

# **ENREACH DECT 600 L**

# **USER DOCUMENTATION**

As of: May 2025



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# OPERATING AN ENREACH DECT 600 SYSTEM WITH SWYXWARE

The Enreach DECT 600 replaces the previous model SwyxDECT 500. DECT 600 components can be used backward compatible with a Swyx-DECT 500 system under certain circumstances in the context of a replacement procurement, see *1.9.2 Operating SwyxDECT 500 and Enreach DECT 600 L components together*, page 22.

Many configurations are identical to the SwyxDECT 500 systems.

<u>.</u>

The DECT 600 L and DECT 600 S base stations cannot be combined with each other.

SwyxDECT 500 and Enreach DECT 600 support the handsets D510, D565, HS 630, HS 650 and HS 670, see also *1.9.1 Upgrade for Swyx-Phones D510 and D565*, page 21.

For more documentation as well as Quickstarts for the listed end devices, see enreach.de/en/products/support/documentation.html.

See BroadWorks Feature Event Package, page 12.

See also service.swyx.net/hc/en-gb/articles/18661340566940-Enreach-DECT-600-Firmware-Pack-v-7-50-B0200-v1-Released.

# **1.1 PROPERTIES OVERVIEW**

Recommended installation size	
Max. number of base stations	

Up to 1000 terminals 256 (Multi Cell)

**DECT 600 L** 

	DECT 600 L
Parallel conversations	10 per base as multi-cell
Expandable with number of DECT R 600 repeaters	3 per base, maximum 3 as chain
Number of usable voice channels per base	8 Narrow Band (G.711) 5 Wide Band (G.722)
Number of usable voice channels per repeater	5 Narrow Band (G.711) 2 Wide Band (G.722)
Network	10/100 Base, PoE
Dimensions (length x width x depth)	144 x 140 x 35 mm
Installation option	Wall mounting
Radio standard	DECT

# **1.2 SCOPE OF SUPPLY**

- One base station
- Two screws with wall plugs
- Power supply optional

# **1.3 INSTALLATION**

The Enreach DECT 600 L is designed for wall mounting.

### To mount the Enreach DECT 600 base station on the wall

- 1 Mark two drill holes horizontally at a distance of 60 mm.
- 2 Drill the holes and insert the dowels.
- **3** Screw in the two screws until the screw head is approx. 4 mm from the wall.
- 4 Attach the base station to the screws and push it downwards.

# 1.4 GENERAL INFORMATION ABOUT THE ENREACH DECT 600 L



### **Power Supply**

You can power the base station with the AC adapter or via PoE (Power-Over Ethernet) Class 2 supply (3.84 to 6.49 watts at 48 volts DC).

#### Network

• RJ45 jack for LAN/PoE

### State signaling by LEDs

The Enreach DECT 600 L has an LED that signals the states of the system.



As of v. 5.11, the LEDs also display the RSSI values of the Air Sync function. The RSSI (Received Signal Strength Indicator) is a ratio value that shows the received field strength of the base station.

LED Signal	State
permanent green	<ul> <li>The base station is active, the network registration has been successful</li> <li>Operation with good RSSI, better than -75 dBm</li> </ul>
permanent orange	<ul> <li>Operation with RSSI between -75 dBm and -90 dBm</li> </ul>
unlit/ permanently red	<ul> <li>Unacceptable RSSI below -90 dBm</li> <li>Warning of factory reset or long press of reset button</li> <li>Error/ Critical error</li> </ul>
flashing green	<ul><li>Initialization</li><li>Search for base stations</li></ul>
flashing orange	<ul><li>Initialization</li><li>Search by IP</li></ul>
flashing red	<ul> <li>Factory reset is performed</li> <li>Firmware upgrade/ downgrade is performed</li> <li>No Internet connection available or SIP handset registration failed</li> </ul>
unlit	• Base station is inactive.

#### **Reset switch**

The base station can be reset to the factory reset state via the reset switch. See *How to reset the Enreach DECT 600 L via the base station*, page 22.

# **1.5 AUTOMATIC SETUP VIA SCC**

The automatic setup of Enreach DECT 600 systems is carried out via Swyx Control Center (SCC) and is described in the corresponding manual, see help.enreach.com/cpe/latest.version/Administration/Swyx/ en-US/#context/help/DECT\_DCF\_\$. For the manual setup or modifications, see *1.7 Manual setup via the web interface of the base station*, page 6.

After automatic setup, you can access the web interface of the base station in a browser via the IP address of your base station.

- For the IP address, see *How to identify the IP address of the base station via the DECT handset*, page 6.
- The default user name is admin.
- The password can be found in Swyx Control Center under General Settings | Provisioning | Administrative device password for certified phones.



For manual configurations that you make in the web interface, please note that configurations that are provisioned (such as LDAP configuration) are overwritten with each provisioning.

# **1.6 START THE BASE STATION**

The Enreach DECT 600 is preset to use a DHCP server. When first switched on, it automatically obtains an IP address of a DHCP server.

### Enreach DECT 600 in a network with DHCP

- Make a note of the MAC address, which is given on the back of the base station.
- In the DHCP server, check the IP address of the Enreach DECT 600 against the MAC address.
- Enter http://xxx.xxx.xxx (whereas xxx.xxx.xxx is the identified IP address) in the address field of the web browser.

The main page of the Enreach DECT 600 web interface will open. Here you can configure the base station.

Alternatively, you have the option of determining an existing IP address via the DECT handset without the handset already being registered with the base station.

# How to identify the IP address of the base station via the DECT handset

- 1 Press the menu button of the DECT handset.
- 2 Enter \*47\*.
  - ✓ The IP search starts. Wait up to 30 seconds.
  - ✓ The MAC and the IP address of the base station are displayed.
- **3** By comparing the displayed MAC address with the MAC address on the nameplate of the Enreach DECT 600, you can check whether the handset has really found the desired base station.
- **4** If several base stations exist, their MAC and IP addresses are also displayed. Use the navigation key to scroll through the base station information.

# 1.7 MANUAL SETUP VIA THE WEB INTERFACE OF THE BASE STATION

As of SwyxWare 14.20 you can automatically set up Enreach DECT 600 systems in Swyx Control Center, see *1.5 Automatic setup via SCC*, page 5. This chapter describes the manual setup and manual configuration via the web interface of the base station.

