Snom m3 home setup guide

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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 Initial Setup

Before setting up the SNOM M3 the following should have been configured:

1. A unique identifier will have been created for each handset and added 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.
1. Click ***Add***.

4.0 Home Setup

4.1 Gateway setup

1. Plug in gateway to your DSL/ADSL router.
2. Plug in the gateway power supply.
3. The power light should come on.
4. The network light should flash while the gateway receives it's 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, the router may not have successfully received an IP address, in this case see section ***7.0 Firmware Related Issues*** for help on resolving this.

4.3 Configuring your broadband router's firewall

On a PC or laptop which is connected to your broadband router:

1. Click ***Start*** and the ***Run***.
2. Type ***cmd*** and push ***enter***.
3. The MS-DOS prompt will open.
4. Type ***ipconfig***.
5. Look for ***Ethernet Adapter Local area connection***.
6. Note the ***Default gateway*** number. (eg 192.168.1.254).
7. Open an Internet browser and type this address into the address bar.
8. Click enter.
9. You may need to enter a username and password for your router.
10. You will see the routers configuration screens.
11. The following ports need to be configured to pass through your routers firewall:

5060 (TCP) outgoing
5004 (TCP) outgoing

123 (UDP) outgoing

You may also need to configure these ports to forward to the M3's Gateway IP address.

4.4 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.
8. 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:

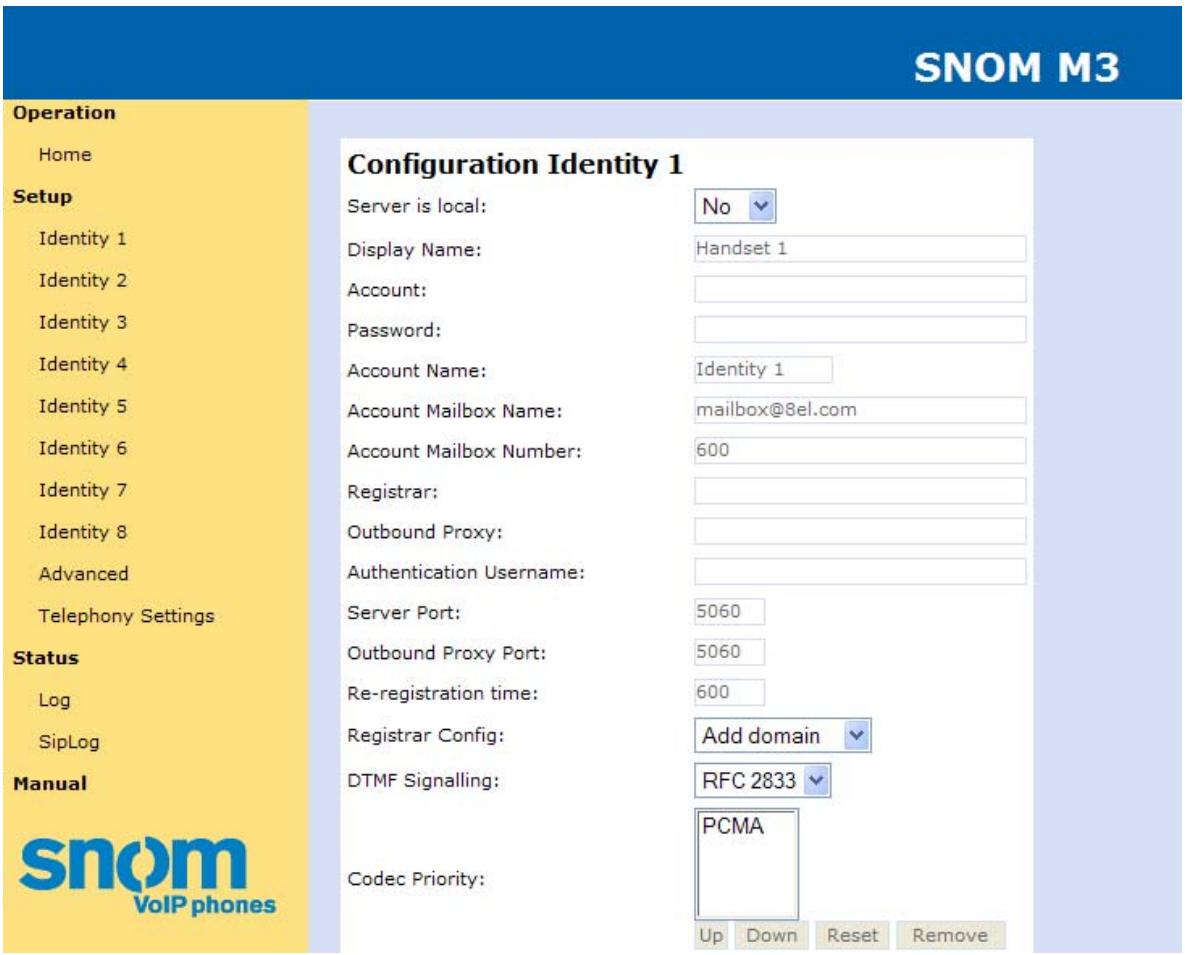
1. Click the centre button.
2. Click the centre button and the select the spanner icon ***Settings***.
3. Select ***Network Settings***.
4. Enter the password '0000'.
5. Select ***Virtual LAN ID***.
6. Enter the correct VLAN for the client's network and push the ***Back*** button.
7. Choose to save the 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.

