- USB overload: Number of connected RFPs detecting overload at their USB port
- Encryption not supported: Number of connected RFPs not supporting encryption
- Advanced features not supported: Number of connected RFPs not supporting "Advanced features" which covers "Hi-Q audio technology", "Terminal video", "Enhanced DECT security" and "SRTP".

The "DECT" panel provides counters related to RFPs DECT configuration and state:

- DECT switched on: Number of configured RFPs with DECT switched on
- **DECT running**: Number of connected RFPs with DECT running
- Used cluster: Number of configured clusters
- Used paging areas: Number of paging areas used by RFPs

The "WLAN" panel provides counters related to RFPs WLAN configuration and state:

- WLAN switched on: Number of configured RFPs with WLAN switched on
- WLAN running: Number of connected RFPs with WLAN running
- Profiles: Number of WLAN profiles used by RFPs

6.4.3 USERS

The "Users" tab provides information about DECT phone users.

| Number for visibil | User monitoring states Warning Unavailable Escalated | Total SP registered Monitored active Monitored passive Sending messages | General |
|--|--|--|----------------------------|
| Number for visibility checks Number/ SIP user 25052 | ing states | Total Solve registered Monitored active Monitored passive Monitored passive Sending messages permission DECT locatable | General Occi pase stations |
| | | | Control |
| | | | Siles |
| | | | Alded devices |

The "General" panel provides counters concerning DECT phones user configuration and states:

- Total: Total number of configured users
- SIP registered: Number of configured users registered at SIP server
- Monitored active: Number of configured users with active monitoring enabled

121

SIP-DECT OM System Manual

- Monitored passive: Number of configured users with passive monitoring enabled
- Sending messages permission: Number of configured users with message sending permission enabled
- DECT locatable: Number of configured users with DECT locatable enabled

The "User monitoring states" panel provides counters concerning DECT phone user monitoring state

- Warning: Number of monitored users in state 'Warning'
- Unavailable: Number of monitored users in state 'Unavailable'
- Escalated: Number of monitored users in state 'Escalated'

The "Number for visibility checks" panel provides phone number or SIP user name used for standby OMM visibility checks.

6.4.4 DEVICES

The "Devices" tab provides information about DECT phones

| Detached | Unreachable | Download error | Barred | Currently downloading | Waiting for download | Already updated | Known downloadable | Firmware version | Loading firmware from | Status | Downloading new firmware to portable parts | Subscribed | Total | General |
|----------|-------------|----------------|--------|-----------------------|----------------------|-----------------|--------------------|--|-----------------------------|--------|--|------------|-------|---------|
| 0 | 0 | 0 | 0 | 0 | 0 | • | 4 | [600: 5.00.SP5.RC1] - [650,602: 6.0.RC8] | ffp://10.37.18.35//600.dnld | < | parts | 4 | 84 | |

The "General" panel contains counters related to DECT phones:

- Total: Total number of configured DECT phones
- Subscribed: Number of configured DECT phones which are subscribed to OMM

The "Downloading new firmware to portable parts" panel provides information about state of DECT phone firmware download:

- Status: Status of firmware download
- Loading firmware from: URL of firmware download container
- Firmware version: Version info of firmware container

- Known downloadable: Number of DECT phones known as downloadable
- Already updated: Number of DECT phones already updated
- Waiting for download: Number of DECT phones waiting for download
- Currently downloading: Number of DECT phones currently downloading
- Barred: Number of downloadable DECT phones currently barred
- Download error: Number of downloadable DECT phones with download error
- Unreachable: Number of downloadable DECT phones currently unreachable
- Detached: Number downloadable DECT phones currently detached

6.4.5 SITES

The "Sites" tab provides counters concerning site configuration and state



- Total: Total number of configured sites
- Contains RFPs: Number of sites with dedicated RFPs
- Hi-Q audio technology: Number of sites with Hi-Q audio technology enabled
- Enhanced DECT security: Number of sites with "Enhanced DECT security"
- transport protocol" (SRTP) enabled Secure real time transport protocol: Number of sites with "Secure real time
- Terminal video: Number of sites with terminal video enabled

6.4.6 CONFERENCE

The "Conference" tab provides conference channel information



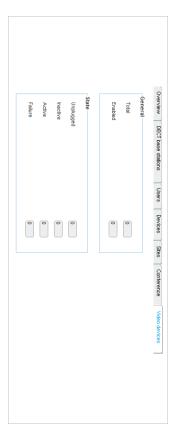
123

SIP-DECT OM System Manual

- Total: Total number of conference channels in system
- Available: Number of currently available conference channels

6.4.7 VIDEO DEVICES

The "Video devices" tab provides video device state information



The "General" panel provides video device configuration related counters:

- Total: Total number of configured video devices
- Checkpoint: Number of video devices enabled
- The "State" panel provides video device state related counters:

Unplugged: Number of video devices in state unplugged

- Inactive: Number of video devices in state inactive
- Active: Number of video devices in state active
- Failure: Number of video devices in state failure

6.5 "SYSTEM" MENU

case a new login is required. changeable in configuration mode. Change of some parameters can cause the OMM to be reset. In this The System menu allows configuration and display of global OMM settings. The system settings are

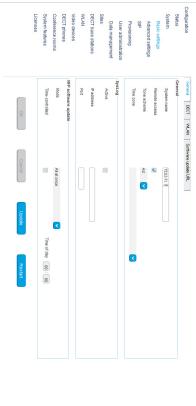
The System menu provides the following entries

| Configuration mode | Monitor mode | See section |
|---------------------|---------------------|-------------|
| Basic settings | Basic settings | 6.5.1 |
| Advanced settings | Advanced settings | 6.5.2 |
| | Statistics | 6.5.3 |
| SIP | SIP | 6.5.4 |
| User administration | User administration | 6.5.6 |

| 5.7 |
|-----|
|-----|

6.5.1 "BASIC SETTINGS" MENU

The Basic settings menu contains general settings for the OpenMobility Manager.



The Basic settings menu contains the following tabs

- General (see section 6.5.1.1)
- DECT (see section 6.5.1.2)
- WLAN (see section 6.5.1.3)
- Software update URL (only on systems where the OMM is running on a DECT base station) (see section 6.5.1.4)

6.5.1.1 General settings

You can set the following parameters on the General tab of the "Basic Settings" menu.

General

- System name: Name of the SIP-DECT system.
- **Remote access**: Enables or disables SSH access to all RFPs in the DECT system. For more information on SSH access, see section 8.3.5.
- **Tone scheme**: Specifies the country in which the OMM resides, which enables country-specific tones (e.g., busy tone, dial tone, etc).
- Time zone: Specifies the time zone in which the OMM is operating

Syslog

- Active: Enables propagation of syslog messages by the OMM and RFPs.
- IP address: Address of the host that collects the syslog messages.
- Port: Port of the host that collects the syslog messages

125

SIP-DECT OM System Manual

Forward OMM Messages to syslog: (Visible only on a PC-hosted OMM system)
 Enables/disables forwarding of syslog messages from the PC-hosted OMM.

RFP software update

- Mode: RFP update mode. Options are "One by one" (each RFP is updated separately) or "All at once" (all RFPs are updated in one operation).
- Time-controlled: Indicates whether the start of the RFP update is time-controlled.
- **Time of day**: Specifies the time for time-controlled RFP updates.

Note: Updates triggers can be controlled through update intervals (DHCP, config files) or manually triggered via the **Update** button.

The "General" tab contains two additional buttons (aside from default buttons):

- Update: Requests an immediate update of RFP software.
- Restart: Requests an OMM restart.

6.5.1.2 DECT settings

For a description of the parameters which can be set in the **DECT** tab, see the description of the **System settings** page of the OMM Web service (see section 5.4.1). The corresponding parameters are described in the **DECT settings** and **Downloading new firmware to portable parts** page sections, with the exceptions noted below.

The following settings are only available in the OMP.

- Regulatory domain: The OMP offers an additional regulatory domain selection (Radio 1910-1927MHz 250mW) for SIP-DECT operation in some South American countries. See section 3.11 for more information on this feature.
- SARI: Specify the Secondary Access Rights Identifier (SARI) for the Dual Homing
 feature. DECT phones subscribe to the SARI (instead of the PARK) to ensure that
 user data is synchronized across all OMMs in the system. See section 7.16 for more
 information on this feature. You can click the Generate SARI button to generate the
 SARI from the system PARK code.
- Paging area size: Select the number of paging areas for the SIP-DECT system. A
 paging area can consist of up to 256 RFPs (and the smallest group can consist of
 16 RFPs). The configuration of the paging areas is done in the Paging areas menu
 of the OMP (see section 6.7.2).
- Restricted subscription duration: Restricts the time period throughout which a
 DECT phone can be subscribed to 2 minutes. Furthermore, the subscription mode
 will be disabled immediately after every successful subscription of a DECT phone.
 Auto construction in the property of the period of the subscription of a DECT phone.
- Auto-create on subscription: Activate this option if an unbound subscription of DECT phones should be allowed. See the OM DECT Phone Sharing and Provisioning Guide for more information.

6.5.1.3 WLAN settings

For a description of the parameters which can be set in the **WLAN** tab, see the description of the **System settings** page of the OMM Web service. The same parameters are described in the **WLAN** settings section (section 5.4.1.3).

6.5.1.4 Software Update URL settings

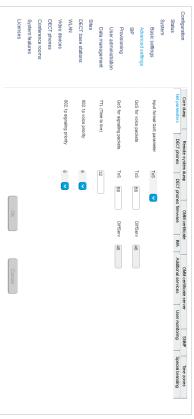
With SIP-DECT 6.0 or later, DECT base stations in small SIP-DECT systems (~10 RFPs) can obtain their software image from the RFP OMM, if they have no valid URL from which to load their software. If the OMM is running on a RFP, the RFP OMM delivers the software to the connected RFPs.

You configure the URL for the RFP software image (iprfp3G.dnld and iprfp4G.dnld) on this tab. This tab is only available when the OMM resides on an RFP.

For a description of the parameters that can be set in the **Software update URL** tab, see the description of the **System settings** page of the OMM Web service. The same parameters are described in the **Software update URL** section (section 5.4.1.10).

6.5.2 "ADVANCED SETTINGS" MENU

The **Advanced settings** menu contains additional settings for the OpenMobility Manager



The Advanced settings menu contains the following tabs:

- Net parameters (see section 6.5.2.1)
- DECT phones (see section 6.5.2.2)
- DECT phone firmware (see section 6.5.2.3)
- IMA (see section 6.5.2.4)
- Additional services (see section 6.5.2.5)
- User monitoring (see section 6.5.2.6) Special branding (see section 6.5.2.7)
- Core dump (see section 6.5.2.8)
- Remote system dump (see section 6.5.2.9)
- OMM certificate (see section 6.5.2.10)
- OMM certificate server (see section 6.5.2.11)

SIP-DECT OM System Manual

- SNMP (see section 6.5.2.12)
- Time zones (see section 6.5.2.13)

6.5.2.1 Net parameters

For a description of the parameters that can be set in the **Net parameters** tab, see the description of the **System settings** page of the OMM Web service. The same parameters are described in the **Net Parameters** section (section 5.4.1.13).

- Input format QoS parameter: Format for quality of service parameter. Available
 options are ToS or DiffServ.
- QoS for voice packets: Specifies the value of the type of service (ToS) or
 DiffServ byte (depending on the QoS input format value) of the IP packet header for
 all packets that transport RTP voice streams.
- QoS for signalling packets: Specifies the value of the type of service (ToS) or
 DiffServ byte (depending on the QoS input format value) of the IP packet header for
 all packets related to VoIP signaling.
- TTL (Time to live): Specifies the maximum hop count for all IP packets
- 802.1p voice priority: Specifies the VLAN priority tag for RTP packets.
- **802.1p signaling priority**: Specifies the VLAN priority tag for VoIP signaling packets

6.5.2.2 DECT Phones

The OMM can set certain start-up text settings on the DECT Phone over the air. For more information on this feature see section 3.13.5.

