 01),
- **the length of the value** (for instance, 07) and
- **the value itself** (for instance, 53:69:65:6D:65:6E:73)

NOTICE: The *#options* can be written in separate lines.

NOTICE: The last *#option* must be terminated with ";".

Example of the configuration (exact parameters depend on used DHCP server):

```
#DLS
option vendor-encapsulated-options //activation of OPTION 43
# Tag/Option #1: Vendor "Siemens" //always must be in option 43 for devices
#1 7 S i e m e n s
01:07:53:69:65:6D:65:6E:73:
# Tag/Option #3: DLS IP Address (here: sdlp://10.82.25.5:18443) //IP of IPSM in HEX
#2 23 s d l p : / / 1 0 . 8 2 . 2 5 . 5 : 1 8 4 4 3
03:17:73:64:6c:70:3a:2f:31:30:2e:38:32:2e:32:35:2e:35:3a:31:38:34:34:33:
```

Figure 1: Example of the DHCP configuration

NOTICE: The DHCP service might need to be restarted after the configuration change.

2.1.2 Set IPSM IP manually

- 1) After the device boot, set the IPSM IP via Assistant Integrated Phone Software Management. (Figure 7)

Device Status							
0 new loadware updates							
Extension	Device type	Loadware type	Loadware version	IP address	MAC address	Last contacted	Status
+ 24111	OpenScape Desk Phone CP200	HFA	V1 R7 4.2	10.8.224.111	00:1a:6b:76:8a:8b		
+ 25003	OpenScape Desk Phone CP410	HFA	V2.R0.12.116	10.9.11.57	00:1a:6b:27:1:25		Not configured in RRM

Figure 2: Assistant Integrated Phone Software Management

2.2 Switch on IP Phones Software Management

NOTICE: The IP Phones Software Management application is switched off by default.

- 1) On the Assistant start page, go to Base Administration --> Application control.
- 2) Select the "IP Phones Software Management" checkbox and press the "Submit" button (Figure 3).

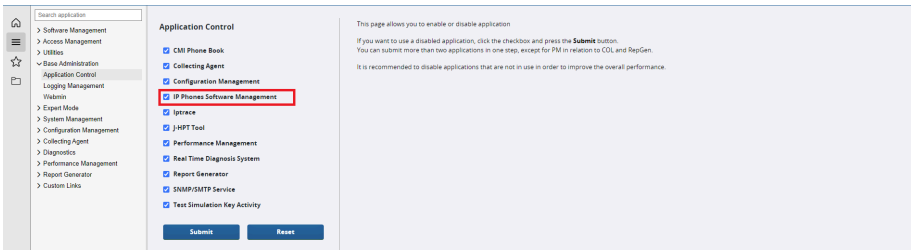


Figure 3: Application Control

- 3) The IPSM application will appear in the Software Management folder (Figure 4).

NOTICE: You might need to refresh the Assistant Launchpad to be able to see the IPSM after its enabling in Application Control.

Software Management			
Application Management			
User Info			
User name	engr (engr)	System number	L3195020101X
Client IP	10.255.100.63	File and TSM Manager	30 / 1200
Last successful login	2022-03-02 19:09	SLES update protection	7 / 10
Last unsuccessful login	10.140.29.230	Update protection validity	valid 2022-12-31
from		Advanced Locking ID (ipx6)	<0X0E0A0F0E0D0C0B0A09080706050403020100>
Number of failed attempts	0	License validity	354 days
		Support contract	354 days
Status Board			
System Time	2022-03-02 14:02 EET	Configuration Management	
TimeZone and Synchronization Status	OK	Update Status	SYNCHRONOUS
Platform Configuration/MW	OK	License	SYNCHRONOUS
Last Data Backup	OK	System Data	SYNCHRONOUS
Last Logical Backup	OK	RRM Data	SYNCHRONOUS
AFE Mode	Not configured in RRM	RRM Data	SYNCHRONOUS
AFE Sync Status	Not configured in RRM	RRM Data	SYNCHRONOUS
Component			
Assistant	2022-03-02 19:57	Version	V10 R1.27.0
CSTA	2022-03-02 19:57		V10 R1.27.0
Platform	2022-03-02 19:57		V10 R1.27.0
RRM	2022-03-02 13:53		V10 R1.27.0
RRM Loadware			V10 R1.27.0
OpenScape SBC			0
Important Hints			
Restore is running			

Figure 4: IPSM application in Software Management folder

- 4) To access the IPSM GUI (Figure 5), click the IPSM icon.

