



Enreach DECT 600 S

User Documentation

As of: December 2023

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1 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.

Many configurations are identical to the SwyxDECT 500 systems.



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 1.8.1 *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.

From firmware version 7.20, the base station with SwyxWare supports the following functions:

- **Swyx call forwarding:** A user can now also (de)activate and configure their server-based default call forwarding (immediate, busy, no answer) on a DECT 600 handset. The call forwardings are synchronized with the Swyx server settings.
- **Do not disturb (DND):** A user can now also set or deactivate their server-based DND status on a DECT 600 end device. The DND status on the handset is synchronized with the server settings.
- **Call notification:** If a user is a member of a group for which call notifications are configured, they are now also informed on their DECT 600 handset when a group member receives a call.
- **Call pickup:** If configured, the user can accept the displayed call on their DECT 600 handset.

For these functions, "Call Pickup" and "Broadworks Feature Event Package" must be activated for the respective user in the web portal of the base station. See *BroadWorks Feature Event Package*, page 11.

See also service.swyx.net/hc/en-gb/articles/11168912357532-Enreach-DECT-600-Firmware-Pack-v-7-20-B0101-v1-Released.

1.1 Properties overview

	DECT 600 S
Recommended installation size	Up to 20 terminals with 2 base stations
Max. number of base stations	2 (Dual Cell)
Parallel conversations	10 resp. 16 with 2 base stations
Expandable with number of DECT R 600 repeaters	6 per base, up to 3 in a chain
Number of usable voice channels per base	10 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 connection	10/100 Base, PoE
Dimensions (length x width x depth)	93 x 98 x 27 mm
Installation option	Wall mounting and tabletop installation
Radio standard	DECT

1.2 Scope of supply

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

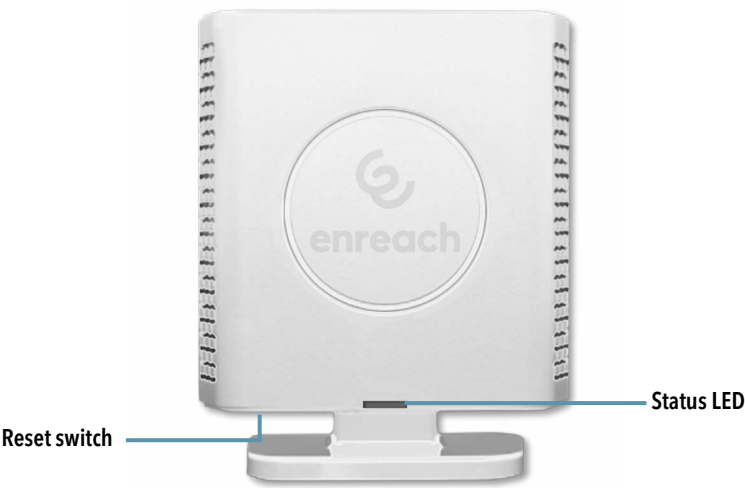
1.3 Installation

The Enreach DECT 600 S base station is designed for operation as a stand-alone device as well as for wall mounting. For wall mounting, the stand must first be removed.

To mount the Enreach DECT 600 base station on the wall

- 1 Mark two drill holes horizontally at a distance of 70 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 S



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 S 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 style="list-style-type: none">• The base station is active, the network registration has been successful• Operation with good RSSI, better than -75 dBm
permanent orange	<ul style="list-style-type: none">• Operation with RSSI between -75 dBm and -90 dBm
unlit/ permanently red	<ul style="list-style-type: none">• Unacceptable RSSI below -90 dBm• Warning of factory reset or long press of reset button• Error/ Critical error
flashing green	<ul style="list-style-type: none">• Initialization• Search for base stations
flashing orange	<ul style="list-style-type: none">• Initialization• Search by IP
flashing red	<ul style="list-style-type: none">• Factory reset is performed• Firmware upgrade/ downgrade is performed• No Internet connection available or SIP handset registration failed
unlit	<ul style="list-style-type: none">• 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 S via the base station*, page 22.

1.5 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.xxx` (whereas `xxx.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.

