SIP-DECT OM Locating Application

RELEASE 6.2

INSTALLATION AND CONFIGURATION GUIDE

Mitel®

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SIP-DECT OM Locating Application

Installation and Configuration Guide

Release 6.2

July 2016

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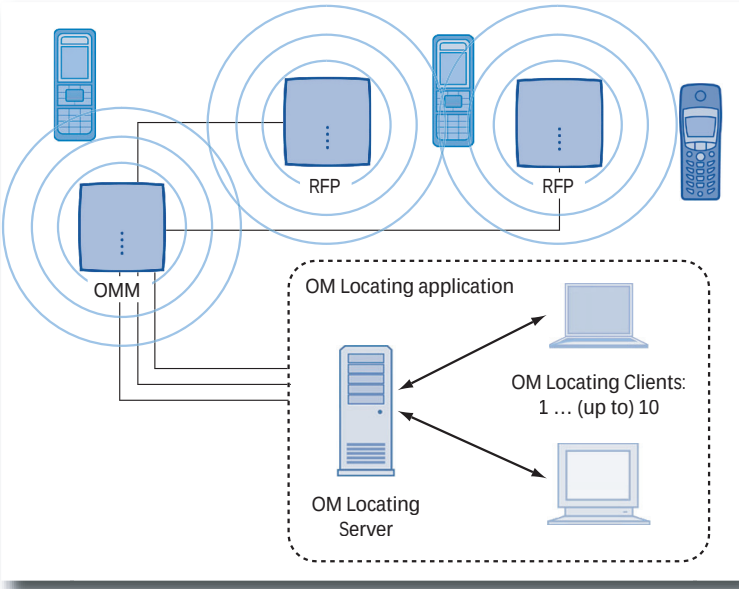
OM LOCATING INSTALLATION AND CONFIGURATION

OVERVIEW

The OpenMobility Locating application enables customers to comfortably manage and locate a large number of DECT handsets, in diverse environments. The application is designed for use by (among others) the following groups: hospital workers, hotel employees, security staff, and staff in prisons, and care facilities.

The OM Locating application offers an integrated message and alerting function. It manages ManDown and SOS calls and provides location details of the handset that initiates the call.

The application has a Web-based client server architecture and supports up to 10 OM Locating clients. The OM Locating server records all relevant locating information provided by the OpenMobility Manager (OMM) and presents it to the user/operator via the client's Web interface. The information presented by the OM Locating client is updated as soon as an update is generated by the OMM.



The OM Locating application can be run with SIP-DECT OpenMobility release 2.0 or later.

The Mitel 600 DECT Phone series support the OM Locating application:

- Mitel 610/612 DECT Phone
- Mitel 620/622 DECT Phone
- Mitel 630/632 DECT Phone
- Mitel 650 DECT Phone

These DECT phones provide comfortable messaging features and are particularly suitable for use with the locating application. You can also use the Mitel 142d DECT phone and standard GAP phones with a limited feature set.

The OM Locating application can be extended by the OM Integrated Messaging and Alerting service (OM IMA) application and thus be connected to an external (messaging and alerting) server solution. The OMM provides an XML-based interface for transferring messages and alarms between the DECT phones, the DECT base stations (also called RFPs), the OMM, and 3rd-party applications. For more information on the OM Integrated Messaging and Alerting service application, please contact your Mitel representative.

Automatic escalation via an alarm server is possible if a new ManDown/SOS call is not treated by an operator in time.

FEATURES AND BENEFITS

DISTRESS EVENT HANDLING

ManDown and SOS calls are logged by the OM Locating server and operators are notified via the OM Locating client. All connected clients provide ManDown and SOS calls and their state. You can assign an event to an operator by:

- answering the ManDown/SOS call by phone

- clicking once in the OM Locating application

The operator's activities are logged and can be seen on all connected OM Locating clients. It is possible to forward an event between operators even if the event is already assigned to someone else.

The operator can initiate a locating alert to trigger an audible alarm on the DECT phone that sent the ManDown/SOS call. In addition, the operator can send messages to other DECT phone users to inform them about the event and, for example, to request them to aid the person who sent the ManDown/SOS call.

The history function stores information on each event in the OM Locating server database.

LOCATING FEATURES

With the OM Locating application, the time it takes to find a person is reduced. DECT phones (persons) can be located through their DECT base station position. A search/filter function enables to search for DECT phones/persons and their location.

For each DECT phone, information on the current location (the currently used DECT base station as well as the visible DECT base stations) and the DECT base stations used previously is available via the OM Locating clients. A history of the DECT base station position can also be displayed (e.g. log of security walks).

OPERATING USB ADD-ONS

The RFP 35 / 36 / 37 / 43 devices provide a USB 2 compatible USB host port for adding USB devices. You can operate USB web cameras connected directly to a DECT base station (one USB device).

The video image acquired by installed USB video equipment can be viewed on the OM Locating application's Web console. This feature can be used for constant video monitoring or for on-demand video monitoring (i.e., USB video cameras only switched on in case of an emergency).

USE CASES

The OM Locating application is designed for a extensive range of use cases, such as:

- **Lone worker**
  The service staff can work alone and can call help when in trouble. Help can be sent to the determined position.
- **Search next cleaner**
  In a hospital a service coordination center searches for the nearest staff for cleaning an operating theatre.
- **Security guards**
  The locating application shows the position of security staff during checkup rounds. It is possible to log security walks and to get confirmation via message from the security guards.

The following two examples illustrate some typical situations of use.

SOS – a handset user presses a button
The DECT phone user presses a button to signal an alarm condition. The SOS automatically triggers a phone call to the operator. The operator who is using the OM Locating application is able to locate the current position of the DECT phone user.

ManDown – a person loses consciousness
The DECT phone sensor detects "ManDown" and the DECT phone automatically sets up a call in hands-free mode. The operator using the OM Locating application answers the call and obtains the location information from the application. If the

DECT phone user does not respond, the operator may initiate a location alarm to request help. The alarm forces the DECT phone to generate a specific audible signal that helps identify the DECT phone user.

OTHER DOCUMENTATION

This user guide describes installation, administration, and operation of the OM Locating application. Please also refer to the information provided in the documentation for other parts of the OMM SIP-DECT installation:

- *SIP-DECT OM System Manual*
  Describes installation, administration, and maintenance of a SIP-DECT system.
- *SIP-DECT Integrated Messaging and Alerting Application*
  Describes messaging features and the integrated messaging solution.
- *SIP-DECT DECT Phone Sharing and Provisioning*
  Describes the enhanced user and DECT phone management features and OM DECT phone provisioning concepts.
- *SIP-DECT User Monitoring*
  Describes how to use the OM monitoring capabilities on DECT phones.
- *SIP-DECT Mitel 600 Messaging and Alerting Applications*
  Describes the messaging features specific to the Mitel 600 DECT phones.
- *Mitel 600 series DECT Phone User Guide*
  Describes how to use the Mitel 600 DECT phones on the SIP-DECT system.

SCOPE OF DELIVERY

Purchase of the SIP-DECT OM Locating Application includes the following components:

- license confirmation for the OM Locating application
- installation CD
- *SIP-DECT OM Locating Application Installation and Configuration Guide* (included in PDF format on the CD)
- *SIP-DECT Mitel 600 Messaging and Alerting Applications* guide (included in PDF format on the CD).

NOTES ON LICENCES

Please note the following with regard to OM Locating application licensing.

APPLICATION LICENCE

You need the appropriate licences to configure and use the OM Locating application. Upload the licence file generated on the Mitel licence server either in the “OM Management Portal” (Java tool) or via the OMM Web service. The following licences are required to operate the OM Locating application:

- OM System Licence [Number]: Enables telephony for a number of DECT base stations
- OM Locating Server Licence: Required for the OM Locating service
- OM Locating Licence [Number]: Enables locating for a number of DECT phones

  You can operate the OM Locating application without using the DECT phone messaging (e.g., if you plan to use GAP / Mitel 142d DECT phones only). Refer to Notes on GAP / Mitel 142d DECT phones below.

The licence confirmation you received contains detailed information on how to activate the application.

END USER LICENCE AGREEMENT (EULA)

With the first login into a newly installed OM Locating application, the user must accept the End User Licence Agreement (EULA).

OPEN SOURCE COMPONENTS

The OM Locating application uses Open Source components. You can view information on these components and the related licences in the **About** -> **Versions** menu of the application.

NOTES ON GAP / MITEL 142D DECT PHONES

While handover between different DECT base stations is possible for GAP or Mitel 142d DECT phones, messaging is not supported on these devices. Only a limited feature set can be used together with these devices:

- Basic DECT phone locating based on DECT base station is supported.
- Triggering an SOS alarm is supported with the Mitel 142d DECT phone.
- The DECT base station visibility feature is not supported.
- Confirmed alarm scenarios are not supported.
- Sending a locating alert via the OM Locating GUI is not supported.
- Sending text messages via the OM Locating GUI is not supported.

NOTES ON OPERATING CONDITIONS

The OM Locating application is designed as a straightforward, secure, and reliable service. However, it should be noted that you must ask your data protection officer to ensure compliance with your company or country data protection rules.

You also should not rely on this application for live-critical applications without further measures, such as an evaluation and certification by an information systems security professional when planning, deploying and running the system.

INSTALLATION

This section contains information on how to install the OM Locating application.

SYSTEM REQUIREMENTS

OPERATING SYSTEM

The OM Locating application is a Java application running under the Apache Tomcat application server environment. You must setup the Apache Tomcat 6 server on a PC running Red Hat Enterprise Linux (RHEL) Server 6 to install and run the OM Locating application. Alternatively, you can use CentOS 6.x as the operating system.

Make sure that the Apache Tomcat6 server is enabled and started in runlevel 3, 4, and 5. You can verify this with the following command:

```
chkconfig -level 345 tomcat6 on
```

HARDWARE REQUIREMENTS

While the computing resources required by the OM Locating application are moderate, please note that any Java application requires a decent amount of system memory during execution. A standard PC with a 2 GHz CPU, at least 1 GB of RAM and a 100 Mbit/s Ethernet adapter is sufficient.

Please always refer to the most recent release notes for updated requirements.

NOTES ON JAVA RUNTIME

The OM Locating application is a Java application that runs on the Apache Tomcat application server. Apache Tomcat in turn requires a Java runtime engine installed on the server running the OM Locating application.

OM Locating 4.0 requires Java Runtime Environment 1.6. OM Locating 5.0 or later requires Java Runtime Environment 1.7.

Note: Running locally installed Java software using the installed Java runtime environment is not considered an additional security risk. However, the Java plug-in component for web browsers is not required in the context of the OM Locating application. You may disable or uninstall the unused Java plug-in from your web browser for added security.

INSTALLING THE OM LOCATING APPLICATION

To start the installation of the runtime environment and the OM Locating application, the PC's operating system should already be installed and running. The PC should be connected to your LAN and it should be possible to download software from the Internet. You also need administrative access such as the login password for the "root" user account.

CAUTION: The OM Locating configuration folder is `/var/lib/OML/`. Make sure that the folder exists and that the owner of the folder is `tomcat`.

NEW INSTALLATIONS

The OM Locating data folder is a separate folder which must be created manually before starting the OM Locating Application for the first time.