Device Status

Loadware Overview

Preferred Loadware

0 new loadware updates

Extension	Device type	Loadware type	Loadware version	IP address	MAC address	Last contacted	Status
+ 15189	OpenScape Desk Phone CP700X	HFA	V1 R5.1.0	10.140.28.189	00:1a:4b:02:86:02		

Figure 5: IPSM GUI

2.3 Connect the CPXXX device into network

NOTICE: During the phone startup you may enter the extension number of the configured station (SBCSU) for IPSM recognition and automatic software deployment/configuration. **Do NOT use its E.164 number.**

2.3.1 IPSM IP via DHCP

- 1) After the device boot, set the **terminal number** when requested by the phone (Figure 6).

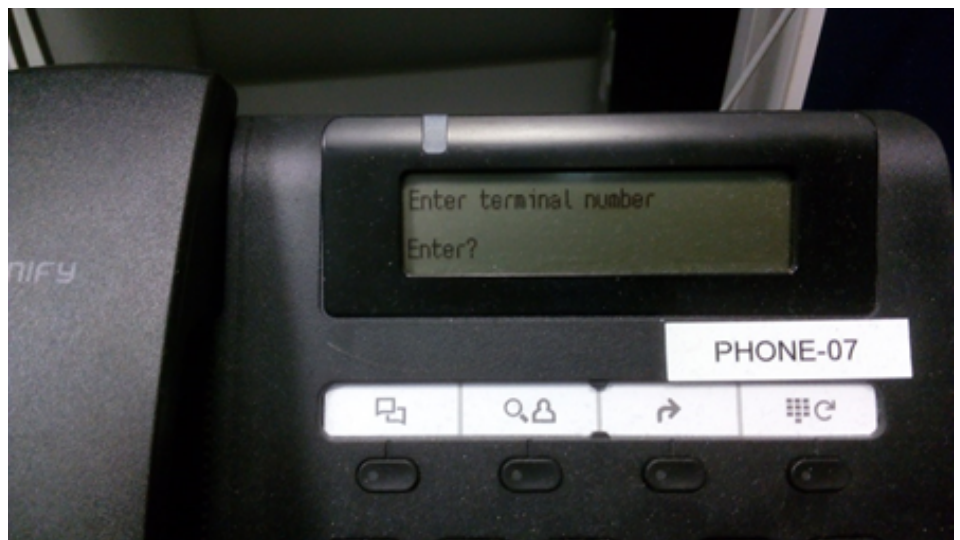


Figure 6: Enter the terminal number on the device

2.3.2 IPSM IP manually

- 1) After the device boot, set the IPSM IP either via Web Base Management (Figure 7) or directly on the phone.

Search application

Device Status

Loadware Overview

Preferred Loadware

Software Management

Application Management

Backup & Restore

FSM

Software Activation

Software Manager

TSDM

Access Management

Help

0 new loadware updates

Extension	Device type	Loadware type	Loadware version	IP address	MAC address	Last contacted	Status
+ 24111	OpenScape Desk Phone CP200	HFA	V1 R7.4.2	10.8.224.111	00:1a:4b:75:9a:8b		
+ 25603	OpenScape Desk Phone CP410	HFA	V2 R0.12.116	10.9.11.57	00:1a:4b:02:71:25		Not configured in RSC: 2023-11-07 12:11:34

Figure 7: Web Base Management

- 2) Set the **terminal number** on the device (Figure 8).