An Enreach DECT 600 must be configured so that it can be reached from SwyxServer. The DECT handsets can then register with the Enreach DECT 600 base station and make calls via SwyxServer.

Enreach DECT 600 L can be used for operation in a multi-cell system, as well as for operation as a single cell.

## **1.7.1 CONFIGURATION AS SINGLE CELL**

### To configure an Enreach DECT 600 base station as a single cell

1 Determine the IP address of the Enreach DECT 600 and get access to Enreach DECT 600 via the web interface, see 1 Start the base station , page 6.

- **2** Enter the IP address of the base station in the browser. ✓ A login window will open.
- 3 Enter username and password. In the delivery state these are admin and admin.
  - ✓ The start page of the web interface for configuring the Enreach DECT 600 base station opens.

**G**, enreach

### DECT 600 L (Primary)

Home/Status	Welcome	
Statistics	System Information:	Multi Cell Ready (Keep Alive) Primary
Generic Statistics	Phone Type:	IPDECT-V2 (BS 600 L)
Diagnostics	System Type:	Generic SIP (RFC 3261)
Extensions	RF Band:	EU
Servers	Current local time:	14-May-2025 16:04:04
Repeaters	Operation time:	02:41:01 (H:M:S)
Network	RFPI Address:	13993654; RPN:00
Management	MAC Address:	00087b20a861
Firmware Update	IPv4 Address:	10.8.9.10
Country	Firmware Version:	IPDECT-V2/07.60/B0201/05-May-2025 12:45
Configuration	Firmware URL:	Firmware update server address: http://10.8.9.53
SIPLog		Firmware path: firmware/rtx
Emergency Call	DSP:	No DSP detected. Base works with: BF704
Security	Reboot: 2025-05-14 13:23:28 (184)	Power Loss (80) Firmware Version 0760.0201 (RESET_CAUSE_POWER_LOSS)
Central Directory	Reboot: 2025-05-08 10:25:44 (183)	Forced Reboot (81) Firmware Version 0760.0200 (RESET_CAUSE_MAIN_CODE_UPDATE)
Multi Cell	Reboot: 2025-05-08 10:17:18 (182)	Power Loss (80) Firmware Version 0760.0200 (RESET_CAUSE_POWER_LOSS)
Multi Zone Reboot: 2025-04-25 10:24:12 (181)		Forced Reboot (81) Firmware Version 0411.0911 (RESET_CAUSE_MAIN_CODE_UPDATE)
LAN Sync	Reboot: 2025-04-23 09:55:49 (180)	Power Loss (80) Firmware Version 0411.0911 (RESET_CAUSE_POWER_LOSS)
	Reboot: 2025-04-11 12:26:07 (179)	Power Loss (80) Firmware Version 0411.0911 (RESET_CAUSE_POWER_LOSS)
	Base Station Status:	Idle
	SIP Identity Status on this Base Station	1
	IPEI129420077476@10.8.9.53 (SwyxWare	D) Status: OK
	IPEI129420381779@10.8.9.53 (SwyxWare	D) Status: OK
	MAC00087b20a861@10.8.9.53 (SwyxWare	D) Status: OK
	Press button to reboot	
	Reboot	Forced Reboot
	Export Status.xml	
	Export	
	Press button to factory default	
	Default Base Station	

- 4 Select Management | Country and then select the country and the desired language. Confirm the selection by clicking Save and Reboot.
  - ✓ A restart is performed.
- 5 In the field Time Server, enter the IP address of your Windows server or a public time server (e.g. ptbtime1.ptb.de). This synchronizes the time being displayed on the DECT handsets.

- 6 Click on Save and Reboot. ✓ A restart is performed.
- 7 Select Management.
- 8 Enter a name for the base station.
- 9 Confirm the entries by clicking Save.
- **10** Select Extensions | Servers.
- 11 Select Add server.
- **12** Disable the NAT Adaption.
- **13** In the field **Registrar** enter the IP address of the SwyxServer.
- 14 Fnable SIP Session Timers.
- **15** In the field Session Timer Value enter the value '90'.
- **16** At DTMF Signalling select SIP-INFO.
- 17 Click on Save.
- 18 Add a new user. See 1 To add a new user, page 12.



In general: You save changes in the configuration by clicking Save. If the page on which you have made the changes does not offer a Save button, the changes must be applied by restarting the base station.

#### **CONFIGURATION OF A MULTI-CELL SYSTEM** 1.7.2

A multi-cell system is a coordinated, synchronized system of base stations to cover large radio areas.

With the Enreach DECT 600 L, up to 256 base stations can be used. They can be set up in chains.

Before installing a multi-cell system, check the requirements in terms of radio coverage, number of DECT users and their movement behavior, and installation locations of the base stations (building information). Verify if any interference factors are present that may have a negative impact on the DECT installation.

To configure a multi-cell system, proceed in the following order:

- Set up the first base station (step (1) to (9))
- Add a server (step (10) to (17))
- Add at least one user (step (18))

- Set first base station to Multi-cell (step (19))
- Add the second base station (repeat step (1) to (9) and then step (19) to (21))

#### **DECT 600 L (Primary)**

#### **Multi Cell Settings**

Multi Cell Status System Information: Last packet received from IP:	Keep Alive	
Settings for this unit		
These settings are used to connect th	is unit to a system.	
Multi Cell system:	Enabled	~
System chain ID:	10009	
Synchronization time (s):	60	~
TTL:	1	
Data Sync:	Multicast	~
Primary Data Sync IP:		
Hierarchical Relay:		
Multi Cell debug:	None	<b>~</b> ]

These settings are DECT settings for the	system.	
RFPI System:	13993654; RPN:00	
Auto configure DECT sync source tree:	Enabled	~
Allow multi primary:	Disabled	~
Auto create multi primary:		

#### Base station settings

Number of SIP accounts before distributed load:	8		
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	~	)

