Gigaset

elmeg IP680

Administration

Gigaset pro

INSPIRING CONVERSATION.

Contents

Overview **4**
Connectors 4
Front 4
SD card 5
Display key 6
Additional information about your phone 6

Using the phone in different scenarios **7**

First steps **9**
Setting the language 9
Registering the handset (DECT) 9
Establishing a connection to the local network 9
Configuring Internet telephony 11

Web configurator – configuring the phone on a PC **12**
Starting the Web configurator 12
Understanding the Web configurator menu tree 13

Network and connectors **14**
LAN settings 14
Phone Systems 16
QoS settings (Quality of Service) 17
VoIP settings 18
Security settings 19

Telephony **20**
Connections 20
Audio settings 24
Video settings 25
Call divert 25
Local settings 26
Dialling plans 27
Do Not Disturb (DND) 28
Call records 28
Voice mail services 28

Services **29**
Door interphone 29
Online directory 29
LDAP directory 30

Function keys **32**

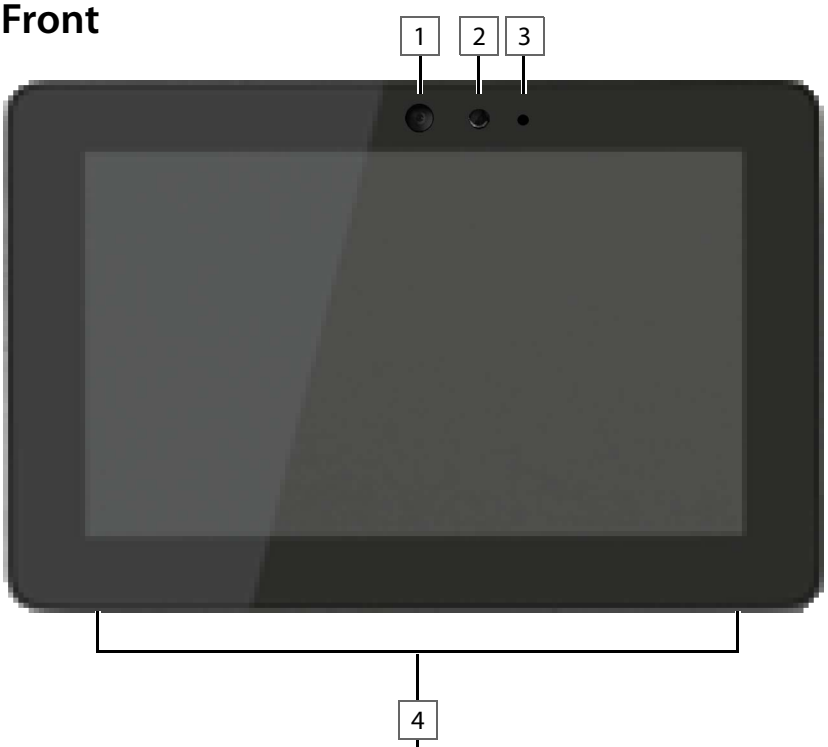
System settings **34**
Date and time 34
Security 35
Rebooting the system and restoring factory settings 36
Auto Provisioning 36
Saving and restoring telephone data 36
Updating firmware 37
Screenshot 38
System log 38

Checking the status of the phone **39**
Device 39
PCAP logging 39

Service (Customer Care) **40**
Questions and answers 40
Protecting our environment **40**
Appendix **41**
Care 41
Contact with liquid 41
Specifications 41
Open Source Software **42**
General 42
Information on license rights and copyright 42
Index **43**