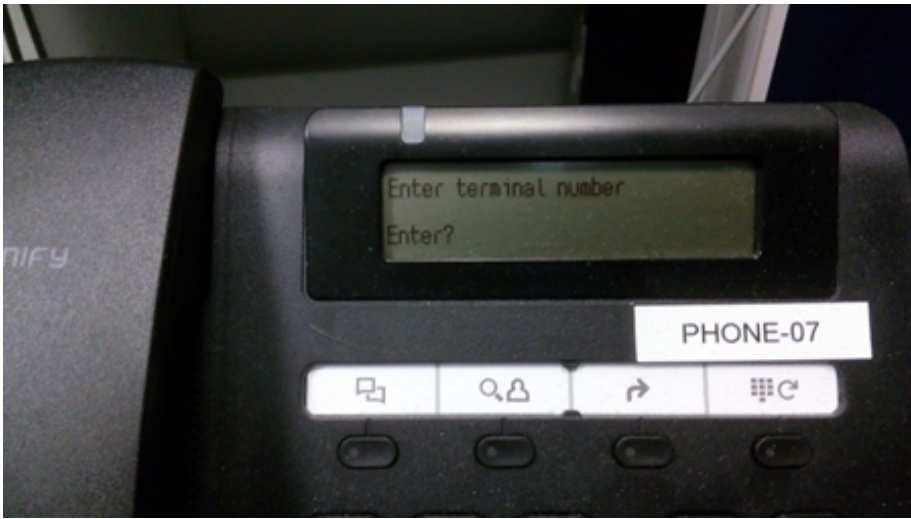


Figure 8: Enter the terminal number on the device

2.4 Cross update of the loadware in IPSM GUI

- The cross update of the loadware runs as follows:
- Factory configuration SIP --> SIP configuration allowing the cross update --> the highest HFA loadware
- 1) The cross update of the loadware will start automatically. The progress is displayed in the **"Status"** column of the IPSM GUI (Figure 9).
- 2) When the process is finished (Figure 10), the device should be able to make a call.

Device Status							
0 new loadware updates							
Extension	Device type	Loadware type	Loadware version	IP address	MAC address	Last contacted	Status
+ 24111	OpenScope Desk Phone CP200	HFA	V1 R7 A.2	10.8.224.111	00:1a:4b:76:9a:8b		
+ 25603	OpenScope Desk Phone CP410	HFA	V2 R0 12.116	10.9.11.57	00:1a:4b:a2:71:25		Not configured in RMC. 2023-11-07 12:13:34

Figure 9: Cross update finished

3 Device Status tab

On the Device Status tab (Figure 11), you can:

- See the new changed records since your last visit (marked with the orange rectangle).
- See the overview of all devices which contacted IPSM (marked with the green rectangle).
- See the high level progress of LW deployment (Status column; marked with the purple rectangle).
- Search for a specific device using filters (marked with the blue rectangle).

Extension	Device type	Loadware type	Loadware version	IP address	MAC address	Last contacted	Status
24111	OpenScape Desk Phone CP200	HFA	V1 R7.4.2	10.8.224.111	00:1a:e8:76:9a:8b		
25603	OpenScape Desk Phone CP410	HFA	V2 R0.12.116	10.8.11.57	00:1a:e8:76:9a:25		Not configured in RUC, 2023-11-07 12:11:34

Figure 10: Device Status tab

3.1 History expansion tab

For each device, the history of main actions, like LW deployment or failed actions, is stored. The history can be displayed by clicking on the plus sign at the beginning of each row (Figure 12).

The history of the individual devices is mapped by their MAC address because the rest of the configuration parameters can be changed. Information is obtained from Logging Management and ten newest records will be shown at maximum.

