



A MITEL
PRODUCT
GUIDE

Unify OpenScape 4000 Assistant V11

Integrated Phone Software Management

Administrator Documentation

06/2024

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Overview

Prerequisites

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 SBCSU)
- 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 1 p : / / 1 0 . 8 2 . 2 5 . 5 : 1 8 4 4 3
03:17:73:64:6c:70:3a:2f:2f:31:30:2e:38:32:2e:32:35:2e:35:3a:31:38:34:34:35
```

Figure 1: Example of the DHCP configuration

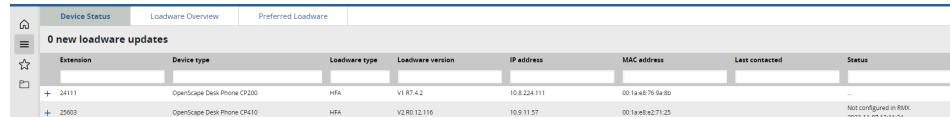
NOTICE: The DHCP service might need to be restarted after the configuration change.

Configuration

Switch on IP Phones Software Management

2.1.2 Set IPSM IP manually

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



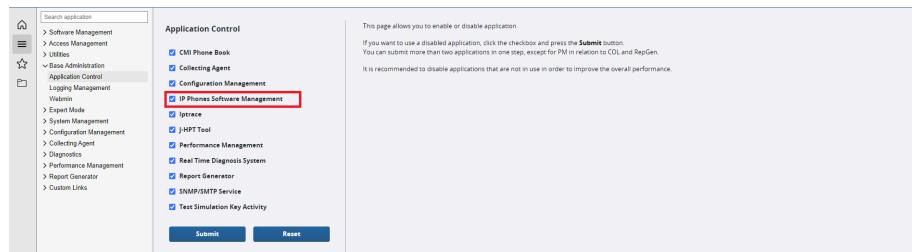
Device Status		Loadware Overview		Preferred Loadware			
Extension	Device type	Loadware type	Loadware version	IP address	MAC address	Last contacted	Status
+ 24111	OpenScape Desk Phone CR200	HFA	V1 R0 4.2	10.8.224.111	00:1a:8b:76:9a:8d	—	—
+ 25603	OpenScape Desk Phone CR410	HFA	V2 R0 12.116	10.9.31.37	00:1a:8b:7c:77:23	—	Not configured in RMX: 30000000000000000000000000000000

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).



This page allows you to enable or disable application. If you want to use a disabled application, click the checkbox and press the Submit button. You can submit more than two applications in one step, except for PM in relation to COL and RepGen. It is recommended to disable applications that are not in use in order to improve the overall performance.

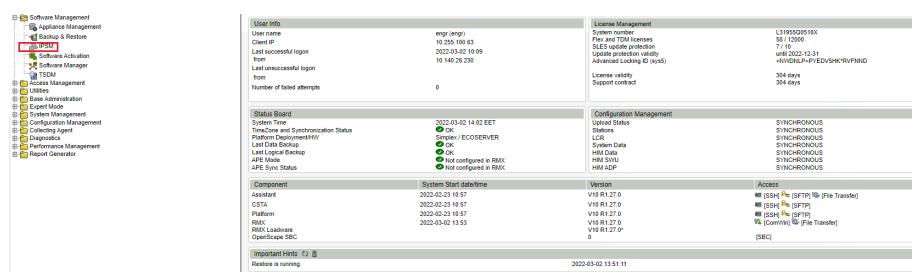
<input checked="" type="checkbox"/> CMI Phone Book	<input checked="" type="checkbox"/> Collecting Agent	<input checked="" type="checkbox"/> Configuration Management
<input checked="" type="checkbox"/> IP Phone Software Management	<input checked="" type="checkbox"/> iTrace	<input checked="" type="checkbox"/> IHTTP Tool
<input checked="" type="checkbox"/> Performance Management	<input checked="" type="checkbox"/> Real Time Diagnose System	<input checked="" type="checkbox"/> Report Generator
<input checked="" type="checkbox"/> SNMP/SMTP Service	<input checked="" type="checkbox"/> Test Simulation Key Activity	

Submit **Reset**

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		User info		License Management		System	
<input checked="" type="checkbox"/> Application Management	<input checked="" type="checkbox"/> User name: eng (eng)	eng (eng)	eng (eng)	L19550510X	57 21 2000	57 21 2000	57 21 2000
<input checked="" type="checkbox"/> Base Administration	Client IP: 10.255.100.43	10.255.100.43	10.255.100.43	File number: 10000000000000000000000000000000	SLES 10.4 protection	SLES 10.4 protection	SLES 10.4 protection
<input checked="" type="checkbox"/> Application Control	Last successful login: 2023-03-02 10:09	2023-03-02 10:09	2023-03-02 10:09	Update protection valid: 2023-03-02 10:09	Update protection valid: 2023-03-02 10:09	Update protection valid: 2023-03-02 10:09	Update protection valid: 2023-03-02 10:09