Overview

Front



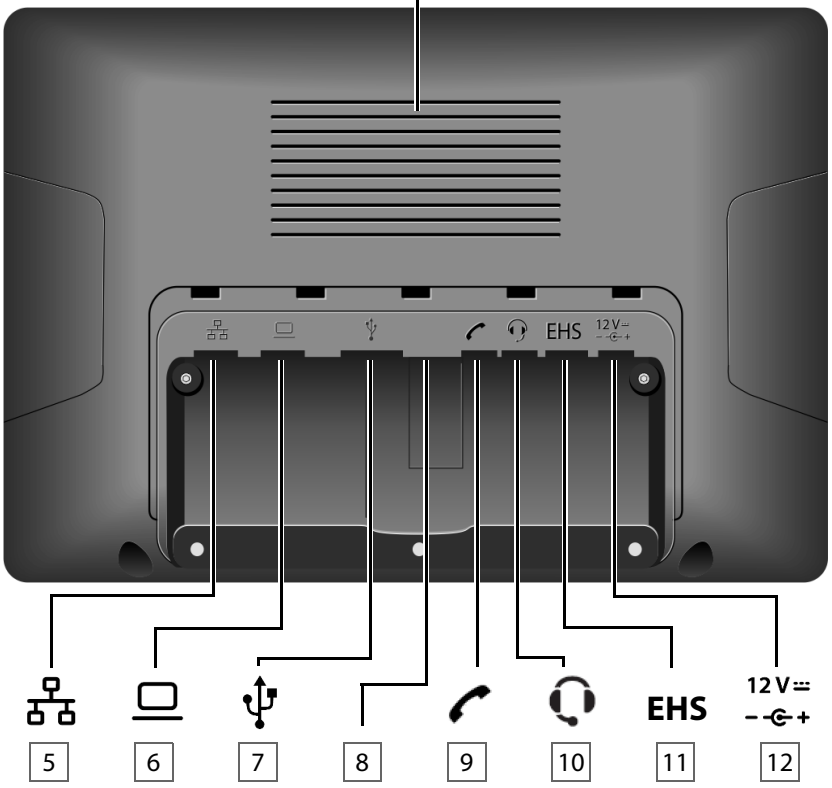
1 Camera

2 Camera Status LED

3 Microphone

4 Loudspeaker

Connectors



5 LAN (PoE)

6 PC

7 USB (headset, camera, mouse, keyboard)

8 HDMI (projector, TV)

9 Handset

10 Headset

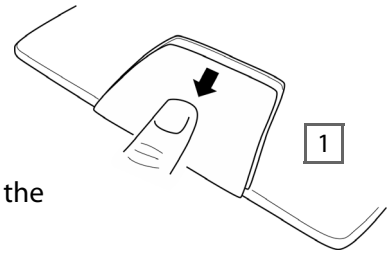
11 EHS Headset

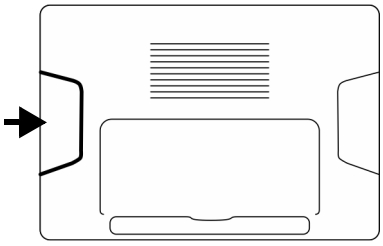
12 Power Supply Unit

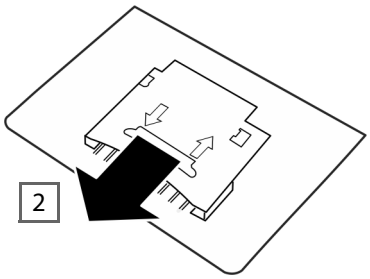
SD card

In order to extend the internal memory and store personal data, images, videos or music, you can insert a microSD card (not included) into your phone.

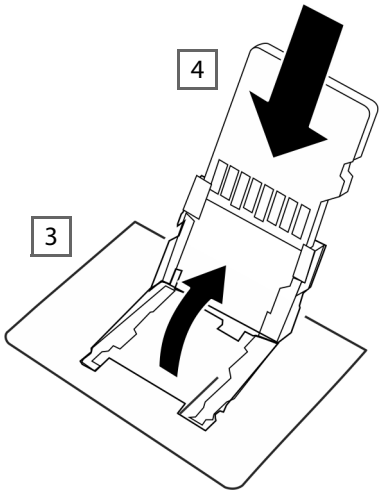
- Open the left cover on the back of the device 1.

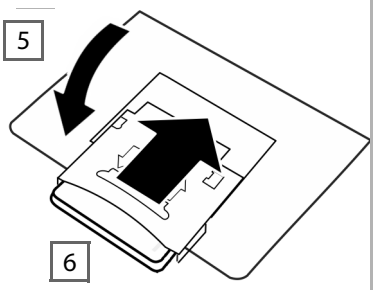






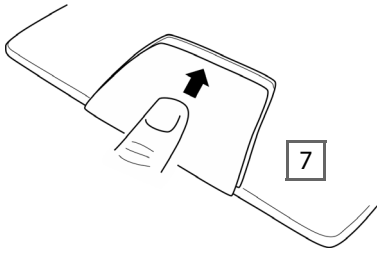
- Insert fingernail into the slit on the card slot and pull card slot forwards 2.
- Flip card slot upwards 3.





- Insert card 4.
- Flip card slot downward 5.
- Push backwards until it clicks into place 6.

- Close cover 7.



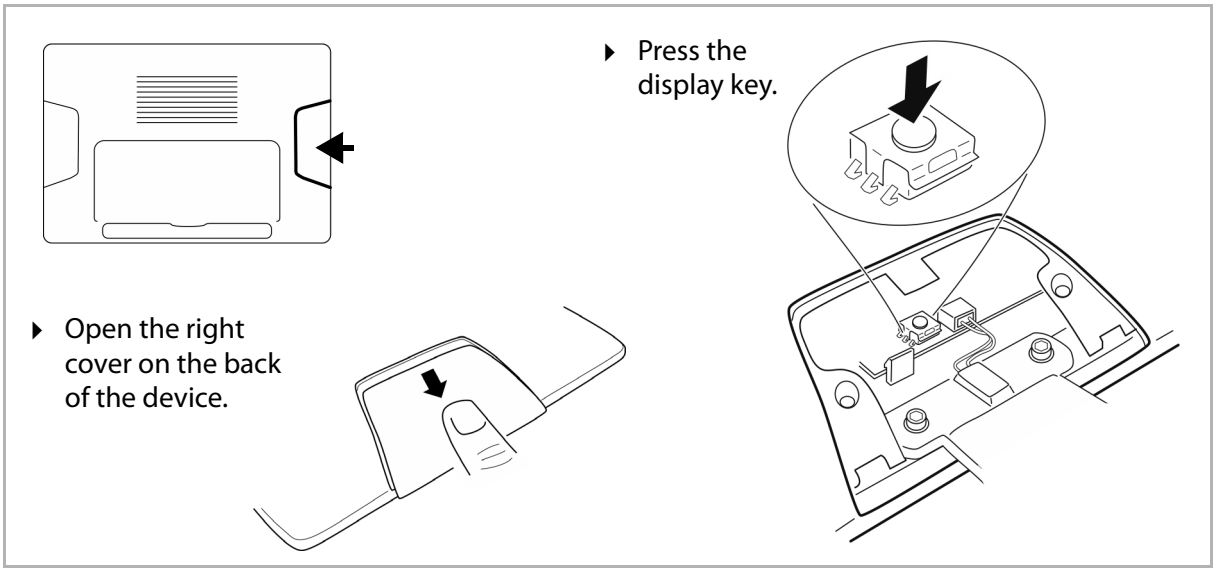
Display key

You can use the display key to switch the display on or off, or to capture a screenshot of the display currently shown.

- **If the screenshot feature is activated:** A screenshot of the display currently shown is captured.
- **If the screenshot feature is not activated:** The display is switched on/off.

The screenshot feature must be activated in the Web configurator (→ p. 38).
The screenshots are stored in the **Gallery** app.

The display key is located behind the right cover on the back of the device.



