



Snom M3 corporate setup

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1.0 Snom M3 features

Technical Details
Technology used: DECT GAP
Range : Up to 50 metres indoor range, 300 metres outdoors. Range can be doubled by using snom DECT repeaters.
Operating time: 10 hours talk time, 100 hours standby time.
Power source: The gateway uses a 12v DC charger. Handsets use 5v DC. POE is not currently supported.

VOIP Information
Supported Codecs: G711, G729AB, iLBC.
DTMF tone sending supported.
Number of handsets that can be connected to the gateway: 8.
Number of VOIP lines consecutively available: 3.
SIP configuration via web interface or from the handset itself.

Interface
Backlit 128x128 pixel display, 65536 colours.
Menu driven user interface.
Clock and battery charge levels indicated.
Clock configuration using NTP, daylight saving supported.
Display missed, received and dialled calls (20 entries maximum).
An address book can be configured per phone or a central address book can be stored in the gateway unit (170 entries maximum).
Key lock option.
Speakerphone activated using side-button.

Call Features
Hold.
Transfer (warm and cold transfer).
Conferencing (limited to 3 phones).
Caller ID.
Intercom feature between handsets provided by the M3 gateway.
Voicemail indication (mail services provided by Centrex platform).

2.0 Usage scenarios

The snom M3 offers users and businesses mobility. Users can clip the M3 handset to their belt and will not need to be tied to a desk area in order to answer calls. In some cases this may also alleviate the need to have a separate phone in several rooms.

The snom M3 wireless solution can be used wherever mobility is desired, typical examples would be :

- Businesses with distributed premises where people will be away from their desks (or outside) for example : Vets, animal rescue hospitals, large warehouses, garden centers.
- Home workers; especially home workers on call who may not be in convenient range of a phone all of the time.



3.0 M3 setup before going on-site

Before taking the M3 gateway to site you should :

1. Create a unique identifier for each handset and add this to the **Hardware** list of the CAP for each handset in the organisation.
2. The unique identifiers of each handset should be added to the onsite Freeport.

3.1 Finding each handsets unique identifier

Whereas we can identify each snom 300 or 320 by it's MAC address, the M3 gateway has a MAC address but each individual handset needs to be identified when it registers. Although fake MAC addresses could be used, it is preferable to use the IPEI of each handset since these are unique.

To find the IPEI of a handset :

1. Click the central button of the handset.
2. Scroll up to **Settings**.
3. Scroll to **Handset ID** and click the central button.
4. The **IPEI** number will be displayed.

3.2 Adding the IPEI to the CAP

1. Login to the CAP as super-admin.
2. Click **Hardware, Add Devices**.
3. Populate the **Device Identifier, Username** and **Password** fields with the handset's IPEI number.
4. From the **Manufacturer** drop-down select **SNOM Technology**.
5. For **Model** select **SNOM 320**.
6. Click **Update Device** and confirm changes.

3.3 Adding the IPEI to the Freeport (if Freeport proxying is used)

If the snom M3 is connecting to the SIP registrar through a freeport proxy, The following action needs to be taken.

1. Login to the IP address of the client's Freeport.
2. Enter the Freeport username and password.
3. Under **System Management** click **IPFreeport Users**.

System Management

[IPFreeport Users](#)
[Directory](#)
[Core User list](#)
[Firmware Updates](#)
[Additional devices](#)

4. Click **Current HW**.
5. Click **Add**.
6. Enter the IPEI of the handset.



MAC address

7. Click **Add**.

4.0 On Site pre-configuration

4.1 Gateway setup

1. Plug in the gateway to an ethernet connection which is a part of the telephony network.
2. Plug in the gateway power supply.
3. The power light should come on.
4. The network light should flash while the gateway receives its IP over DHCP.
5. Once an IP address has successfully been resolved the network light will become solid.

If the network light fails to go solid, check which VLAN the network is using and then set this up using the handset.

4.2 Handset registration

1. Turn on the handset.
2. Click the centre button and then select the spanner icon **Settings**.
3. Select **System Settings**.
4. Enter the password '0000'.
5. Select **Handset Settings**.
6. Select **Deregister Handset**.
7. Place the handset in the gateway as requested on the phone interface. Reset the gateway by pressing the reset button on the back-left of the gateway.

The handset should read **Searching for gateway**.

Once the gateway has been found, the handset will display the handset name and time. In the top-left corner of the handset, a single red hemisphere will be displayed.

4.3 Gateway VLAN setup

On the handset:

1. Click the centre button.
2. Click the centre button and then select the spanner icon **Settings**.
3. Select **Network Settings**.
4. Enter the password '0000'.
5. Select **Virtual LAN ID**.
6. Enter the correct VLAN for the clients network and push the **Back** button.
7. Choose to save the configuration when prompted.
8. Reset the gateway by pressing the reset button on the back-left of the gateway.
9. After a brief wait, the network light on the base station should become solid.



Finding the gateway IP address

To find the gateway IP address push the volume up button on the left side of the handset **gateway IP Address** = the gateway IP.

4.4 Setting up a SIP connection

1. Log into the IP address of the gateway using an Internet browser.
2. If prompted for a password, enter admin for both username and password (this is default).
3. The M3 gateway home screen will be displayed.