Save and Reboot

Save Cancel

Force reboot chain

#### **Base Station Group**

DECT sync source recovery: Restore saved tree / Save current tree

	ID	RPN	Version	MAC Address	IP Address	IP Status	DECT sync source	DECT property	Base Station Name
	0	00	760.201	00087B20A861	10.8.9.10	This Unit	Select as primary	Primary	DECT 600 L (Primary)
	1	04	0	00087B19C1B8		Connection lost!	(any) RPN v		

Check All / Uncheck All

With selected: Remove from chain

#### DECT Chain

Primary: RPN00: DECT 600 L (Primary)

Reboot chain

Reconfigure DECT Tree

Web interface multi-cell settings DECT 600 L

### To configure a multi-cell system

- Enter the IP address of the base station in the browser.
   ✓ The login dialog opens.
- 2 Enter username and password. In the delivery state these are admin and admin.
- **3** The start page of the web interface for configuring the Enreach DECT 600 base station opens.
- 4 Select Management | Country and then select the country and the desired language. Confirm the selection by clicking Save and Reboot.
  - ✓ A restart is performed.
- **5** Select Management | Country and enter in the field Time Server the IP address of your Windows server or a public time server (e.g. ptbtime1.ptb.de). The time displayed on the DECT handsets is synchronized via this server.
- 6 Click on Save and Reboot.
  - A restart is performed.
- 7 Select Management.
- 8 Enter a name for the base station.
- **9** Confirm the entries by clicking Save.
- **10** Select Extensions | Servers.
- 11 Select Add server.
- 12 Disable the NAT Adaption.
- **13** In the field **Registrar** enter the IP address of the SwyxServer.
- 14 Enable SIP Session Timers.
- 15 In the field Session Timer Value enter the value '90'.
- **16** At DTMF Signalling select SIP-INFO.
- 17 Click on Save.
- **18** Add a new user. See 1 To add a new user , page 12.
- **19** Select Multi Cell.
- 20 Under Settings for this unit at Multi Cell system select Enabled.
  - At Home/Status the first configured base station is then marked as primary cell in the System Information.

- 21 Click on Save and Reboot.
  - A restart is performed.
- 22 Configure additional base stations by repeating the steps (1) to (9) and then steps (19) to (21).
- 23 The configured base stations appear after a few minutes in the table Base Station Group. The first one created is automatically set as the primary base station.
- 24 The synchronization is set automatically. For manual synchronization the field Auto configure DECT sync source tree must be set to Disabled. Afterwards you can manually define the order in the DECT sync source column.
- 25 Click on Save to activate the settings.

•

When installing multiple base stations, make sure that the multi-cell ID is identical.

## **1.7.3 SETTINGS AT THE WEBINTERFACE**

Function	Description
Home/Status	General overview of the current operating status and settings on the base station and the handsets.
	<b>Statistics</b> Overview of the functionality of the base station(s). The logs can help the administrator in cases of error analysis and system optimization.
User	Managing all users. See <i>1.7.3.1 Users (Extensions)</i> , page 10. <b>Server</b> Setting the server to which the base station connects. See <i>Server</i> , page 13.
	<b>Repeater</b> Option to configure repeaters. See <i>Repeater</i> , page 14.

Function	Description
Network	IP Settings Here, select whether you would like to configure a DHCP- assigned IP address or a static address. When selecting a static IP address, you can save the respective parameters. NAT Settings Option to configure the function for NAT resolution. These functions facilitate interoperability with most types of routers. SIR/RTP Settings Facilitates configuration of SIP parameters. DHCP Options Facilitates activating/deactivating plug-n-play. See 1 Network , page 14.
Management	Option to configure the base station for special functions, such as web interface language, log management, etc. See <i>1.7.3.3 Management</i> , page 15. <b>Firmware Update</b> Option to configure how base stations and handsets are updated. See <i>Firmware Update</i> , page 16. <b>Country</b> Option to configure location.
	Configuration Display of detailed and complete SME network settings for base stations, HTTP/DNS/DHCP/TFTP servers, SIP servers, etc. See 1.7.3.8 Logout, page 21. Syslog
	Display of events and logs respective to the whole network (live feed only). See <i>Syslog</i> , page 18. <b>SIP Log</b> Display of SIP-related logs
Security	Option to assign a user name and password on the base station. See <i>1.7.3.4 Security</i> , page 18.

Function	Description
Central Directory	Option to load a global telephone book saved on the server. See <i>1.7.3.5 Central Directory</i> , page 18.
Alarm	Specify what happens when a user presses the emergency button on their handset. See <i>1.7.3.6 Alarm</i> , page 19.
Multi Cell	Configuration of a Multi Cell System See <i>1.7.3.7 Multi Cell</i> , page 20.
Logout	Log-off

### 1.7.3.1 USERS (EXTENSIONS)

Under the menu item **Extensions**, you can make the following settings:

- Add and edit users
- Display all of the system's registered users
- Set the base station to log-on mode to log on handsets. See *To connect a handset to Enreach DECT 600*, page 21.
- Select registered users to delete or deregister handsets

### DECT 600 L (Primary)

#### **Edit extension**

1951				1			
IPEI:				J			
AC:				]			
Extension:				J			
Authentication User Name:				J			
Authentication Password:				]			
Display Name:				J			
XSI Username:				J			
XSI Password:				J			
Mailbox Name:				]			
Mailbox Number:				]			
P-Preferred-Identity:				]			
Alarm Number:				]			
Paired Terminal:	No Paired Terminal		~				
Push-to-Talk:	Disabled	~					
Server:	SwyxWare_D: 10.8.9.53		~				
Call Notification and Call Pickup:	Disabled	~					
Location:	ANY		~				
Call waiting feature:				Enabled	~		
BroadWorks Busy Lamp Field List U	RI:						
BroadWorks Feature Event Package	:			Disabled	~		
UaCSTA:				Disabled	~		
Forwarding Unconditional Number:				Disabled	~		
Forwarding No Answer Number:				Disabled	~	20	s
Forwarding on Busy Number:				Disabled	~		
Beacon Settings:							
Receive Mode:	Disabled	~					
Transmit Interval:	Disabled	~					
Alarm Profiles:							
Profile	Alarm Type			]			
Profile 0	Not configured			-			
Profile 1	Not configured			1			
Profile 2	file 2 Not configured		]				
Profile 3	file 3 Not configured						
Profile 4	file 4 Not configured						
Profile 5	Not configured						
Profile 6	Not configured						
Profile 7	Not configured			1			
Save Cancel							
Import Local Phonebook Filename: Browse No file selecte	<b>c:</b> d.						