Additional information about your phone

Using the phone: Video films on your device

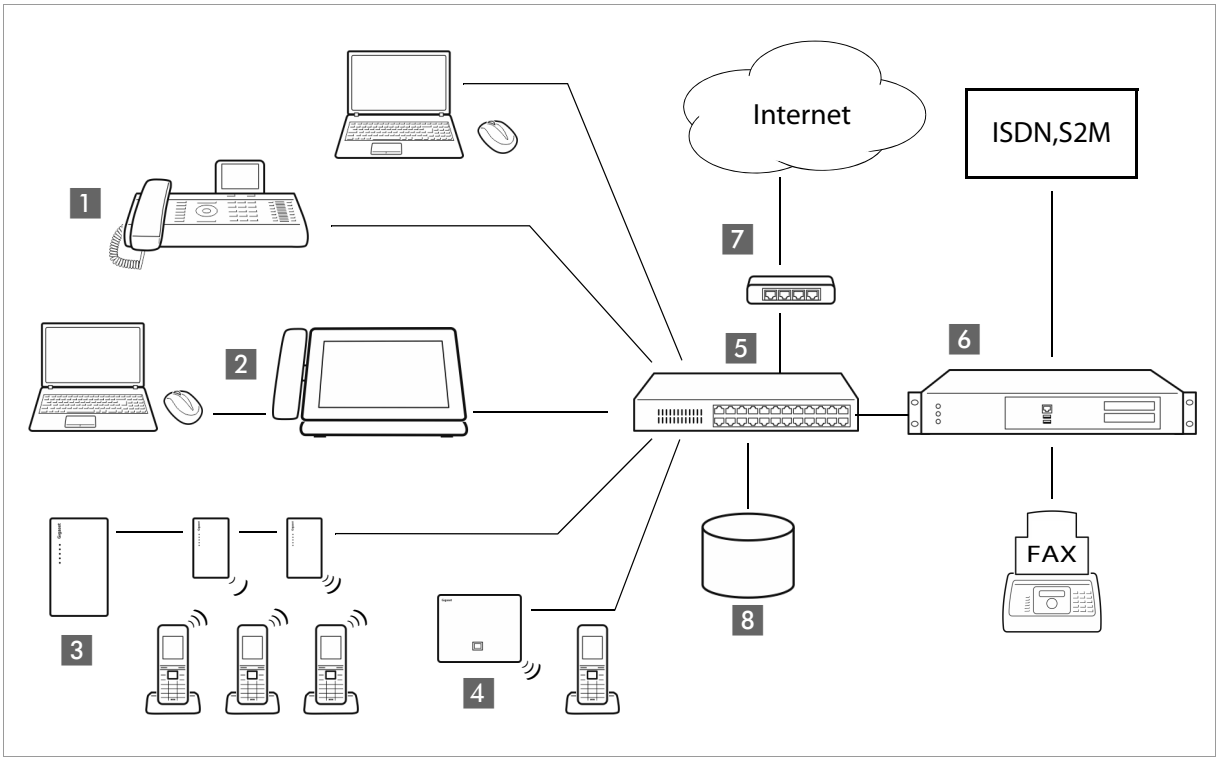
▸ On the start screen: → → **Helper**

Using the phone in different scenarios

Using your phone in a professional environment with phone system and server structure

If you use your elmeg IP680 in a corporate network with a telephone infrastructure, your phone incorporates functions and data from the phone system and servers.

In a corporate environment, the VoIP accounts and most of the settings are configured centrally by the phone system.



1 Gigaset IP telephone

2 Gigaset IP telephone with integrated gigabit switch (elmeg IP680).
Your PC is connected directly to the phone, providing you with an additional LAN connection in your network.

3 DECT Multicell System for connetion to up to 100 DECT handsets.

4 DECT base for connection to DECT handsets.

5 Ethernet switch
Supports Quality of Service (QoS), Gigabit Ethernet and PoE (Power over Ethernet).

6 Phone system (e.g., be.IP family, hybird family, Digitalization box)
Forms Internet telephony, ISDN or S2M connections. Analogue devices can be connected. A network connection is established using Ethernet.

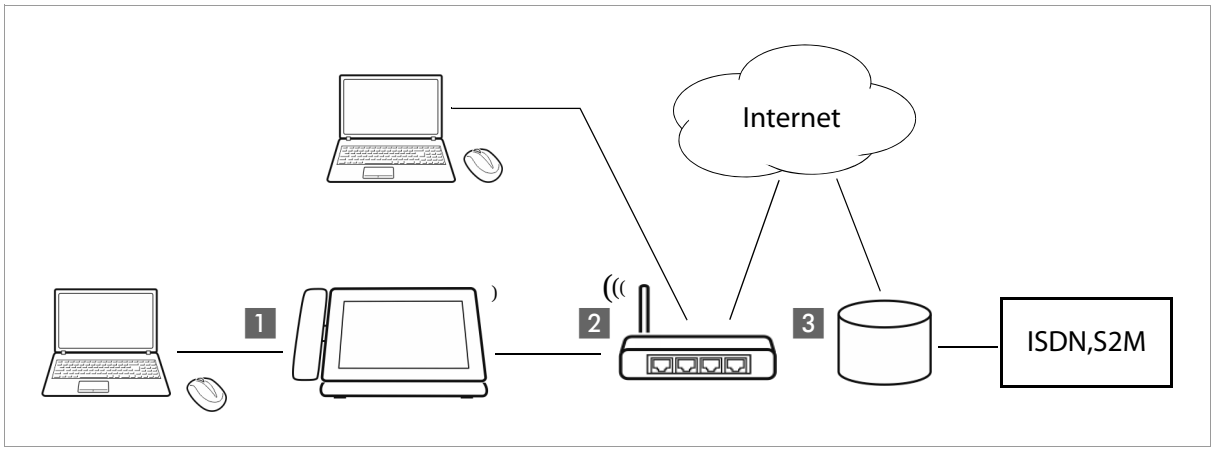
7 Gateway to the Internet for all connected devices. Routes VoIP calls from the phone system to the Internet.