The screenshot shows the SNOM M3 web interface. The top right corner displays 'SNOM M3'. On the left is a yellow sidebar with navigation links: Operation (Home), Setup (Identity 1-8, Advanced, Telephony Settings), Status (Log, SipLog), and Manual (snom VoIP phones logo). The main content area is titled 'Configuration Identity 1' and contains the following fields:

- Server is local: No (dropdown)
- Display Name: Handset 1
- Account: (empty)
- Password: (empty)
- Account Name: Identity 1
- Account Mailbox Name: mailbox@8el.com
- Account Mailbox Number: 600
- Registrar: (empty)
- Outbound Proxy: (empty)
- Authentication Username: (empty)
- Server Port: 5060
- Outbound Proxy Port: 5060
- Re-registration time: 600
- Registrar Config: Add domain (dropdown)
- DTMF Signalling: RFC 2833 (dropdown)
- Codec Priority: PCMA (list with Up, Down, Reset, Remove buttons)

The Snom M3 Home Screen

1. Click **Identity 1**.
2. Enter a **Display Name** for the handset. This is the name which will be shown on the handset when it is switched on.
3. Enter the IPEI number of the handset into the **Account** and **Password fields**.
4. **Account name** can be left as **Identity 1**.
5. For **Account mailbox name** enter **Mailbox@8el.com**.
6. Set **Mailbox Number** to the extension normally used to pickup voicemail (usually 600).
7. Check the **Registrar** and **Outbound Proxy** being used by the client and enter these details into the **Registrar** and **Outbound Proxy** fields. If there are snom 300 or 320's already onsite you can check these details by opening the web configuration screen for one of these phones.
8. Set the codec to PCMA by moving this to the top of the codec list and removing other codecs.
9. Click **Save** and **Reboot**.



10. Open the M3 Web interface once again. If successful, the handset will have registered. The **Identity (nr) Status line** shown in the gateway's home screen should read **OK**.

Welcome
Please select a configuration page in the index pane on left

System Information:
Phone Type: snom-m3-SIP
MAC-Address: 0004132A3B83
IP-Address: 192.168.7.128
Firmware-Version: snom-m3-SIP/01.11//03-Apr-08 12:49
Firmware-URL: http://provisioning.snom.com/m3/firmware/

SIP Identity Status:
Identity 1 Status: 013414055556@10.11.7.30 OK

M3 Registration Status

11. Other possible status messages are :
 - a. Error: This means that the SIP registrar is incorrect or if registration is taking place through the ipFreeport that the IPEI of the handset has not been added to the Freeport.
 - b. Not in use: the IPEI has not been added to the CAP, or the IPEI is incorrectly entered.

Repeat this process for each handset connecting to the gateway.

4.5 Setting up NTP

1. From the M3 Browser interface click **Advanced**.
2. Scroll down to **Time Settings**.
- 3.

Time Settings:

Time server:	<input type="text" value="192.168.7.100"/>
Time server refresh interval:	<input type="text" value="255"/>
Automatic Sync Clock:	<input type="button" value="Enable"/> ▾
Timezone:	<input type="text" value="0"/> ▾
Daylight Saving Time (DST):	<input type="button" value="Automatic"/> ▾

M3 Time Settings

4. In **Time Server** enter the IP address of the NTP server (this is normally the Freeport IP).
5. Set **Automatic Sync Clock** to OK.
6. For time synchronisation to occur immediately click **Save Changes** and **Reboot**.



5.0 Setting up VOIP lines /groups

The SNOM M3 can set up basic call-groups by allowing each handset to monitor the other identity lines. Because of clashes with call-groups through the CAP this should be avoided. Each handset should be connected to only a single identity.

To set this up open the M3 browser and click **Telephony Settings** :

The screenshot shows the 'Telephony Settings' page with the heading 'Destination for incoming call:'. Below this is a table with 'Identity number' as the column header and 'Handset 1' through 'Handset 8' as the row headers. The columns are numbered 1 to 8. Each cell in the matrix contains a checkbox. The checkboxes are checked in a diagonal pattern: Handset 1 is checked for identity 1, Handset 2 for identity 2, and so on, up to Handset 8 for identity 8.

	1	2	3	4	5	6	7	8
Handset 1:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handset 2:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handset 3:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handset 4:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handset 5:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handset 6:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handset 7:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Handset 8:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

M3 Telephony Settings

Configure the handset/identity matrix as shown above, so that each handset links to it's own identity number.

For each handset, set DND and CW to **Disabled** and **No CW**. This prevents call waiting from being active (call waiting can be set up on the SNOM M3 but is complex and will not be desired in most cases) .

Click **Save Changes and Reboot**.

6.0 Star coding into the handsets

Users can now star-code into the handsets by using their normal codes.

1. Star-code out of any other snom phone or softclient connected to the 8eI network. (If you do not starcode out, the other snom will intercept the call before the M3 gets it).
2. Press the green button to dial and enter your star code.
3. Wait a few seconds.
4. Enter your password.
5. Once you have been informed that logon is successful, press the red button to return to the standard handset screen.
6. You are now able to make and receive calls.

Note: Dial-plans are not supported by the M3 , so full DDI numbers preceded by '9' must be used.