1. Log in as root to the Red Hat Linux operating system and enter the following command:

   ```
   mkdir /var/lib/OML/
   ```

2. Change the ownership of this directory.

   ```
   chown tomcat:tomcat /var/lib/OML/
   ```

UPDATING EXISTING INSTALLATIONS

If you are upgrading the OM Locating application from a version prior to OMM 4.0SP4, you must perform the following steps.

1. Create the new OM data folder as described above.
2. Stop the Tomcat service.
3. Copy the OML data files from the old location to the new directory by running the command:

   ```
   cp -a /var/cache/tomcat6/work/OML/*
   /var/lib/OML/
   ```

   Make sure you have a backup of your Location images (located in the "/var/lib/tomcat6/webapps/OML/images/locations" directory).
4. Remove the old OML.war and the OML directory manually.

   ```
   rm -fr /var/lib/tomcat6/OML.war
   /var/lib/tomcat6/OML
   ```
5. Start the Tomcat service.
6. Deploy the new OML.war file.
7. Wait until OML is deployed and restore your local Locations images to the "/var/lib/tomcat6/webapps/OML/images/locations" directory.

Tip: For the experienced administrator: Install Apache Tomcat. Drop the "OML.war" file into the "webapps" folder and restart Apache Tomcat. Browse to "http://localhost:8080/OML/". Login with "admin" and "OpenMob". Continue reading with Backup and Restore.

INSTALLING THE OM LOCATING APPLICATION SERVLET

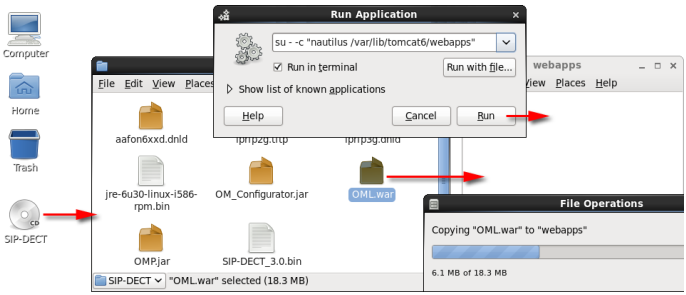
To install the OM Locating application's servlet, do the following:

1. Copy the OML.war file from the OM Locating installation media to the webapps folder in the Apache Tomcat working directory (usually "/var/lib/tomcat6/webapps/"). Do not change the upper case "OML" of the .war file name to lower case.

2. Press the [Alt]+[F2] keyboard combination. In the Run Application window, select the **Run in terminal** option. Enter the following in the input field and confirm with the [Enter] key:

   ```
   su - -c "nautilus /var/lib/tomcat6/webapps
   ```

3. Enter the password for the "root" user. Copy the "OML.war" file (via drag-n-drop) from the installation media to this location.

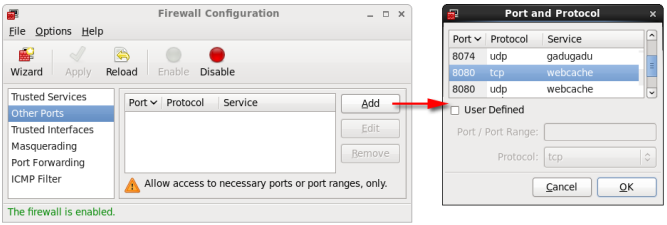


4. After copying the OML.war file, the Apache Tomcat service (which is already running) detects the new web archive file, and unpacks it in the webapps folder. It then starts the OM Locating application's servlet in the background.

5. To verify the installation, browse to http://local-host:8080/OML/ to display the OM Locating application's

login dialogue. Login with the default “admin” user name and the default “OpenMob” password.

6. To enable access from other PCs in your LAN, you must add port 8080 to the firewall’s trusted port list. Select the **System** -> **Administration** -> **Firewall** menu command.



   a. Select the **Other Ports** section.

   b. Click the **Add** button.

   c. Select port “8080” from the list.

   d. Click **OK** to confirm.

   e. Change the firewall settings by clicking the **Apply** and **OK** buttons.

CHANGING LANGUAGE SETTING

The language of the OM Locating web GUI is determined by the browser’s preferred language setting. However, the Linux system’s language/locale setting also determines the date format as well as the language of some system error messages. If you selected the wrong language while installing the operating system, you can change this setting in the Tomcat configuration.

1. Open a terminal and enter the “su” command to switch to the “root” user.

2. Enter the following command to open the configuration file in a text editor:

```
nano /etc/tomcat6/tomcat6.conf
```

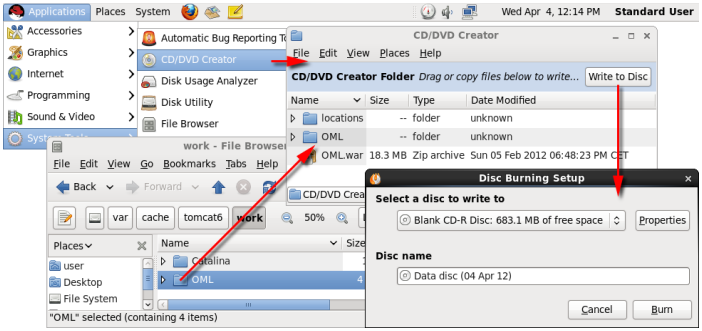
3. Locate the line that reads “#LANG=”. Remove the leading hash character and substitute the desired Linux locales code.
4. Press the [Ctrl]+[X] key combination and confirm the queries to save the file.
5. Restart the Tomcat service.

BACKUP AND RESTORE

The OM Locating application stores configuration data as well as acquired location data in a data folder. To prepare for disaster recovery, you should make at least a copy the respective folders on a regular basis.

1. Stop the Tomcat service.
   a. Select the **System** -> **Administration** -> **Services menu** command.
   b. In the **Service Configuration** window, select the “tomcat” entry and click the **Stop** button.
2. If you plan to backup to an optical disc, select the **Applications** -> **System Tools** -> **CD/DVD Creator** menu item. Alternatively, you may insert an USB flash drive which automatically opens a destination window.
3. Copy to following files and folders to the destination window:
   - /var/lib/OML (OM Locating configuration folder)
   - /var/lib/tomcat6/webapps/OML/images/locations (Location images folder)
   - /var/lib/tomcat6/webapps/OML.war (OM Locating program file)
4. Select the **Applications** -> **System Tools** -> **File Browser** command.

5. Navigate to the indicated sub-folders. Copy the files and folders to be backed-up via drag-n-drop to the destination window.



6. Switch to the **CD/DVD Creator** window and click the **Write to Disc** button. Confirm the settings in the following windows to create the backup.

7. Switch back to the **Service Configuration** window. Click the **Start** button to restart the Tomcat service.

If you need to restore the OM Locating application from your backup, stop the Tomcat service and restore the files. To do so, press the [Alt+F2] keyboard combination and run the “su --c "nautilus /var" ” command in a terminal. You also need to change the restored files ownership after copying. To do so, run the “su -c "chown -R tomcat /var/lib/OML/" ” in a terminal.

UPGRADING THE OM LOCATING APPLICATION

If you are running an older version of the OM Locating application, you can upgrade to a newer version.

Note that the configuration database of the OM Locating application (located in the data folder) is silently updated to the newer version. Downgrading of the configuration database from a newer version to an older version is not supported.

1. Make a backup copy of the OM Locating application (see “Backup and Restore” on page 16). Ensure you backup the configuration database located in the data folder under “/var/lib/OML” and the site location images located in the “/var/lib/tomcat6/webapps/OML/images/locations” folder.
2. Stop the Tomcat service.
   a. Select the **System** -> **Administration** -> **Server Settings** -> **Services** menu command.
   b. In the **Service Configuration** window, select the “tomcat” entry and click the **Stop** button.
3. Remove the /var/lib/tomcat6/webapps/OML folder.
   a. Press the [Alt+F2] keyboard combination and run the “su - -c "nautilus /var/lib/tomcat6/webapps" ” command in a terminal.
   b. Right click the “OML” folder icon and select the **Move to trash** context menu command.
4. Copy the newer “OML.war” file to the “webapps” folder, thereby overwriting the old “OML.war”.
5. Switch back to the **Service Configuration** window. Click the **Start** button to restart the Tomcat service. The Tomcat service re-creates the “OML” folder from the “OML.war” file.

6. Restore the site location images in the “/var/lib/tomcat6/webapps/OML/images/locations” folder.

Note: Some Tomcat installations support auto-deploy by simply dropping a new “*.war” file into the “webapps” folder. This is not supported officially because it may not function properly. The auto-deploy feature also erases the site location images automatically.

Tip: With previous versions of the OM Locating application, you may have installed and enabled the Oracle Java runtime environment. If you want to switch to OpenJDK, you may do so by entering “/usr/sbin/alternatives --config java” at a root prompt.

CONFIGURATION

The configuration of the OM Locating application takes place in three logical steps, described in the following sections:

- “Configuring DECT Phones” on page 22: describes how to enable portable parts (DECT phones) to be located and how to add a user account for OM Locating.
- “Configuring the OMM Connection” on page 26: describes how to establish a connection between the OM Locating application and the OMM.
- “Configuring Workstation Computers” on page 30: describes how to set up a PC to work with the OM Locating application.
- “Adding Site / Location Pictures” on page 31: describes how to integrate floor plans and zoomed detail views of your site.

OMM CONFIGURATION PREREQUISITES

The following sections describe configuration prerequisites for certain OM Locating application features to work.

SENDING MESSAGES

The OM Integrated Messaging and Alerting service feature is enabled by default. The feature must be enabled so that messages sent by the OM Locating application can be retrieved on the recipients’ DECT phones. This feature is activated in the OMM Web service (**System** -> **System settings** page) or via the OM Management Portal (OMP) in the **System** -> **Advanced settings** menu, **IMA** tab.

For details, see the *SIP-DECT OM System Manual*.

LOCATING DECT PHONES

The DECT base stations that are used to locate the DECT phones must be installed in the same cluster. Within a cluster, DECT base stations are synchronized to enable a seamless handover when a DECT phone user crosses from one DECT base station area of coverage to another. DECT base station clusters are built when configuring the DECT base stations in the OMM Web service (**Base stations** page) or via the OMP in the **DECT Base Stations** -> **Device list** menu.

For details, see the *SIP-DECT OM System Manual*.

ESCALATING EVENTS

The OM Locating application typically runs fine without an IMA configuration file. However, it is possible to configure an automatic reaction for escalated events. For this, you need to create the desired alarm scenario in an IMA configuration file. The alarm scenario configuration should use the DISTRESS_OPERATOR_TIMEOUT alarm trigger for this purpose. In addition, the alarm scenario should define a confirmation or timeout to ensure proper reaction on the escalated event.

For details, see the *SIP-DECT OM Integrated Messaging & Alerting Application* guide.

You also need to add the file download URL to the system settings. This is done in the OMM Web service (**System** -> **System settings** page) or via the OM Management Portal (OMP) in the **System** -> **Advanced settings** menu, **IMA** tab.

For details, see the *SIP-DECT OM System Manual*.

CONFIGURING DECT PHONES

For privacy protection reasons, DECT phones are not enabled for location by default. You must enable this feature for an arbitrary set DECT phones first. The OM Locating application only determines the location for DECT phones that are configured to be located.

You cannot enable the location service for the DECT phones through the OMM Web service. However, you can enable this feature using the OM Management Portal (OMP).