8 File, e-mail and workgroup servers, or NAS systems, can be wirelessly integrated into the phone system architecture. As a result:

- Invitations to conference calls can be organised via the phone system
- The phone system can be backed up to a server or the system can be started via the network
- Online directories (LDAP) can be managed centrally

Using your phone in a simplified environment without a phone system

You can also use your elmeg IP680 without a phone system.



1 Gigaset IP telephone with integrated gigabit switch (elmeg IP680).
Your PC is connected directly to the phone, providing you with an additional LAN connection in your network.

2 Gateway to the Internet for the connected devices. Routes VoIP calls from the phone to the Internet. You establish the connection to the gateway via cable or wirelessly via Wi-Fi.

3 The SIP provider transfers calls from the Internet and establishes a connection with the standard telephone network.

In this scenario, you must **manually configure** the VoIP accounts for your phone. You can create up to 12 VoIP accounts on your phone.

First steps

For information on unpacking and installing the device please refer to the elmeg IP680 Installation Guide.

After after getting started, the elmeg IP680 automatically registers with the phone system in order to configure the telephone parameters – provided that the device is connected to the LAN.

After initial configuration on a phone system of the be.IP family, the hybird family or a Digitalization box you should set the language finally as described below.

Your device will start **automatically** as soon as it is connected to the mains power supply.
Please be aware that if the device is powered by PoE (Power over Ethernet) it is supplied with power as soon as it is connected to an Ethernet switch with PoE-functionality.

Setting the language

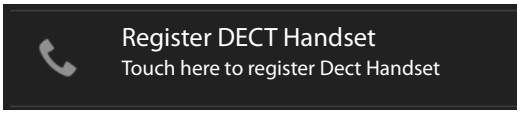
- On the Start screen tap on to open the list of available apps. ▸ Select **Settings**.
- Scroll down and select **Language & input** ▸ Tap on **Language** ▸ Select your desired language.

Registering the handset (DECT)

If you use a DECT handset you need to register it on the phone.

- Install the handset as described in the Installation Guide and place it in the cradle in order to charge the battery.
- On the Start screen tap on to open the list of available apps. ▸ Select **Settings**.
- Select **DECT** ▸ Tap on **Register DECT Handset**.

The registration process may take some time. If the registration is successful a message is output.



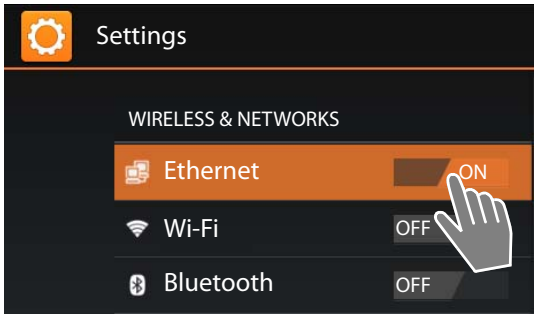
Establishing a connection to the local network

Your phone must be connected to the local network before it can connect to a phone system or the Internet and before you can operate it from a PC. You can connect the phone to the local network via Ethernet or Wi-Fi.

Connecting via Ethernet

- Make sure that the phone's LAN port is connected to an Ethernet switch/router by an Ethernet cable.
- On the Start screen tap on to open the list of available apps. ▸ Select **Settings**.

▸ Select **Ethernet** ▸ Drag switch by **Ethernet** to the right to switch on Ethernet function.



The network connection is established if the phone has automatically been assigned an IP address from a DHCP server in the network.

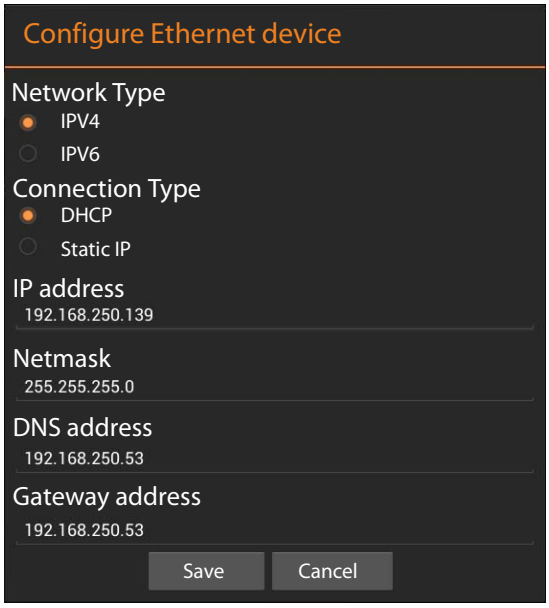
If your device is assigned a static IP address, your network administrator must tell you the IP address of your device. You then assign this address to your phone manually.

Ethernet configuration

▸ Tap on **Ethernet configuration**.

If the network connection is established, the configuration information, e.g. the IP address, is displayed.

If the network connection has not been established automatically, you can enter the configuration data manually.



Proxy configuration

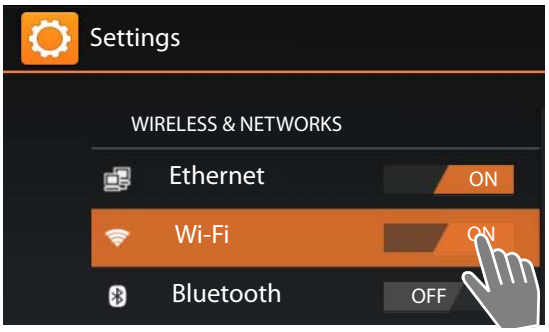
When a connection to internal or external network resources is made via a proxy server, you must enter the proxy server data. Proxy settings are used by the browser but may not be used by other apps.