- Dial editor supports digits only: Enables a digits-only mode for the DECT phone
 dial editor. In this mode, the "*" has the meaning of a digit to be dialed, even if shortpressed. If the mode is not enabled, a short press of the "*" key changes the editor
 mode to alphanumric.
- Set startup window headline: Enables display of the text string specified in the Startup window headline field.
- Startup window headline: Text headine to be displayed in the DECT phone window at startup. Default value is "my company".
- Set startup window text: Enables display of the text string specified in the Startup window text field.
- **Startup window text**: Text string to be displayed in the DECT phone window at start. Empty by default.
- **Truncate portable part user name**: Enables or disables truncating the name of the user registered to the DECT phone.

127

6.5.2.3 DECT phones firmware

The OMM can provide a DECT phone firmware update over the air. If the **Activate firmware update** checkbox is enabled, the "Download over Air" feature is activated. For more information on this feature see section 7.22.

For a description of the parameters on the **DECT Phone firmware** tab, see section 5.4.1.6.

5 2 4 IMA

The Integrated Message and Alarm (IMA) configuration is stored in the OMM database. You can configure a specific URL for the OMM to retrieve the IMA configuration file (ima.cfg). The IMA configuration remains available even if the configured server becomes unavailable.

When you set a specific URL, the OMM uses that URL to load the IMA configuration file during startup. If no specific IMA configuration file source is configured, the provisioning server settings (ConfigURL) are used to retrieve the 'ima.cfg' file.

For a description of the parameters on the **IMA** tab, see the description of the **System settings** page of the OMM Web service. The same parameters are described in the **OM Integrated Messaging & Alerting service** section (section 5.4.1.8).

6.5.2.5 Additional services

For a description of the parameters on the **Additional services** tab, see the description of the **System settings** page of the OMM Web service. The same parameters are described in the following sections:

- Voice mail (section 5.4.1.7)
- OMP web start (section 5.4.1.5)
- Date and time (for NTP servers) (section 5.4.1.14)

6.5.2.6 User monitoring

The **User monitoring** tab allows you to configure the system-wide parameters for the user monitoring feature.

- Locating escalation: If this option enabled, the alarm trigger "LOC-ERR-USERSTATE" will be generated by the OMM. Default setting is "off".
- Start-up delay: The start-up delay defines the period of time the user monitoring start-up is delayed (between 2 and 15 minutes) after failover or system start-up.
- **Escalation delay**: The escalation delay defines the period of time the user monitoring will wait before the unavailable status is escalated.
- Activity timeout 1: The activity timeout 1 defines the maximum time (between 30 and 1440 minutes) between user activities in passive monitoring mode.
- Activity timeout 2: The activity timeout 2 defines the maximum time (between 5 and 60 minutes) between user activities in active monitoring mode.

129

SIP-DECT OM System Manual

 Battery threshold: The battery threshold defines the minimum battery load (between 0 and 100% in steps of 5%).

6.5.2.7 Special branding

With SIP-DECT 6.0 or later, you can integrate a customer-specific logo into the OMM Web service interface (displayed beside the Mitel logo in the top bar). The "Special Branding" tab allows you to specify the location of the branding image file (customer_image.png) on an external file server.

When you set a specific URL, the OMM uses that URL to load the image file during startup. If no specific customer logo file source is configured, the provisioning server settings (ConfigURL) are used to retrieve the image file.

The branding image is stored permanently in the OMM database. The file is deleted automatically when the branding image URL configuration is disabled. The picture should not be larger than 50 pixels high and 216 nixels wide.

By special request, you can use specific branding key to lock the OMM; the key must be branded to all DECT phones before they can be subscribed. See section 7.25 for more information on this feature.

PP Branding key

- Active key: Displays the current branding key associated with the DECT phones.
- New key: Specifies the new branding key generated through the DECTSuiteBrandingInstallation.exe utility.

Branding image URL

- Active: Enables the specific URL for downloading the customer_image.png file (as opposed to the ConfigURL, which points to an external file server for all configuration and resource files).
- **Protocol**: Specifies the protocol used to fetch the image file.
- Port: Specifies the port of the external file server.
- Server: Specifies the IP address or name of the external file server.
- **User name**: Specifies the user name to authenticate on the external file server.
- **Password**: Specifies the password to authenticate on the external file server.
- Password confirmation: Confirms the password to authenticate on the external
- **Directory**: Specifies the location of the image file on the external file server.
- Use common certificate configuration: Enables the use of the same certificate validation settings for the image file URL as specified for the ConfigURL.

6.5.2.8 Core Dump

Fatal software problems may result in memory dumps, in core files. The IP RFP can transfer the core files to a remote fileserver. With SIP-DECT 6.0 or later, you can configure a specific URL to an external file server where core dump files should be transferred and stored. The Core dump URL is used by each RFP connected to the OMM.

Without a configured Core dump URL, whether and where core files are transferred is dependent on specific RFP settings. Without any special configuration, the files are transferred to the server that is used to retrieve the system software (i.e., the directory of the boot image).

For a description of the parameters on the **Core Dump** tab, refer to the description of the **System settings** page of the OMM Web service. The same parameters are described in the **Core dump URL** section (section 5.4.1.12).

6.5.2.9 Remote system dump

A system dump is a file that holds information about the OpenMobility Manager and all connected RFPs With the Remote System Dump feature, a system dump is transferred to a remote server. You can configure a specific destination, otherwise the system configuration URL is used.

The system dump is generated manually by pressing the dump button or automatically at the configured time. Please ensure that the used fileserver allows writing or creating system dumps.

For a description of the parameters on the **Remote system Dump** tab, refer to the description of the **System settings** page of the OMM Web service. The same parameters are described in the **System dump** section (section 5.4.1.11).

6.5.2.10 OMM Certificate

You can overwrite the hard-coded OMM certificate by importing a local certificate chain and a private key file which may be password-protected. The OMM certificate will be used for incoming AXI and HTTPS connections to the OMM services. If the OMM can be reached from the internet by a domain and an appropriate CA certificate has been imported, no security warnings are displayed in web browsers that trust the CA root certificate.

For more information on this feature, see section 7.10.

Certificates/key

- Private key: Indicates whether the OMM has a private key file (read-only).
- Local certificate chain: Indicates the number of local certificate chains deployed on the OMM (read-only).
- Delete certificates/key: Allows you to delete any existing certificate or key files.

PEM file import

- Import PEM file with: Indicates the content type of the PEM file being imported.
 Available options are "Local certificate chain" or "Private key".
- File: Specifies the location of the PEM file to be imported.
- Import: Triggers the import of the specified PEM file.

Private key password

- Private key password: Specifies the password to be used for the private key file, if you want the file to be password-protected.
- Password confirmation: Confirms the password for the private key file

3

SIP-DECT OM System Manual

.5.2.11 OMM certificate server

OMM certificates can be updated automatically through configuration of a secure OMM certificate server URL.

- Active: Enables the feature.
- Protocol: Specifies the preferred protocol (FTP, TFTP, FTPS, HTTP, HTTPS SFTP).
- Server: Specifies the name or IP address of the external file server
- Port: Specifies the certificate server's port number
- Use default port: If selected, the default port associated with the selected protocol is used.
- User name: Specifies the user name to authenticate against the external file server.
- Password: Specifies the password to authenticate against the external file server.
- Password confirmation: Confirms the password to authenticate against the external file server.
- Path without filename: Specifies the path on the file server to the certificate files
- Use common certificate configuration: Enables the use of the system-wide certificate validation settings, as configured under the System -> Provisioning menu (see section 6.5.5).
- Local certificate file: Specifies the name of the PEM file on the external server including the local certificate or a certificate chain.
- Private key file: Specifies the name of the PEM file on the external server including the local key.

6.5.2.12 SNMP

To manage a larger RFP network, an SNMP agent is provided for each RFP. The SNMP agent provides alarm information and allows an SNMP management system (such as "HP Open View") to manage this network. The SNMP sub menu of the OMP provides configuration of SNMP service settings.

For a description of the parameters on the **SNMP** tab, refer to the description of the **SNMP** menu of the OMM Web service (see section 5.4.6).

6.5.2.13 Time zones

The OMM provides all available time zones on the **Time zones** tab. They are set with their known daylight savings time rules adjusted to the Universal Coordinated Time (UTC) by default. The difference to the UTC time is shown in the **UTC difference** field.

In addition, you can configure a new (free) time zone.

The date and time are provided by the OMM to the Mitel 142d and Mitel 600 DECT phones if the DECT phone initiates a DECT location registration. The DECT phone initiates a DECT location registration when:

- subscribing to the OMM
- entering the network again after the DECT signal was lost

- at power on
- silent charging feature is active at the phone and the phone is taken out of the charger
- after a specific time to update date and time

You can change the time zone rules for up to five time zones. The changes are saved in the configuration file and are restored after each OpenMobility Manager startup.

General

- Difference local standard time to UTC: The difference (in minutes) between the local standard time and UTC time.
- Daylight savings time: Enables or disables application of Daylight Savings Time (DST) for the time zone. If disabled, the Standard time and Daylight savings time tabs are not accessible.
- Difference daylight savings time to standard time: The difference (in minutes) between Daylight Savings Time (DST) and Standard Time for the time zone.

If the **Daylight savings time** parameter on the **General** tab is enabled, you can change the standard time and the daylight savings time (DST) of a time zone in the **Standard time** and **Daylight savings time** tabs. If the time zone has no DST, only the UTC difference can be configured. For the DST both points of time (begin of standard time and begin of daylight savings time) must be specified exactly. Therefore a certain day in the month or a certain week day in a month can be used.

The following commands are available to edit time zones:

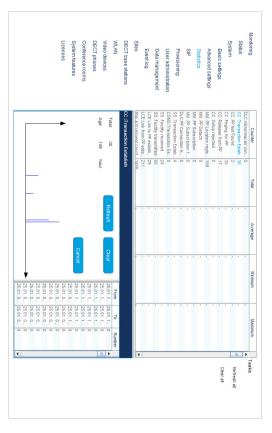
- OK: Confirm the changed time zone settings.
- Cancel: Cancels the operation and resets the changed time zone back to the default setting.
- Default: Resets all individual time zone settings to the default values and deletes
 the changed time zone rules in the configuration file.

6.5.3 "STATISTICS" MENU (MONITORING MODE ONLY)

The **Statistics** page provides system statistics counters which can be used to check system behavior. The page is only available in **Monitor Mode**.

133

SIP-DECT OM System Manual



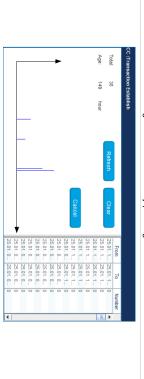
Statistic counters beginning with "+" are counters that are taken over by the standby OMM in case of a failover. All other counters are reset to default values in case of a failover. For more details about the standby feature, see section 7.15.

You can:

- Refresh all: request OMM update for all statistics counters.
- Clear all: reset all statistics counters in OMM

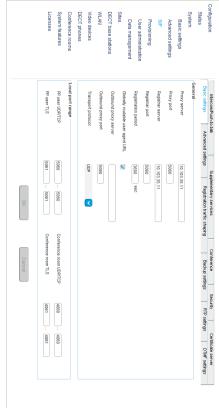
If a statistics counter is selected in the table, it is shown in a detail panel. This detail panel provides all available information for this statistics counter. You can:

- update this single statistics counter by pressing the **Refresh** button, or
- reset this single statistics counter by pressing the Clear button.



6.5.4 "SIP" MENU

The SIP menu contains global settings for SIP signaling and RTP voice streams.



The SIP menu contains the following tabs:

- Basic settings (see section 6.5.4.1)
- Advanced settings (see section 6.5.4.2)
- Registration traffic shaping (see section 6.5.4.3)
- Backup settings (see section 6.5.4.4)
- RTP settings (see section 6.5.4.5)
- DTMF settings (see section 6.5.4.6)
- Intercom Push-to-talk (see section 6.5.4.7)
- Supplementary services (see section 6.5.4.8)
- Conference (see section 6.5.4.9)
- Security (see section 6.5.4.10)
- Certificate server (see section 6.5.4.11)

6.5.4.1 Basic settings

For a description of the parameters on the **Basic settings** tab, see the description of the **System** -> **SIP** menu of the OMM Web service. The same parameters are described in the **Basic settings** section (section 5.4.3.1).