**Export Local Phonebook:** Export

	The IPEI number is assigned to each handset by the manufacturer and can be viewed in the menu under <b>Settings   Status</b> menu.
AC (Access Code)	a number with 4 digits, which you assign to the user's handset for the registration at a base station.
Extension	SIP user ID you entered into the user's properties on the SwyxWare Administration.
Authentication User Name	SIP user name you entered in the user's properties on the SwyxWare Administration.
Authentication Password	The password you entered in the extensions properties in the SwyxWare Administration.
Display Name	Additional designation appearing on the handset's display.
Mailbox Name	The user's phone number
Mailbox Number	Here you can e.g. enter the function code for remote query (##10).
P-Preferred-Iden- tity (sender call number):	Here you can enter further numbers additionally to the own number of the user (e.g. "234;220;478" for an internal number, a group number and an alternative number). Subsequently the user can decide for every external call with the selection of the desired line, which number he wants to signal.
Alarm Number	Enter a number of the person to whom the alarm of this user should be delivered. Then select the desired profile for the user at the bottom of <b>Alarm profiles</b> . See <i>1.7.3.6 Alarm</i> , page 19.
Server	SwyxServer IP address; several SwyxServer can be selected.
Location	Select via which base the user should communicate with SwyxWare. To avoid problems with IP roaming, you should select a base station and not ANY.

of the DECT handset.

Parameter

IPEI

Description

(International Portable Equipment Identifier) Serial number

Web interface extension DECT 600 L

Parameter	Description
Call waiting feature	If you activate the Call Waiting function, a call is made to the subscriber when the line is busy. Deactivate the call waiting feature to indicate only busy to the caller.
BroadWorks Feature Event Pack- age	If activated (recommended), call forwarding is performed via the telephone system. Calls can then be handled by SwyxWare and, for example, correctly rejected as "busy" with DND (do not disturb). Default setting: Disabled.
Forwarding Uncon- ditional Number	If you enable Unconditional Forwarding for the user, enter a number in the input field to which a call should be forwarded immediately. It is recommended to disable this option. The user can set this himself on his handset if required.
Forwarding No Answer Number	If you activate the delayed call forwarding for the user, enter in the input field a number to which a call should be forwarded and the time in seconds from which the call forwarding will be activated. It is recommended to disable this option. The user can set this himself on his handset if required.
Forwarding on Busy Number	If you activate call forwarding on busy for the user, enter a number in the input field to which a call should be forwarded immediately if the user's line is busy. It is recommended to disable this option. The user can set this himself on his handset if required.

#### Add user

Before you can add extensions, you must first create a server, see 1 Server , page 13.

Before registration of the new user please keep at hand the serial number (IPEI) of the concerning handset ready. The serial number can be found in the handset menu under Settings | Status.

### To add a new user

First make sure that the user has already been set up in SwyxWare. See the documentation for SwyxON or Swyx Control Center.

- 1 Select Extensions.
- 2 Click on Add extension.
- 3 In the field IPEI enter the serial number of the handset. These can be found on the handset in the menu at Settings | Status at the bottom.
- 4 In the field AC enter the 4-digit number with which the user (handset) will identify itself when logging on to the base station.
- 5 In the field Extension enter the call number and in the field Authentication User Name enter the SIP user name that you assigned in SwyxServer within the SIP registration. See also SwyxWare documentation for administrators, *Keyword 'SIP Registration'*.
- **6** At **Authentication Password** enter the SIP password that you also assigned in SwyxServer within the SIP registration.
- 7 In the field **Display Name** enter the name that should appear in the display of the user's handset.
- 8 In the field Mailbox Name enter the user's phone number, if necessary.
- **9** In the field Mailbox Number you can enter, for example, the function code for the remote query (##10).
- **10** In the field **Server** select the SwyxServer on which the user is created.
- **11** In the BroadWorks Feature Event Package field, select Enabled.
- **12** Click on Save.
- **13** Select the desired extension.
- 14 Click on Register Handset(s).
  - $\checkmark$  The log-on mode for the base station is enabled.
- **15** Register the handset of the user you just added to the base station while the base station is in registration mode. See **1** Register handset to Enreach DECT 600 , page 21.1 Server , page 13

#### Server

#### DECT 600 L (Primary)

#### Servers

SwyxWare D: <u>SwyxV</u> Add Serv

SwyxWare D: 10.8.9.53	Server Alias:	SwyxWare D		
Add Server	NAT Adaption:	Disabled		
Remove Server	De eletrerer			
	Registrar:	10.6.9.55		
	Cell Lee Convers			
	Call Log Server:	120		
	cto casalas Timeros	Trachlad		
	Sir Session Timers:	Enabled V		
	Session Timer Value (S):	90		
	SIP fransport:	00P V		
	Signal TCP Source Port:	Enabled *		
	Use One TCP Connection per SIP Extension:	Disabled V		
	RTP from own base station:	Disabled		
	Keep Alive:	Enabled v		
	Show Extension on Handset Idle Screen:	Disabled v		
	Hold Behaviour:	RFC 3264 ~		
	Local Ring Back Tone:	Enabled v		
	Remote Ring Tone Control:	Enabled		
	Attended Transfer Behaviour:	Hold 2nd Call		
	Semi-Attended Transfer Behaviour:	Allow Semi-Attended Transfer V		
	Directed Call Pickup:	Disabled ~		
	Directed Call Pickup Code:			
	Group Call Pickup:	Disabled ~		
	Group Call Pickup Code:			
	Use Own Codec Priority:	Disabled ~		
	DTMF Signalling:	SIP INFO V		
	DTMF Payload Type:	101 0		
	Remote Caller ID Source Priority:	PAI - FROM ¥		
		G722		
	Coder Priority	G711A		
	- Max number of codecs is 5	67110		
		Up Down	Reset Codecs	Remove
	RTP Packet Size:	20 ms ~		
	Secure RTP:	Disabled v		
	Secure RTP Auth:	Enabled v		
		AES_CM_128_HMAC_SHA1_32		
		AES_CM_128_HMAC_SHA1_80		
	SRTP Crypto Suites:			
		Lin Down	Reset Crynto Suites	Remove
	Media Security:	Disabled	Take of the same	
	Media Security only for TLS:	Disabled		
	the second will be the			
	Save Cancel			

Function	Description
Server Alias	Here you can name the server. Maximum 10 characters
NAT Adaption	If this option is enabled, all SIP messages are routed directly to the NAT gateway in the SIP-Aware router. By default, this option is enabled.