1.6 Configure 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 S can be used to operate in a 2-cell system or as a single cell.

1.6.1 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 *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.



DECT 600 S

- Home/Status
- Statistics
- Generic Statistics
- Diagnostics
- Extensions
- Servers
- Repeaters
- Network
- Management
- Firmware Update
- Country
- Configuration
- Syslog
- SIP Log
- Security
- Central Directory
- Alarm
- Dual Cell
- Logout

Welcome

System Information:

Phone Type:
System Type:
RF Band:
Current local time:
Operation time:
RFPI Address:
MAC Address:
IP Address:
Firmware Version:
Firmware URL:

Reboot: 2022-03-03 09:41:42 (15)

Reboot: 2022-01-10 09:04:13 (14)

Reboot: 2021-12-17 09:31:48 (13)

Reboot: 2021-12-02 12:51:00 (12)

Reboot: 2021-11-25 17:38:24 (11)

Reboot: 2021-11-23 12:13:01 (10)

Base Station Status:
SIP Identity Status on this Base Station:
[6500@192.168.50.38](#)
[6510@192.168.50.38](#)
[6520@192.168.50.38](#)

Dual Cell Unchained (Unchained) Allowed to Join as Prim

IPDECT-V2 (BS 600 S)
Generic SIP (RFC 3261)
EU
11-May-2022 15:30:46
69 Days 05:46:18 (H:M:S)
135A5381; RPN:00
00087b1b1c4b
192.168.50.53
IPDECT-V2/06.10/B0001/14-Dec-2021 09:03
Firmware update server address: 192.168.50.30
Firmware path: rtb/fw600
Power Loss (80) Firmware Version 0610.0001
(RESET_CAUSE_HARDWARE_RESET)
Power Loss (80) Firmware Version 0610.0001
(RESET_CAUSE_HARDWARE_RESET)
Forced Reboot (81) Firmware Version 1104.2148
(RESET_CAUSE_MAIN_CODE_UPDATE)
Power Loss (80) Firmware Version 1104.2148
(RESET_CAUSE_HARDWARE_RESET)
Power Loss (80) Firmware Version 1104.2148
(RESET_CAUSE_HARDWARE_RESET)
Power Loss (80) Firmware Version 1104.2148
(RESET_CAUSE_HARDWARE_RESET)
Idle

Press button to reboot.

- 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 In the field **Secondary Register Address** enter the IP address of the standby server, if necessary.
- 15 Enable **SIP Session Timers**.
- 16 In the field **Session Timer Value** enter the value '90'.
- 17 At **DTMF Signalling** select **SIP-INFO**.
- 18 Click on **Save**.
- 19 Add a new user. See *To add a handset*, page 11 and *To add a new user*, page 11.



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.

1.6.2 Configuring a Dual Cell system

A Dual Cell system is a coordinated, synchronized system of two base stations to cover a slightly larger radio area.

With the Enreach DECT 600 S, only 2 base stations can be set up in a chain.

Before installing a Dual Cell system, check the requirements regarding 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. For larger areas of use, we usually recommend the DECT 600 L system.

To configure a Dual Cell system, proceed in the following order:

- Set up the first base station (step (1) to (9))
- Add a server (step (10) to (18))
- Add at least one user (step (19))
- Set the first base station to **Dual Cell**(step (20))
- Add a second base station (usually done automatically)

DECT 600 S

Dual Cell Settings

Dual Cell Status
 System Information: Keep Alive
 Last packet received from IP: 192.168.50.153 23-Jun-2022 14:48:10
 Sync Data from IP: 192.168.50.153

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

Dual Cell System:
 System chain ID:
 Data Sync:
 Primary Data Sync IP:
 Base Replacement Timeout (15-255 Min):
 Dual Cell Debug:

DECT system settings
 These settings are DECT settings for the system.