135

136

SIP-DECT OM System Manual

In addition, the following parameters (related to SIP multiport support) are available on the **Basic** settings tab:

Local port range

- **DECT phone user UDP/TCP**: The port range to be used for DECT users when UDP/TCP is used as the transport protocol. The default is 5060 5060.
- **DECT phone user TLS**: The port range to be used for DECT users when TLS is used as the transport protocol. The default is 5061 5061.
- Conference room UDP/TCP: The port range to be used for Conference Rooms when UDP/TCP is used as the transport protocol. The default is 4060 4060.
- Conference room TLS: The port range to be used for DECT users when TLS is
 used as the transport protocol. The default is 4061 4061.

Note: There are certain rules to note when configuring port ranges; see section 3.17 for more information.

6.5.4.2 Advanced settings

You can set several additional SIP parameters on the Advanced settings tab

For a description of the parameters on the **Advanced settings** tab, refer to the description of the **System -> SIP** menu of the OMM Web service. The same parameters are described in the **Advanced settings** section (section 5.4.3.2).

In addition, the following parameters are available in the OMP only:

- X-Aastra-Id info: Enable or disable inclusion of the private X-Aastra-Id header in each SIP REGISTER message.
- User agent info compatibility mode: If the User agent info option is enabled, the OMM sends information on his version inside the SIP User-Agent/Server headers; this parameter ensures backward compatibility with version information used in older SIP-DECT software releases.

6.5.4.3 Registration traffic shaping

Registration traffic shaping parameters allow you to limit the number of simultaneous SIP registrations at startup/fail over of the OMM. This feature is always activated because disabling it may overload the OMM or the call server.

For a description of the parameters on the **Registration traffic shaping** tab, see the description of the **System -> SIP** page of the OMM Web service. The same parameters are described in the **Registration traffic shaping** section (section 5.4.3.5).

6.5.4.4 Backup settings

To increase the operational availability of the system in critical environments like hospitals, the OMM offers a failover redundancy mechanism for the SIP server. In addition to the primary proxy, outbound proxy and registrar server, you can configure two additional levels of backup servers (secondary and tertiary servers).

The OMM failover behavior in detail depends on the backup server settings set here. A full description of the behavior and deployment hints can be found in section 7.20.3.

- Secondary proxy server / port, Secondary registrar server / port, Secondary outbound server / port: Enter the parameters for the secondary server in these fields.
- Tertiary proxy server / port, Tertiary registrar server / port, Tertiary outbound server / port: Enter the parameters for the tertiary server in these fields.

Note: Server addresses can be configured as IP addresses, names or a fully qualified domain names. It is possible to configure a mixture of IP addresses, names or fully qualified domain names for the different servers. If fully qualified domain names are configured and the respective port setting is configured to zero ("0"), DNS SRV queries will be performed to locate a list of servers in the domain (see 0).

- Failover keep alive: The keep-alive mechanism allows transferring all users
 registered on a failed server (failover) to secondary/tertiary servers as well as
 automatically switching back to primary servers. Otherwise, failover is executed only
 single users. Enable this option if you want to use this feature (default: off).
- Failover keep alive time: For each registration target, a user could be registered successful with, a keep alive procedure is started. Enter the time in this field after which a new keep-alive procedure must be started (1-60 minutes, default 10 min.).

For a detailed description of the keep-alive mechanism see section 7.20.4.

6.5.4.5 RTP settings

For a description of the parameters on the **RTP settings** tab, see the description of the **System -> SIP** page of the OMM Web service. The same parameters are described in the **RTP settings** section (section 5.4.3.3).

6.5.4.6 DTMF settings

For a description of the parameters on the **DTMF settings** tab, see the description of the **System -> SIP** page of the OMM Web service. The same parameters are described in the **DTMF settings** section (section 5.4.3.4).

6.5.4.7 Intercom Push-to-talk

You can set global auto-answer settings on the **Intercom Push-to-talk** tab. For more information on this feature, see section 3.31.

ncoming calls

- Auto answer: Enables or disables auto-answer on incoming calls.
- Microphone mute: Enables or disables microphone muting when incoming calls are automatically answered.

137

SIP-DECT OM System Manual

- Warning tone: Enables or disables warning tone on incoming call. A short ringtone
 is played if there are no active calls. If there is an active call in a "barge in" situation,
 the ringing will be in-band
- Allow barge in: Allows/disallows "barge-in" on existing calls

Outgoing calls

Initialization prefix for push-to-talk: String to be entered when initiating an
intercom call. An empty string indicates that the DECT phone cannot initiate an
intercom call.

6.5.4.8 Supplementary services

For a description of the parameters on the **Supplementary services** tab, see the description of the **System -> SIP** page of the OMM Web service. The same parameters are described in the **Supplementary Services** section (section 5.4.3.6).

6.5.4.9 Conference

You can define the conference mode globally for all SIP-DECT users on the **Conference** tab. For more information on the Conferencing feature, see section <u>7.21</u>.

- Server type: Specifies the operational mode for the conference server. Available
 options are:
- None: Neither external nor internal conference server is used.
- Integrated: The conference server integrated in the SIP-DECT system is used
- External: An external conference server (e.g., Broadsoft) is used.
- External Blind Transfer: An external conference server is used (e.g. MiVoice Business). The
 initiation of the conference is signaled as a blind transfer to the destination specified in the URL
 parameter.
- URL: Specifies the URL for the conference server.

6.5.4.10

Security

For a description of the parameters on the **Security** tab, see the description of the **System -> SIP** page of the OMM Web service. The same parameters are described in the **Security** section (section 5.4.3.8) and the **Manual Import** section (section 5.4.3.10).

6.5.4.11 Certificate server

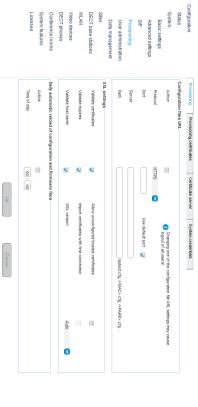
For a description of the parameters on the **Certificate server** tab, see the description of the **System** -> **SIP** page of the OMM Web service. The same parameters are described in the **Certificate server** section (section 5.4.3.9).

6.5.5 "PROVISIONING" MENU

SIP-DECT supports provisioning through external configuration files. With SIP-DECT 6.0 or later, you can configure a URL for an external file server, from which all configuration files can be downloaded. The

configuration or firmware files. configured provisioning server URL is used for secure connections to the file server to retrieve

The **Provisioning** menu contains settings related to the provisioning server



The Provisioning menu contains the following tabs:

- Provisioning (see section 6.5.5.1)
- Provisioning certificate (see section 6.5.5.2)
- Certificate server (see section 6.5.5.3)
- System credentials (see section 6.5.5.4)

6.5.5.1 Provisioning

Configuration files URL

- Active: Enable the configuration file URL feature.
- Protocol: The protocol to be used to fetch the configuration files
- Port: Provisioning server's port number.
- Use default port: If selected, the default port associated with the selected protocol

Path: Path to the configuration and resource files on the provisioning server

- Server: IP address or name of the provisioning server.

SSL settings

CA certificate list) and the configured trusted certificates server certificate is validated against trusted CA's (signed by a CA from the Mozilla Validate certificates: Enables or disables certificate validation. If enabled, the

139

SIP-DECT OM System Manual

- to accepting the certificate parameter is enabled, the client verifies whether or not a certificate has expired prior Validate expires: Enables or disables the validation of certificate expiry. When this
- Validate host name: Enables or disables the validation of hostnames on the OMM
- certificates into the OMM. OMM. AXI commands in a received configuration file may import such trusted server certificate validation as long as no trusted certificate was imported into the Allow unconfigured trusted certificates: If enabled, this parameter disables any
- as long as no trusted certificate was imported previously into the OMM. imported from the cert chain delivered in the server response without any validation, Allow unconfigured trusted certificates parameter), the trusted certificate will be Import certificates with first connection: If enabled (in conjunction with the
- accepts all protocol versions connection. Available options are: TLS1.0, TLS1.1, TLS1.2 or AUTO, where AUTO SSL version: The SSL protocol version to use for the configuration file server

Daily automatic reload of configuration and firmware files

- basis, at the specified time. Active: Enables automatic reload of the configuration and resource files on a daily
- Time of day: Time for scheduled reload of configuration and firmware files

6.5.5.2 Provisioning certificates

support mutual authentication. Provisioning certificates are used for secure connections to configuration or firmware file servers that

the certificate validation options (only encrypted TLS connection) If no server certificate is available, the validation against trusted and CA certificates can be disabled in A trusted certificate chain is used by the OMM to validate the server. This is required if the server has no certificate derived from a trusted CA root certificate, where the OMM uses the Mozilla CA Certificate List.

The local certificate chain plus the private key are provided from the OMM to servers requesting mutual authentication. The private key file may be password protected.

6.5.5.3 Certificate server

certificate server URL. The provisioning certificates can be updated automatically through configuration of a secure provisioning

- Active: Enable automatic updating of certificates the feature.
- SFTP) Protocol: Specifies the preferred protocol (FTP, TFTP, FTPS, HTTP, HTTPS,
- Server: Specifies the name or IP address of the external file server
- Port: Specifies the certificate server's port number
- Use default port: If selected, the default port associated with the selected protocol
- server. User name: Specifies the user name to authenticate against the external file

- Password: Specifies the password to authenticate against the external file server.
- **Password confirmation**: Confirms the password to authenticate against the external file server.
- Path without filename: Specifies the path on the file server to the certificate files.
- Use common certificate configuration: Enables the use of the system-wide certificate validation settings, as configured on the System -> Provisioning -> Provisioning certificates page (see section 6.5.5.2)
- **Trusted certificate file:** Specifies the name of the PEM file on the specified server including the trusted certificates.
- **Local certificate file:** Specifies the name of the PEM file on the external server including the local certificate or a certificate chain.
- Private key file: Specifies the name of the PEM file on the external server including the local key.

6.5.5.4 System credentials

System credentials are used to retrieve configuration and resource files from the configured provisioning server for protocols supporting authentication or servers requesting authentication. For HTTP/HTTPS, basic and digest authentication are supported.

- User name: Specifies the user name for authentication against the provisioning server.
- **Password**: Specifies the password for authentication against the provisioning server
- Password confirmation: Confirms the password for authentication against the provisioning server.

.5.6 "USER ADMINISTRATION" MENU

In the User administration menu you configure the OMM user accounts.

142

141

SIP-DECT OM System Manual



The three user accounts "Full access", "Read-only," and "Root (ssh only)" available via the **User** administration page of the OMM Web service can also be configured in the OMP. These three predefined user accounts cannot be removed or renamed. Only the "Read-only" account can be activated and deactivated. The permissions are fixed. This is consistent with the OMM WEB service. The meaning of the different account types is described in section 7.17.1. In addition, the OMP allows to create additional user accounts (login and password) and to assign specific permissions.

The tasks which can be performed are mode-dependent.

| Configuration mode | Monitor mode | See section |
|--|---|-------------|
| Create: Create new user account | | 6.5.6.1 |
| Configure: Configure selected user account in detail panel | | 6.5.6.2 |
| | Show details: Shows selected user account in detail panel | 6.5.6.3 |
| Delete: Delete selected user account | | 6.5.6.4 |

6.5.6.1 Creating New User Accounts

It is possible to create additional user accounts (login and password) and to assign specific permissions. These accounts are mainly designed to have specific login data and permissions for applications which are using OM AXI to connect with the OMM.

Note: Individual user accounts cannot be used for a login to the OMM Web service nor SSH.



Adding individual user accounts is only possible in **Configuration Mode**. To add a user account, do the following:

- 1 In the Tasks bar click on the Create command.
- The **New user account** panel opens. It provides various tabs where the account data must be entered.
- 2 Configure the user account, see parameter description below.
- 3 Press the OK button.

The following parameters can be set in the tabs of the New user account panel:

General

For a description of the parameters which can be set in the **General** tab, see the description of the **User administration** page of the OMM Web service (see section 6.5.6.).

Permission

The permissions for an individual user account can be set independent from any license status even if some of the permissions can only been used with an appropriate license.

If an application connects with the OMM via OM AXI, then the permissions been sent from the OMM to the application is the result of the configured permissions for this account and the actual license status. For more information please see the OM Application XML Interface (OM AXI) specification /31/.