<input checked="" type="checkbox"/> Configuration Management	From: 10.140.20.200	10.140.20.200	From: 10.140.20.200	Activation date: 2023-03-02 10:09	Activation date: 2023-03-02 10:09	Activation date: 2023-03-02 10:09	Activation date: 2023-03-02 10:09
<input checked="" type="checkbox"/> IP Phone Software Management	Last unsuccessful login: 10.140.20.200	10.140.20.200	Last unsuccessful login: 10.140.20.200	License validity: 304 days	Support contract: 304 days	Support contract: 304 days	Support contract: 304 days
<input checked="" type="checkbox"/> iTrace	From: 10.140.20.200	From: 10.140.20.200	From: 10.140.20.200				
<input checked="" type="checkbox"/> Performance Management	Number of failed attempts: 0	Number of failed attempts: 0	Number of failed attempts: 0				
Status		System		Configuration Management		Access	
System	System time: 2023-03-02 14:02 EET	System time: 2023-03-02 14:02 EET	System time: 2023-03-02 14:02 EET	Updated status: Synchronous	Updated status: Synchronous	Updated status: Synchronous	Updated status: Synchronous
TimeZone and Synchronization Status	Timezone: Europe/EASTERN	Timezone: Europe/EASTERN	Timezone: Europe/EASTERN	Station: Synchronous	Station: Synchronous	Station: Synchronous	Station: Synchronous
RepGen	RepGen: OK	RepGen: OK	RepGen: OK	LCR: Synchronous	LCR: Synchronous	LCR: Synchronous	LCR: Synchronous
Report Generator	Last Data Backup: 2023-03-02 14:02	Last Data Backup: 2023-03-02 14:02	Last Data Backup: 2023-03-02 14:02	MM Data: Synchronous	MM Data: Synchronous	MM Data: Synchronous	MM Data: Synchronous
Report Generator	Last Logical Backup: 2023-03-02 14:02	Last Logical Backup: 2023-03-02 14:02	Last Logical Backup: 2023-03-02 14:02	MM Log: Synchronous	MM Log: Synchronous	MM Log: Synchronous	MM Log: Synchronous
Report Generator	APF Sync Status: Not configured in RMX	APF Sync Status: Not configured in RMX	APF Sync Status: Not configured in RMX	MM ADP: Synchronous	MM ADP: Synchronous	MM ADP: Synchronous	MM ADP: Synchronous
Component		Sync Start date/time		Version		Access	
Assistant	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0
CMS	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0
Platform	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0
RMX	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0
RMX Loadbase	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0	Version: V1 R1 27.0
OpenScape SBC	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Sync Start date/time: 2023-03-02 14:02	Version: 0	Version: 0	Version: 0	Version: 0
Important Notes		Restore is running		2023-03-02 15:51:11		[SEC]	

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
+	15189		OpenScape Desk Phone CP700X	HFA	V1.95.1.0	10.140.28.189	00:1a:e8:c8:95:02

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).

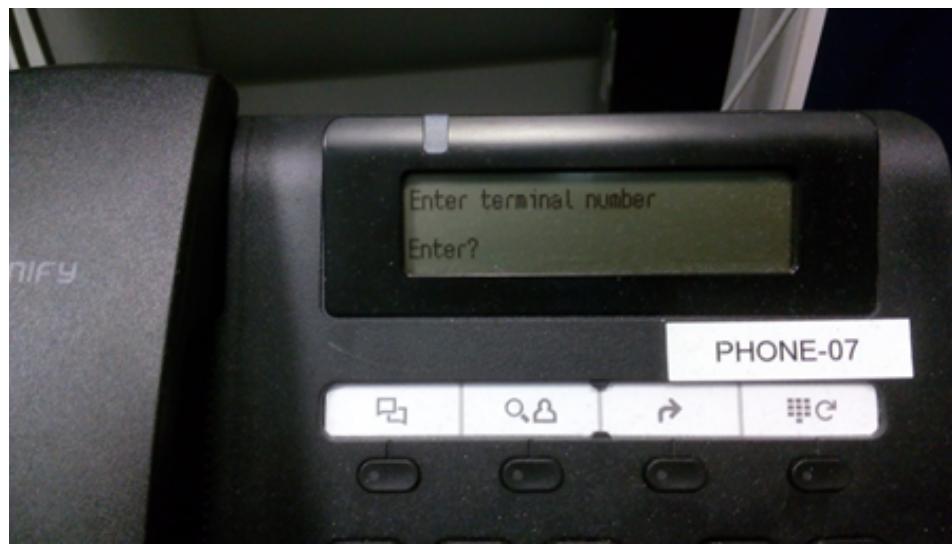


Figure 6: Enter the terminal number on the device

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.