▸ Tap on **Proxy Configuration**. ▸ Enter the data of your proxy server.

Connecting via Wi-Fi

▸ On the Start screen tap on to open the list of available apps. ▸ Select **Settings**.

▸ Select **Wi-Fi** ▸ Drag switch by **Wi-Fi** to the right to switch on Wi-Fi function.



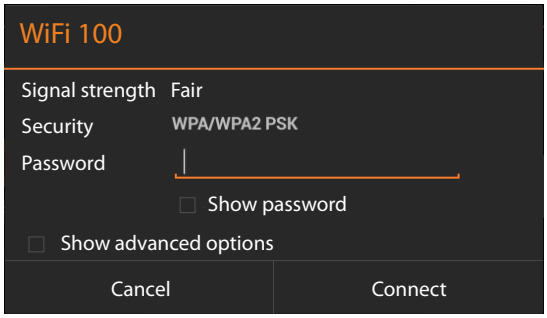
The phone attempts to connect with a Wi-Fi in range. Once a connection has been established, you will see the Wi-Fi icon in the toolbar. It displays the signal strength.

A list of Wi-Fis in range of your phone is displayed. An icon indicates the signal strength. Secure networks are identified with a lock icon.

▸ If necessary, tap on context menu ▸ **Scan** to update the list.

▸ Tap on the desired Wi-Fi. ▸ Enter password/network key.

▸ Tap on **Connect**.



Adding another Wi-Fi

Wi-Fis that are not in range or that withhold the SSID and are therefore not displayed in the list can be entered manually. You will require the network name (SSID), the security protocol used and the network key. Once the tablet is in range of one of these Wi-Fis, the connection is established.

- Select **Wi-Fi** ▸ Tap on ▸ Enter **Network SSID**.
- Select security protocol (**None**, **WEP**, **WPA/WPA2 PSK**, **802.1x EAP).**
- Enter password/network key. ▸ **Save**.

Configuring Internet telephony

Before you can use the device to phone anyone you need the services of a VoIP provider.

Prerequisite:

- You have a phone system in your network that provides VoIP accounts for your device, or
- You have registered with a VoIP provider (e.g., via your PC) and set up a VoIP account.

The device searches the network for a provisioning file and checks whether VoIP accounts already exist. If the telephone has existing VoIP accounts, these accounts are configured automatically. You can now make calls with your phone via the Internet.

If the telephone has no existing VoIP accounts, you must configure them manually. The Web configurator will help you with this (→ p. 20).

For information on setting up a VoIP account for the phone on a phone system of the be.IP family, the hybird family or a Digitalization box please consult the documentation for your phone system under www.bintec-elmeg.de.

Web configurator – configuring the phone on a PC

The Web configurator provides you with a user interface that you can use to configure your elmeg IP680 on the PC.

Prerequisites:

- Your phone is connected to the local network.
- The Web server is enabled.

Enabling the web server

- On the Start screen tap on to open the list of available apps. ▸ Select **Settings**.
- Select **WebUI** ▸ Drag switch by **WebUI** to the right to switch on the Web server function.

Starting the Web configurator

To start the Web configurator you will need the IP address for your phone. You will find this via the phone display, in the Ethernet or WLAN settings for the device:

If connected via Ethernet:

- On the Start screen tap on ▸ Select **Settings** ▸ **Ethernet** ▸ **Ethernet configuration**.

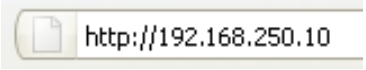
If connected via Wi-Fi:

- On the Start screen tap on ▸ Select **Settings** ▸ **Wi-Fi** ▸ Tap on the network your phone is connected to.

- The IP addresses are also displayed on the status page:
  ▸ ▸ **Settings** ▸ **About tablet** ▸ **Status.**
- The IP address can sometimes change, depending on the settings of the DHCP server in your network.

Accessing the Web configurator:

- Launch the Internet browser on your PC.
- Enter the IP address in the browser's address field. Example:



The login screen appears.

- Select the appropriate language from the drop-down list.
- Enter the password. Default: **admin**
- Click on **Login**.

The Web configurator will now start.

- Select the function that you wish to use.
- Use the **Settings** tab to set or change individual functions on your phone.
- Open the **Status** tab to obtain information about the status of your phone (→ p. 39).

For your security, you should change the default passwords (→ p. 35).

Understanding the Web configurator menu tree

Settings	Network and Connections	Local Area Network (LAN)	→ p. 14
		Phone Systems	→ p. 16
		Quality of Service (QoS)	→ p. 17
		VoIP	→ p. 18
		Security Settings	→ p. 19
	Telephony	Connections	→ p. 20
		Audio	→ p. 24
		Video	→ p. 25
		Call Divert	→ p. 25
		Local Settings	→ p. 26
		Dialling Plans	→ p. 27
		Do Not Disturb	→ p. 28
		Call Live Recording	→ p. 28
		Voicemail Services	→ p. 28
	Services	Door Interphone	→ p. 29
		Online Directories	→ p. 29
		LDAP	→ p. 30
	Function Keys	Keys	→ p. 32
	System	Date and Time	→ p. 34
		Security	→ p. 35
		Reboot and Reset	→ p. 36
		Auto Provisioning	→ p. 36
		Save and Restore	→ p. 36
		Firmware Update	→ p. 37
		Screenshot	→ p. 38
		System Log	→ p. 38
Status	Device		→ p. 39
	PCAP Logging		→ p. 39

Network and connectors

All of the settings for connecting your phone to the local network must be correct to enable communication with other devices in the network and phone calls via the Internet.