143

SIP-DECT OM System Manual

The permissions have the following meaning:

| Permission | Description |
|---------------------|---|
| Read | Read OMM data (OM AXI get requests) |
| Write | Set OMM data (OM AXI set requests) |
| Messaging info | Sent messages with priority "Info" |
| Messaging | Sent messages with priority "Low", "Normal" and "High" |
| Messaging emergency | Sent messages with priority "Emergency" |
| Messaging locating | Sent messages with priority "LocatingAlert" |
| Locating | Permission to query the position of DECT phones and to track DECT phone positions |
| Monitoring | Permission to monitor various technical aspects of the mobility system |
| Video | Permission for video streaming |

6.5.6.2 Changing a User Account

Changing user accounts is only possible in **configuration mode**. To change the configuration of an existing user account, do the following:

- Select the appropriate user account in the account table.
- 2 In the Tasks bar click on the Configure command.
- 3 Change the user account parameters (see parameter descriptions in section 6.5.6.1).
- 4 Press the OK button.

Please note: The predefined user accounts "Full access", "Read-only" and "Root (ssh only)" user accounts cannot be renamed. Also their permissions are fixed and cannot be changed.

6.5.6.3 Viewing User Account Details

You can view the configuration of a user account in monitor mode. Proceed as follows:

- 1 Select the appropriate user account in the table.
- 2 In the Tasks bar click on the Show details command.

The user account data is displayed in the user account detail panel

3 To close the user account detail panel, click the Cancel button.

6.5.6.4 Deleting User Accounts

Deleting user accounts is only possible in **configuration mode**. To delete one or more existing user accounts proceed as follows:

- 1 Select the appropriate account(s) in the user account table by activating the corresponding checkbox(es).
- 2 In the Tasks bar click on the Delete command.
- 3 Confirm the displayed prompt with OK.

Please note: The predefined user accounts "Full access", "Read-only" and "Root (ssh only)" user accounts cannot be removed.

6.5.7 "DATA MANAGEMENT" MENU

The Data management menu provides access to data related to import and export features



The Data management contains the following tabs:

- Auto DB export (see section 6.5.7.1)
- User data import (see section 6.5.7.2)
- **DECT phones synchronization** (see section 6.5.7.3)
- Manual DB import (see section 6.5.7.4)
- Manual DB export (see section 6.5.7.5)
- Maintenance (see section 6.5.7.6)
- IMA (see section 6.5.7.7)

6.5.7.1 Automatic DB export

The automatic database export feature allows an automatic database backup to an external server for each configuration modification.

Please note: Synchronization with an NTP server is mandatory for an automatic database export. For NTP server configuration, see section 7.5.4 and section 7.6.

For a description of the parameters on the **Automatic DB export** tab, see the description of the **System** -> **Data management** page of the OMM Web service. The same parameters are described in the **Automatic Database Export** section (section 5.4.7.3).

145

SIP-DECT OM System Manual

6.5.7.2 User data import

The user data import feature allows the import of user data from an external provisioning server.

- **Configure specific source**: Enables the specific URL to an external file server for retrieving the user data file.
- **Protocol**: Specifies the preferred protocol.
- Port: Specifies the port on the server.
- Server: Specifies the IP address or the name of the server.
- User name, Password, Password confirmation: Specifies the credentials for the server.
- Path: Specifies the path to the file containing the user data.
- Use common certificate configuration: Enables the use of the system-wide certificate validation settings, as configured on the **System** -> **Provisioning** -> **Certificates** page (see section <u>5.4.2.8</u>).

Please note: If no credentials are specified for secure protocols, the system credentials are automatically used (see section 5.4.2.2). If the system credentials must not be used, the user name and password must be explicitly set here even for anonymous settings.

For further information on the user data import, see the OM DECT Phone Sharing and Provisioning Guide.

6.5.7.3 DECT phones synchronization

The user data synchronization feature ensures that all user and device database information is distributed to all OMM instances in the system. Each peripheral OMM must have a connection to the AXI interface of the central OMM (and the standby central OMM, if configured) to send and receive updated user data information. Specify the same user credentials used to access the central OMM via the OMP. For more information on this feature, see section 7.16.

- Activate synchronization: Enable user data synchronization for the OMM.
- **OMM1**: Specifies the IP address of the central OMM.
- **OMM2**: Specifies the IP address of a second central OMM, in the case of a standby configuration.
- User name: Specifies the user name required to access the central OMM
- Password: Specifies the password required to access the central OMM.
- **Password confirmation**: Confirms the password required to access the central OMM.

6.5.7.4 Manual DB import

The manual database import feature allows the import of an OMM database

Please note: A manual import of a database results in a reset of the OMM.

Database Import section (section 5.4.7.1). Data management page of the OMM Web service. The same parameters are described in the Manual For a description of the parameters on the **Manual DB import** tab, see the description of the **System** ->

6.5.7.5 Manual DB export

The manual database export feature allows a manual database backup to an external server

Data management page of the OMM Web service. The same parameters are described in the Manual Database Export section (section 5.4.7.2). For a description of the parameters on the **Manual DB export** tab, see the description of the **System** ->

6.5.7.6 Maintenance

In the **Maintenance** panel, you can perform a system dump, for example, for product support information purposes. A file "sysdump.txt" is created in the selected directory. Click the **Directory** button to select the directory, then click the **Download** button to start the system dump.

configuration can be deleted regardless of its source. Config file import

You can upload an IMA configuration file manually. To validate the existing configuration, the IMA configuration can be also downloaded. An uploaded IMA configuration may be overwritten if a server for the IMA configuration file is configured or if the 'ima.cfg' is available on the provisioning server. The IMA

6.5.7.7 IMA

To upload an IMA configuration file, click the File button to browse to the file, then click Import. Config file export

directory, then click Export. To download the current IMA configuration file, click the **Directory** button to select the destination

Delete config file

To delete the IMA configuration file, click Delete.

6.5.8 "EVENT LOG" MENU

The **Event Log** menu provides information about system events. The menu is only available in **Monitor Mode**.

148

147

SIP-DECT OM System Manual

| | | | icenses | System features | | Conference rooms | DECT DIIOIIES | DECT phones | Video devices | | WLAN | DECT pase stations | | Sites | Country | Event log | Data management | | User administration | Finisional | Drawin | SIP | | Statistics | Advanced settings | | Basic settings | ojomiii | System | Status | | Monitoring |
|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|------------------------|--------------------------|-----------------------|------------------------|--------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|-----------------------|------------------------|-------------------------|-------------------------|------------------------|-----------------------|-----------------------|-------------------------|
| ω | 2 | 2 | 2 | ω | 2 | ω | ω | 2 | 2 | 2 | 2 | 22 | 2 | ω | 2 | ω | 2 | 2 | 2 | 2 | ω | 2 | 2 | 2 | 0 | 0 | ω | ω | N | 2 | 0 | - Contraction |
| AXI | AXI | DVA | DVA | DSIP | DVA | AXI | DSIP | AXI | AXI | AXI | AXI | AXI | DVA | DSIP | AXI | STB | AXI | P | DVA | AXI | STB | DOW | AXI | DVA | CNF | STB* | P | PL | AXI | AXI | STB* | The same of the same of |
| - | _ | _ | _ | | _ | | 2 | _ | | _ | _ | | _ | _ | | _ | | _ | _ | _ | _ | - | _ | _ | _ | | _ | | _ | | | |
| 2015/01/22 17:38:20.4 | 2015/01/22 15:20:59.5. | 2015/01/22 15:19:26.9. | 2015/01/22 14:58:21.1. | 2015/01/22 11:46:19.9 | 2015/01/22 11:30:35.4 | 2015/01/22 11:30:35.4. | 2015/01/22 10:25:38.0 | 2015/01/21 22:37:33.8. | 2015/01/21 22:34:26.0 | 2015/01/21 22:29:14.5. | 2015/01/21 22:29:09.6. | 2015/01/21 22:29:09.0 | 2015/01/21 22:28:44.8. | 2015/01/21 21:36:26.7. | 2015/01/21 21:29:05.4. | 2015/01/21 21:01:22.4. | 2015/01/21 21:01:20.7 | 2015/01/21 21:01:19.3. | 2015/01/21 21:01:16.6. | 2015/01/21 21:01:01.9. | 2015/01/21 21:00:58.2. | 2015/01/21 21:00:57.7. | 2015/01/21 21:00:57.6. | 2015/01/21 21:00:56.9. | 2015/01/21 21:00:56.5 | 2015/01/21 21:00:56.5 | 2015/01/21 21:00:53.6. | 2015/01/21 21:00:50.2 | 2015/01/19 15:57:33.1 | 2015/01/19 15:57:33.0 | 2015/01/19 15:56:50.0 | |
| | [202] New secure co | . [202/omm] Remote ho | [203] New secure co | SIP registration to 10 | . [203/omm] Connection | [203] Disconnect clie | SIP registration to 10 | . [203] New secure co | . [203/omm] Remote ho | [203] New secure co | . [203/] Remote host clo | [203] New secure co | . [203/omm] Remote ho | . SIP registration to 10 | [203] New secure co | Broken Connection to | . [204] New connection | 2 of 12 RFPs connected | [202] New secure co | [201] New connection | . No Connection to stan | | [198] New connection | [194] New connection | SIP-DECT 6.0RC4 Bull | Activating former stan | . RFP(0001) reconnected | . RFP(0000) reconnected | [193/] Remote host clo | [193] New secure co | 2 OMM(s) on comman | 2000 |
| 4 | | | | | | | | | | | | | | | | | | | | -1 | | | | | | | Clear all | | Show details | | • | IBSKS |

6.5.8.1 Event log detail panel

| | | | | | | 8 | Evention |
|--------|---|-----------------------------|-------|-----------|----------|---------|----------|
| Cancel | Event [199] New connection from 10.37.18.32:58185 | Time | Count | Subsystem | Severity | General | Hon |
| | 18.32.58185 | 2015/01/21 21:00:57.729 UTC | | AXI | 2 | | |

6.6 "SITES" MENU

DECT base stations can be grouped into different sites. The **Sites** menu allows configuration and display of configured sites. An empty system has one predefined site (ID: 1) named "default". The system requires a minimum of one site.



A site contains the following parameters:

- ID: Identification number of the site. A value between 1 and 250 is possible. If no value is given, the OMM selects the next free ID.
- Name: The name of the site.
- Hi-Q audio technology / Enhanced DECT security /

Terminal video /

SRTP: These capabilities must be enabled or disabled specific for every site.

- In sites, which are configured to provide this functionality, exclusively RFP 35/36/37 IP and RFP 43 WLAN are applicable.
- In sites without this capability, it is allowed to mix these new RFP types with RFP 32/34 IP and RFP 42 WLAN.
- Number of RFPs: The number of RFPs which are assigned to this site.

You can perform the following tasks:

- Create: Create a new site in the General tab.
- Configure: Configure an existing site in the General tab.
- **Delete**: Delete selected sites (only sites without assigned RFPs can be deleted).
- Show details (only in Monitor Mode): Shows configuration of a selected site in the General tab

149

SIP-DECT OM System Manual

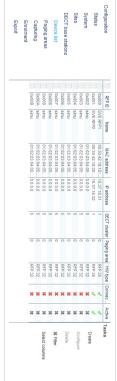
3.7 "DECT BASE STATIONS" MENU

DECT base stations can be configured and viewed in the **DECT base stations** menu.

| Configuration mode | Monitor mode | See section |
|--------------------|--------------|-------------|
| Device list | Device list | 6.7.1 |
| Paging areas | | 6.7.2 |
| Capturing | | 6.7.3 |
| Enrolment | | 6.7.4 |
| Export | | 6.7.5 |
| | Sync view | 6.7.6 |
| | Statistics | 6.7.7 |

6.7.1 "DEVICE LIST" MENU

The **Device list** panel displays all configured DECT base stations in a table. The device list is available in **Configuration Mode** and **Monitor Mode**.



The Active column shows the following states:

- DECT is not enabled and/or RFP not connected.
- igstar DECT is enabled and RFP connected, but DECT has not been activated yet.
- Q DECT is enabled and RFP is connected, but RFP is not synchronized and searches for other synchronized RFPs.
- \checkmark DECT is enabled and RFP is connected and synchronized.