Extension	Device type	Loadware type	Loadware version	IP address	MAC address	Last contacted	Status
1020	OpenScape Desk Phone CP200	SIP	V1 R1.7.0	10.82.19.207	00:1a:e8:76:99:7b		Cross updated to HFA, 2017-06-02 11:53:06
1090	OpenScape Desk Phone CP200	HFA	V1 R0.4.0	10.82.19.208	00:1a:e8:76:99:ea	2017-08-09 12:07:52	Cross updated to HFA, 2017-08-09 12:07:15

2017-08-09	09:30:06	Automatically deploying LW File CP200_SIP_V1_R2_5_0.img into a device with params => MAC=00:1a:e8:76:99:ea EXT=1035 IP=10.82.19.208.					
2017-08-09	09:26:37	Automatically deploying LW File CP200_HFA_V1_R0_4_0.img into a device with params => MAC=00:1a:e8:76:99:ea EXT=1090 IP=10.82.19.208.					
2017-08-09	09:23:15	Automatically deploying LW File CP200_SIP_V1_R2_5_0.img into a device with params => MAC=00:1a:e8:76:99:ea EXT=1035 IP=10.82.19.208.					
2017-08-09	09:19:47	Automatically deploying LW File CP200_HFA_V1_R0_4_0.img into a device with params => MAC=00:1a:e8:76:99:ea EXT=1090 IP=10.82.19.208.					
2017-08-09	09:16:26	Automatically deploying LW File CP200_SIP_V1_R2_5_0.img into a device with params => MAC=00:1a:e8:76:99:ea EXT=1035 IP=10.82.19.208.					
2017-08-09	09:13:00	Automatically deploying LW File CP200_HFA_V1_R0_4_0.img into a device with params => MAC=00:1a:e8:76:99:ea EXT=1090 IP=10.82.19.208.					
2017-08-09	09:09:09	Automatically deploying LW File CP200_SIP_V1_R2_5_0.img into a device with params => MAC=00:1a:e8:76:99:ea EXT=1035 IP=10.82.19.208.					

Figure 11: History expansion tab

3.2 Automatic loadware update

By default, the IPSM executes only the cross-update (HFA to SIP/ SIP to HFA update, see Chapter 2, "Cross update of the loadware in IPSM GUI"). With the Automatic loadware update option, an update within the same variants (HFA to HFA or SIP to SIP) can be also performed. This update will be executed during the start-up of the phone device.

IPSM will update the device LW version to the preferred LW version. You can choose which version you prefer in the Preferred Loadware tab.

The Automatic loadware update feature is disabled by default. To enable it:

- 1) Click on the **Settings** icon (Figure 13).



Figure 12: Settings icon

- 2) Select the **Automatic loadware update** checkbox and confirm your choice by clicking on the **OK** button (Figure 14).

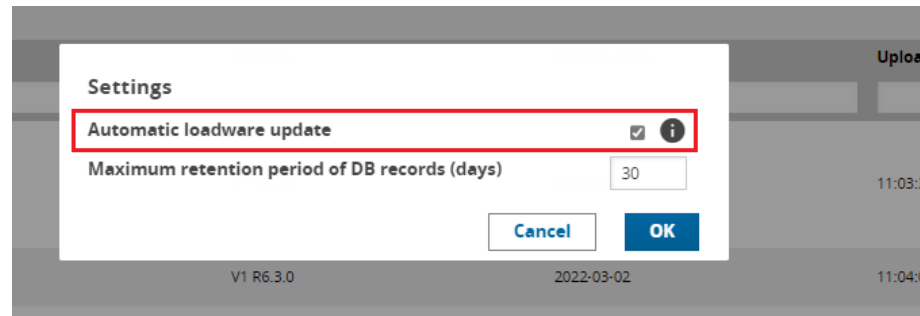


Figure 13: Automatic loadware update checkbox

When this feature is activated, all devices will be updated with the highest (or preferred) loadware version. This will cause the reboot of these devices!

3.3 IPSM Data Houskeeping

Due to maintaining the optimal used space requirements, the IPSM checks once per day the age of each record in the IPSM table. The retention period is set to **30 day by default**. Therefore, every record older than that will be removed.

NOTICE: The retention period is configurable via the **Settings** option in IPSM GUI (Figure 15). The minimum value is 10 days.