RFPI System: 135A5381; RPN:00
 Auto configure DECT sync source tree:
 Allow multi primary:
 Auto create multi primary:

Base station settings
 SIP Server support for multiple registrations per account: (used for roaming signalling)

Base Station Group

	ID	RPN	Version	MAC Address	IP Address	IP Status	DECT sync source	DECT property	Base Station Name
<input type="checkbox"/>	0	00	610.4	00087B1B1C4B	192.168.50.53	This Unit	<input type="text" value="Select as primary"/>	Primary	DECT 600 S
<input type="checkbox"/>	1	08	610.4	00087B1B1C44	192.168.50.153	Connected	<input type="text" value="Primary:RPN00 (-24dBm)"/>	Free Running!	DECT 600 S

[Check All / Uncheck All](#)
 With selected: [Remove from chain](#)

DECT Chain
 Primary: RPN00: DECT 600 S
 Level 1: RPN08: DECT 600 S

Web interface Dual Cell settings DECT 600 S

To configure a Dual Cell system

- 1 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). 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 In the field **Secondary Register Address** enter the IP address of the standby server, if necessary.
- 15 Enable **SIP Session Timers**.
- 16 In the field **Session Timer Value** enter the value '90'.
- 17 At **DTMF Signalling** select **SIP-INFO**.
- 18 Click on **Save**.
- 19 Add a new user. See *To add a handset*, page 11 and *To add a new user*, page 11.
- 20 Select **Multi Cell**.
- 21 Enter a period of 15-255 minutes for **Base Replacement Timeout**, from which the secondary base station should take over the position of the primary base station in case of a timeout (default 15).
- 22 Under **Settings for this base** at **Dual Cell System**, select **Enabled**.
 ✓ At **Home/Status** the first configured base station is then marked as primary cell in the **System Information**.
- 23 Click on **Save and Reboot**.
 ✓ A restart is performed.

- 24** Configure a second base station by repeating steps **(1)** to **(9)** and then steps **(20)** to **(23)**.
- 25** 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.
- 26** 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.
- 27** Click on **Save** to activate the settings.



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

1.6.3 Settings at the webinterface

Function	Description
Home/Status	General overview of the current operating status and settings on the base station and the handsets. Statistics Overview of the functionality of the base station(s). The logs can help the administrator in cases of error analysis and system optimization.
Users	Managing all users. See <i>User</i> , page 10. Server Setting the server to which the base station connects. See <i>Server</i> , page 12. Repeaters Option to configure repeaters. See <i>Repeater</i> , page 13.

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. SIP/RTP Settings Facilitates configuration of SIP parameters. DHCP Options Facilitates activating/deactivating plug-n-play. See <i>Network</i> , page 14.
Management	Option to configure the base station for special functions, such as web interface language, log management, etc. See <i>Management</i> , page 15. Firmware update Option to configure how base stations and handsets are updated. See <i>Firmware Update</i> , page 16. Country Option to configure location. See <i>Country</i> , page 17. Configuration Display of detailed and complete SME network settings for base stations, HTTP/DNS/DHCP/TFTP servers, SIP servers, etc. See <i>Logout</i> , page 21. Syslog Display of events and logs respective to the whole network (live feed only). See <i>Syslog</i> , page 18. SIP Log Display of SIP-related logs
Security	Option to assign a user name and password on the base station. See <i>Security</i> , page 18.

Function	Description
Global Phonebook	Option to load a global telephone book saved on the server. See <i>Central Directory</i> , page 18.
Alarm	Specify what happens when a user presses the emergency button on their handset. See <i>Alarm</i> , page 19.
Dual Cell	Configuring a Dual Cell system. See <i>Dual Cell</i> , page 20.
Log off	Log-off

1.6.3.1 User

Below the menu item **Extensions** you can make the following settings:

- Add and edit users
- Display all of the system's registered users
- Select registered users to delete or deregister handsets

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DECT 600 S

Home/Status

Statistics

Generic Statistics

Diagnostics

Extensions

Servers

Repeaters

Network

Management

Firmware Update

Country

Configuration

Syslog

SIP Log

Security

Central Directory

Alarm

Dual Cell

Logout

Edit extension

Extension:

Authentication User Name:

Authentication Password:

Display Name:

XSI Username:

XSI Password:

Mailbox Name:

Mailbox Number:

P-Preferred-Identity:

Server:

Call waiting feature:

BroadWorks Feature Event Package:

UaCSTA:

Forwarding Unconditional Number:

Forwarding No Answer Number:

Forwarding on Busy Number:

#1: 192.168.50.38

Disabled

Disabled

Disabled

Disabled

Disabled

Disabled

Disabled

90

s

Save

Cancel

Select Handset(s)

	Idx	IPEI
<input type="checkbox"/>	Add Handset	N/A
<input type="checkbox"/>	1	0328D1994F
<input checked="" type="checkbox"/>	2	0328DAD4EF
<input type="checkbox"/>	3	0328D37FFE

Web interface extension DECT 600 S

Parameter	Description
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

Parameter	Description
Mailbox Number	Here you can e.g. enter the function code for remote query (##10).
P-Preferred-Identity (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.
Server	SwyxServer IP address; several SwyxServer can be selected.
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 Package	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 Unconditional 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.

Parameter	Description
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 users, you must first create a server, see [Server](#), page 12. Before registering a new user, have the serial number (IPEI) of the corresponding handset (handsets) ready. The serial number can be found in the handset menu under [Settings | Status](#).

To add a handset

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 | Handset](#).
- 2 Click on [Add Handset](#).
- 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 To use the emergency function, enter a number of the person to whom an alarm of this handset is to be delivered in [Alarm Number](#).
- 6 Then select the desired profile for the user at the bottom of [Alarm profiles](#).
See *Alarm*, page 19.
- 7 Click on [Save](#).

To add a new user

To add an extension to the Enreach DECT 600 S, you must first add a handset, see *To add a handset*, page 11.

- 1 In the menu bar, select [Extensions](#).
- 2 Click on [Add extension](#).

- 3 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'*.
- 4 At **Authentication Password** enter the SIP password that you also assigned in SwyxServer within the SIP registration.
- 5 In the field **Display Name** enter the name that should appear in the display of the user's handset.
- 6 In the field **Mailbox Name** enter the user's phone number, if necessary.
- 7 In the field **Mailbox Number** you can enter, for example, the function code for the remote query (##10).
- 8 In the field **Server** select the SwyxServer on which the user is created.
- 9 In the **BroadWorks Feature Event Package** field, select **Enabled**.
- 10 Select a handset on the right side by checking the corresponding checkbox to add it to the user.
- 11 Click on **Save**.
- 12 Select the tab **Handset**.
- 13 Click on **Register Handset(s)**.
 - ✓ The base station login mode is activated for a few minutes.
- 14 Register the handset of the user you just added to the base station while the base station is in registration mode. See *Register handset to Enreach DECT 600*, page 21.

Server

DECT 600 S

Servers

Server #1:
192.168.20.38
[Add Server](#)
[Remove Server](#)

Server #1:

Server Alias:

ServerName

NAT Adaption:

Enabled

Registrar:

Secondary Register Address:

SIP Server Retry Check Time:

60

Call Log Server:

Reregistration time (s):

120

SIP Session Timers:

Enabled

Session Timer Value (s):

90

SIP Transport:

UDP

Signal TCP Source Port:

Enabled

Use One TCP Connection per SIP Extension:

Disabled

RTP from own base station:

Disabled

Keep Alive:

Enabled

Show Extension on Handset Idle Screen:

Enabled

Hold Behaviour:

RFC 3264

Local Ring Back Tone:

Enabled

Remote Ring Tone Control:

Enabled

Attended Transfer Behaviour:

Hold 2nd Call

Semi-Attended Transfer Behaviour:

Allow Semi-Attended Transfer

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

DTMF Payload Type:

101

Remote Caller ID Source Priority:

PAI - FROM

Codec Priority:

- Max number of codecs is 5

G722
G711A
G711U
G729

UpDown

Reset Codecs

Remove

G729 Annex B:

Disabled

RTP Packet Size:

20 ms

Secure RTP:

Disabled

Secure RTP Auth:

Enabled

SRTP Crypto Suites:

AES_CM_128_HMAC_SHA1_32
AES_CM_128_HMAC_SHA1_80

UpDown

Reset Crypto Suites

Remove

Media Security:

Disabled

Media Security only for TLS:

Disabled

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
Secondary Registratr Address	IP address of the standby server
SIP Server Retry Check Time	The interval (in seconds) to identify the active server in a standby system.
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 Up and Down 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 If you are using a standby server, enter the IP address of the standby server in the **Secondary Register Address** field.
- 5 In the field **Reregistration time** enter the value '120'.
- 6 Enable **SIP Session Timers**.
- 7 In the field **Session Timer Value** enter the value '90'.
- 8 In the field **DTMF Signalling** select '**SIP INFO**'.
- 9 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 S 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.