Function	Description
Registrar	SwyxServer IP address
Reregistration time (s)	The time period (in seconds) for re-registering the base station SIP to SwyxServer.
RTP from own base station	If enabled, only the base station to which the user is logged in is used for data transmission to the outside (this option is only useful if the network load is not optimal).
Keep Alive	This option defines the time period for opening the ports of relevant NAT-Aware routers.
Show Extension on Handset Idle Screen	Display of own extension number on the handset.
Use Own Codec Priority	If enabled, the codec priority of the base station is preferred over the codec priority of the server.
DTMF Signalling	Method of signaling key presses during a call.
Codec Priority	Selection of the codec priority that the Base Station should use for audio compression and transmission. Via the buttons <b>Up</b> and <b>Down</b> you select an order. Note that the codec affects the number of simultaneous calls per cell.
RTP Packet Size	This setting should be changed only after consulting the support.

### To add a new server

- 1 Select Extensions | Servers.
- 2 Select Add server.
- 3 In the field Registrar enter the IP address of the SwyxServer.
- 4 In the field Reregistration time enter the value '120'.
- 5 Enable SIP Session Timers.
- 6 In the field Session Timer Value enter the value '90'.
- 7 In the field DTMF Signalling select 'SIP INFO'.
- 8 Confirm the entries by clicking Save.

#### Repeater

Via Repeater you can extend the range of your base stations by installing additional repeaters. Up to 6 DECT R 600 repeaters can be connected to one DECT 600 L base station. Up to five (for G.711 five, for G.729 five, for G.722 two) simultaneous calls per repeater are possible.



Due to the connection type (DECT), the capacity of possible calls in a repeater cell is halved. When the call capacity of a repeater cell is reached, triggered for example by a cell change (roaming), this can lead to dropped calls.

### To add a repeater

- 1 Select Extensions | Repeaters.
- 2 Click on Add Repeater.
- 3 At DECT sync mode select Manually.
- 4 Set the DECT synchronization source.
- 5 Click on Save.
  - ✓ The repeater is listed.
- 6 Select the repeater to be registered by placing a check mark.
- 7 Click on Register Repeater(s).
- 8 Connect the repeater to a power outlet.
- **9** Press the button located on the back of the repeater.
  - ✓ After a few seconds, the light on the repeater will turn green.

#### **10** Refresh the web page of the base station.

✓ The repeater appears in the list.



Avoid registering repeaters and handsets at the same time, as this may result in undesired cross effects.

### 1.7.3.2 **NETWORK**

**IP Settings DHCP** Options

### NAT Settings

#### SIP/RTP Settings

G, enreach	DECT	600 L (Pr	imar	y)		
Home/Status Statistics	Network Settin	gs				
Diagnostics	IP Settings			NAT Settings		
Extensions	DHCP/Static IP:	DHCP	~	Enable STUN:	Disabled	~
Servers	IP Address:	192.168.50.52	_	STUN Server:		
Repeaters	Subnet Mask:	255.255.255.0		STUN Bindtime Determine:	Enabled	~
Network	Default Gateway:	192 168 50 1		STUN Bindtime Guard:	80	
Management Firmware Undate	DNS (Primary):	192 168 50 10		Enable RPORT:	Disabled	~
Country	DNS (Secondary):			Keep alive time:	90	
Configuration Syslog	MDNS:	Disabled	~			
SIP Log				STD/RTD Settings		
Security	VI AN Cattings			Use Different SIP Ports:	Disabled	~
Central Directory	VLAN Settings	0		RTP Collision Detection:	Enabled	*
Alarm	IU:	0		Always reboot on check-	Disabled	
Multi Cell	User Priority:	U Contrat		sync:	Disabled	-
Multi Zono	Synchronization:	Enabled	•	Outbound Proxy Mode:	Use Always	*
Huid Zone				Failover SIP Timer B:	5	
LAN Sync	DHCP Options			Failover SIP Timer F:	5	
Logout	Plug-n-Play:	Enabled	~	Local SIP port:	5060	
				SIP ToS/QoS:	0x68	
	TCP Ontions			RTP port:	50004	
	TCP Keen Alive Interval:	120		RTP port range:	254	
				RTP ToS/QoS:	0xB8	
	Save and Rebo	ot	Save	Cancel		

### **IP Settings**

Function	Description
DHCP/Static IP	If the DHCP server is active, the base station obtains the TCP/IP parameters automatically.
IP Address	IP address of the base station
Subnet Mask	Subnet mask of the base station.
Default Gateway	IP address of the default network gateway
DNS (Primary)	Main server to which a base station directs DNS queries.

#### DECT 600 L (Primary)

#### Management Settings

Base Station Name:

Settings

Numbers

Set Prefix for Outgoing Calls:

Configuration File Download:

Configuration Server Address:

Configuration Server Address Lock:

Configuration

Base Specific File:

Multi Cell Specific File:

Auto Resync Polling:

Auto Resync Time

settings	
Management Transfer Protocol:	HTTP
HTTP Management upload script:	/CfgUpload
HTTP Management username:	
HTTP Management password:	•••••
Factory reset from button:	Enabled
Enable Automatic Prefix:	Disabled
Set Maximum Digits of Internal	0

Enabled

Disabled

mac enreach.cfg

multicell\_enreach.cfg

DECT 600 L (Primary)

Base and Multi Cell Specific Fi v

https://10.8.9.53:9101/ippbx/clier

& Alarm Server: Port: Keep Alive (m) Response (s): TTI : mation: orting: Keep Alive (m): Auto Stop Alarm: Auto Stop Alarm Delay (s):

Syslog/SIP Log

Syslog Server IP Address:

Upload of SIP Log:

Syslog Server Port:

Location Gateways:

Configuration Server: Auto Resync Polling Auto Resync Time:

Syslog Level:

TLS security:

Text Messaging

#### Disabled Normal Operation Disabled

514

Disabled

Location Gateway

(	Disabled	~
(	Disabled	~

Auto Resync Max Delay (Min):

#### Headset Base Headset Base:

Disabled

DNS (Secondary)

Alternate DNS server.