If you use the Web configurator, your phone is already connected to the local network. You can use the **Network and Connections** menu to change and extend these settings. You can also create settings for phone connections:

- **LAN settings** (→ **p. 14**)
- **Phone Systems** (→ **p. 16**)
- **QoS settings (Quality of Service)** (→ **p. 17**)
- **VoIP settings** (→ **p. 18**)
- **Security settings** (→ **p. 19**)

LAN settings

	If an error occurs when you are changing the LAN settings, the PC connection to the phone may be cancelled and you will no longer have access to the Web configurator. If this happens, you must re-establish phone access to the local network via the display (→ **p. 9**).

Settings → Network and Connections → Local Area Network (LAN)

VLAN tagging

A local network can be divided into logical subnetworks known as VLANs (VLAN = Virtual Local Area Network, Standard IEEE 802.1Q). Multiple VLANs share a physical network and its components, e.g., switches. Data packets from a VLAN are not forwarded to another VLAN. VLANs are often used to separate the data traffic of different services (Internet telephony, Internet TV etc.) and to define different priorities for the data traffic.

You can operate your phone and a PC connected to the PC port on your phone in two different VLANs. In this case, you enter the VLAN identifiers (VLAN tags) for your VLAN. Your network operator will supply you with this data.

	If you operate the PC in a different VLAN from the phone, you will no longer have direct access to the Web configurator of the phone from the PC.

- Select one of the following options for **Use VLAN tagging**:

  No If you are not using a VLAN (default).

  LAN Port only

  If you are operating the phone and PC in the same VLAN.

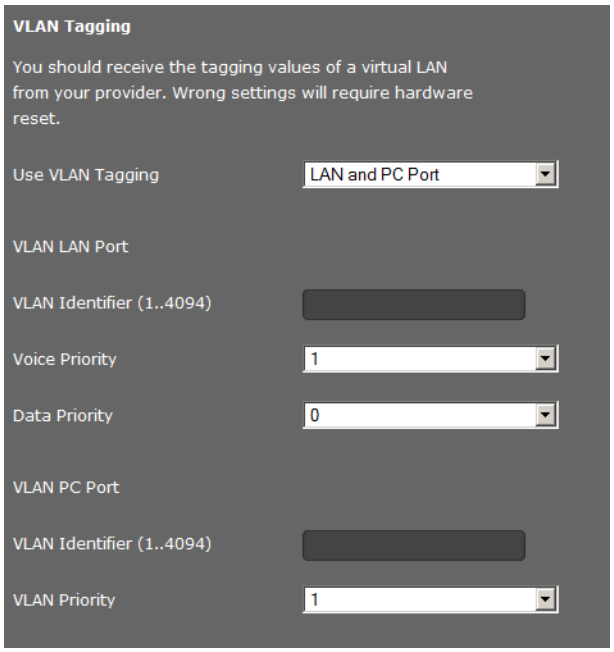
  LAN and PC Port

  If you are operating the phone and PC in different VLANs.

- Enter the VLAN identifier for your virtual network in the **VLAN Identifier (1..4094)** field.

  When selecting **LAN and PC Port**, enter the different VLAN identifiers under **VLAN LAN Port** and **VLAN PC Port**.

  Value range: 1 – 4094



If you enter the wrong value for **VLAN Identifier (1..4094)**, you will need to restore the phone to the default settings:

▸ ▸ **Settings** ▸ **Backup & reset** ▸ **Factory data reset**.

You will then need to reinstate the phone's access to the local network (→ p. 9).

- Select the required priorities for voice and data transmission for the LAN port from the **Voice Priority** and **Data Priority** menus.
- If you selected **LAN and PC Port**, select the **VLAN Priority** for the transmission of PC data as well.

Prioritising VLANs

Data packets from VLANs can be prioritised. The priority determines whether the data traffic from a VLAN is given preferential treatment by the network components. You can define the priority for voice and data separately. In the case of a local network with a lot of data traffic, you can achieve better quality phone connections by giving a high priority to voice data. Using a high priority for data services you can achieve better quality for displaying info services such as webcam images or maps.

Range of values and assignment of values to service classes (according to IEEE 802.1p):

0 No priority (Best Effort)
1 Background services, e.g., news ticker (Background)
2 Not defined
3 General data services (Excellent Effort)
4 Control services, e.g., routing (Controlled Load)
5 Video
6 Voice data (Voice)
7 Top priority for network control software (Network Control)

Further options for optimising the voice quality are available under **QoS settings (Quality of Service)** → p. 17.

Own HTTP server settings

▸ If you operate your own HTTP server, enter the communication data.

HTTP port
Enter the number for the port to be used for communication by the HTTP server.
The default setting is 80.

HTTPS port
Enter the number for the port to be used for secure connections by the HTTP server.
The default setting is 443.

HTTP connection type
Select which connections can be established:

HTTP	Unsecured connection
HTTPS	Secure connection
HTTP + HTTPS	Both secure and unsecured connections Default on a phone system of the be.IP family, the hybird family or a Digitalization box

Automatically logout (min.)
Enter the time (in minutes) after which an HTTP connection should automatically end if no entries are made.

Saving settings

▸ Click on **Save** to save your settings on the **Local Area Network (LAN)** screen.

Phone Systems

If you operate a phone system in your local network, use this screen to configure access to your phone.

Settings → Network and Connections → Phone Systems

▸ If your phone is connected to a phone system, select the phone system type. Possible phone system types are offered in the option list **Connected with phone system**: e.g. Digitalization box or elmeg

Call Manager

If your phone is connected to a phone system, you can decide how to handle incoming and outgoing calls for different situations. The availability of the following options depends on the selected phone system.

For the following situations:

- Incoming calls that are transferred by the phone system's call manager (**Accept call directly**),
- Incoming calls that are not transferred by the call manager **(Incoming Calls without Call Manager)**,
- Calls that you initiate via a function key (→ p. 32) (**Outgoing Calls via function key),**
- Other outgoing calls (**Execute call**),

you have the following options to accept/execute the call:

- **via headset**
- **via handsfree** or
- not at all (**No**) (incoming calls)

Saving settings

▸ Click on **Save** to save your settings on the **Phone Systems** screen.