1.6.3.2 Network

- IP Settings
- DHCP Options
- NAT Settings
- SIP/RTP Settings

enreach

DECT 600 S

Home/Status

Statistics

Generic Statistics

Diagnostics

Extensions

Servers

Repeaters

Network

Management

Firmware Update

Country

Configuration

Syslog

SIP Log

Security

Central Directory

Alarm

Dual Cell

Logout

Network Settings

IP Settings

DHCP/Static IP:

DHCP

IP Address:

192.168.50.53

Subnet Mask:

255.255.255.0

Default Gateway:

192.168.50.1

DNS (Primary):

192.168.50.10

DNS (Secondary):

MDNS:

Disabled

NAT Settings

Enable STUN:

Disabled

STUN Server:

STUN Bindtime Determine:

Enabled

STUN Bindtime Guard:

80

Enable RPORT:

Disabled

Keep alive time:

90

SIP/RTP Settings

Use Different SIP Ports:

Disabled

RTP Collision Detection:

Enabled

Always reboot on check-sync:

Disabled

Outbound Proxy Mode:

Use Always

Failover SIP Timer B:

5

Failover SIP Timer F:

5

Local SIP port:

5060

SIP ToS/QoS:

0x68

RTP port:

50004

RTP port range:

254

RTP ToS/QoS:

0xB8

VLAN Settings

ID:

0

User Priority:

0

DHCP Options

Plug-n-Play:

Enabled

TCP Options

TCP Keep Alive Interval:

120

Save and Reboot

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.
DNS (Secondary)	Alternate DNS server.

DHCP Options

At **Plug-n-Play** select **Enabled**.

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.

1.6.3.3 Management

- Firmware Update
- Country
- Settings
- Configuration
- Syslog/SIP Log

DECT 600 S

Management Settings

Base Station Name: DECT 600 S

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 Numbers: 0

Set Prefix for Outgoing Calls:

Configuration

Configuration File Download: Disabled

Configuration Server Address:

Base Specific File:

Dual Cell Specific File:

Auto Resync Polling: Disabled

Auto Resync Time:

Auto Resync Days:

Auto Resync Periodic (Min):

Auto Resync Max Delay (Min):

DHCP Controlled Config Server: Disabled

DHCP Custom Option:

DHCP Custom Option Type:

Text Messaging

Text Messaging: Disabled

Text Messaging & Alarm Server:

Text Messaging Port:

Text Messaging Keep Alive (m):

Text Messaging Response (s):

Text Messaging TTL:

Terminal

Keep Alive (m): 0

Auto Stop Alarm: Disabled

Auto Stop Alarm Delay (s): 30

Syslog/SIP Log

Upload of SIP Log: Disabled

Syslog Level: Normal Operation

TLS security: Disabled

Syslog Server IP Address:

Syslog Server Port: 514

Location Gateway

Location Gateways: Disabled

Configuration Server:

Auto Resync Polling: Disabled

Auto Resync Time:

Auto Resync Max Delay (Min):

License

Idx	Description
No Entries	

License Key:

Save and Reboot

Save

Cancel

Default Base Station

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 password	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.

Function	Description
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 Type terminal device (handset/base/repeater). Omit leading 0 or zeros here. <i>Example:</i> <i>Filename: DECT4024_v0530_b0002</i> <i>530 = Required version (main version)</i> <i>2 = Required branch (branch version)</i>

DECT 600 S

Firmware Update Settings

Firmware update server address:

192.168.50.30

Firmware path:

Terminal file path:

Type	Required version	Required branch	Startup picture	Background picture
Update Base Stations	610	1		
HS 630	610	1		
HS 650	610	1		
R 600	610	1		
HS 670	610	1		
D565	610	1		

Save/Start Update

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: solarwinds.com/free-tools/free-tftp-server 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 S: Directory **9431** ("\\rtx\\DECT600\\9431\\")
 - 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**.