Description

### **DHCP** Options

At Plug-n-Play select Enabled.

Function

#### **NAT Settings**

In the area NAT Settings you make various settings with regard to the use of a STUN server. A STUN server allows NAT clients to communicate behind a firewall with a VoIP provider outside the local network.

### **SIP/RTP Settings**

Function	Description
Local SIP port	Port number default value: 5060
SIP ToS/QoS	Priority of call control signal traffic based on both IP layers of the ToS byte.
RTP port	The port to use for RTP audio streaming. Port number default value: 50004.
RTP port range	Number of ports that can be used for RTP audio streaming. Default value: 40
RTP ToS/QoS	Priority of RTP traffic based on IP layer ToS byte.

### 1.7.3.3 MANAGEMENT

#### Firmware Update

Country

Settings

Configuration

Syslog/SIP Log

Auto Resync Days:	
Auto Resync Periodic (Min):	
Auto Resync Max Delay (Min):	
DHCP Controlled Config Server:	DHCP Option 66
DHCP Custom Option:	
DHCP Custom Option Type:	
Cloud Service	

MQTT Broker Address:		
MQTT Broker Port:	8883	~>
MQTT Connection Keep Alive (Seconds):	60	~
Change settings via Cloud Service or via base:	Via base and Cloud Service	~

#### **Ring tone selection**

Alert-Info string 1:	external	Melody 1	<b>v</b>
Alert-Info string 2:	vip	Melody 2	~
Alert-Info string 3:	highpriority	Melody 3	~
Alert-Info string 4:	lowpriority	Melody 4	~
Alert-Info string 5:	blacklist	Melody 5	~
Alert-Info string 6:	friends	Melody 6	×
Alert-Info string 7:	whitelist	Melody 6	<b>v</b>
Alert-Info string 8:		Melody 1	<b>v</b>
Alert-Info string 9:		Melody 1	v )
Alert-Info string 10:		Melody 1	× )

	Save and Reboot
Lice	nse
Idx	Description

License Key:

Cancel Default Base Station

No Entries	
Ho Entries	

Save

### Settings

Function	Description
Base Station Name	Enter a name for the base station.
Management Transfer Protocol	The protocol to be used for upload/download of the configuration file or firmware file.
HTTP Management upload script	The folder or directory path of the configuration server where the configuration file is located.
HTTP Management user- name	User name to access the configuration server
HTTP Management pass- word	Password, to access the configuration server.
Configuration Server Address	IP address of the configuration server.

### Configuration

Function	Description
Configuration Server Address	IP address of the configuration server.

### Syslog/SIP Log

Function	Description
SIP Log Server IP Address	IP address of the server where the SIP log file should be stored.
Upload of SIP Log	Select Activate if SIP debug messages should be saved to the configuration server.
Syslog Server IP Address	IP address of the server on which the log file of the DECT IP system is to be stored.
Syslog Server Port	Enter the shared server port.
Syslog level	Selection of the different levels of logging.

### Firmware Update

In this section you can configure updates of base stations.

Function	Description	
Firmware update server address	IP address of the server on which the firmware update files were stored (http:// or TFTP).	
Firmware path	Location of the firmware update files.	
Required version Required branch	Displays the main and branch firmware version that is to be loaded onto the <b>Type</b> terminal device (handset/base/repeater). Omit leading 0 or zeros here.	
	Example:	
	Filename: DECT4024_v0530_b0002	
	530 = Required version (main version)	
	2 = Required branch (branch version)	

### DECT 600 L (Primary)

#### **Firmware Update Settings**

Firmware update server address:	http://10.8	.9.53	
Firmware path:	firmware/rt	x	
Terminal file path:			
Туре	Required version	Required branch	Startup picture
Update Base Stations	760	201	
HS 630	760	200	
HS 650	760	200	
HS 670	760	200	
HS 510	760	200	

760

200

-		
-		

Save/Start Update

HS 565

### To update the software from a base station and/or handsets

1 In the field Firmware update server address enter the IP address of the TFTP server on which the update files for base stations and handsets are located.

You can find a TFTP server for free download here: TFTP server solarwinds.com/free-tools/free-tftp-server

- 2 In the field Firmware directory, enter the root directory where the subdirectories with the update files are located. For the update files of the base stations and the handsets, directories with the following names must be created:
  - Enreach DECT 600 L: Directory 8663 ("\rtx\DECT600\8663\")
  - HS 630: Directory 8431 ("\rtx\DECT600\8431\")
  - HS 650: Directory 8631 ("\rtx\DECT600\8631\")
  - HS 670: Directory **8633GY** ("\rtx\DECT600\8633GY\")
  - SwyxPhone D510: Directory 8630 ("\rtx\DECT600\8630\")
  - SwyxPhone D565: Directory 8830 ("\rtx\DECT600\8830\")
  - Repeater DECT 600: Directory DECT4027("\rtx\DECT600\4027\")
- **3** Enter the version number of the software to be used to update the handset. All handset types are listed.

The 'update over the air' takes some time. All handsets must be in the charging station during the update!

4 Save the handset update data by clicking on Save.



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Note that all bases in a system must have the same firmware version.

**5** In the fields **Required Version** and **Required Branch** enter the version and branch of the firmware to be loaded to update the base station(s).

- 6 To start the update with the settings you have made, click on Start Update.
  - Base stations and handsets are updated.

#### Country

Here you set the location of the system, the language of the web interface and the time settings to configure the region-specific default values.

By default, the time zone and daylight saving time settings of your country are used.