To change the locating feature for a set of DECT phones, do the following:

1. Start the OM Management Portal (OMP).

   a. Browse the OpenMobility installation media for a file named “OMP.jar”. Double-click the file to start the OMP, or right-click the file and select the Open with Sun Java 7 Runtime menu item from the context menu.

      The OMP starts and opens a login dialogue. Note for Linux users: the Java application requires AWT, a software component only available with the Sun implementation of Java.

   b. Alternatively, you can also download the OMP.jar file from the OMM Web service, by clicking on the OMP link in the tool bar..

      This triggers the download and auto-start of the OMP via a Java Web Start Launcher script.

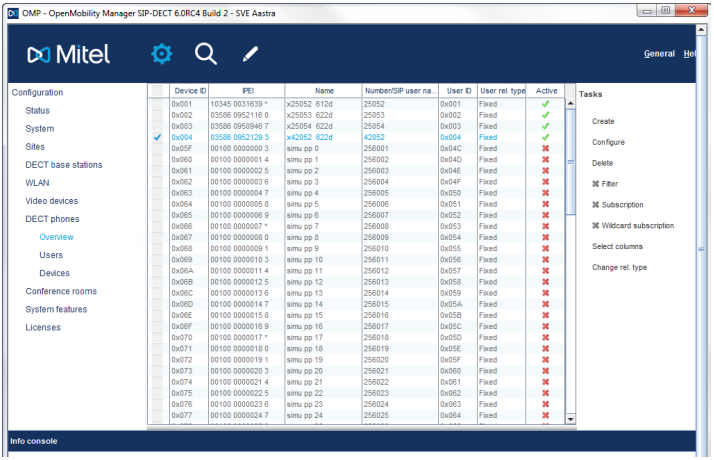
c. In the OMP login dialogue, enter the following information:

- **IP address** of the OMM
- **User name** that is configured at the OMM for the “Full access” account type (default value is “omm”)
- **Password** for the account

Click **OK** to confirm.

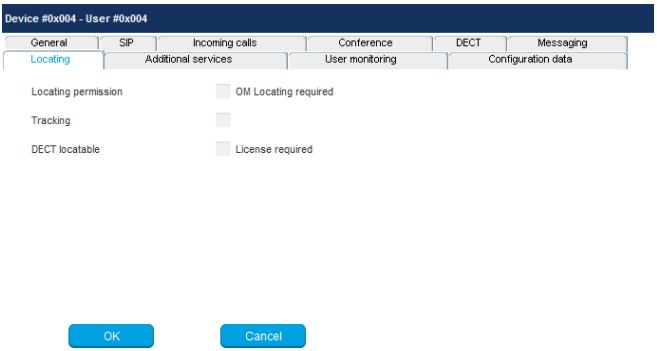
The OMP window opens.

2. Navigate to the **DECT Phones** menu and select the **Overview** sub-menu item. A list of registered DECT phones is displayed on the right side of the OpenMobility Manager window.



3. Double-click on any DECT phone in the list. This opens a tabbed details view for the selected DECT phone in the lower half of the window.

4. Switch to the **Locating** tab. Select or de-select any of the following options to change the configuration:



- **Locating permission** (Mitel 600 only): If enabled, the DECT phone is able to determine the location of other DECT phones. The main menu of the Mitel 600 phones provides a **Locating** menu entry for this functionality.

- **Tracking**: If enabled, the operator of the OM Locating application is able to use the constant tracking feature for the DECT phone. Note that this feature consumes more of the DECT phone's battery power.
- **DECT locatable**: If enabled, the DECT phone is locatable via DECT, either through the OM Locating application or by querying its location from other DECT phones. Note that the number of DECT locatable users is determined by the OM Locating License.

5. Switch to the **Messaging** tab and activate the **Sending messages permission** option.

   This enables the DECT phone to send messages and to reply to messages received from the OM Locating application. Note that this function must be supported by the device (Mitel 600 DECT phones this function).

6. Switch to the **Additional services** tab to configure additional features for the DECT phone.
   - **SOS number**: This number is called if the user presses the SOS key on the phone (e.g. on Mitel142d).
   - **ManDown number**: This number is called if the DECT phone (e.g. a Mitel 600) detects a ManDown condition.
7. Click **OK** to confirm your settings. Repeat from Step 4 to change the configuration of any other DECT phone.

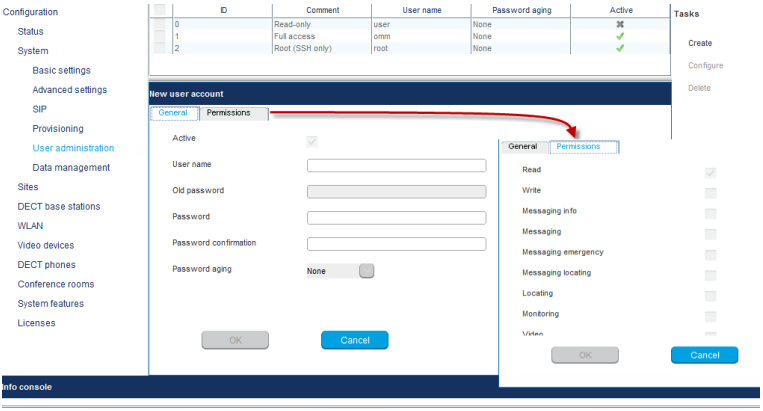
CONFIGURING THE OMM CONNECTION

The OM Locating application communicates with the OMM to query the necessary data and to control the OMM's functions. For this, the OM Locating application uses the OM Application XML Interface (OM AXI) that the OMM provides via an SSL-encrypted TCP connection at port 12622.

CREATING A USER ACCOUNT IN THE OMM

The OM Locating application requires the OMM's IP address, and a valid user name and a password to establish the connection. To configure the OM Locating application, do the following:

1. Start the OM Management Portal (OMP); see the instructions described in "Configuring DECT Phones" on page 22.
2. Navigate to the **System** -> **User administration** menu. In the Tasks pane, click **Create** to add a new user account for the OM Locating application.



   a. On the **General** tab of the **New user account** window, enter the User name and password for the user account.

b. On the **Permissions** tab, you must enable the **Read** option at a minimum. You can enable other permission options, depending on the features to be used in the OM Locating application.

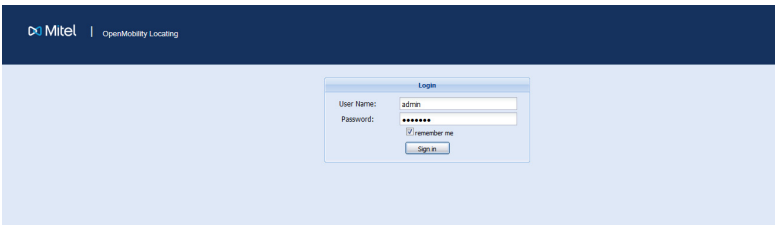
For example, if you want to send messages and use video monitoring in the OM Locating application, enable the Messaging and Video options. Note that administrative Write access for the OMM is not necessary for the OM Locating application.

c. Click **OK** to confirm creation of the new user account.

ADDING THE USER ACCOUNT TO THE OM LOCATING APPLICATION

After you have created the user account in the OMM, you must add the user account to the OM Locating Application.

1. Login to the OM Locating application Web console as “admin”.
2. Start a web browser on the PC running the OM Locating application.
   a. Browse to http://localhost:8080/OML/ and login with the default “admin” user name and the default “Open-Mob” password.

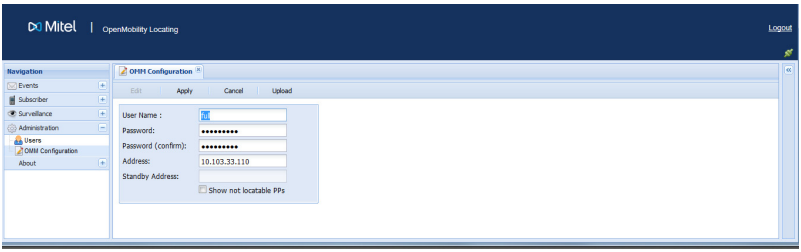


Alternatively, start a web browser on another PC in your LAN and enter the DNS-Name or IP address of the PC running the OM Locating application:

http://192.168.1.1:8080/OML
or
http://<dns-name-of-pc>:8080/OML

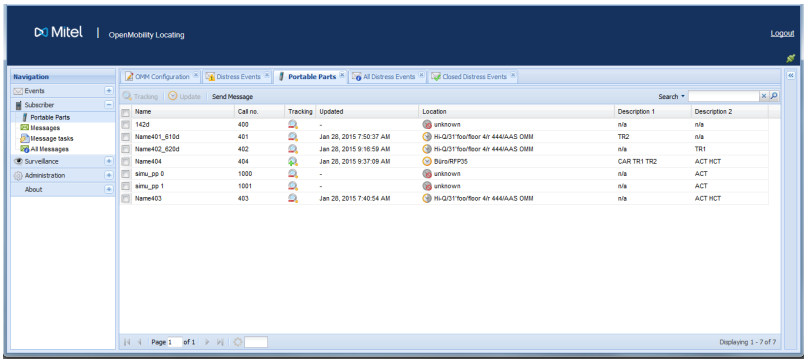
Note: Your browser must accept cookies from the OM Locating application to complete the login.

3. If this is your first login to the OM Locating application, the **OMM Configuration** tab is displayed automatically. Otherwise expand the **Administration** menu in the navigation tree and click the **OMM Configuration** menu item.



4. In the **OMM Configuration** tab, click the **Edit** button and enter the following information:
   - **User Name**: Enter the user name for the OMM user account that you created in the first step. The example above features a user account named “oml”.
   - **Password**: Enter the password for the OMM user account. You need to enter the same password again into the Password (confirm) input field.
   - **Address**: Enter the IP address of the OMM. Alternatively, enter the DNS-Name of the OMM. (Note that you cannot change the **Standby Address** field which is updated automatically later on. This field shows the stand-by OMM’s IP address.)
   - **Show not locatable PPs**: Activate this option to display those DECT phones in the OM Locating application for which the Locatable option is disabled.

5. Click **Apply** to confirm your configuration changes.
6. Verify your settings.
   a. In the upper right, a green icon shows the “Connection to OMM is established” status.
   b. Expand the **Subscriber** menu in the navigation tree and click the **Portable Parts** menu item. If your settings are correct, the DECT phones registered with the OMM are displayed. Otherwise correct your settings in the OMM **Configuration** tab (as described in “Configuring DECT Phones” on page 22).



If you change the OMM IP address, or the user name or password for the “Full access” account, you must update the information in the OM Locating application accordingly.

The OM Locating application automatically switches to the stand-by OMM if the primary OMM is not available. You can verify the standby OMM address by reviewing the **Standby Address** in the OMM **Configuration** tab.

Detailed information on the OMM account data, account types, and OMM resiliency is provided in the *SIP-DECT OM System Manual*.