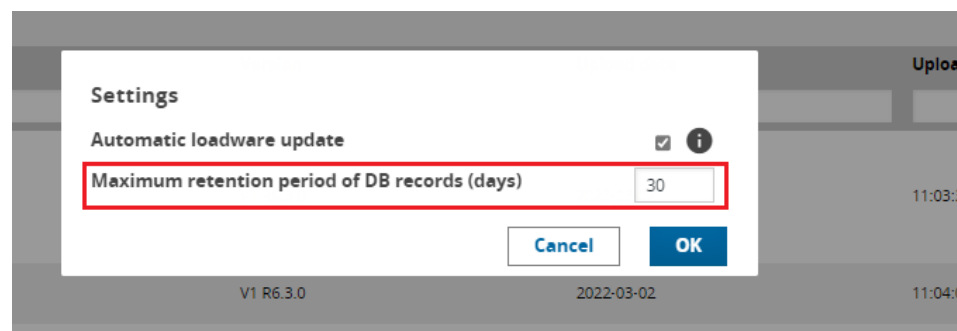


Figure 14: Configuration of retention period

4 Loadware Overview tab

On the Loadware Overview tab (Figure 16), you can:

- Upload or delete loadware for individual devices.
- See the information about loadware (Preferred loadware, Type, Version, Upload date/time).

NOTICE: For the update of a device, the loadware with highest version is preferred.

Device Status Loadware Overview Preferred Loadware						
Upload Loadware						
Filename	Suitable for	Type	Version	Upload date	Upload time	
CP_300_E_HFA_V1_R6_3.0.img	OpenScale Desk Phone CP400 OpenScale Desk Phone CP600 OpenScale Desk Phone CP600E OpenScale Desk Phone CP700 OpenScale Desk Phone CP700X	HFA	V1 R6.3.0	2022-03-02	11:03:38	Delete
CP20X_HFA_V1_R6_3.0.img	OpenScale Desk Phone CP200 OpenScale Desk Phone CP205	HFA	V1 R6.3.0	2022-03-02	11:04:00	Delete
CP_400_HFA_V1_R6_3.0.img	OpenScale Desk Phone CP400 OpenScale Desk Phone CP600 OpenScale Desk Phone CP600E OpenScale Desk Phone CP700 OpenScale Desk Phone CP700X	HFA	V1 R6.3.0	2022-03-02	11:03:51	Delete
CP_700_U_HFA_V1_R6_3.0.img	OpenScale Desk Phone CP400 OpenScale Desk Phone CP600 OpenScale Desk Phone CP600E OpenScale Desk Phone CP700 OpenScale Desk Phone CP700X	HFA	V1 R6.3.0	2022-03-02	11:03:34	Delete

Figure 15: Loadware Overview tab

Selected elements of the Loadware Overview tab (Figure 17):

- **Upload loadware** button (marked with orange rectangle): allows you to browse to the loadware file and upload it.
- **Pin Icon** (marked with green rectangle): indicates the loadware which is **preferred** for update of the given device.

NOTICE: By default, the preferred loadware for the update of the device is loadware with the **highest version**.

- **Bold highlighted loadware** (marked with purple rectangle): indicates which loadware is preferred for update of the given device.

NOTICE: If there is no Pin icon present, a **default loadware** is used for the given device.

Loadware Overview tab

•

Device Status

Loadware Overview

Preferred Loadware

Upload Loadware

Filename	Suitable for	Type	Version
CP_600_E_HFA_V1_R6_3_0.img	OpenScape Desk Phone CP400 OpenScape Desk Phone CP600 OpenScape Desk Phone CP600E OpenScape Desk Phone CP700 OpenScape Desk Phone CP700X	HFA	V1 R6.3.0
CP20X_HFA_V1_R6_3_0.img	OpenScape Desk Phone CP200 OpenScape Desk Phone CP205	HFA	V1 R6.3.0
CP_400_HFA_V1_R6_3_0.img	OpenScape Desk Phone CP400 OpenScape Desk Phone CP600 OpenScape Desk Phone CP600E OpenScape Desk Phone CP700 OpenScape Desk Phone CP700X	HFA	V1 R6.3.0
CP_700_X_HFA_V1_R6_3_0.img	OpenScape Desk Phone CP400 OpenScape Desk Phone CP600 OpenScape Desk Phone CP600E OpenScape Desk Phone CP700 OpenScape Desk Phone CP700X	HFA	V1 R6.3.0

Figure 16: Selected elements of the Loadware Overview tab

5 Preferred Loadware tab

On the Preferred Loadware tab, you can (Figure 18):

- See or choose the preferred loadware for different devices and protocols (HFA/SIP).