The Time Server is used to synchronize a multi-cell system. It also specifies the time, which is shown in logs and on SIP trace information pages as well as in the handset display.

Function	Description
Time Server	IP address of the NTP server.
Refresh time (h)	Period in hours for updating the time server.
Timezone	Local time in GMT format.

To apply the settings, click on Save and Reboot.

If you cannot reach a time server in the network, you can take over the time from your PC once by clicking on Time PC. However, when the base station is restarted, this time information is deleted.

### Configuration

In the area **Configuration** you will find the view of the performed configuration in text form. The settings can be saved at this point in a file (\*.cfg), for later use. In addition, an already created configuration file can be loaded here.



The passwords are not saved when the configuration file is saved. They must be set again!

### To save the configuration settings in a file (\*.cfg)

- 1 Select Management | Configuration.
  - $\checkmark\,$  The previous settings are displayed in text form.
- 2 Click on Export.
  - The dialog Save as... opens. If this is not the case, the file is immediately saved to the browser's default download path.
- **3** You can specify a storage location.
- **4** The file **Settings.cfg** is loaded into your download directory for further use.

### To load a configuration file

- 1 Select Management | Configuration.
- **2** Click on the button **Select file** and select the desired configuration file (\*.cfg).
- **3** Click on Load.
  - ✓ The settings are applied.

### Syslog

In the area Syslog the system log files are provided for viewing.

### SIP Log

In the area SIP Log the SIP log files are provided for viewing.

### 1.7.3.4 SECURITY

In the area **Security** you assign the user name and password of the web interface for configuring the base station or the system.

### 1.7.3.5 CENTRAL DIRECTORY

Here you store the location of the phonebook files to be imported. By clicking on Load the phone book files are imported.



The import file may contain a maximum of 3000 entries.

Import files are available in the formats .csv, .txt and .xml are allowed.

### Import requirements for .csv and .txt

.txt	.CSV
Names must not be longer than 23 chara than 21 characters (all further characters saved)	cters, phone numbers must not be longer will be truncated or the entry will not be
Names must have the following format: First name Last name	Names must have the following format: First name Last name
Example: John Jones	Example: "John Jones"
Phone numbers must have the canonical URI are not allowed) <i>Example with area code:</i> +4415134567 <i>Example extension:</i> 567	format and must not contain spaces (SIP
Name and phone number must have the following format: Name,phone number <i>Example with prefix: John</i> <i>Jones</i> ,+4415134567	Name and phone number must have the following format: Name,Home phone number,Mobile phone number,Office phone number (all three commas must be present for each entry, even if not all phone numbers are present)
Example extension. joint jones, jor	Example with all phone numbers: "John Jones",+4415134567,+015201234567,123

Example with missing numbers: "John

Jones",+015201234567,123



When importing phone numbers, the entire phone book is rewritten. It is not possible to attach contacts. The imported contacts are not displayed in the configuration interface of the base station.

# To import contacts via a phonebook file from an HTTP or TFTP server

- 1 Select Management.
- 2 In the field Management Transfer Protocol depending on usage select HTTP or TFTP.
- 3 Click on Save.
- 4 Select Central Directory.
- 5 In the field Server, enter the IP address of the HTTP or TFTP server.
- 6 Create a directory with the name **Directory** on the HTTP or TFTP server and place the CSV file to be imported there.
- **7** Go back to **Central Directory** and enter the file name in the field **File** name.
- 8 Click on Save.
- 9 Restart the base station.

### To import contacts via a phonebook file from an LDAP server

- 1 Select Central Directory.
- 2 In the field Location select 'LDAP-Server'.
- **3** In the field **Server**, enter the IP address of the LDAP server.
- 4 In the field **Port**, enter the port of your LDAP server.
- **5** In the field **Sbase**, specify the desired database (e.g. dc=meta).
- 6 In the field **Bind**, specify the user name for authentication to the LDAP server.
- **7** Enter the password if necessary.
- 8 Click on Save.

### To import contacts by selecting a phonebook file

- 1 Select Central Directory.
- 2 If necessary, at Location select 'Local'.
- **3** In the field **Filename** by clicking on **Choose file** select the CSV file that contains the contact data.
- 4 Click on Load to load the file.
- **5** Restart the base station.



The file name of the CSV file is limited to 31 characters.

### 1.7.3.6 ALARM

You can define what happens when a user presses the emergency button on their handset. In this way, another contact can be quickly notified in the event of an emergency.



An emergency/ alarm is always handset specific. So if a user uses multiple devices, you may need to apply the settings to each handset.

For each user you can individually create an emergency contact and choose between different alarm profiles.

See 1 Alarm Number , page 11.

In order to use the alarm function, you must have defined these settings for the user (for each one individually). An alarm is then triggered when a user presses their emergency button on their handset for 3 seconds.

### To configure alarm profiles

- 1 Select Alarm.
  - $\checkmark\,$  The list of the seven alarm profiles appears.

#### DECT 600 L (Primary)

#### Alarm

Idx	Profile Alias	Alarm Type	Alarm Signal	Stop Alarm from Handset	Trigger Delay	Stop Pre- Alarm from Handset	Pre-Alarm Delay	Howling	Alarm Priority
0		Disabled v	Call v	Enabled v	0	Enabled v	0	Disabled v	0
1		Disabled 🗸	Call v	Enabled 👻	0	Enabled 👻	0	Disabled 🗸	0
2		Disabled v	Call v	Enabled v	0	Enabled 🗸	0	Disabled v	0
3		Disabled v	Call 🗸	Enabled 👻	0	Enabled 👻	0	Disabled 👻	0
4		Disabled v	Call v	Enabled v	0	Enabled v	0	Disabled v	0
5		Disabled v	Call v	Enabled 🗸	0	Enabled 🗸	0	Disabled 🗸	0
6		Disabled v	Call v	Enabled 👻	0	Enabled 👻	0	Disabled 👻	0
7		Disabled v	Call 🗸	Enabled 👻	0	Enabled 👻	0	Disabled 🗸	0

Save Cancel

#### Web interface Alarm DECT 600 L

**2** You can edit the following entries:

Function	Description
Profile Alias	Set a name for the profile.
Alarm type	Activate this function to enable the profile. Only then can an alarm button be used for the function.
Alarm Signal	Select Call.
Stop Alarm from Hand- set	Select whether the person triggering an alarm can end it on their handset.
Trigger Delay	Leave the trigger time at 0 seconds so that an emergency can be delivered immediately.
Stop Pre-Alarm from Handset	Enable this function to allow the trigger of an alarm to withdraw it itself (false alarm) before it is sent.
Pre-Alarm Delay	Specify an interval in seconds during which an emergency call can be withdrawn from the person triggering it.
Howling	Howling is an advisory tone that is a loud confirmation that sounds when an alarm has been sent.