CONFIGURING WORKSTATION COMPUTERS

The OM Locating operator requires access to a standard PC with web browser. Please note the following considerations when configuring and operating the workstation:

- The workstation or PC hosting the OM Locating application should have a reliable and secure network connection. Do not redirect the unencrypted HTTP traffic via an unsecured public data connection such as the Internet.
- A recent version of Mozilla Firefox or Microsoft Internet Explorer should be installed on the workstation PC.
- To play audible alarms, the workstation should be equipped with a sound card and a set of speakers. You may need to ensure that the browser can play a sound, for example by instructing the operator to play a test sound file when starting a work session. Depending on your browser's multimedia capabilities, you may need to install additional plug-ins (e.g., Adobe Flash). A sound is played when you login to or log-out from the OM Locating application's user interface.
- The web browser's language setting determines the language used in the OM Locating application's user interface. Note that the date format as well as the language of some system error messages is determined by the language setting of the server. The browser settings do not change the displayed date format.
- Do not change the web browser's standard security, view or multimedia settings. For proper operation, the OM Locating application's user interface requires JavaScript, Cookies, DHTML, and CSS to remain active.

The above considerations are valid for operating the OM Locating application with the "admin" and with normal user accounts. Note that you need to create user accounts for any operator (see "Managing Users" on page 64).

ADDING SITE / LOCATION PICTURES

The OM Locating application's user interface displays the location of the DECT base station where the DECT phone is detected. You can use the OM Management Portal (OMP) to generate the location pictures for the OM Locating application. For a detailed description on this feature, see "Generating Location Images via the OMP" on page 32.

LOCATING IMAGES TECHNICAL DETAILS

The DECT phone's location is presented with two graphical views:

- The upper view shows the overall floor plan, for example an overview with the highlighted DECT base station and the covered area.
- The lower view shows the DECT base station's detailed location. The display is overlaid by a centered radio wave animation.

You must provide two bitmap graphic files for any DECT base station managed by the OMM with the following properties:

- The uppercase MAC address of the DECT base station determines the file name. An overview graphic is named "[MAC].png" and the detailed graphic is named "[MAC]-zoom.png".

  Examples:
  "0030420D102E.png"
  "0030420D102E-zoom.png"

  You can view the MAC address in the OM Management Portal (OMP). For DECT base stations, navigate to the **DECT base stations** -> **Device list** page.

- The file is formatted as Portable Network Graphics (PNG) file with a fixed size of 256x256 pixels. You can use any colour depth, but you should not use an alpha channel or

the animation extension, to ensure compatibility with older browser versions.

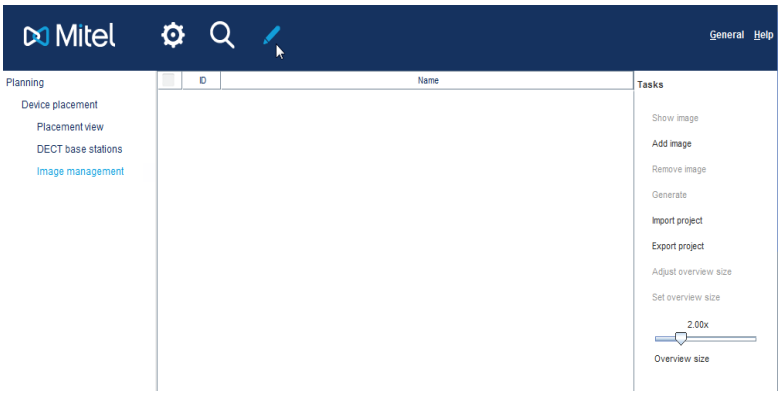
Note: You also should backup the graphic files stored on the OM Locating server on a regularly basis (see “Backup and Restore” on page 16).

GENERATING LOCATION IMAGES VIA THE OMP

You can generate location images using the OMP. You add the images of the floor plan for buildings belonging to the OM system into the OMP. Then, you super-impose the DECT base stations on these images. The location images for each DECT base station are generated in the format and size required by the OM Locating application.

The OMP provides the special **Planning mode** to perform these steps.

1. Start the OM Management Portal (OMP); see the instructions described in “Configuring DECT Phones” on page 22.
2. After logging in, click on the **Planning mode** icon in the tool bar and navigate to the **Device placement** -> **Image management** page.

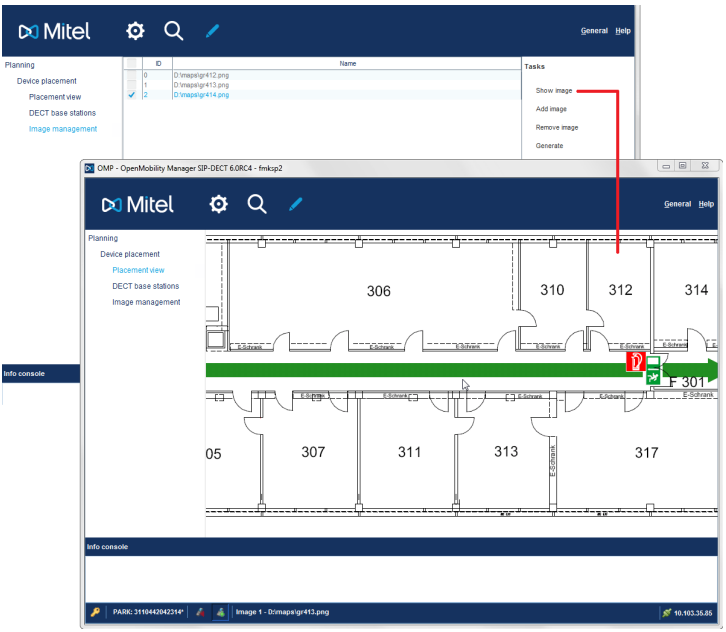


3. You must add at least one background image, such as a floor plan. In the Tasks pane, click on the **Add image** command.

4. Select an image file (*.png or *.jpg) in the file selection window. Confirm the file selection dialogue to add the image to the device placement project.

   You can add multiple images (e.g., one image for each floor). Note that the background image size should not exceed 3000 x 3000 pixels.

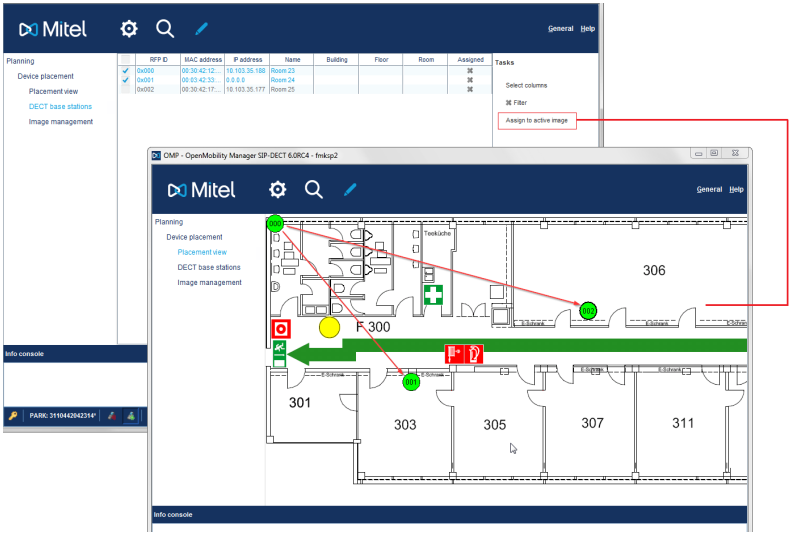
5. Select the desired background image. In the **Tasks** pane, click the **Show image** command. The **Placement view** page is opened, showing the currently active image.



6. Add DECT base stations to the image.

   a. Navigate to the **DECT base stations** page. Enable the check box of the desired locating device. You can activate more than one locating device in this step.

b. Click the **Assign to active image** command in the **Tasks** pane. DECT base stations that are already assigned have a green checkmark in the **Assigned** column.



7. Navigate to the **Placement view** page. New locating devices are placed in the upper left corner of the image. You may need to drag the image to shift the display to show the upper left corner of the image. Alternatively, right-click the image and select the **Reset view** command.

   Drag the a locating device icon to the desired place on the image that corresponds to the physical location of the locating device. Note that DECT base station icons show up in light green.

8. You can do the following in the **Placement view**:
   - Hover the mouse over the locating device icon to show device details.
   - Click a locating device icon to select it and right-click to open a context menu. Select the **Remove selected**

device(s) command to delete the assignment of the selected device to the image.

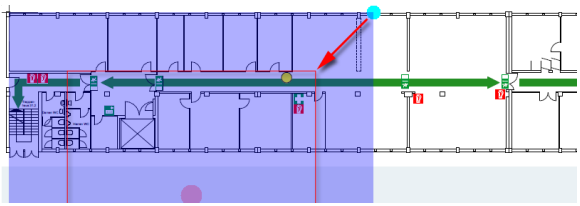
9. Repeat step 5 onwards to assign and place locating devices on other background images.

Changing the Downscaling Factor

When generating the resulting images later, the “*-zoom.png” images display background image detail without scaling. For overview images, a downscaling applies.

You can change the downscaling factor. With a larger downscaling factor, larger areas of the background image appear in the resulting overview image.

1. Navigate to the **Image management** page and select one or more images. In the **Tasks** pane, shift the **Overview size** slider to the desired downscaling factor. Click the **Set overview size** command.



Alternatively, select the **Adjust overview size** command to set the scaling factor in a preview. The area covered by the overview image is displayed as a coloured square.

- Drag the cyan dot in the right upper corner to change the square’s size.
- Drag the red middle dot to move the square.

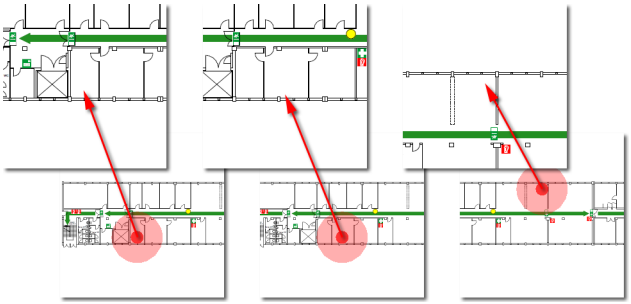
Note, that only the square’s size will change the overview image scaling while the square’s position is ignored.

Placing Images

When ready to place images, generate the images for the OM Locating server.

1. Select one or more background images on the **Image management** page.
2. In the **Tasks** pane, click the **Generate** command.
3. Select the desired destination directory in the file selection dialogue. You may create a new directory with the [folder] icon. Click **Open** to confirm the file selection and start the image generation.

   The image generation task creates a standard image and zoomed image for every locating device and stores the corresponding image files in the destination directory. Image file names are determined by the MAC address of the DECT base station (locating device) as described in “Locating Images Technical Details” on page 31.



4. While the OMP automatically stores and reopens the current device placement project, you should create a backup archive of your project. In the **Tasks** pane, click the **Export project** command. Select the desired destination directory in the file selection dialogue. Confirm the file selection dialogue to export the device placement project. The project

data include all background image files as well as the information on location devices (“locating_project.xml”).

UPLOADING IMAGES TO THE OML SERVER

The resulting image files needs to be copied to the “webapps/OML/images/locations/” directory of the Tomcat server running the OM Locating application. You can use an USB drive, a CD rom or a networked transport such as SCP for this task.

To copy the image file to their final destination directory, start a file manager application with administrative write access to the “webapps/OML/images/locations/” directory.

Tip: You may be able to re-use the DECT base station floor plan created during the radio site survey made before deploying the SIP-DECT solution.