Note: If the **Active** column is not displayed, you can activate it in the **Select columns** dialog, see section 6.7.1.7.

The tasks you can perform are mode-dependant.

| Configuration mode | Monitor mode | See section |
|--|--------------|-------------|
| Create : Create new base station in detail panel | | 6.7.1.2 |
| Configure: Configure selected base station in detail panel | | 6.7.1.3 |

| Configuration mode | Monitor mode | See section |
|--|---|-------------|
| | Show details : Show selected base station in detail panel | 6.7.1.4 |
| Delete: Delete selected RFP | | 6.7.1.5 |
| | Show sync. relations : Show synchronization 6.7.1.6 relation for selected RFPs | 6.7.1.6 |
| Select columns: Select columns/parameters to be shown in RFP table | Select columns: Select columns/parameters 6.7.1.7 to be shown in RFP table | 6.7.1.7 |
| Filter: Show only RFP datasets in table which contain a special search contain a special search string | s in table which | 6.7.1.8 |
| | | |

6.7.1.1 DECT Base Station Detail Panel

The DECT base station detail panel is used for configuration/display of RFP settings and creation of new

To call up the DECT base station detail panel, do one of the following:

- Choose one of the commands in the task bar on the right of the DECT base stations panel (Create, Configure, or Show details)
- Double-click on the appropriate RFP entry in the RFP table.

The DECT base station detail panel contains the following parameter groups sorted in different tabs.

The Status tab is only available in **Monitor Mode**, and shows system status information for the selected DECT base station.

"Status" tab



152

151

SIP-DECT OM System Manual

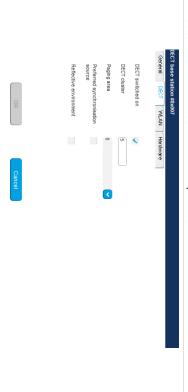
"General" tab

This tab contains the general DECT base station parameters.



"DECT" tab

This tab contains the DECT base station's DECT parameters



"WLAN" tab

This tab contains the DECT base station's WLAN parameters. Settings in the **WLAN** tab apply to RFP 42 WLAN and RFP 43 WLAN base stations only.



"Hardware" tab

In Monitor Mode, this tab shows hardware information of the selected DECT base station.



In configuration mode, the DECT base station **Hardware type** can be set if it is connecting to the OMIV for the first time. Once the correct hardware type is received from the DECT base station, you cannot change it.

153

SIP-DECT OM System Manual

6.7.1.2 Adding New DECT Base Stations

You must be in **Configuration Mode** to add a new DECT base station. To add a DECT base station to the list of known base stations, do the following:

- 1 Click Create under the Tasks lists on the right side of the DECT base stations window
- The **New radio fixed part** panel opens.
- 2 Configure the DECT base station (see parameter descriptions below)
- 3 Click OK

The following parameters can be set in the tabs of the New DECT base station panel:

"General" tab

- Name: The name for the RFP.
- **MAC address**: Each RFP is identified by its unique MAC address (6 bytes hex format, colon separated). Enter the MAC address, it can be found on the back of the chassis.
- Site: If several sites exist, select the site the RFP is assigned to.
- **Building, Floor, Room**: For easier localization of the RFP you can enter data in these fields.
- Conference channels: Activate this option to enable the RFP to provide channels for 3-way conferencing. This option is available for RFP 35 / 36 / 37 / 43 (see section 7.20.7).

"DECT" tab

- DECT switched on: The DECT functionality for each RFP can be switched on/off.
- **DECT cluster**: If DECT is active the RFP can be assigned to a cluster.
- Paging area: Enter the paging area, the RFP is assigned to.

The **Paging area size** is set in the **DECT** tab of the **System settings** menu (see section 6.5.1). The assignment between RFPs and paging areas can be changed in the **Paging areas** menu (see section 6.7.1.8).

- **Preferred synchronization source**: Activate this checkbox if the RFP should be used as synchronization source for the other RFPs in the cluster. For background information on RFP synchronization see section 7.2.
- Reflective environment: Within areas containing lot of reflective surfaces (e.g. metal or metal coated glass) in an open space environment the voice quality of a DECT call can be disturbed because of signal reflections which arrive on the DECT phone or RFP using multipath propagation. Calls may have permanent drop outs while moving and high error rates on the RFPs and DECT phones.

For such environment Mitel has developed the DECT XQ enhancement into base stations (RFP 32/34, RFP 42 WLAN) and RFP 35/36/37 IP, RFP 43 WLAN) and the Mitel 600 DECT phones family. Using this enhancement by switching the **Reflective environment** flag on might reduce drop outs and cracking noise.

As soon as **Reflective environment** is switched on, the number of calls on an RFP 32/34 resp. RFP 42 WLAN or RFP 35/36/37 IP resp. RFP 43 WLAN is reduced to 4 calls at the same time.

Please note: The RFPs and DECT phones use more bandwidth on the Air Interfaces if the "Reflective environment" is switched on. Therefore this shall only be used when problems sourced by metal reflections are detected.

"WLAN" tab

Settings in the **WLAN** tab apply to RFPs of the type "RFP 42 WLAN" and "RFP 43 WLAN" only. For details about WLAN configurations please see section 7.18.

Please note: WLAN properties can only be set if the correct hardware type is configured in the Hardware tab.

- WLAN switched on: The WLAN functionality for an RFP 42 WLAN or an RFP 43 WLAN can be switched on/off.
- For a description of the other parameters which can be set in the **WLAN** tab, see the description of the **DECT base stations** page of the OMM Web service (see section 5.6.3). The corresponding parameters can be found there in the **WLAN** settings section.

Note: Configuration of WLAN profiles is only possible with the OM Web service, see section 5.8.1.

Hardware tab

WLAN properties can only be set if the correct hardware type is configured. This can be done manually before an RFP connects with the OMM and an automatic detection is possible (**Auto** setting).

6.7.1.3 Changing DECT base station configuration

Changing RFPs is only possible in **configuration mode**. To change the configuration of an existing RFP, do the following:

- 1 Select the appropriate RFP in the RFP table.
- 2 Click Configure under the Tasks lists on the right side of the DECT base stations window.
 The DECT base station detail panel opens.
- 3 Change RFP parameters (see descriptions in section 6.7.1.2).
- 4 Click OK.

6.7.1.4 Viewing DECT base station Details

You can view the configuration of an RFP in Monitor Mode. Proceed as follows:

- 1 Select the appropriate RFP in the RFP table.
- 2 Click Show details under the Tasks lists on the right side of the DECT base stations window.
 The DECT base station detail panel opens.
- 3 To close the RFP detail panel, click Cancel.

SIP-DECT OM System Manual

6.7.1.5 Deleting DECT base stations

You can only delete DECT base stations in **Configuration Mode**. To delete a DECT base station, do the following:

- 1 Select the DECT base station (s) in the table by selecting the corresponding checkbox(es)
- 2 Click **Delete** under the Tasks lists on the right side of the **DECT base stations** window.
- The Delete selected DECT base station(s) dialog opens showing a confirmation prompt.
- 3 Click **OK** to confirm.

Please note: License DECT base stations cannot be deleted.

6.7.1.6 Showing Synchronization Relations

You can view the synchronization relations of a DECT base station in Monitor Mode. Do the following:

- 1 Select the appropriate RFPs in the RFP table. At least two RFPs must be selected to show their synchronization relations.
- 2 Click Show sync. Relations under the Tasks lists on the right side of the DECT base stations window.

The view switches to the **Sync view** menu . For further information see section 6.7.6.

6.7.1.7 Selecting Columns

You can customize the parameters shown in the DECT base station table:

- Click Select columns under the Tasks lists on the right side of the DECT base stations window.
- The Select columns dialog opens.
- 2 Select the columns that shall be shown by activating the appropriate checkboxes
- 3 Click the OK button.

The DECT base station table is updated accordingly.

6.7.1.8 Filtering the DECT base station table

You can filter the list of DECT base station datasets shown in the table by using a filter.

1 Click Filter under the Tasks lists on the right side of the DECT base stations window.

The Filter dialog opens.

- 2 Enter the search string that serves as filter criterion. You can enter digits and characters. The search is case sensitive.
- 3 Click on the Filter button.

The Filter dialog is closed and the table is adjusted accordingly

- 4 To reset the filter, click on the Filter command in the task bar on the right of the DECT base stations panel.
- 5 In the **Filter** dialog click on the **Reset** button.

6.7.2 "PAGING AREAS" MENU

The Paging area menu shows all configured RFPs in a tree structure consisting of two trees:

156

- The left Unassigned RFPs tree contains all RFPs without an assigned paging area.
- The right Paging areas tree shows all configured paging areas with RFPs assigned to these paging areas.

Configuration

Status

Status

Spatem

Sites

DECT base stations

Device list

Paging areas 000

Emoinment

Epoint

WLAW

Video devices

DECT phones

Configurations

Descriptiones

Spatem (Fabrica)

Livenses

Livenses

All DECT base stations are shown including their site and optional hierarchy (building, floor, and room) settings.

- DECT base stations can be moved by drag and drop from unassigned tree to paging area tree and vice versa, as well as between different paging areas inside the paging area tree.
- Only one DECT base station node can be moved at once.
- If a site or a hierarchy node is selected, all DECT base stations that are children of this node are moved.
- If a paging area is completely filled with DECT base stations, moving additional DECT base stations in that paging area is not permitted.
- If not all DECT base stations (selected by a site or hierarchy node) can be moved into a paging area, you are asked if you want to move as many DECT base stations as possible or if the operation should be cancelled.

Note: The Paging area size is set in the DECT tab of the System settings menu (see section 6.5.1).

6.7.3 "CAPTURING" MENU

OMP supports the capture of DECT base stations that try to connect to OMM. These DECT base stations are assigned to OMM by DHCP options or OMM Configurator settings. Capturing is only accessible in **Configuration Mode**.

vailable tasks:

- Capturing: Start/stop capturing (active capturing is indicated with a green check mark)
- Add all: Add all captured DECT base stations to OMM
- Add selected: Add selected DECT base stations to OMM

157

SIP-DECT OM System Manual

- Remove all: Remove selected DECT base stations from list (without adding to OMM)
- Remove selected: Remove selected DECT base stations from list (without adding to OMM)
- Select columns: Select DECT base station capturing table columns to be shown

6.7.4 "ENROLMENT" MENU

The **Enrolment** menu allows import of DECT base station datasets using a configuration file. For information about required configuration file format see section 10.2.

- Click the File button.
- A file system dialog opens in which you can select the configuration file. The configuration file must be encoded in UTF-8.
- To check the results from reading the configuration file press the **Show log file** button. In case of file format errors these errors are listed here.

If reading of configuration file is successful, all DECT base station datasets read are shown in a newly created table. This table contains, apart from some DECT base station parameters, the **Status** column which shows the current import status for every DECT base station dataset:

- Not enrolled yet
- Enrolment failed
- OK (Enrolment successful)
- Start the import by selecting one of the following commands:
- Add all: Import all DECT base station datasets into the OMM.

Add selected: Import selected DECT base station datasets to the OMM. For selection activate the corresponding checkboxes in the DECT base station table.

Remove all: Remove all DECT base station datasets from table. The table will be hidden.

Remove selected: Remove selected DECT base station datasets from table. If the table is empty after removing of datasets, the table will be hidden. For selection activate the corresponding checkboxes in the DECT base station table.

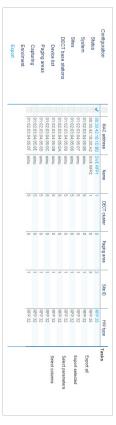
Show status: Show import status of a selected DECT base station dataset. If enrolment failed for this DECT base station, a message describing the enrolment error is shown.

Select columns: Select the columns that shall be shown in DECT base station table (see also 6.7.1.7).

6.7.5 "EXPORT" MENU

The **Export** menu allows export of all DECT base stations enrolled to the OMM to a ".csv" file. The generated file can be viewed with a standard spreadsheet application.

All enrolled DECT base stations are shown in a table.



The following tasks can be performed:

- Export all: Export all DECT base station datasets.
- Export selected: Export selected DECT base station datasets.
- file (select all DECT base station parameters or a subset of these parameters). Select parameters: Select DECT base station parameters to be written to the .csv
- Select columns: Select the columns to be written to the .csv file.