Device Status		Loadware Overview		Preferred Loadware			
0 new loadware updates		Extension	Device type	Loadware type	Loadware version	IP address	MAC address
+	24111		OpenScape Desk Phone CP200	HFA	V1.97.4.2	10.8.224.111	00:1a:e8:76:9a:8b
+	25503		OpenScape Desk Phone CP410	HFA	V2.80.12.118	10.9.11.57	00:1a:e8:c8:71:25

Figure 7: Web Base Management

Configuration

Cross update of the loadware in IPSM GUI

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

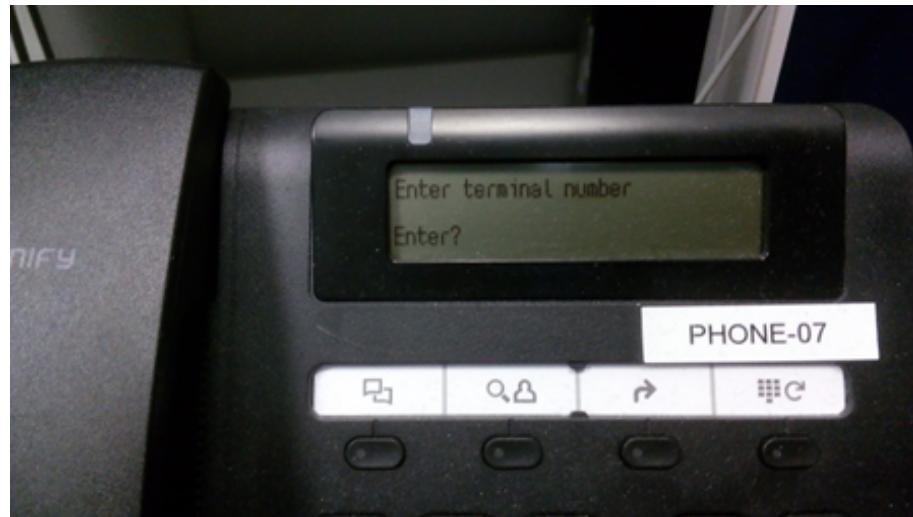


Figure 8: Enter the terminal number on the device

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.

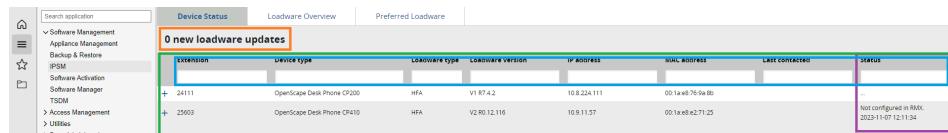
Extension	Device type	Loadware type	Loadware version	IP address	MAC address	Last contacted	Status
24111	OpenScape Desk Phone CP200	HFA	V1 R7.4.2	10.8.224.111	00:1a:88:76:9a:00		Not configured in RMX 2023-11-07 12:11:34
25603	OpenScape Desk Phone CP410	HFA	V2 R0.12.116	10.8.11.57	00:1a:88:42:71:25		Not configured in RMX 2023-11-07 12:11:34

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:0b	2017-06-02 11:53:06	Not configured in RMS.
25603	OpenScape Desk Phone CP410	HFA	V2 R0.12.116	10.9.11.57	00:1a:e8:e2:71:25	2017-06-02 11:53:06	Not configured in RMS.

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.



0 new loadware updates							
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:e8:76:98:7b	2017-06-02 11:53:06	Cross updated to HFA.
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	09:30:06	Automatically deploying LW File CP200_SIP_V1_R2_5_0.Img into a device with parameters => 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 parameters => 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 parameters => 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 parameters => 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 parameters => 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 parameters => 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 parameters => 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).