OPERATION AND DAILY USE

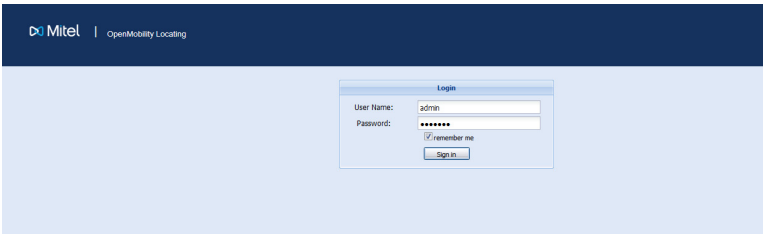
LOGIN

To log in to the OM Locating application, do the following:

1. Open the web browser and type in the URL of the OM Location application.

   Example 1: http://172.30.206.29:8080/OML/
   Example 2: http://locating-server.com:8080/OML/

2. Enter the **User Name** and **Password** to access the system.



The default settings are User name: admin and Password: OpenMob.

Users obtain their initial access data from the administrator who set them up during configuration. See also “Managing Users” on page 64 and “Editing Own User Data” on page 77.

Enable the **remember me** check box if you want to save your credentials for your next login.

Note: You should not activate the **remember me** option, to prevent third parties from logging in under your user name when you are temporarily logged out.

3. Click **Sign in**.

The OM Locating application connects to the OpenMobility Manager (OMM). The OMM manages the DECT phone locations and the alarm messages which are sent by DECT phone users.

LOGOUT

To prevent misuse of the OM Locating application by third parties, a user should logout after he/she finishes using the application.

Click the **Logout** command in the upper right corner of the OM Locating window to log out.

The Login dialogue opens for the next login.

If you leave your workplace computer, you should also close the web browser running the OM Locating application for safety reasons.

VERIFYING THE OMM CONNECTION

The following icons in the top right-hand corner of the OM Locating application title bar indicate the OMM connection status.

Connection to OMM is established

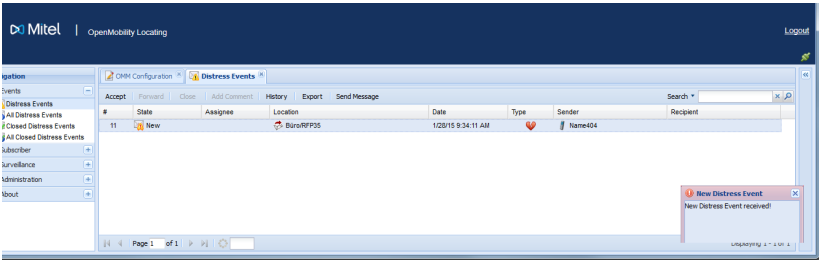
Connection to OMM is interrupted

Locating is reliable if the green connected icon is displayed. If the red disconnected icon is displayed, the connection will normally be established automatically after a few seconds.

HANDLING EVENTS

Alarm messages (ManDown or SOS calls) that have been triggered by the DECT phones are listed in the **Events** menu of the OM Locating application. The operators are thereby notified about each event and requested to call attention to the event and to initiate action.

EVENT TYPES AND EVENT INFORMATION



Event types

- The **Events** -> **Distress Events** menu displays incoming alarm messages. All events that have not been closed are listed in the **Distress Events** tab. The logged-in operator must handle these events according to the organization's protocols.
- The **Events** -> **All Distress Events** menu contains the distress events overview for all operators. This menu item is only available for users who belong to the administrators user group (see also "Managing Users" on page 64).
- The **Events** -> **Closed Distress Events** menu lists all events for which the logged-in operator performed the requested actions and closed the events.
- The **Events** -> **All Closed Distress Events** menu contains the closed events overview for all operators. This menu is only available for users who belong to the administrators user group (see also "Managing Users" on page 64).

Event information

For each event the following information is displayed:

FIELD	DESCRIPTION
#	Events are automatically numbered. This number serves as an internal identifier of the event and cannot be edited.
State	Indicates the current event state. • A new event is marked as **New** with a blinking icon. When the event comes in, a small information window pops up at the bottom of the screen. Depending on the equipment and settings of the workplace computer, new events are also indicated by sound (see also “Configuring Workstation Computers” on page 30). • **Assigned**: the event has been accepted by an operator and is assigned to that operator for further action. • **Forward Request**: the event has been forwarded to another operator to request him to handle the event. • **Closed**: the event has been handled and closed by the operator. • **Escalated**: the event was not handled by an operator within one minute.
Assignee	The operator who accepted the event.
Location	Indicates the location from which the DECT phone triggered the alarm.
Date	Indicates the date and time of the alarm.
Type	The icons in this column indicate the alarm type. SOS call ManDown call / Escape alarm / No-movement alarm Custom alarm (e.g., “User Monitoring event”)

FIELD	DESCRIPTION
Sender	Displays the name of the DECT phone that triggered the alarm message.
Recipient	Displays the name of the operator to whom the event has been forwarded.

The upper part of the events tab contains several command buttons to handle the events.

Note: The rules for handling events will be established by the safety officer of your organization.

ACCEPTING AN EVENT

When an event (alarm message) comes in, it must be accepted by the operator. Events that have been forwarded to the operator must also be accepted (see next section). Escalated events that arrived within the last 24 hours can be accepted also. Escalated events that are older than 24 hours remain in this state forever.

1. Select the appropriate event entry. You can also select multiple entries by pressing and holding the [**CTRL**] key as you click the appropriate entries.
2. Click the **Accept** command button.
   The **Comment – Accept** dialogue opens.
3. Optionally, you can enter a comment in this dialogue.
4. Click **OK** to close the dialogue. If you want to cancel the action, click on the [**X**] icon.

You are now the **Assignee** and responsible for further processing of the event!

Note: The OMM administrator may have configured an automatic reaction to an escalated event. This is accomplished through an IMA alarm scenario, that, for example,

automatically sends an emergency message to a group of people.

These IMA alarm scenarios typically need confirmation(e.g., two out of five people must respond to the alarm). However, even if you accept the escalated event, the IMA alarm scenario is not automatically terminated. If you cannot accept the escalated event and the alarm sound is played indefinitely, the IMA alarm scenario is triggered without any confirmation. In this case you should ask your OMM administrator to correct the IMA configuration.

FORWARDING AN EVENT

The **Assignee** can request that another operator handle one or more events.

1. Select the appropriate event entry. You can also select multiple entries by pressing and holding the [**CTRL**] key as you click the appropriate entries.
2. Click the **Forward** command button.
   The **Comment – Forward** dialogue opens.
3. From the **Forward to** drop-down list, select the operator to whom you want to forward the event.
4. Enter a comment in the input field to inform the recipient about the reason for forwarding.
5. Click **OK** to close the dialogue. If you want to cancel the action, click on the [**X**] icon.

The operator to whom the event was forwarded is indicated in the events table in the **Recipient** column.

Note: You can reverse the forwarding by clicking the **Accept** command button.

CLOSING AN EVENT

When an event has been resolved, the responsible operator (the **Assignee**) can close the event.

1. Select the appropriate event entry. You can also select multiple entries by pressing and holding the [**CTRL**] key as you click the appropriate entries.
2. Click the **Close** command button.
   The **Comment – Close** dialogue opens.
3. Optionally, you can enter a comment in this dialogue.
4. Click **OK** to close the dialogue. If you want to cancel the action, click on the [**X**] icon.

The event is moved to the **Closed Distress Events** / **All Closed Distress Events** lists (see “Event types” on page 40).

ADDING A COMMENT

You can add a comment on a selected event.

1. Select the appropriate event entry.
   The **Comment – Accept/Forward/Close** dialogue opens.
2. Enter a comment in the dialogue.
3. Click **OK** to close the dialogue. If you want to cancel the action, click on the [**X**] icon.

VIEWING THE EVENT HISTORY

For each event, a history is saved. See “Viewing Event History” on page 47 for more information.

EXPORTING EVENT DATA

The events data can be exported, for example for archiving. See “Exporting Event Data” on page 48 for more information.

SENDING MESSAGES

You can send a message to one or multiple recipients. In case of a ManDown call, it is recommended that you initiate locating alert (see “Sending a Locating Alert Message” on page 45). Messages can also be sent to trigger follow-up activities in connection with a ManDown/SOS call (see “Sending Messages” on page 57).

SEARCHING FOR AN EVENT

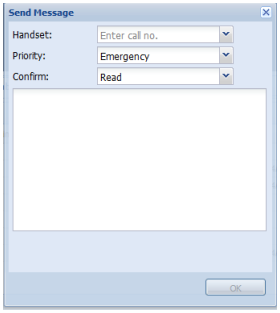
To search for a specific event in a large table, use the search field (see “Searching for Table Entries” on page 63). You can also browse through the pages of a multi-page table (see “Browsing Multiple Page Tables” on page 63). Furthermore, you can customize the table display to suit your needs (see “Showing / Hiding Table Columns” on page 62).

SENDING A LOCATING ALERT MESSAGE

It may be necessary to direct the attention of third parties to the location of the DECT phone that triggered the event (for example, where the event is a ManDown call and the sender may have lost consciousness).

1. Select the appropriate event entry. You can also select multiple entries by pressing and holding the [**CTRL**] key as you click the appropriate entries.

2. Click on the envelope icon next to the **Location** column. The **Send Message** dialogue opens.



3. Enter the following information:
   - **DECT phone**: The call number of the sender is preselected. If required, you can select another call number from the drop down list.
   - **Priority**: Accept the preselected **Locating Alert** setting.

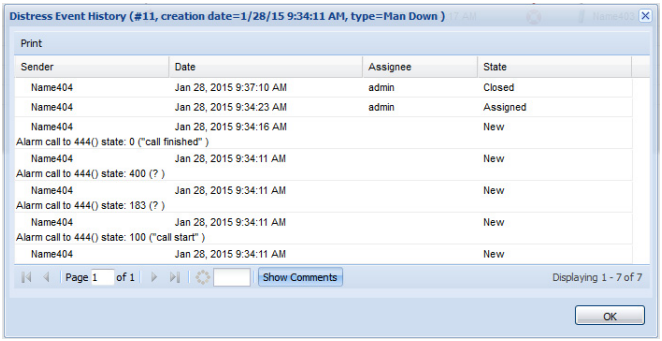
     Please note that only the Locating alert message initiates signalling that helps locate a DECT phone /person in unclear, diverse environments!
   - **Confirm**: Accept the preselected **Read** confirmation type or select another from the drop down list (**Complete**, **Order**). The selected confirmation type defines the confirmation sequence that must be performed on the DECT phone that receives the locating alert (see also “Message Receipt on the DECT phone” on page 59).
4. Optionally, you can enter a message text in the input field. This text will be displayed on the located DECT phone, in addition to the locating alert message that is automatically generated by the OM system.
5. Click **OK** to send the locating alert.

VIEWING EVENT HISTORY

For documentation purposes, a history log is created for each event in the OM Locating server database. The history saves the event's data and all actions which have been performed on the event.

1. Select the desired entry in the events table.
2. To call up the event history, click the **History** command button above the events table.

   The **Event history** window is displayed and shows the history of the selected event.



   The window title contains basic information on the event: the event's number, the creation date and the event type. For each action item the history displays a separate entry, consisting of sender, date, assignee and event state. In case of a large event, the information is spread over multiple pages (see "Browsing Multiple Page Tables" on page 63).