When the export begins, a file system dialog opens where you can select the export file name. If all section 6.7.3). For information about DECT base station export file format see Appendix, section 10.3) parameters are selected for export, the export file can be re-imported using the Enrolment function (see

6.7.6 "SYNC VIEW" MENU

graphical manner. The Sync view menu allows verification of the synchronization between DECT base stations in a

Note: For information on DECT base station synchronization, see section 7.2.



To open the task panel, click the arrow icon in the upper right corner of the Sync view panel.

The task panel is displayed on the right. The following tasks can be performed:

sync panel; else only selected RFPs are shown. Show all RFPs: If this checkbox is activated, all configured RFPs are shown in the

159

SIP-DECT OM System Manual

- RFP positions are fixed. RFP positioning: If this checkbox is activated, RFP positions can be changed; else
- Reset monitoring: Reset all active sync view monitoring relations
- Image: Select background image for sync panel
- Reset view: Reset selected view (zero coordinates are reset to the left upper corner of the sync view panel).
- Refresh RSSI: Request new RSSI values from OMM for active sync relations.

Viewing sync relations

DECT base stations for which sync relations shall be shown, can be selected as follows:

Select (more than one) DECT base station in device list table

윽

button while mouse cursor is on an DECT base station icon and select the Activate Monitoring command from the context menu. Activate DECT base station mouse menu in sync view: Press the right mouse

The color of the DECT base station icon indicates synchronization state of that DECT base station:

- Grey: Inactive
- Red: Not synchronized
- Yellow: Searching
- Green: Synchronized

Sync relations between DECT base stations are represented by arrows

Viewing RSSI values

The color of the arrows between DECT base stations is an indication of the RSSI value of the link:

- Red: RSSI < -90 dBm
- Orange: -90 dBm <= RSSI <= -70 dBm
- Green: RSSI > -70 dBm

If the mouse is moved over a DECT base station with monitoring activated, a tool tip with RSSI values is

You can use the RSSI threshold slider to limit the display of values in the tool tip.

6.7.7 "STATISTICS" MENU

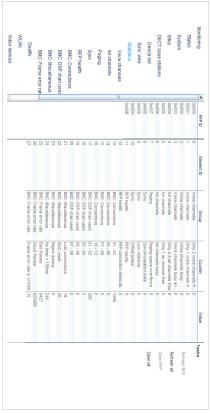
counters. It contains: The DECT base stations -> Statistics menu provides information about DECT base station statistics

- an overview panel with all statistics counters (see section 6.7.7.1)
- together (see section 6.7.7.2). multiple statistics group panels, where related statistics counter types are grouped

The menu is only available in **Monitor Mode**

6.7.7.1 DECT base station Statistics Overview

overview of all DECT base station statistics counters. The DECT base station statistics overview page contains a list of DECT base stations by ID, and an



The following tasks can be performed:

- statistics counters. Refresh RFP: Request counter update by OMM for selected DECT base station
- Refresh all: Request counter update by OMM for all DECT base station statistics
- Clear RFP: Clear all DECT base station statistics counters on selected DECT base
- Clear all: Clear all DECT base station statistics counters.

which shows more detailed information for that counter. for that DECT base station (right table). When a statistics counter entry is selected, a detail panel opens If a DECT base station is selected (left RFP ID table), the statistics counter table shows counter values

clear the selected statistics counter on the selected DECT base station by pressing the Clear button. The detail panel shows values for total occurrence and occurrence in current and last week. You can

6.7.7.2 DECT base station Statistics Group Panels

groups. This allows display of all statistics counters of a special group of all DECT base stations in one The DECT base station statistics group panels divide DECT base station statistics counters into logical

The group panels are listed under the Statistics menu entry in the left panel

Note that with SIP-DECT 6.0 or later, the statistic data collected by the BMC part of each DECT base station device (in the DECT MAC layer) are now shown with the DECT base station statistic data collected by the OMM

<u>161</u>

SIP-DECT OM System Manual

As an update between OMM and DECT base station usually occurs once every hour, it can take up to one hour for an event that increments a BMC statistic counter to appear in the OMP.

The following tasks can be performed:

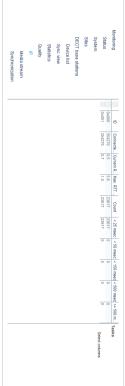
- Refresh RFP: Request counter update by OMM for selected DECT base station.
- Refresh all: Request counter update by OMM for all counters
- Clear group RFP: Clear counter group of selected DECT base stations.
- Clear group: Clear counter group of all DECT base stations.
- Clear RFP: Clear all counters of selected DECT base station
- Clear all: Clear all counters of all DECT base stations

6.7.8 "QUALITY" MENU

and OMM to RFP link quality (Roundtrip delay). network quality information for all DECT base stations. This includes Voice quality (Jitter, Packet lost) OMP provides a monitoring ability for critical IP network parameters. Administrators can check basic

The menu is only available in **Monitor Mode**

IP quality menu provides information about link quality between DECT base stations and OMM



Displayed parameters:

- ID: Radio fixed part identifier
- Connected time: Time the RFP is connected to OMM (sec)
- Current RTT: Current roundtrip time between RFP and OMM (msec)
- Max. RTT: Maximal detected roundtrip time between RFP and OMM
- Count: Number of roundtrip time measures
- < 25 msec: Number of roundtrip time measures lower than 25 msec
- < 50 msec: Number of roundtrip time measures between 25 and 50 msec
- < 150 msec: Number of roundtrip time measures between 50 and 150 msec
- < 500 msec: Number of roundtrip time measures between 150 and 500 msec
- >= 500 msec: Number of roundtrip time measures 500 msec and more

Available tasks:

Select columns: Columns to be shown in IP quality table

6.7.8.2 Media Stream

Media stream panel provides information about voice quality



Displayed parameters:

- ID: Radio fixed part identifier
- Connects
- **Duration (sec)**
- TX packets
- RX packets Lost packets
- Max. jitter(msec)

Available tasks:

Clear RFP: Clear values for selected RFPs

- Clear all: Clear values for all RFPs
- Select columns: Select media stream quality table columns to be shown

6.7.8.3 Synchronization

with bad synchronization coverage. Synchronization panel allows checking the synchronization status of RFPs which allows identifying RFPs

Synchronization monitoring can optionally be run in snapshoot mode. If this mode is activated, data update must be triggered by a user otherwise data were updated automatically anytime if new values arrive from OMM.

163

164

SIP-DECT OM System Manual



Available parameters:

- ID: Radio fixed part id
- **DECT cluster:** Cluster of the RFP
- Sync state: Synchronization state of the RFP
- Strong relations
- Low relations
- Max. RSSI (dBm)
- Min. RSSI (dBm)

Available tasks in media synchronization quality table:

- Snapshot mode: Enable snapshot mode (green check mark indicates snapshot mode is
- **Update**: Request data update in snapshoot mode
- Select columns: Select synchronization quality table columns to be shown

6.8 "WLAN" MENU

OMP supports configuration of WLAN profiles and provides an overview of wireless clients currently connected.

6.8.1 PROFILES

OMM supports up to 20 WLAN profiles, which can be added, changed and deleted in OMP configuration mode. Configuration and state of any WLAN profile can be checked in monitoring mode.

6.8.1.1 WLAN Profiles - configuration mode

WLAN profile configuration menu provides an overview of all configured WLAN profiles

| Licenses | System features | Conference rooms | DECT phones | Video devices | Profiles | WLAN | DECT base stations | Sites | System | Status | Configuration |
|----------|-----------------|------------------|-------------|----------------|----------------------|---------------------|--------------------|-------------------|--------------|--------|--------------------------|
| | | | | | | | | | | | D |
| | | | | | | | | | | | Enabled |
| | | | | | | | | | | | Profile type |
| | | | | | | | | | | | Mode |
| | | | | | | | | | | | SSID 1 |
| | | | | | | | | | | | DECT base stations Tasks |
| | | | | Select columns | Configure MAC filter | Delete all profiles | Delete profile | Configure profile | Create prome | | Tasks |

The following tasks are available in this menu:

- Create profile: Create a new WLAN profile (available if the maximal number of 10 WLAN profiles is not yet reached)
- Configure profile: Reconfigure selected profile
- **Delete profile**: Deletes a selected profile (only available if selected profile is not in use by any Radio fixed part)
- Delete all profiles: Deletes all existing profiles (only available if none of these profiles is in use by any Radio fixed part)
- Configure MAC filter: Add, configure, delete MAC filter for selected profile
- Select columns: Select WLAN profile table columns to be shown

6.8.1.2 WLAN Profiles Monitoring Mode

WLAN profile monitoring menu shows all configured WLAN profiles.

The following tasks are available:

Show MAC filter: Show configured MAC filter of selected WLAN profile

Show Profile: Show details of selected WLAN profile

Select columns: Select WLAN profile table columns to be shown

6.8.1.3 WLAN Profile Detail Panel

WLAN profile detail panel is used to create, reconfigure or show a profile. It consists of different tabs which are used for general settings of WLAN profile, SSID configuration and SSID security settings.

WLAN profile detail panel is opened if one of the following tasks is performed in WLAN profile menu:

- Create profile (configuration mode)
- Configure profile (configuration mode)
- Show profile (monitoring mode)

The "General" tab is always shown and configures/shows general settings of this profile like enabling of profile and profile type.

MP)

SIP-DECT OM System Manual

| OK | | | | | | | Avoid interferences | Profile enabled | General SSID selection |
|--------|-------------------------|---------------|---------------|-----------------|------------------|-----|---------------------|-----------------|------------------------|
| Са | | | | | | | | < | SSD 1 general |
| Cancel | Fragmentation threshold | RTS threshold | DTIM interval | Beacon interval | Maximal bit rate | WME | 802.11 mode | Profile type | SSID 1 security |
| | 2346 | 2347 | 5 | 100 | | | 802.11n | RFP43 | |
| | Bytes | Bytes | Beacons | msec | Mbps | | < | 4 | |

The "SSID selection" tab is used for enabling of SSIDs. At least "SSID 1" is always enabled. "SSID 2", "SSID 3" and "SSID 4" can be activated optional.

| | 000 | 225 | SSID 3 | SSID 2 | SSID 1 | | General |
|--------|-----|-----|--------|--------|--------|-----------|---|
| OK | | | | | | Configure | SSID selection |
| Ω | | | | | | e Name | SSID 1 general |
| Cancel | | | | | | | General SSID selection SSID 1 general SSID 1 security |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

The "SSID x general" tab is shown for any activated SSID. Among other things, you can use it to select Security type.

| OK OK | Hidden SSID mode | Use MAC access filter | BSS isolation | Security type | VLAN tag | SSID enabled | General SSID selection |
|--------|------------------|-----------------------|---------------|---------------|----------|--------------|--|
| Cancel | | | | Open | | | General SSD selection SSD 1 general SSD 1 security |

165

A tab "SSID x security" is shown as well. It is accessible only for SSIDs with security type set to "WEP" or "WPA". If security type stays at "Open" this tab is inactive. It allows setting of all necessary security parameters for this SSID.

6.8.1.4 MAC Access Filter Detail Panel

MAC access filter detail panel in configuration mode allows the adding, configuring and deleting of MAC access filters. File import and export of MAC access filters is supported as well.

Monitoring mode shows all configured MAC access filters only.

MAC access filter detail panel is opened if one of the following tasks is performed in WLAN profile menu:

- Configure MAC filter (configuration mode)
- Show MAC filter (monitoring mode)

The "General" tab in configuration mode shows all configured MAC access filter.

The following actions are available:

- Create: Create new MAC access filter
- Configure: Change name of selected MAC access filter
- Delete: Delete all selected MAC access filter

The "Import" tab (configuration mode only) provides import of a list of MAC access filter from file.

The "Export" tab (configuration mode only) provides export of all configured MAC access filters to file. If no MAC access filter is configured, this tab is inactive.

6.8.1.5 Clients

WLAN clients menu which is available in monitoring mode only, shows all currently connected wireless clients.

6.9 "VIDEO DEVICES" MENU

The Video devices panel lists all configured video devices. The device list is available in Configuration Mode as well as in Monitor mode.