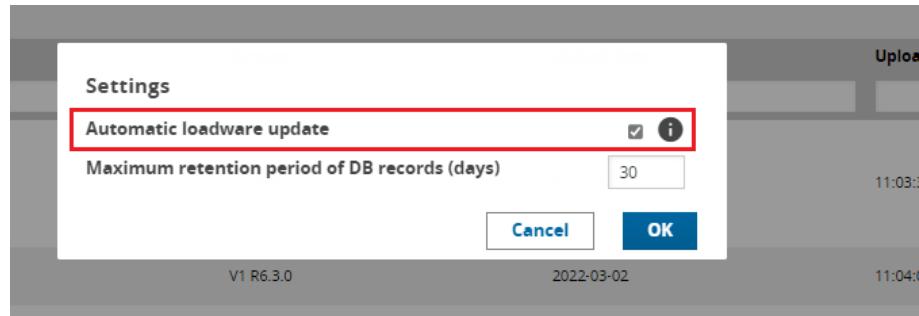


Figure 13: Automatic loadware update checkbox

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.

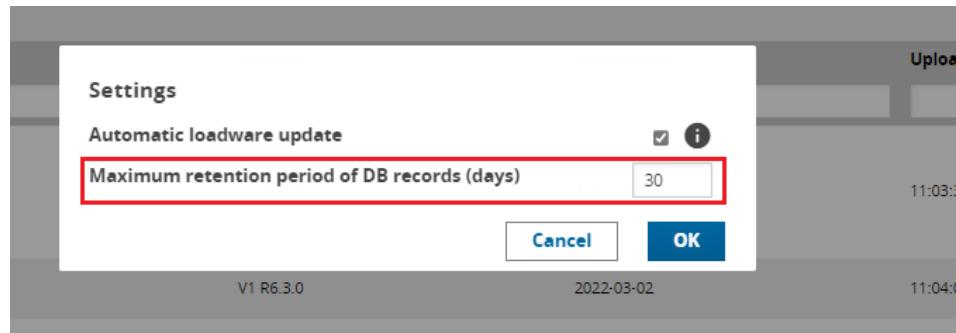


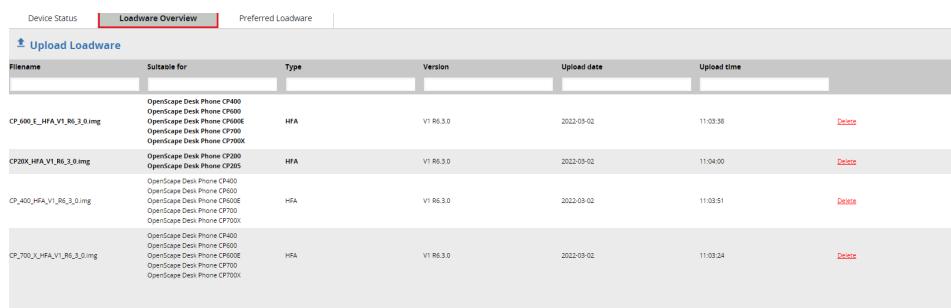
Figure 14: Configuration of retention period

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.