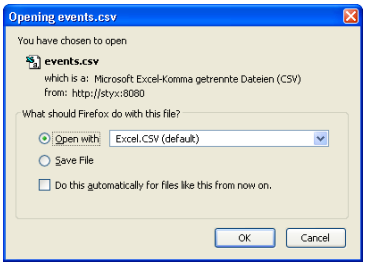
3. To show or hide comments stored within the event, click the **Show Comments** button.
4. To print the event history, click the **Print** command button in the upper part of the dialogue.
5. To close the dialogue, click **OK** or click on the [**x**] icon.

EXPORTING EVENT DATA

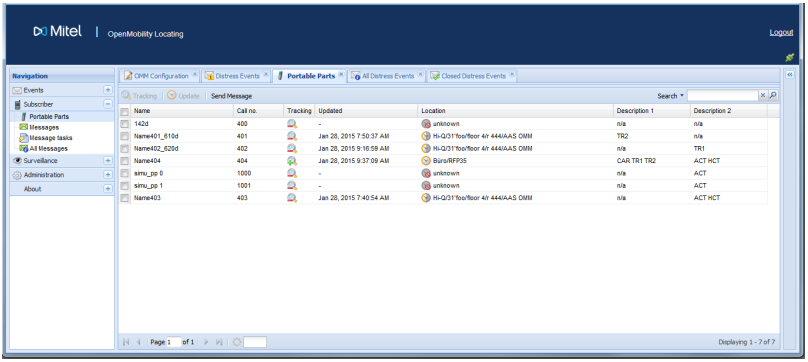
The complete events data stored in the in the OM Locating server database can be exported to a *.csv file (e.g., for archiving or for analysis). This feature is only available for users who belong to the administrators user group (see also “Managing Users” on page 64).

Note: Make sure to observe regulations regarding data protection when archiving event data.

1. Click the **Export** command button above the events table.
2. Depending on the browser and the browser settings, a dialogue opens where you can select the desired export options. Click **OK** to confirm.



LOCATING DECT PHONES



The **Portable Parts** tab of the **Subscriber** menu provides an overview of the DECT phone locations. Using this menu, you can identify the current position of a DECT phone, track a DECT phone's location over time (see "Calling up the Location History" on page 52), check the DECT base station visibility for selected DECT phones (see "Checking DECT Base Station Visibility" on page 53), and send messages to selected DECT phones (see "Sending Messages" on page 57).

For each DECT phone, the table displays the following information:

- **Name**, **Call no.**, **Description 1**, **Description 2**: the DECT phone's data
- **Tracking**: indicates the current tracking mode. See "Setting the tracking mode" on page 50 for more information.
- **Updated**: indicates the time stamp of the last location update. See "Updating location information" on page 51 for more information.
- **Location**: currently known location. An "unknown" entry in the Location column indicates that the DECT phone cannot be located (e.g., because the DECT phone is switched off).

SEARCHING FOR A HANDSET

To search for a specific DECT phone in a large table, use the search field (see “Searching for Table Entries” on page 63). You can also browse through the pages of a multi-page table (see “Browsing Multiple Page Tables” on page 63). Furthermore, you can customize the table display to suit your needs (see “Showing / Hiding Table Columns” on page 62).

SETTING THE TRACKING MODE

The DECT phone sends its location information on each interaction with a DECT base station (e.g. during a phone call or when the DECT phone software is updated).

It is possible to direct the OMM to request the current location from the DECT phone periodically even if the DECT phone is not in interaction with a DECT base station. The advantage is that the location information displayed in the Portable Parts table is always current but this causes high battery consumption and thus reduces the DECT phone’s stand-by time. The current tracking mode is indicated by the following icons:

Tracking mode is activated. The OMM polls for DECT phone location information periodically.

Tracking mode is deactivated. The history location might not show current position information since the history has been updated manually (see “Updating location information” on page 51).

1. To switch the tracking mode for a handset, select the respective handset entry. You can also select multiple entries by pressing and holding the [**CTRL**] key as you click the appropriate entries. To select all entries, activate the check box in the first column of the table header.
2. Click the **Tracking** command button above the portable parts table. Alternatively, you can click on the tracking sta-

tus icon beside each DECT phone entry to switch the mode.

Note that the **Tracking** option must be enabled for the respective DECT phone (see “Configuring DECT Phones” on page 22).

UPDATING LOCATION INFORMATION

The **Updated** column shows the time-stamp of the last location update. In addition, the icons in the **Location** column indicate the following:

Location was recently updated.

Location was recently updated but DECT base station visibility (see “Checking DECT Base Station Visibility” on page 53) is not possible.

Last location was updated more than 20 minutes ago.

Last location update is more than 20 minutes ago, DECT base station visibility is not available.

No active location information is available.

No active location information is available, DECT base station visibility is not available.

1. To obtain current location information, select the appropriate DECT phone entry. You can also select multiple entries by pressing and holding the [**CTRL**] key as you click the appropriate entries. To select all entries, activate the topmost check box in the table header.
2. Click the **Update** command above the portable parts table. Alternatively, you can click on the update status icon in the appropriate **Location** column. This updates the location information and concurrently opens the **RFP visibility** win-

dow (see also “Checking DECT Base Station Visibility” on page 53).

SENDING MESSAGES

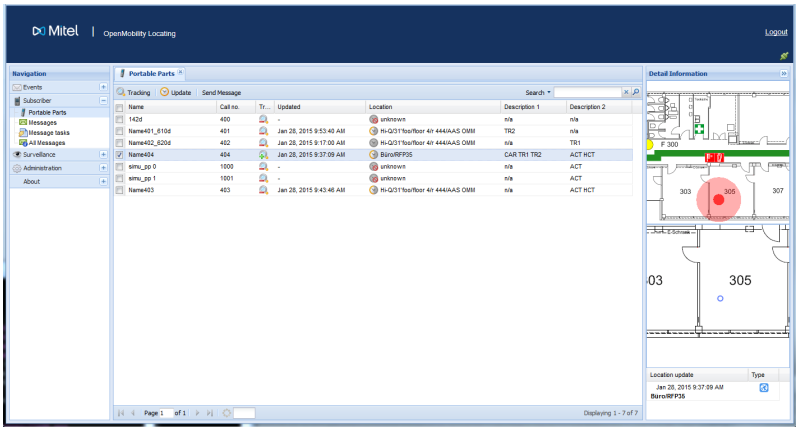
The **Portable Parts** tab of the **Subscriber** menu also allows you to send messages to one or multiple recipients. See “Sending Messages” on page 57 for more information.

CALLING UP THE LOCATION HISTORY

You can track a DECT phone’s location over time. The location history displays information on the DECT base stations to which the DECT phone has been connected. A maximum of 50 entries are available. Using this feature, you can view the current position of a person and also the person’s movement in your organization as long as he/she carries the DECT phone.

1. Select the desired DECT phone entry in the portable parts table.
2. To open the location history, click on the “**<<**” icon in the upper right corner of the **Portable Parts** tab.

   The **Detail Information** window is displayed and shows the location history of the selected DECT phone.



The **Location update** column shows the current DECT phone location (i.e., the currently used DECT base station) and the history of visited DECT base stations. RFP-related information is provided for each entry (e.g., site, building, floor, room, name of the base station). The tracking data contains connection date, time and location for the current day. The **Type** column indicates why the DECT phone position data was updated.

Note: To view the current location information of a DECT phone for which the tracking mode is deactivated (see “Setting the tracking mode” on page 50), click the **Update** command above the **Portable Parts** table.

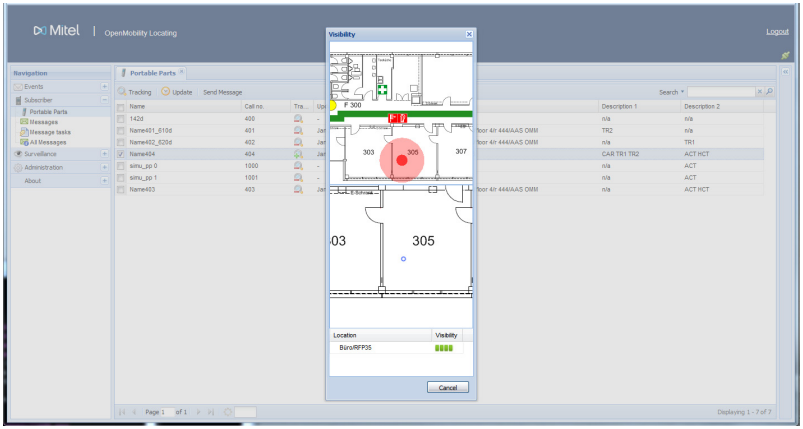
3. To view DECT phone location at a particular time in the graphical representation of the **Detail Information** window, click on the appropriate tracking entry in the lower part of the window.
4. To switch to the display of another DECT phone’s location history, click the appropriate DECT phone table entry.
5. To hide the location history, click on the “**>>**” icon in the upper right corner of the **Detail Information** window.

CHECKING DECT BASE STATION VISIBILITY

Depending on the SIP-DECT set up in your organization, a DECT phone might be in the visibility radius of multiple DECT base stations. You can use the DECT base station visibility feature to identify the DECT base station nearest to the DECT phone. This helps to determine the actual location of the DECT phone user (e.g., if the user does not answer a call or message).

For this function, the OMM queries the DECT phone. The DECT phone sends back a list of visible DECT base stations

and their respective signal strength values. Note that this function is only available with Mitel 600 DECT phones.



1. In the **Portable Parts** table, click on the location status icon of the appropriate DECT phone.

   The DECT base station **Visibility** window opens. This process may take several seconds because the DECT phone location information is updated. To abort the process, click **Cancel**.

   In the DECT base station **Visibility** window, the **Location** column (in the lower part of the window) lists all DECT base stations that the DECT phone currently “sees”. The icons in the **Visibility** column indicate the quality of the connection between DECT phone and base station. The

better the quality, the closer the DECT phone is to the base station.

Best visibility

Good visibility

Acceptable visibility

Poor visibility

Worst visibility

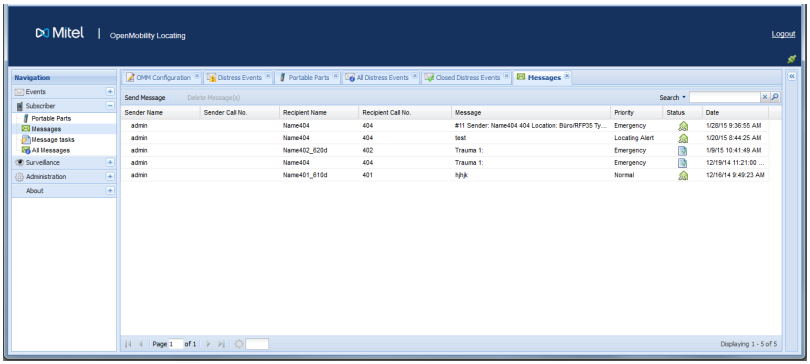
2. Click on the appropriate location entry in the list (lower part of the window) to locate the DECT phone in the graphical representation in the upper part of the window.

   If the DECT phone is a Mitel 600 DECT phone, the graphic also shows a field strength indicator.

3. Click on the [**X**] icon to close the window.

MANAGING MESSAGES

Messages sent via the OM Locating application are displayed in the **Subscriber** menu, where users can view their status and details and can manage them.