New video device entries show up automatically after they are connected to and recognized by a DECT base station. The **Plugged** and **State** columns shows the following states:

- X / unplugged Video device is not connected.
- / plugged Video device is connected.
- / started Video device is being watched in the OM Locating application.
- / stopped Video device is connected but disabled in the OMP.

The **Tag** column shows the USB ID of the connected video device. The **USB path** column shows the USB port number to be used, e.g. "1" is a video device connected directly to the RFP while "1.1" indicates an indirect connection using an USB hub.

The tasks which can be performed are mode-dependant.

167

SIP-DECT OM System Manual

| Configuration mode | Monitor mode | See section |
|--|--|-------------|
| Configure : Configure selected video device in detail panel | | 6.9.1 |
| | Show details: Show selected video 6.9.2 device in detail panel | 6.9.2 |
| Delete : Delete selected disconnected video device | | 6.9.3 |
| Filter: Show only video device entries in table which contains a special search string | Filter: Show only video device entries in table which contains a special search string | 6.9.4 |

6.9.1 CHANGING VIDEO DEVICES

Changing video devices is only possible in **Configuration Mode**. To change the configuration of an existing video device, do the following:

- Select the appropriate video device in the video devices table.
- 2 In the task bar on the right of the Video devices panel click on the Configure command.

The video device detail panel opens.

- 3 Change video device parameters, see description below.
- 4 Press the **OK** button.

Please note: You cannot change the configuration for a video device that is being watched in the OM Locating application (State column shows "active"). You must disable the video device first by deactivating the Active option.

The following parameters can be set in the General tab of the Video devices panel:

- Active: Disable this option to switch off the video device. This also switches off the status LED of the video device immediately (if applicable).
- Name: Enter a meaningful name for the video device.
- **Building, Floor, Room**: For easier localization of the video device you can enter data in these fields.
- Resolution: Select a resolution for the video device. Higher resolutions require more bandwidth when watching the video image in the OM Locating application.

 Note, that not all video devices support all available resolutions. Default: "VGA (640 x 480)".
- Frame rate: Select a frame rate (2-10 frames per second). Higher frame rates require more bandwidth when watching the video image in the OM Locating application.

6.9.2 VIEWING VIDEO DEVICE DETAILS

You can view the configuration of a video device in monitor mode. Proceed as follows:

- 1 Select the appropriate video device in the video devices table.
- 2 In the task bar on the right of the Video devices panel click on the Show details command.

The video device detail panel opens (see 0).

Click Cancel to close the video device detail panel.

6.9.3 DELETING VIDEO DEVICES

devices proceed as follows: Deleting video devices is only possible in Configuration Mode. To delete one or more existing video

- 1 Select the appropriate video device(s) in the video devices table by activating the corresponding checkbox(es). Note that you can only delete disconnected video devices.
- 2 In the task bar on the right of the Video devices panel click on the Delete command.
- The Delete selected video devices(s) dialog opens showing a confirmation prompt.
- 3 Confirm the displayed prompt with OK.

6.9.4 FILTERING VIDEO DEVICE TABLE

You can filter the list of video device entries shown in the video devices table by using a filter.

- 1 In the task bar on the right of the Video devices panel click on the Filter command. The Filter dialog opens.
- 2 Enter the search string that serves as filter criterion. You can enter digits and characters. The search is case sensitive.
- 3 Click on the Filter button.

The Filter dialog is closed and the video device table will be adapted accordingly

- 4 To reset the filter, click on the Filter command in the task bar on the right of the Video devices panel
- 5 In the Filter dialog click on the Reset button.

6.10 "DECT PHONES" MENU

DECT phone datasets can be configured and viewed in the **DECT phones** menu. The **DECT Phones** menu contains different submenus. Each submenu displays its own table of DECT phone datasets.

| Configuration mode | Monitor mode | See section |
|---|--|-------------|
| Overview : Displays all user and device-related DECT phone data | Overview: Displays all user and device- 6.10.1 related DECT phone data | 6.10.1 |
| Users:Displays all DECT phone user data | | 6.10.2 |
| Devices: Displays all DECT phone device Devices: Displays all DECT phone data | | 6.10.3 |
| | User monitoring : Displays the status of 7.29.7.3 all monitored users | 7.29.7.3 |
| | | |

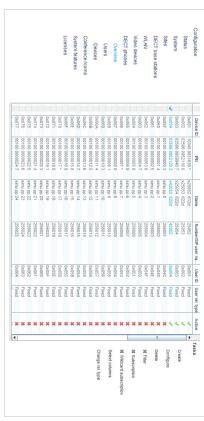
170

169

SIP-DECT OM System Manual

6.10.1 "OVERVIEW" MENU

In the **Overview** panel, all user-related and device-related DECT phone data are listed in a table. The overview is available in Configuration Mode and Monitor mode.



device are permanently associated). In Configuration Mode, the Overview panel allows you to create fixed DECT phones (i.e., user and

The Active column shows the following states:

- igwedge DECT phone is not subscribed to the system
- \checkmark DECT phone is subscribed to the system.

Note: If the **Active** column is not displayed, you can activate it in the Select columns dialog, see section 6.10.9.

Device ID columns are also activated. To view the user-device-relation, ensure that the User ID and

Registered, Registrar server type, Registrar server and Registrar port columns. See section 6.10.9 for information on selecting columns and section 7.20.6 for information on the SIP registration status. In monitor mode you can view the registration status of a DECT phone user by activating the

| Monitoring | Device ID | PE | Subscri. | Subscri Number/SP Last action | Last action | RFP ID | 8 | ММ | hfo | Registe | | Tasks |
|--------------------|-----------|--------------|----------|-------------------------------|--------------------|--------|---|----|-----|---------|----|----------------|
| | 0x001 | 10345 003163 | < | 25052 | 25.01. 21:42 0x000 | 0×000 | | | | 4 | Þ | |
| Status | 0x002 | 03586 095211 | 4 | 25053 | 25.01. 22:12 0x00: | 0x001 | | | | 4 | | |
| Svetem | 0x003 | 03586 095094 | < | 25054 | 25.01, 20:42 0x00 | 0x001 | | | | < | | Show details |
| Oyotelli. | 0x004 | 03586 095212 | 4 | 42052 | 25.01. 22:25 0x000 | 0x000 | | | | 4 | | |
| Sites | 0x05F | 00100 000000 | × | 256001 | | | | | | × | | at riter |
| | 0x060 | 00100 000000 | × | 256002 | | | | | | × | IL | 4 |
| DECT pase stations | 0x061 | 00100 000000 | × | 256003 | | | | | | × | | es Log evento |
| WLAN | 0x062 | 00100 000000 | × | 256004 | | | | | | × | | Select columns |
| i | 0x063 | 00100 000000 | × | 256005 | | | | | | × | | |
| Video devices | 0x064 | 00100 000000 | × | 256006 | | | | | | × | | |
| DECT PROPERTY | 0x065 | 00100 000000 | × | 256007 | | | | | | × | | |
| DECI pilolies | 0x066 | 00100 000000 | × | 256008 | | | | | | × | | |
| Overview | 0x067 | 00100 000000 | × | 256009 | | | | | | × | | |
| | 0x068 | 00100 000000 | × | 256010 | | | | | | × | _ | |
| Devices | 0×069 | 00100 000001 | × | 256011 | | | | | | × | _ | |
| User monitoring | 0x06A | 00100 000001 | × | 256012 | | | | | | × | | |
| | 0x06B | 00100 000001 | × | 256013 | | | | | | × | | |
| Conference rooms | 0x06C | 00100 000001 | × | 256014 | | | | | | × | | |
| | 0x06D | 00100 000001 | × | 256015 | | | | | | × | | |
| System realures | 0x06E | 00100 000001 | × | 256016 | | | | | | × | | |
| Licenses | 0x06F | 00100 000001 | × | 256017 | | | | | | × | | |
| | 0x070 | 00100 000001 | × | 256018 | | | | | | × | | |
| | 0x071 | 00100 000001 | × | 256019 | | | | | | × | | |
| | 0x072 | 00100 000001 | × | 256020 | | | | | | × | | |

The tasks you can perform are mode-dependant.

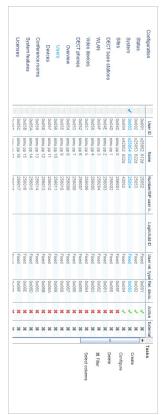
| Configuration mode | Monitor mode | See section |
|---|---|-------------|
| Create: Create new fixed DECT phone dataset in detail panel | | 6.10.5 |
| Configure: Configure selected DECT phone user and device dataset in detail panel | | 6.10.6 |
| | Show details: Show selected DECT phone user and device dataset in detail panel | 6.10.4 |
| Delete: Delete selected DECT phone user and device dataset (in case of fixed relation) or delete DECT phone user and set device to unbound status (in case of dynamic relation) | | 6.10.8 |
| Subscription : Start DECT phone subscription | | 6.10.7 |
| Wildcard subscription: Start DECT phone wildcard subscription | | 6.10.7 |
| Select columns: Select columns/parameters to be shown in DECT phone table | Select columns: Select columns/parameters to be shown in DECT phone table | 6.10.9 |
| Filter: Show only DECT phone datasets in table which contain a special search string | Filter: Show only DECT phone datasets in table which contain a special search string | 6.10.10 |
| Change rel. type : Change the DECT phone relation type | | 6.10.11 |
| | Log events: Enable/disable DECT phone event log | 6.10.11 |

171

172

SIP-DECT OM System Manual

6.10.2 "USERS" MENU



In the **Users** panel, all DECT phone user data are listed in a table. The **Users** panel allows you to create (unbound) users (which should be able to login and logout at a device).

Note: Use the **Select columns** dialog (see section 6.10.9) to display the desired DECT phone user data.

The following tasks can be performed:

- Create: Create new unbound DECT Phone user dataset (see section 6.10.5).
- Configure: Configure selected DECT Phone user dataset (see section 6.10.6).
- **Delete:** Delete selected DECT Phone user dataset. Also delete device data in case of a fixed relation (see section 6.10.8).
- **Select columns**: Select parameter columns to be shown in table (see section 6.10.9).
- Filter: Filter DECT phone datasets shown in table for string set in filter mask (see section 6.10.10).
- Change rel. type: Change the DECT phone relation type (see section 6.10.11).

6.10.3 "DEVICES" MENU

In the **Devices** panel, all DECT phone device data are listed in a table. The **Device** panel allows you to configure the DECT part of a DECT phone device dataset.

Devices cannot be created separately. They are created automatically during subscription (unbound) or they are created fixed bound to a user when a user is created in the **Overview** submenu.



Note: Use the **Select columns** dialog (see section 6.10.9) to display the desired DECT phone device data.

The following tasks can be performed:

- Configure: Configure selected DECT phone device dataset (see section 6.10.6).
- **Delete**: Delete selected DECT phone device dataset (see section 6.10.8).
- Subscription: Start DECT phone subscription (see section 6.10.7).
- **Wildcard subscription**: Start DECT phone wildcard subscription (see section 6.10.7).
- **Select columns**: Select parameter columns to be shown in table (see section 6.10.9).
- Filter: Filter DECT phone datasets shown in table for string set in filter mask (see section 6.10.10).

6.10.4 DEVICE DETAIL PANEL

The **Device detail** panel is used for configuration/showing of device settings and creation of new DECT phone datasets

To open the **Device detail** panel,

 choose one of the commands in the task bar on the right of the DECT Phones panel (Configure)

q

double-click on the appropriate device entry in the device table

The **Device detail** panel contains the different parameter groups sorted in tabs. The tabs displayed depend on the current mode and the panel from which the DECT phone detail panel was invoked.

 Overview panel (configuration and monitor mode): The DECT phone detail panel contains all tabs listed below.

173

174

SIP-DECT OM System Manual

- User panel (configuration mode): The DECT phone detail panel contains all tabs but not DECT.
- Device panel (configuration mode): The DECT phone detail panel contains only DECT.

6.10.4.1 "General" tab

The General tab contains general settings for the DECT phone dataset.