Preferred Loadware is used for automatic loadware deployment.

NOTICE: By default, the **preferred loadware** for the update of the device is loadware with the **highest version**.

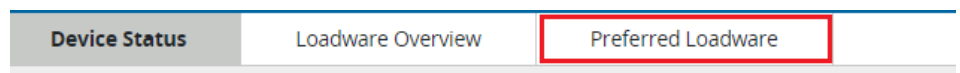


Figure 17: Preferred Loadware tab

If other than the default loadware is chosen, this will be marked on the Loadware tab with a Pin icon (Figure 19).

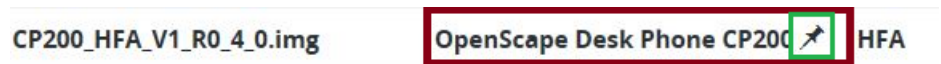


Figure 18: Preferred loadware marked with Pin

New loadware upload

- When the **default loadware** is set as preferred, the newly uploaded highest version will be used as a preferred loadware for the given device.
- When the user sets as a preferred loadware other than the default one, this loadware will be **marked with Pin** and will **remain as the preferred loadware** for the given device regardless of the upload of the highest version.

Backup and Restore of the system

The settings in Preferred Loadware tab are part of the HBR/CDB backup.

If the backup contains the configuration but the loadware is not present, it is set to default during the system restore.

NOTICE: Loadware files are not a part of the backup.

6 Troubleshooting

6.1 Logging

The IPSM actions are recorded in Logging Management. You can get the overview of all IPSM activities using "IPSM" in the Application filter box (Figure 20).



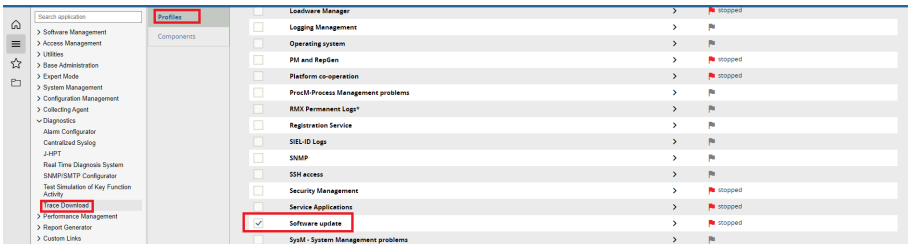
Figure 19: Trace Download: Components

6.2 Tracing

The IPSM traces are integrated in the Trace Download tool (Assistant Start page --> Diagnostics --> Trace Download).

There are two ways how to access the IPSM traces:

- 1) Profiles tab: select the checkboxes "Service Applications" and "Software Update" (Figure 21).



- 2) Components tab: select the checkbox "IPSM_" (Figure 22).

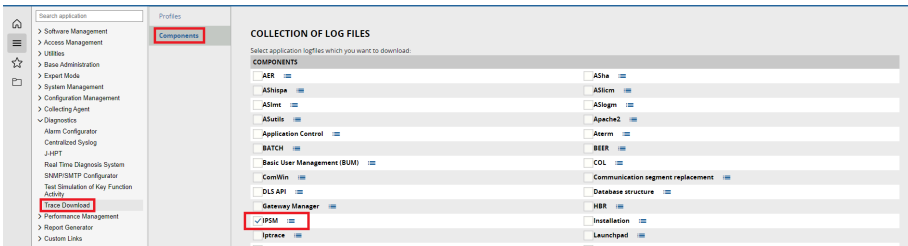


Figure 21: Trace Download: Components

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