QoS settings (Quality of Service)

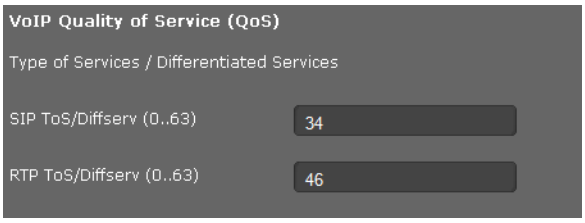
On this screen you can optimise the voice quality of your IP telephone.

The voice quality depends on the priority of the voice data in the IP network. Prioritising the VoIP data packets is done using the QoS protocol DiffServ (Differentiated Services). DiffServ defines a number of classes for the quality of service and, within these classes, various priority levels for which specific prioritisation procedures are defined.

You can specify different QoS values for SIP and RTP packets. SIP packets (Session Initiation Protocol) contain the signalling data, while RTP (Real-time Transport Protocol) is used for the voice transfer.

Settings → Network and Connections → Quality of Service (QoS)

- Enter your chosen QoS values in the **SIP ToS/Diffserv (Range: 0 - 63)** and **RTP ToS/Diffserv (Range: 0 - 63)** fields.
  Value range: 0 - 63.



Common values for VoIP (default setting):

SIP	34	High service class for fast switching of the data flow (Expedited Flow)
RTP	46	Highest service class for fast forwarding of data packets (Expedited Forwarding)

⚠	Do not change these values without consulting your network operator first. A higher value does not necessarily mean a higher priority. The value determines the service class, not the priority. The prioritisation procedure used in each case meets the requirements of this class and is not necessarily suitable for transferring voice data. Detailed information on the Diffserv protocol can be found in RFC 2474 and RFC 3168.

Saving settings

- Click on **Save** to save your settings on the **Quality of Service (QoS)** screen.

VoIP settings

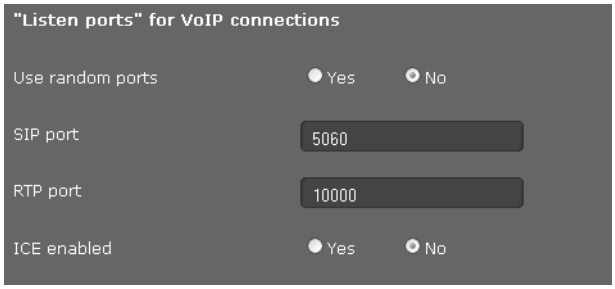
On this screen you configure the ports for establishing VoIP connections.

Settings → Network and Connections → VoIP

"Listen ports" for VoIP connections

- Select the ports on which your phone expects incoming VoIP connections.

RTP port is preset to 10000 by automatic provisioning and cannot be changed permanently.



Use random ports

- Select **Yes** if the phone should use any available ports for the SIP port and RTP port instead of fixed ports.

  The use of random ports is advisable if you want multiple phones to be operated on the same router/gateway with NAT. The phones must then use different ports so that the NAT for the router/gateway is only able to forward incoming calls and voice data to one (the intended) phone.
- If you click on **No**, the phone uses the ports specified in **SIP port** and **RTP port**.

SIP port
Specify the local communication port that the phone should use to send and receive signalling data. Specify a number between 1024 and 49152. The default port number for SIP signalling is 5060.

RTP port
Specify the local communication port that the phone should use to receive voice data. Enter an even number between 1024 and 49152. The port number must not be the same as the port number in the SIP port field. If you enter an odd number, the next lowest even number will be selected automatically (e.g., if you enter 5003, then 5002 is set automatically). The default port number for voice transmission is 5004.

ICE enabled
Choose whether or not to use ICE (Interactive Connectivity Establishment). ICE is similar to STUN (→ p. 22) a Session Initiation Protocol (SIP) method for overcoming NAT firewalls.

Saving settings

- Click on **Save** to save your settings on the **VoIP Settings** screen.

Security settings

This screen is where you create security settings for your phone.

Settings → Network and Connections → Security Settings

Remote management

- Select whether you want to **Allow access from other networks to the web configurator** (**Yes**) or not (**No**).

  Default: **Yes** (to support separate VoIP networks). The value cannot be changed permanently.

If you permit **Remote Management**, this increases the risk of unauthorised access to your device settings.

- Select the network protocol to be used for the communication:
  - **TLS** (Transport Level Security)
  - **UDP** (User Datagram Protocol
  - **UDP** (Transmission Control Protocol)

Security settings

On this screen you can download server certificates onto your phone, delete downloaded certificates and specify how invalid certificates should be handled.

Server certificates allow a server to be digitally identified via SSL (Secure Sockets Layer). Operating a server with SSL requires a server certificate both for one-way authentication (server to the client) and for two-way authentication (between client and server). A server certificate has to be downloaded onto your device so that the device can carry out authentication.

The **Server certificates** and **CA certificates** lists contain all downloaded certificates.

- Select a certificate from one of the lists.
- Click on **Remove** to delete the certificate from the list.
- Click on **Details** to display information about the certificate.
- Click on **Disable**/**Enable** to temporarily deactivate/activate the certificate.

Import a local certificate

In order for a certificate to be downloaded to your phone, it must be available in your network.

- Click on **Browse** to search for the file on your PC or in your network. Select the required file.
- Click on **Upload** to download the file onto the device.

The connection to the handset may be interrupted when transferring or removing a certificate.

Secure Real Time Protocol (SRTP)

The Secure Real-Time Transport Protocol (SRTP) allows you to encrypt voice data transmitted using the Real-Time Transport Protocol (RTP).