The **Subscriber** -> **Messages** menu item lists the messages sent by the currently logged-in user.

The **Subscriber** -> **All Messages** menu item lists the messages sent by all users. This menu item is only available for users who belong to the administrators user group (see also “Managing Users” on page 64).

MESSAGE STATUS OVERVIEW

The messages table displays information on the status of each message.

Message has been sent.

Message has been delivered.

Recipient has read the message.

Recipient has completed the message order

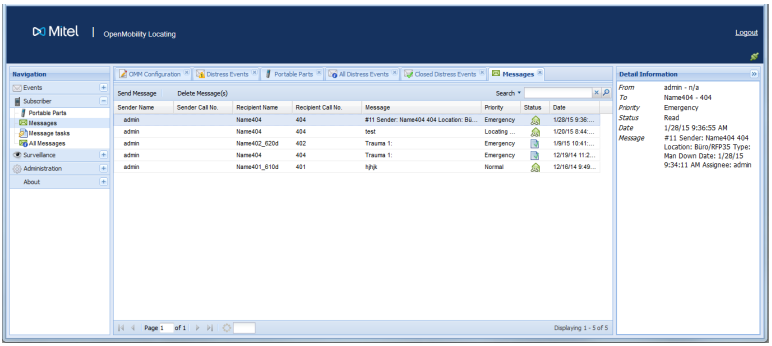
Sending of the message failed. Send the message again.

VIEWING DETAILS OF A MESSAGE

You can view details of a selected message.

1. Select the appropriate entry in the message table.
2. Click on the “**<<**“icon on the right side of the **Messages** tab.

The **Detail Information** window appears and shows the message details.



3. Click on the "**>>**" icon on the right of the **Detail Information** window to hide the panel.

SEARCHING FOR A MESSAGE

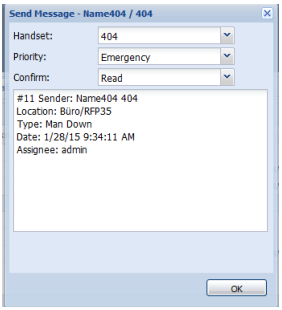
You can use the **Search** field to search for a specific message in a large table. You can also thumb through the pages of a multiple page table.

SENDING MESSAGES

You can send a message to one or multiple recipients who are equipped with a message-capable device (e.g., Mitel 600 DECT phone). Mitel 142d or GAP DECT phones do not support this feature.

1. Click the **Send Message** command above the table. If you want to send a message to one of the listed recipients, select the appropriate table entry before. To select multiple recipients, press and hold the [**CTRL**] key and click the entries.

The **Send Message** window opens, displaying the last distress event.



2. Enter the following information in the appropriate fields:
   - **Handset**: Select the recipient's call number from the list. This field is not displayed if you send a message to multiple recipients.
   - **Priority**: Select the message priority.
     - **Normal**: message is sent as a normal text message.
     - **High**: message is sent as a high priority message.
     - **Emergency**: message is sent as an alarm message.
     - **Locating Alert**: message is signalled acoustically on the recipient's DECT phone with an increasing alarm tone. This message type can be used to indicate the DECT phone location for third parties (e.g., if the recipient made a ManDown call and should now be located by security staff).
   - **Confirm**: Select the confirmation type (Read, Complete, Order). The selected confirmation type defines the confirmation sequence that must be performed on the DECT phone that receives the message (see also "Message Receipt on the DECT phone" on page 59).

3. The message input field displays the content of the last distress event that is currently not closed. You can edit this text or overwrite it with different text (e.g. “fire alarm, leave building”).
4. Click **OK** to send the message. If you want to cancel the action, close the window by clicking on the “**X**” icon.

Note: It is also possible to react directly to an event by sending a Locating Alert message. See “Sending a Locating Alert Message” on page 45 for more information.

Please note: If a DECT phone does not provide any information on DECT base station visibility (see “Checking DECT Base Station Visibility” on page 53), you cannot send a message to that DECT phone. In this case, you should update the location information first (see “Updating location information” on page 51).

DELETING MESSAGES

1. In the **Messages** table, click on the user entry you want to delete. You can also select multiple entries by pressing and holding the [**CTRL**] key and clicking the appropriate entries.
2. Click the **Delete Message(s)** command above the messages table.
3. Click **Yes** in the confirmation dialogue to confirm the deletion. Click **No** to cancel the operation.

MESSAGE RECEIPT ON THE DECT PHONE

Messages can only be received (displayed) on message-capable DECT phones, such as the Mitel 600. Mitel 142d or GAP DECT phones do not support this feature.

Depending on the message type, messages are signalled differently on the recipient’s DECT phone (e.g., one tone for

normal messages, two tones for high priority messages). The DECT phone users can configure the message signalling individually on their device.

The OM Locating application automatically generates a message text. This text contains information on the last distress event that is currently not closed (call number, location, call type, assignee, date and time). The operator who sends the message can edit or overwrite this text.

Callback to the operator

The call number of the operator who has sent the message is displayed within the message. To call the operator back, the DECT phone user must press the call key.

Message confirmation

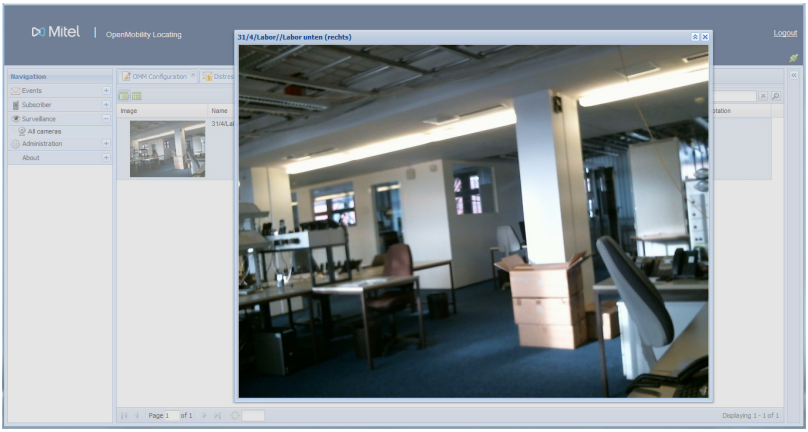
Depending on the confirmation type the operator applied to the message, the DECT phone user must perform one or more confirmation steps. Confirmation on the DECT phone is done by pressing the appropriate softkey.

CONFIRMATION TYPE	CONFIRMATION ON THE DECT PHONE	STATUS INDICATION
Read	Read	
Complete	Read, Accept	
Order	Read, Accept, Done	

If the operator's phone is a Mitel 600 DECT phone, he will also receive a confirmation message on the phone. For more information on using the special messaging features of the Mitel 600 DECT phone series, see the *SIP-DECT Mitel 600 Messaging & Alerting Applications* guide.

VIEWING VIDEO CAMERAS

If configured and enabled, the OM Locating application offers a monitoring feature that allows you to watch live video in the web browser.



1. Open the **Surveillance** menu and switch to the **All cameras** tab.

   The **All cameras** tab displays thumbnail videos of all configured video cameras.

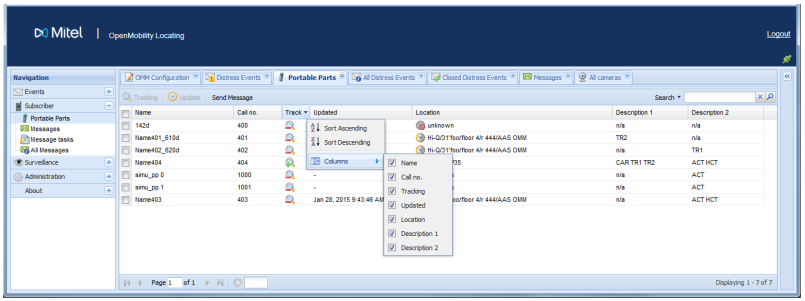
2. Click the icon to switch to list view. This view offers some details about the video image such as DECT base station and video size.

3. Click the icon to switch to tiles view. This view offers larger video thumbnails.

4. To view an enlarged live video image in a dialogue, click on the desired thumbnail video. To close the dialogue, click on the [**X**] icon.

HANDLING TABLE VIEWS

Various pages of the OM Locating application offer table views. You can customize these views according to your individual requirements.



SORTING TABLES

1. You can sort entries in ascending or descending order. Click on the column header of the column you wish to use as your sorting criterion.

   The small icon in the table header indicates the sorting criterion (for ascending order, and for descending order).

2. To reverse the order of the entries, click on the column header again.

SHOWING / HIDING TABLE COLUMNS

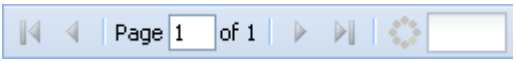
You can show and hide single table columns.

1. Move the mouse over a column's table header.
2. Click on the button to the right of the column. A pop-up menu opens.
3. In the pop-up menu, select the **Columns** entry to open the submenu.

4. Uncheck the checkboxes of the columns that should be hidden or check hidden columns. A column with an empty checkbox is hidden, and a column with a checkmark is shown.
5. You can also use the **Sort Ascending** and **Sort Descending** option from the pop-up menu to sort the table.

BROWSING MULTIPLE PAGE TABLES

If there is a large amount of data (events, DECT phones, etc.), a table view contains multiple pages. The bar on the lower part of the screen provides commands to browse through these pages.

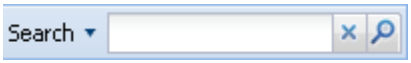


Use the arrow icons to advance through the pages. To go to a specific page, enter the number in the **Page** field.

To resize the page, enter a value in the input field on the right and confirm with the [**Enter**] key.

SEARCHING FOR TABLE ENTRIES

You can search for a specific entry in large tables using the **Search** field.



1. In the **Search** field (upper part of the screen) enter a search string (e.g text, phone number, or date). The string can be complete or a partial string. The text search is not case-sensitive.
2. Press the [**Enter**] key or click the magnifying glass icon to start the search.
3. Click on the "**X**" icon to clear the search text.

ADMINISTRATION

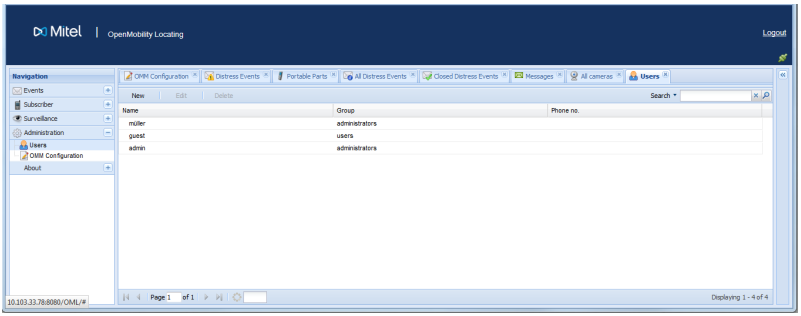
This section describes the administration tasks for the OM Locating application, such as adding and removing user accounts and viewing the software versions. The information is intended for administrators.

The functions described in this section are available to the administrator only.

Note: The configuration database of the OM Locating application is stored in a separate directory under the Apache Tomcat installation (see “Backup and Restore” on page 16 for details).

