

DECT - 3.0 Multicell setup

Once the position of the base stations is determined, can proceed installing the multi cell system.

i In contrast to desktop telephones, the **DECT** configuration is split for ease of understanding.
The **multicell** is filled with **network-** and **DECT specific** information. The handsets themselves are filled with the **SIP identities**.

How to set up a DECT Multicell with Snom M700/M900 devices

i Find a Example configuration for a multicell on a 3CX PBX here: [Setting up a M700,M900 Multicell with 3CX](#)

1. Start with the **first base**:

! **ATTENTION: Before you set up another base, the first, primary base must be completely set up.** This will then show "**Allowed to Join as Primary**" at the end.

- To access the base, enter the IP address of the base into a web browser, and use the default credentials for "**username**" and "**password**": **admin**

i How to find the IP address of your base is described in the following article: [How to enter M300, M700, M900 - Web Interface](#)

- **Updating the firmware to the latest version**

✓ Please check in advance whether the latest **stable Firmware** version is installed on your DECT base station ([M700/M900](#)) and your DECT handsets ([M25/M65/M70/M80/M85/M90](#)).

- Configure the **NTP server** and the proper Country / time-zone
WUI "Country"
- Configure the **SIP server**
WUI "Servers"
- Configure at least one **SIP account**
WUI "Extensions"
- Enable "**multi cell mode**"
WUI "Mutlicell"

i Check the "**System Chain ID**" (value 512 is default, can be changed to realize special scenarios.)

- Configuration of **data synchronization = Multicast** (you can also choose Peer-to-Peer, but this should only be used temporarily)
Better always use "multicast"!
WUI "Mutlicell"

i In the Multicell, all changes will be propagated automatically over all the bases.

Peer-to-peer: in case the system is set using peer-to-peer you must change the settings on the Primary data sync DECT base. Changing a setting on another base will not trigger a setting synchronization.
"Multi primary" should be avoided except for some very specific situation
In production the DECT tree should be calculated automatically by the system in order to offer the best coverage and redundancy
Multi Cell

Multi cell Settings

Multi Cell Status

System Information: Keep Alive
Last packet received from IP: 10.110.10.120 19/Sep/2018 13:48:14
Sync Data from IP: 10.110.10.120

Settings for this unit

These settings are used to connect this unit to a system.

Multi cell system:	Enabled
System chain ID:	1337
Synchronization time (s):	60
Data Sync:	Multicast
Primary Data Sync IP:	Multicast
Multi cell debug:	Peer-to-Peer

DECT system settings

These settings are DECT settings for the system.

RFPI System:	12771B72; RPN:04
Auto configure DECT sync source tree:	Enabled
Allow multi primary:	Disabled
Auto create multi primary:	Disabled

Base station settings

Number of SIP accounts before distributed load:	4	
SIP Server support for multiple registrations per account:	Disabled	(used for roaming signalling)
System combination (Number of base stations/Repeaters per base station):	50/3	

- Reboot the base
2. Once the base is rebooted you should see the status "Ready to join as Primary" in the device home page

1. Set up the **second base** (and each subsequent base in the same way)

 **Caution:** Do not start setting up the second or additional bases until the first, Primary Base is fully configured. Please note that the configuration of a primary base is different from the configuration of all other bases. Therefore, only perform the steps listed here.

- Make sure that the base is set to the factory default values, reset them if in doubt: [How to factory reset the M300,M700,M900](#)
- **Update the firmware to the same version as the primary Base**

 **Attention:** All bases of a multi-cell must use the same firmware.



Tip: If **admin/admin** doesn't work the first time you press it, just send it a second time. This is intended as a security feature to remind you to change the default credentials.

- Configure the **NTP server** and the proper Country / time-zone
WUI "**Country**"
- Enable "**multi cell mode**"
WUI "**Mutlicell**"



Be sure to set "System Chain ID" to the same value as the first, primary base (default is 512).