Filename	Suitable for	Type	Version	Upload date	Upload time
CP_600_E_HFA_V1_R6_3.0.img	OpenScape Desk Phone CP400 OpenScape Desk Phone CP600 OpenScape Desk Phone CP100E OpenScape Desk Phone CP700E OpenScape Desk Phone CP7900X	HFA	V1 R6.3.0	2022-03-02	11:03:38
CP90X_HFA_V1_R6_3.0.img	OpenScape Desk Phone CP200 OpenScape Desk Phone CP205	HFA	V1 R6.3.0	2022-03-02	11:04:00
CP_400_HFA_V1_R6_3.0.img	OpenScape Desk Phone CP400 OpenScape Desk Phone CP600 OpenScape Desk Phone CP100E OpenScape Desk Phone CP700E OpenScape Desk Phone CP7900X	HFA	V1 R6.3.0	2022-03-02	11:03:51
CP_700_E_HFA_V1_R6_3.0.img	OpenScape Desk Phone CP400 OpenScape Desk Phone CP600 OpenScape Desk Phone CP100E OpenScape Desk Phone CP700E OpenScape Desk Phone CP7900X	HFA	V1 R6.3.0	2022-03-02	11:03:24

Figure 15: Loadware Overview tab

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

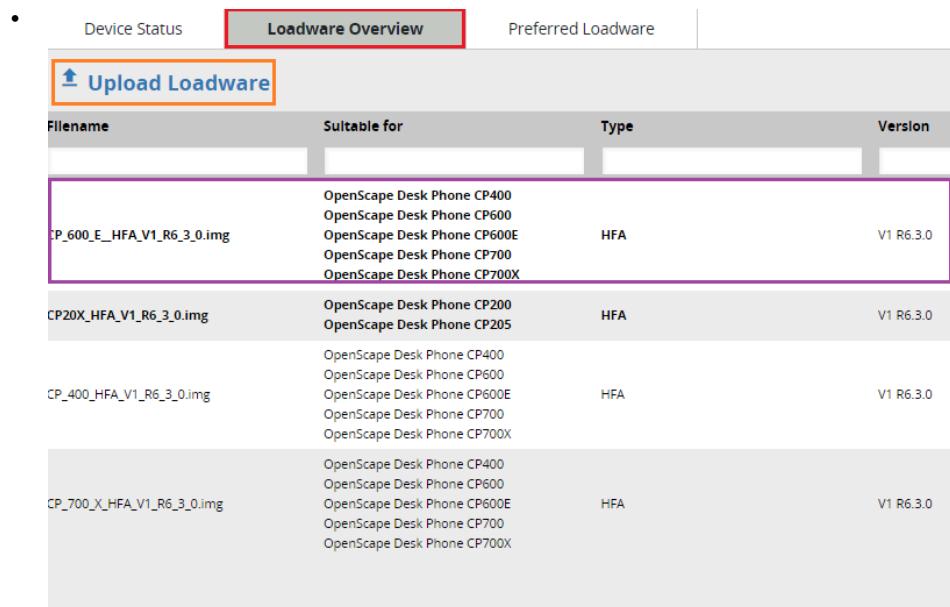
- Upload loadware** button (marked with orange rectangle): allows you to browse to the loadware file and upload it.
- Pin Icon** (marked with green rectangle): indicates the loadware which is **preferred** for update of the given device.

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



The screenshot shows the 'Loadware Overview' tab selected in a software interface. At the top, there are three tabs: 'Device Status', 'Loadware Overview' (which is highlighted with a red border), and 'Preferred Loadware'. Below the tabs is a table with the following columns: 'Filename', 'Suitable for', 'Type', and 'Version'. The table contains three rows of data, each representing a different loadware file. The first row is highlighted with a purple border. The second and third rows are grouped together with a grey border.

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**.

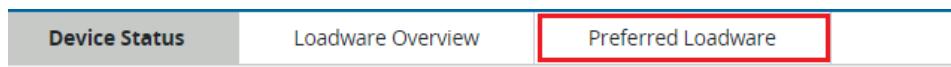


Figure 17: Preferred Loadware tab

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).

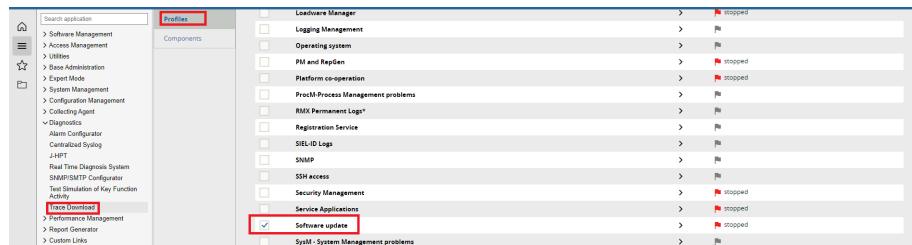


Figure 20: Trace Download: Profiles

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

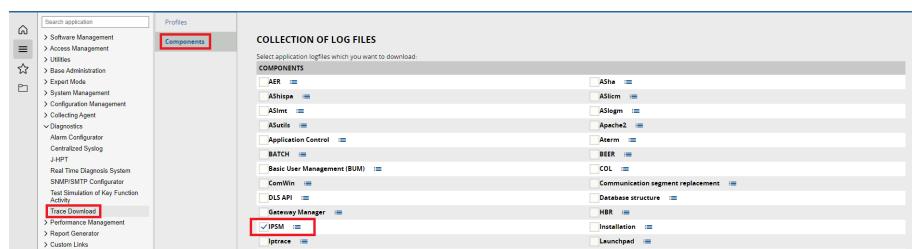


Figure 21: Trace Download: Components

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