<u>Finding the gateway IP address</u>

1. Push the volume up button on the left side of the handset.
2. Scroll down to ***Gateway IP Address***.

4.5 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 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. For most home installations the address entered will be 87.236.252.30.
8. Set the codec to PCMA by moving this to the top of the codec list and removing other codec's.
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.***

M3 Registration Status

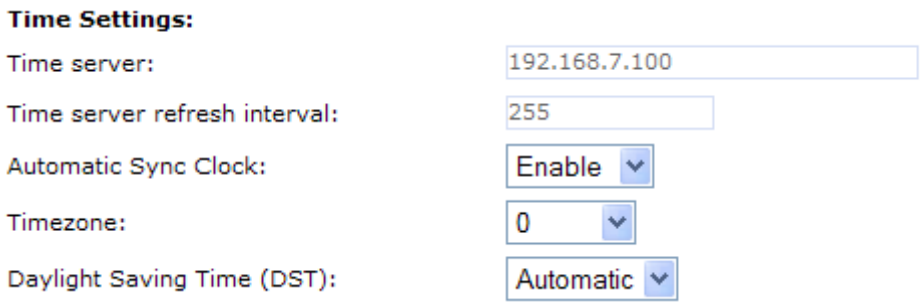
11. Other possible status messages are:

    a. Error: This means that the SIP registrar is incorrect or that your firewall is blocking the connection.
    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.

4.6 Setting up NTP

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



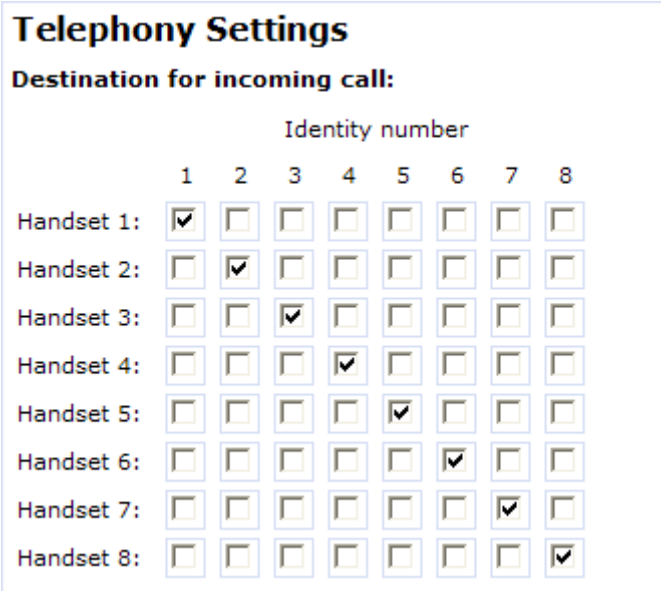
M3 Time Settings

3. In ***Time Server*** enter the IP address of your NTP server.
4. Set ***Automatic Sync Clock*** to OK.
5. 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 a single a identity only.

To configure this log into the M3 browser and click ***Telephony Settings***:



M3 Telephony Settings

Configure the handset/identity matrix as shown above, so that each handset links to its 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 soft client connected to the 8*el* network. (If you do not star-code 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.

7.0 Firmware related issues

Some earlier Firmware versions for the SNOM M3 suffered from the following issues:

1. The gateway would periodically de-register from the SIP connection and had to be rebooted to resume the connection.
2. IP addresses could not be assigned over DHCP by some broadband routers.
3. Voicemail alert messages did not clear once voicemail messages had been deleted.

These errors can be resolved by updating the firmware of the M3 (gateway and handsets) to version 1.22.

7.1 Upgrading SNOM M3 firmware

1. Connect the gateway to your router.
2. Register the handset with the gateway.
3. Check the IP of the M3 by pushing the volume up key to the right up of the registered handset.
4. You will also be able to view the current firmware version of the M3. If this is below 1.22 a firmware upgrade is recommended.
5. If you have no IP address is available, you can assign a manual IP to the gateway by going into ***Network Settings*** menu (access code 0000) on the handset. You should check that this IP address does not match the IP address of existing hardware.
6. Once you have an IP address access the gateway from an Internet browser
7. Go into ***Advanced*** and enable updates, do not change the update address.
8. On the handset go into ***system settings***, ***firmware update***.
9. Do not update if the handset battery is low (or if the gateway is likely to be unplugged).
10. The gateway firmware will be updated first and then the handset will be updated via the DECT connection. It takes about 5-10 minutes for the update to occur.