- Reboot the base
2. After restarting the base stations the base should connect to the system, this can take up to 15-20 minutes.
 3. Install all base stations in the same way as the second one.
 4. Register the handsets with the system.
[DECT - 3.1 Add Extensions](#)

Step by step Guide:

1. First we have to configure the so called Data Primary.

- Go to the web interface of your M700/M900 and go to the section "**Servers**".
- Standard username and password are **admin/admin**.



Tip: If **admin/admin** doesn't work the first time you press it, just send it a second time. This is intended as a security feature to remind you to change the default credentials.



- Click on the item "**Add Server**".

Servers

ser:

[Add Server](#)
[Remove Server](#)

ser:

Server Alias:	<input type="text" value="Test"/>
NAT Adaption:	<input type="checkbox"/>
Registrar:	<input type="text" value="test.testserver.com"/>
Outbound Proxy:	<input type="text"/>
Conference Server:	<input type="text"/>
Reregistration time (s):	<input type="text" value="3600"/>
SIP Session Timers:	<input type="checkbox"/>
Session Timer Value (s):	<input type="text" value="3600"/>
SIP Transport:	<input type="checkbox"/>
Signal TCP Source Port:	<input type="checkbox"/>
Use One TCP Connection per SIP Extension:	<input type="checkbox"/>
RTP from own base station:	<input type="checkbox"/>
Keep Alive:	<input type="checkbox"/>
Show Extension on Handset Idle Screen:	<input type="checkbox"/>
Hold Behaviour:	<input type="checkbox"/>
Remote Ring Tone Control:	<input type="checkbox"/>
Attended Transfer Behaviour:	<input type="checkbox"/>
Use Own Codec Priority:	<input type="checkbox"/>
DTMF Signalling:	<input type="checkbox"/>
DTMF Payload Type:	<input type="text" value="101"/>
Remote Caller ID Source Priority:	<input type="checkbox"/>
Enable Blind Transfer:	<input type="checkbox"/>
Codec Priority:	<input type="text" value="G711U
G711A
G726"/>
	<input type="button" value="Up"/> <input type="button" value="Down"/>
	<input type="button" value="Reset Codescs"/> <input type="button" value="Remove"/>
RTP Packet Size:	<input type="text" value="20 ms"/>
Secure RTP:	<input type="checkbox"/>
Secure RTP Auth:	<input type="checkbox"/>
SRTCP Crypto Suites:	<input type="text" value="AES_CM_128_HMAC_SHA1_32"/>

- Here you have to enter the **registrar** and make further settings if necessary.

2. Add Extensions

- [DECT - 3.1 Add Extensions](#)

If a base station doesn't join the system, please look at the following articles:

- [My M700,M900 refuses to join the DECT chain](#)
- [Switching to Peer-to-Peer Multi-cell Configuration](#)
- Please also refer to the [Multicell deployment guide](#)

 Here you find a nice Video how to deploy a dect multicell Solution with a 3CX.

Further Information

- [VoIP Essentials](#)
- [Visit the Snom Forum](#)
- [Open a support ticket](#)
- [Find a local partner](#)

Related articles

- [DECT - 1. Multicell Deployment Guide](#)

- [DECT - 2. Physical installation](#)
- [DECT - 3.0 Multicell setup](#)
- [DECT - 3.1 Add Extensions](#)
- [DECT - 4. Site Survey](#)
- [DECT - 5. Measuring with DECT Discovery Mode](#)
- [DECT - 6. Best Practises](#)
- [DECT - M700, M900 - Activate Multicell Mode](#)
- [DECT Multi Cell Installation How-to](#)
- [How to update M-Series - DECT handsets](#)
- [How to update M300,M700,M900 DECT Base Station manually](#)
- [M700](#)
- [M900](#)
- [M900 - Outdoor](#)
- [Setting up a M700,M900 Multicell with 3CX](#)
- [Snom DECT Radio Measuring Kit](#)
- [Switching to Peer-to-Peer Multi-cell Configuration](#)
- [What does the error -Multi cell system version conflict , Provider conflict , Primary conflict IP- mean?](#)