3 Click on Save.

### 1.7.3.7 MULTI CELL

In the area **Multi Cell Settings** you can perform the multi cell configuration for setting specific base stations.

See 1 Configuration of a multi-cell system , page 7.

### Multi Cell Status

Function	Description
System Information	Status of the multi cell system.
Last packet received from IP	IP address of the last synchronized base station or repeater + time of synchronization.

### Settings for this base

Function	Description
Multi Cell system	To enable the multi cell mode of the Enreach DECT 600, this option must be enabled.
Multi Cell ID	Displays the ID unique to a particular multi-cell. The System chain ID is not editable.
Synchronization time (s)	The duration in seconds after which links of base stations are synchronized with each other.
Data Sync	The DECT base stations are synchronized with each other via the network. Two types of synchronization can be selected:
	Multicast (recommended): Simultaneous distribution of synchronization data to all connected base stations. This function must be supported by the network hardware (switches). If this is not the case select Peer-To-Peer.
	<b>Peer-To-Peer:</b> With <b>Peer-To-Peer</b> , each base station is given another base station as a synchronization target. All base stations in the system are synchronized in the process. Then enter the corresponding IP address manually at <b>Primary Data Sync IP</b> .

### 1.7.3.8 LOGOUT

By clicking on Logout you log out from the web interface.

# 1.8 REGISTER HANDSET TO ENREACH DECT 600

If you have set up your DECT 600 system automatically via SCC, see *1.5* Automatic setup via SCC, page 5, you will find a description of how to register the handsets in the SCC manual, see help.enreach.com/controlcenter/ 14.20/web/Swyx/en-US/index.html#page/help/chap\_deskphones.14.23.html.

The following describes the registration of handsets on DECT 600 systems that have been set up manually via the web interface of the base station.



Make sure that your handset is compatible with the Enreach DECT 600 base station and has the latest firmware.

While the base station is in registration mode, you can register the handset with the base station. Have the 4-digit number (access code) ready, which can be found in the menu under Extensions in the AC (Access Code) field.

### To connect a handset to Enreach DECT 600

If the base station is already in login mode, continue with step (4), otherwise start with step (1).

- 1 In the web interface, select Extensions.
- **2** Select a user by placing a check mark.

- 3 Then click on Register Handset(s). ✓ The login mode is activated.
- 4 Press the menu key on the handset.

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- 5 On the handset, select Menu | Connectivity | Register.
- 6 Enter the 4-digit number (AC) (Default: '0000') and press OK.
   ✓ The phone is registered to the base station.

#### The login mode is not automatically disabled. To prevent unauthorized logins, disable the logon mode. To do this, select in the web interface Extensions | Stop Registration.

# 1.9 COMPATIBILITY OF SWYXDECT 500 AND ENREACH DECT 600 L

You can upgrade existing SwyxDECT 500 systems with new Enreach DECT 600 components.

## 1.9.1 UPGRADE FOR SWYXPHONES D510 AND D565

If you want to connect existing SwyxPhones D510/D565 with a new Enreach DECT 600 L system you need a **Compatibility Pack**.

The Compatibility Packs and further information can be found here in the Partner Net. You may need to be logged in to view the page.

- DECT 500 repeaters are not compatible with DECT 600 systems
- DECT 500 base stations cannot be used in a DECT 600 system.

See also service.swyx.net/hc/en/articles/4801820497948.

## 1.9.2 OPERATING SWYXDECT 500 AND ENREACH DECT 600 L COMPONENTS TOGETHER



The use of systems set up automatically via SCC is restricted exclusively to DECT 600 installations and is not downward compatible with SwyxDECT 500.

If you have set up your base station manually, you can use DECT 600 components backwards compatible on a SwyxDECT 500 system.

To operate Enreach DECT 600 components on a SwyxDECT 500 system, you need to downgrade the firmware. To do so, you need a **Compatibility Pack**. You can find this and more information here in the Partner Net. You may need to be logged in to view the page.



STOP

The paths in the firmware archive differ from those of the SwyxDECT 500. Copy the unpacked firmware package including the stored paths to your update server and then adjust the path in the Enreach DECT 600 Administration accordingly.

For information on "mixed operation" and a compatibility overview of individual components, see service.swyx.net/hc/en-gb/articles/ 4801820497948.

# 1.10 RESETTING THE BASE STATION AND HANDSETS TO FACTORY SETTINGS

You can perform the factory reset on the base station or in the web interface.

Note that files and configuration will be lost when resetting the base station.

### How to reset the Enreach DECT 600 L via the base station

Press and hold the reset switch on the base station, see 1.4 General information about the Enreach DECT 600 L, page 5, with a pointed object for at least 10 seconds until the LED lights up solid red.
 ✓ The base station is reset to the factory settings.

### How to reset the Enreach DECT 600 L via the web interface

- 1 In the web interface, select Management | Default Base Station.
- 2 Confirm with OK.
  - $\checkmark$  The base station is reset to the factory settings.

### To reset your SwyxPhone to factory settings

Valid for SwyxPhone D510, SwyxPhone D565, HS 630, HS 650 and HS 670.



Note that the handsets must be recommissioned after a factory reset and local files are deleted.

- 1 Press the Menu key (3 horizontal lines).
- 2 Enter the following combination: [star key], 7, 3, 7, 8, 4, 2, 3, [star key].
  - ✓ The service menu opens.
- **3** Select the menu item **Master reset** and confirm the reset with **OK** or the select key.



As an aid to thinking, you can remember that the letters of the key combination make the word "service".

✓ The handset is reset. This may take a few minutes.