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**.
✓ 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.

1.6.3.4 Security

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

1.6.3.5 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 characters, phone numbers must not be longer than 21 characters (all further characters will be truncated or the entry will not be saved)	
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 format and must not contain spaces (SIP URI are not allowed)	
Example with area code: +4415134567 Example extension: 567	

.txt	.csv
Name and phone number must have the following format: Name,phone number	Name and phone number must have the following format: Name,Home phone number,Moblie phone number,Office phone number (all three commas must be present for each entry, even if not all phone numbers are present)
<i>Example with prefix: John Jones,+4415134567</i> <i>Example extension: John Jones,567</i>	<i>Example with all phone numbers: "John Jones",+4415134567,+015201234567,123</i> <i>Example with missing numbers: "John Jones",+015201234567,123</i>



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.

1.6.3.6 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 *To add a handset*, 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**.
 - ✓ The list of the seven alarm profiles appears.

DECT 600 S

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 ▾	Call ▾	Enabled ▾	0	Enabled ▾	0	Disabled ▾	0
1		Disabled ▾	Call ▾	Enabled ▾	0	Enabled ▾	0	Disabled ▾	0
2		Disabled ▾	Call ▾	Enabled ▾	0	Enabled ▾	0	Disabled ▾	0
3		Disabled ▾	Call ▾	Enabled ▾	0	Enabled ▾	0	Disabled ▾	0
4		Disabled ▾	Call ▾	Enabled ▾	0	Enabled ▾	0	Disabled ▾	0
5		Disabled ▾	Call ▾	Enabled ▾	0	Enabled ▾	0	Disabled ▾	0
6		Disabled ▾	Call ▾	Enabled ▾	0	Enabled ▾	0	Disabled ▾	0
7		Disabled ▾	Call ▾	Enabled ▾	0	Enabled ▾	0	Disabled ▾	0

Save

Cancel

Web interface Alarm DECT 600 S

- 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 Handset	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.

Function	Description
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**.

1.6.3.7 Dual Cell

In the area **Dual Cell Settings** you can configure the dual cell system. See *Configuring a Dual Cell system*, page 7.

Dual Cell Status

Function	Description
System Information	Status of the dual 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
Dual Cell System	Check this option to enable the Dual Cell mode of the Enreach DECT 600 S.
Multi Cell ID	Displays the ID unique to a particular multi-cell. The System chain ID is not editable.

Function	Description
Data Sync	<p>The DECT base stations are synchronized with each other via the network. Two types of synchronization can be selected:</p> <p>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.</p> <p>Peer-To-Peer: With Peer-To-Peer, 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 Primary Data Sync IP.</p>
Base Replacement Timeout (15-255 Min)	Period of 15-255 minutes from which the secondary base station takes over the position of the primary base station in the event of a timeout.

1.6.3.8 Logout

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

1.7 Register handset to Enreach DECT 600



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 | Handset**.
- 2 Select a user by placing a check mark.
- 3 Then click on **Register Handset(s)**.
- 4 Press the menu key on the handset.
- 5 On the handset, select **Menu | Connectivity | Register**.
- 6 Enter the 4-digit number (AC) 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**.

1.8 Compatibility of SwyxDECT 500 and Enreach DECT 600 S

Enreach DECT 600 S is not compatible with DECT 500 systems or Swyx DECT 600 L.

1.8.1 Upgrade for SwyxPhones D510 and D565

If you want to connect existing SwyxPhones D510/D565 with a new Enreach DECT 600 S 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-gb/articles/4801820497948.

1.9 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 S via the base station

- 1 Press and hold the reset switch on the base station, see 1.4 *General information about the Enreach DECT 600 S*, 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 S via the web interface

- 1 In the web interface, select **Management | Default Base Station**.
- 2 Confirm with **OK**.
✓ 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.