MANAGING USERS

As an administrator, you can manage users (operators) of the OM Locating application from the **Administration** -> **Users** tab. You can create new users, edit access data of existing users, and delete users from the database.



1. Select the **Administration** -> **Users** menu item.

   The main window shows a table listing the configured users in alphabetical order. The assigned user group and the

contact phone number are displayed for every user. Data is sorted on the user name.

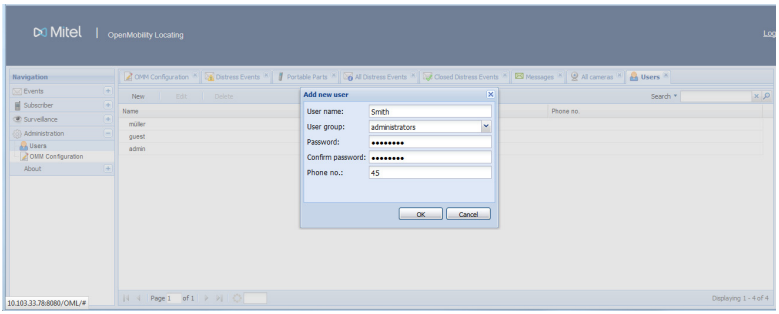
Note: You can search for a specific entry (see “Searching for Table Entries” on page 63), or browse through the pages of a multiple page table (see “Browsing Multiple Page Tables” on page 63). You can also customize the table display to your needs (see “Showing / Hiding Table Columns” on page 62).

2. Select the appropriate command button above the table:
   - **New**: to create a new user.
   - **Edit**: to edit the data of an existing user.
   - **Delete**: to delete an existing user.

CREATING A NEW USER

1. Click the **New** command above the user table.

   The **Add new user** dialogue opens.



2. Enter the following information in the appropriate fields:
   - **User name**: The name under which the user logs in to the OM Locating application. The user name is also displayed in text messages sent. In addition, the user name serves as an internal identifier for administration of the data record. The name must be unique and cannot exist more than once in the system.

- **User group**: The group to which the user belongs. This setting determines which menu items (and thus application features) are available for the user.
  - Select the **users** group if the user should be able to use the locating features of the application. This setting is normally applied to operators.
  - Select the **administrators** group if the new user should also be able to administer the application and the users.
- **Password**, **Confirm password**: The password for the user to access the system.

  Note: It is recommended that users be advised to change their password periodically for security purposes.
- **Phone no.**: The user's contact phone number. If the user sends a message (e.g., in case of a a distress event (ManDown or SOS call), this number is displayed as the callback number within the message.

Note that the SOS phone number and the **Phone no.** setting should match. If this phone number has also been defined as the SOS or ManDown call number on the DECT phones (see "Configuring DECT Phones" on page 22), it will be called in case of an ManDown or SOS call.

Tip: To test the function, trigger an SOS call which should reach the operator's phone. Check the respective entry in the **Distress Events** history. The phone number logged with the event should be assigned to the operator's user account.

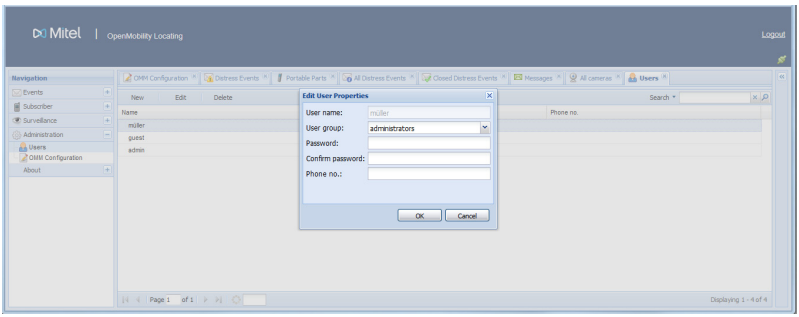
3. Click **OK** to confirm the settings and close the window. Click **Cancel** to discard the settings.

EDITING USER DATA

You can edit the data for an existing user.

1. In the **Users** table, click on user entry you want to edit.
2. Click the **Edit** command above the user table.

   The **Edit User Properties** dialogue opens.



3. Enter the following information in the appropriate fields:
   - **User name**: This field indicates the current user name. The setting cannot be changed. If you want to rename a user, you must create a new user and delete the redundant user entry.
   - **User group**: The group to which the user belongs. Change the group setting, if required.
   - **Password**, **Confirm password**: Enter the new user password in these fields. If the password should not be changed, enter the existing user password and confirm it.
   - **Phone no.**: If the contact phone number was changed, enter it here. This number will be displayed as callback number within a message that the user has sent.

4. Click **OK** to confirm the settings and close the window. Click **Cancel** to discard your changes.

Note: Each user can change his/her personal password (see “Editing Own User Data” on page 77), whereas the administrator can manage the access data of all existing users.

DELETING A USER

1. In the **Users** table, click on user entry you want to delete. You can also select multiple entries by pressing and holding the [**CTRL**] key while clicking the appropriate entries.
2. Click the **Delete** command above the user table.

   A confirmation dialogue opens.
3. Click **Yes** to confirm the deletion. Click **No** to cancel the operation.

   A deletion confirmation (one per user) is displayed on the lower part of the screen.

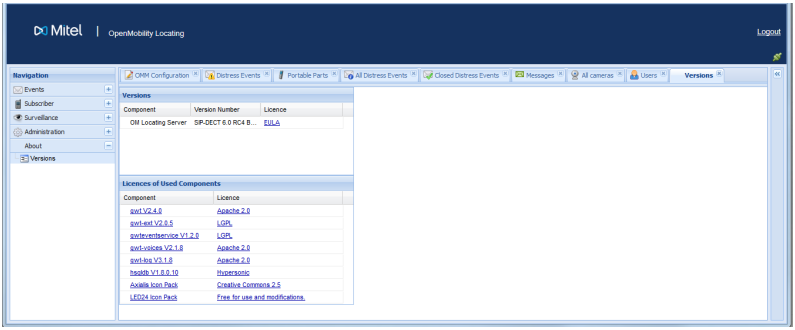
Note: The **admin** user cannot be deleted.

CHANGING THE OMM CONFIGURATION

The settings in the **Administration** -> **OMM Configuration** menu must be changed only if you have changed the IP address, user name and password for the OMM. For details, see “Configuring the OMM Connection” on page 26.

VIEWING VERSION INFORMATION

The **About** -> **Versions** menu item provides information about the versions of the OpenMobility components and the licences.



1. Select the **About** -> **Versions** menu item.
2. To view detailed information on a component, click the appropriate component entry in the **Versions** table.
3. To view licence information, click the appropriate hyperlink in the **Licences of Used Components** table. The related page opens in a separate browser tab.

   Please refer to the information in “Notes on Licences” on page 8.

OM LOCATING APPLICATION

QUICK USER GUIDE

INTENDED AUDIENCE

The following operating information is intended for the OM Locating application users (operators with the **users** user group authorization). It summarizes important actions that operators will perform on a daily basis. The administrator can use these instructions as a template to create an individual short user guide for the OM Locating application in his/her organization.

LOGIN / LOGOUT

1. Open the web browser and type in the URL of the Open-Mobility Location application.
2. In the **Login** window, enter your **User Name** and your **Password** and click **Sign in**.

   After login, the icon in the title bar indicates that the application is connected to the OMM.

   Note: A red icon indicates that the connection to the OMM is interrupted. If the connection is not re-established after several seconds, contact your administrator for help.

3. Logout when you have finished using the application. Click the **Logout** link in the top right-hand corner of the OM Locating application window.

HANDLING A MANDOWN CALL

Incoming events are displayed in the **Events** -> **Distress Events** menu.

A ManDown call is indicated with a blinking icon and the icon. If the ManDown call was sent from a Mitel 600 DECT phone, you can trigger an audible alarm on the DECT phone to help third parties locate it. (On Mitel 142d or GAP DECT phones, the locating alert is not signalled.)

1. Click on the icon next to the **Location** column.

   The **Send Message** dialogue opens.

2. Accept the **Locating Alert** message type that is preset in the **Priority** drop-down list.

   In the **Confirm** drop down list, accept the preselected **Read** confirmation type, or select another value from the list (**Complete**, **Order**). The selected confirmation type defines the confirmation sequence that must be performed on the DECT phone that receives the locating alert.

3. Click **OK**.

4. Send a message to one or more recipient. Select the appropriate table entry. To select multiple recipients, press and hold the [**CTRL**] key while clicking the entries.

5. Click the **Send Message** command above the table.

   The **Send Message** dialogue opens.

6. Select the **Emergency** message type in the **Priority** field. Select the confirmation type (**Read**, **Complete**, **Order**) from the **Confirm** drop down list. In the message input field, the content of the last distress event which is not yet closed is displayed. You can edit this text or overwrite it with different text (e.g. “fire alarm, leave building”).

7. Click **OK**.

LOCATING A DECT PHONE

1. Select the **Subscriber** -> **Portable Parts** menu item.
2. Select the desired DECT phone in the **Portable Parts** table.
3. Click on the icon on the right side of the **Portable Parts** tab.

   The **Detail Information** window is displayed, the current location of the DECT phone in the graphical representation in the upper part of the pane. The list in the lower part of the window displays the location history (i.e., the user's movement through the site).
4. To identify the DECT base station nearest to the DECT phone, click on the location status icon of the DECT phone in the **Portable Parts** table.

   The DECT base station **Visibility** window opens. This process may take several seconds because the DECT phone location information is updated. The icons in the **Visibility** column indicate the quality of the connection between DECT phone and base station. The better the quality, the closer the DECT phone is to the base station.

5. Click the "**X**" icon to close the **Visibility** window.

EDITING OWN USER DATA

You can change your password for accessing the OM Locating application.

1. Select the **Administration** -> **Users** menu item.
2. In the **Users** table, click on your user entry.
3. Click **Edit** to open the **Edit User Properties** window.
4. Change the following, as required:
   - **Password**, **Confirm password**: Type in your new password in these fields.
   - **Phone no.**: If your contact phone number has changed, enter it here. This number will be displayed as callback number in messages you send.
5. Click **OK** to confirm the settings and close the window.

Note: If you have forgotten your password and cannot log in to the OM Locating application, contact your administrator for help.

Appendix A

REFERENCE

TECHNICAL DATA

The following table provides technical details related to the OM Locating application.

Number of application users	10
OM Locating server	Server PC: • 2 GHz CPU • 1 GB RAM • 10 GB hard disk space • 100 MBit/s Ethernet adapter Operating system: • Red Hat Enterprise Linux 6 Server • CentOS 6.x
OM Locating clients / workstation computers	• PC capable of running a recent browser with JavaScript, Cookies, and DHTML • Adobe Flash plug-in must be installed • Sound card and set of speakers are recommended • Ethernet connection to OM Locating server • Screen resolution of 1280 x 1024 pixels

ABBREVIATIONS

DECT	Digital Enhanced Cordless Telecommunication
GAP	Generic Access Profile
OM	OpenMobility
OM AXI	OM Application XML Interface
OMC	OM Configurator
OM IMA	OM Integrated Messaging & Alerting service
OML	OM Locating
OMM	OpenMobility Manager
OMP	OM Management Portal
RFP	Radio Fixed Part; also called DECT base station
SIP	Session Initiation Protocol
URL	Uniform Resource Locator

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