- Name: The DECT phone user name (up to 20 characters).
- **Number:** The DECT phone telephone number, up to 31 characters (1234567890"#azAz+-_.!\$%&!()=?\$&). Please be aware that only """, "#" and "0" to "9" can be dialed with a DECT phone.
- **Description 1** and **Description 2**: Free text comments with up to 16 characters each.
- Login/Additional ID: The additional ID can be used as a mean for data search
 within wildcard subscription (because of the IPEI is not configured which selects the
 data otherwise).
- PIN, PIN confirmation: A user PIN to be entered during user login.

Note: The attempt to set the user PIN to an empty string sets the PIN to the default value "0000".

6.10.4.2 "SIP" tab

The SIP contains the SIP authentication parameters for the DECT phone dataset.

- Authentication user name: The SIP Authentication user name is optional but recommended. It represents the name which will be used during SIP registration and authentication. If no name is given the number will be used by default.
- **Password**, **Password confirmation**: The password will be used during SIP registration and authentication. Enter the appropriate data in these fields.
- **VIP**: Enable this option if the registration of this user should be prioritized (default off). VIP users will be registered first. For more information on prioritized registration see section 7.20.5.
- **Used for visibility checks**: Enables the use of this user account to check the availability of the iPBX (e.g., in fail over situations). See section 7.20.7 for more information on this feature.
- **Fixed port**: Specifies the port used explicitly for SIP signaling. If set to 0, an automatically calculated port is used. The default is 0. See section 3.17 for more information on this feature.

6.10.4.3 "Incoming calls" tab

The Incoming calls tab allows you to set device-specific settings for auto-answering incoming calls. Default values for all parameters are inherited from global settings (see section 6.5.4.7).

- Auto answer: Enables or disables auto-answer on incoming calls.
- Microphone mute: Enables or disables microphone muting when incoming calls are automatically answered.
- **Warning tone**: Enables or disables warning tone on incoming call. A short ringtone is played if there are no active calls. If there is an active call in a "barge in" situation, the ringing will be in-band
- Allow barge in: Allows/disallows "barge-in" on existing calls

6.10.4.4 "Conference" tab

The Conference tab contains parameters for three-way conferencing for the DECT phone dataset

- Server type: Determines the conference service to be used for three-way conferencing. Possible values are:
- None: Disables 3-way conferencing.
- Global: The OMM system setting is used (default).
- Integrated: The integrated conference server is used
- External: An external conference server is used.
- External Blind Transfer: An external conference server is used (e.g., MiVoice Business). The initiation of the conference is signaled as a blind transfer to the destination specified in the URL parameter.
- URL: Address of an external conference server (field only activated if the server type is "External").

For more information see section 7.20.7.

6.10.4.5 "DECT" tab

The DECT tab contains parameters DECT configuration of the DECT phone dataset. When configuring a device (see 6.10.3), only the **DECT** tab is shown in the DECT phone detail panel.

- IPEI: This optional setting is the DECT phone IPEI number. On a Mittel DECT 142/
 Mittel 142d DECT phone, the IPEI can be found via the following path of the device
 menu: Main menu > Phone settings > System. On a Mitel 600 DECT phone, the
 IPEI can be found in the System device menu. Consult the DECT phone's user
 guide for further information.
- DECT authentication code: The DECT authentication code is used during initial
 DECT subscription as a security option and can be set here for each DECT phone
 device separately (DECT phone-specific DECT authentication code). If no DECT
 phone-specific DECT authentication code is set, the system-wide DECT
 authentication code is used.
- Encryption: If the encryption feature is enabled for the whole system (in the System settings menu, see section 6.5.1), you can de-activate the DECT encryption for this device.

Please note: The DECT phone device must support DECT encryption which is not a mandatory feature.

175

SIP-DECT OM System Manual

- Subscribe to PARI only: Ensures that the DECT phone subscribes to the PARK
 code (of a single OMM, within a Dual Homing installation) and not to the SARI. This
 option is only available for fixed user device pairs, and must be set before
 subscription takes place. For this reason, you should set the parameter immediately
 when creating the DECT phone device.
- Delete subscription: This option is only available when configuring an existing DECT phone. If this option is activated, the subscription data will be deleted which also requires a re-subscription of the DECT phone device.

10.4.6 "Messaging" tab

The Messaging tab contains parameters for the OM Integrated Messaging and Alerting service on the DECT phone dataset.

If a user is created independent of any specific configuration, the **Sending messages** and **Sending vCards** features are enabled by default.

- Sending messages permission: If this option is enabled, the DECT phone can send messages (if this function is supported by the device).

 Note: Experimental property of the devices of the device of t
- For further information see the document SIP-DECT OM Integrated Messaging & Alerting Application Installation, Administration & User Guide.
- Sending vCards permission: Allows the user to send personal directory entries as a vCard message from the DECT phone to other users (if this function is supported by the device).
- Receiving vCards permission: If this option is enabled, all received vCard
 messages are automatically processed and written into the personal directory of the
 DECT phone (if this function is supported by the device).

6.10.4.7 "Locating" tab

The Locating tab contains parameters for configuring location parameters for the DECT phone.

- Locating permission: This option applies to Mitel 600 DECT phones only. If this option is enabled, the user is allowed to determine the location of other DECT phones. The main menu of the Mitel 600 DECT phones provides an extra Locating menu entry for this function.
- Tracking: If this option is 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, because it activates a DECT base station update if the device roams and is not in communication. You also cannot enable this feature, if the DECT locatable option is disabled
- DECT locatable: If this option is enabled, the DECT phone is locatable. Either with the OM Locating application or by querying it's location from other DECT phones.

6.10.4.8 "Additional services" tab

The Additional services tab contains additional optional parameters for the DECT phone dataset

- SOS number: User-specific SOS number that is dialed automatically if the SOS key on the DECT phone is pressed.
- ManDown number: User specific "Man down" number that is dialed automatically if a Man down event happens. This event is triggered by the sensor of a Mitel 600 DECT phone.

If no individual SOS or Man down number is configured for a DECT phone, the number of the appropriate alarm trigger will be used as calling number in case of a SOS or Man down event. Please see /31/ for details.

- Voice mail number: The number that will be automatically called as soon as a
 voice mail call is initiated on the Mitel 600 DECT phone. If there is no individual
 voice mail number configured in this field, then the system-wide voice mail number
 is used (see also the System setting menu, section 6.5.1). If there is no voice mail
 number configured (neither the individual nor the system-wide) or another DECT
 phone type is used, then the voice mail number must be configured locally in the
 DECT phone.
- Keep personal directory: Activate this option, to keep the personal directory data in the DECT phone if the user logs out.
- External: A user data set can either be provisioned on an external user data server
 or locally in the OMM database. To provide an easy way to change the provisioning
 storage of user data sets, the user data sets can be moved from an external user
 data server into the local OMM database and vice versa.

Deactivate the **External** option if you want to move user data sets from an external user data server into the local OMM database.

External to internal transformation rules: To change a user data set from an external user data server to an internally provisioned one, the following conditions must be applied to the data set:

- external provisioned on an external user data server
- user data set device relation must not be "fixed"

Internal to external transformation rules: To change a user data set from local OMM database to an external user data server provisioned one the following conditions must be applied for the data set:

- external provisioned on an external server
- user data set device relation must not be "fixed"
- an external user data server must be available
- Video stream permission: Activate this option to allow video streaming on the Mitel 602 DECT phone. See section 7.28 for details on this feature.
- Hot desking supported: Enables or disables Hot desking functionality (for SIP-DECT systems using the MiVoice Business platform). Only available for users with a dynamic association with a DECT phone. When enabled, the user is registered as a Hot Desking user on the MiVoice Business call server. See section 3.14 for details on this feature.
- Auto logout on charging: Enables or disables automatic user log out on the DECT phone when the device is placed in the charger cradle. Only available for users with a dynamic association with a DECT phone. Note that the Silent charging option must be enabled on the DECT phone.

IL FOILAI (OMF)

SIP-DECT OM System Manual

 Authenticate logout: Enables or disables whether it is necessary for the user to authenticate in case of logout.

6.10.4.9 "User monitoring" tab

The User monitoring tab contains parameters to configure the user-specific parameters for the User Monitoring feature. For a description of the parameters which can be set in the **User monitoring** tab see the description in section 7.29.7.2.

6.10.4.10 "Configuration data" tab

The Configuration data tab allows you to assign a Configuration over Air (CoA) profile to a DECT phone user. See section 7.23 for more information on this feature.

- **Profile id:** Specifies the CoA configuration profile you want to assign to the DECT phone user.
- Note: When a COA profile is deleted, its profile ID assignment to DECT phone users remains. If a new CoA profile is created and acquires this profile ID (the IDs are assigned in sequential order), any DECT phone users with the old profile ID are automatically assigned to the new CoA profile.

If you do not want the DECT phone users to automatically inherit any new CoA profile that has the profile ID, you must remove the profile ID assignment manually.

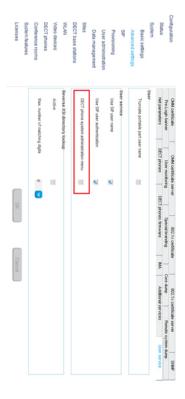
6.10.4.11 "User service" tab

The User service tab allows you to specify parameters related to user authentication for XSI services.

- Use SIP user name: Specifies whether the XSI user name is taken from the user's SIP data. The generated format is <sip user name>@<sip registrar domain>.
 Possible values are Global, On, or Off.
- Use SIP user authentication: Specifies whether the XSI authentication name and
 password are taken from user's SIP data. The generated format is <sip
 authentication name>@<sip registrar domain>. Possible values are Global, On, or
 Off
- User name: Specifies the user's user name for the XSI service (if Use SIP user name is set to Off). The username is part of the access url path of a XSI request (e.g., /com.broadsoft.xsi-actions/v2.0/user/<service user name>/directories/Enterprise?firstName=A*).
- Authentication name: Specifies the name to authenticate the user for XSI services (if Use SIP user authentication is set to Off).
- **Password confirmation**: confirms the password to authenticate the user for XSI services.

Password: Specifies the password to authenticate the user for XSI services.

177



Please note: As of SIP-DECT 8.0, the access to the system configuration through the the menus through OMP DECT phone UI is disabled by default to improve system security. The user can enable

6.10.4.12 "Key lock" tab

support and the roaming between OMMs in a MOM setup 8.0 and the DECT phone SW 7.2, the key lock PIN is managed by the OMM to improve the shift worker The Mitel 600d DECT phone family offers an optional PIN to protect the DECT Phone. For SIP-DECT

SIP-DECT system. The local DECT phone key lock PIN settings are suppressed if the DECT phone is subscribed with a

the DECT phone UI in System menu/ Administration/ Key lock The key lock with PIN can be managed through OMP, OMM configuration files and by the user through

system. Therefore, data changes in the SIP-DECT system are prevented here is no option to update data towards the provisioning platform when changed in the SIP-DEC <u>user data are provisioned through user.cfg files, then the provisioning platform is the data master and</u> Note that this is not possible for external users, that is, users who are provisioned through user cfg file.

179

180

SIP-DECT OM System Manual



The update to SIP-DECT 8.0 causes a reset of the DECT phone key lock PIN to default "0000"

6.10.5 CREATING DECT PHONE DATASETS

phone dataset or only the DECT phone user data. Creating DECT phone datasets is only possible in Configuration Mode. You can create the fixed DECT

To create a DECT phone dataset, do the following:

- 1 Click Create under the Task list on the right-hand side of the DECT Phones window.
- In the Overview submenu you can create a fixed DECT phone dataset (with combined user and device data).
- In the Users submenu you can create an unbound user. This user can login and log out on any configured device.

The DECT phone detail panel opens and provides tabs where the DECT phone data must be entered

- Configure the DECT phone, see parameter description in section 6.10.4.
- 3 Press the OK button.

6.10.6 CONFIGURING DECT PHONE DATASETS

DECT phone dataset proceed as follows: Configuring DECT phone datasets is only possible in Configuration Mode. To configure an existing

- 1 Select a DECT Phone from the table, and click **Configure** under the Task list on the right-hand side of the **DECT Phones** window.
- data). In the Overview submenu you can configure the whole DECT phone dataset (user and device
- In the Device submenu you can configure the DECT phone device data

In the Users submenu you can configure the DECT phone user data

The DECT phone detail panel opens.

- 2 Change the DECT phone dataset as desired, see parameter description in section 6.10.4
- Press the **OK** button.