- Activate or deactivate the **Secure Real Time Protocol (SRTP)**.
- Select whether you want to **Accept non-SRTP calls** or not. If this function is activated, you also accept incoming calls from a number that does not use SRTP.

The value is set by automatic provisioning and cannot be changed permanently.

Saving settings

- Click on **Save** to save your settings on the **Security Settings** screen.

Telephony

The **Telephony** menu provides the following setting options:

- **Connections** (→ p. 20)
  This is where you can configure your VoIP connections and establish new connections.
- **Audio settings** (→ p. 24)
  On this screen you can optimise the voice quality of your VoIP connections.
- **Video settings** (→ p. 25)
  On this screen you can set the video resolution and the codecs to be used for video display.
- **Call divert** (→ p. 25)
  On this screen you can define options for call divert and activate or deactivate this function.
- **Local settings** (→ p. 26)
  Provide details about the location of your phone to determine the international and local area dialling codes as well as country-specific tones.
- **Dialling plans** (→ p. 27)
  You can use dialling plans to define which phone numbers should be called using which configured VoIP account and whether an area code should be dialled first.
- **Do Not Disturb (DND)** (→ p. 28)
  You can use the blacklists to block incoming calls from selected numbers and also to block all anonymous calls.
- **Call records** (→ p. 28)
  This is where you define where recordings of conversations are saved.
- **Voice mail services** (→ p. 28)
  On this screen you can configure your network mailbox.

Connections

You can establish up to 12 telephony connections (VoIP accounts) for your phone.

A maximum of four connections can be configured via automatic provisioning. These first four connections must not be used for manual configuration.

Settings → Telephony → Connections

On this screen you can

- See the status of the configured connections
- Activate or deactivate individual connections
- Define which of the connections are used by default for outgoing calls
- Change the configuration of connections or establish new connections
- Delete existing connections

Connections

The following information is shown for each configured connection:

Name/provider	Name or number of the VoIP connection / Name of the VoIP provider	
Status	Status of the connection. The following statuses are possible:	
	Registered	The connection is registered with the provider.
	Not Registered	The connection is not registered with the provider.
	Registration Failed	An error occurred during registration.
	Server Not Accessible	The registrar server specified during configuration is not available.
	Disabled	The connection is disabled.

Activating/deactivating connections

Only activated connections can be used for Internet telephony.

- To use a configured connection, select **Active**.

Specifying a default line for outgoing calls

- Select **Default send account** for the connection that you want to use as the default line for your phone calls. Only one can be selected.

Establishing new connections or editing existing ones

- Click on **Edit** in the row of a configured connection to change its configuration.
- Click on **Edit** in a row without a configured connection to establish a new connection.

Only one connection can be configured at a time for mobile phones.

Configuring a VoIP account

To configure VoIP accounts you need the relevant information about your provider for Internet telephony. Provider profiles with the general provider data are available to download from the Gigaset configuration server for the main VoIP providers.

- In the **Connection name or number** field enter a name of your choice or the phone number for this connection.

Personal provider data

In both cases of manual configuration, with and without a provider profile, you now enter the personal registration data that you have received from your VoIP provider.

- Enter the following data:
  - **Authentication name**
  - **Authentication password**
  - **User name**
  - **Display name**

  Depending on phone system further authentication data may be requested.

Advanced settings

To operate the device on a phone system of the be-IP family, the hybird family or a Digitalization box you need not to configure general provider data.

Configuring network provider data is only necessary, if you want additionally to register to a public VoIP provider.

You can find further parameters for configuring your VoIP connection under **Advanced settings**.

- Click on **Show** next to **Advanced settings**.

General provider data

Domain
Specify the last part of your SIP address (URI).
Example: Example: For the SIP address **987654321@provider.de** you would enter **provider.de**.

Proxy server address
The SIP proxy is your VoIP provider's gateway server. Enter the IP address or the DNS name of your SIP proxy server.
Example: **myprovider.com**.

Proxy server port
Enter the number of the communication port that the SIP proxy uses to send and receive signalling data (SIP port). Port 5060 is used by most VoIP providers.

Registration server
Enter the IP address or the DNS name of your registrar server. The registrar is needed when the phone is registered. It assigns your SIP address (username@domain) to the public IP address/port number your phone uses to log in. With most VoIP providers, the registrar server is identical to the SIP server.
Example: **reg.myprovider.de**.

Registration server port
Enter the communication port used on the registrar. Port 5060 is used in most cases.

Registration refresh time (sec.)
Enter the time intervals at which the phone should repeat the registration with the VoIP server (SIP proxy) (a request will be sent to establish a session). The repeat is required so that the phone's entry in the tables of the SIP proxy is retained and the phone can therefore be reached. The repeat will be carried out for all activated VoIP phone numbers. The default is 180 seconds.
If you enter 0 seconds, the registration will not be repeated periodically.

Network provider data

The phone needs to know its public address in order to receive caller voice data.

The SIP protocol recognises the following options:

- The phone requests the public address from a STUN server on the Internet (Simple Transversal of UDP over NAT). STUN can only be used with asymmetric NATs and non-blocking firewalls.
- The phone does not direct the connection request to the SIP proxy but to an outbound proxy on the Internet that supplies the data packets along with the public address.

The STUN server and outbound proxy are used alternately to work around the NAT/firewall in the router/gateway.

▸ Enter the required data for the STUN server **or** outbound proxy:

STUN enabled
Select **Yes** if you want your phone to use STUN as soon as it is used on a router with asymmetric NAT.

STUN server address
Enter the DNS name or the IP address of the STUN server on the Internet. If you have selected **Yes** in the **STUN enabled** field, then you must complete this field.

STUN server port
Enter the number of the communication port on the STUN server.
The default port is 3478.

STUN refresh time (sec.)
Enter the time intervals (seconds) at which the phone should repeat the registration with the STUN server. The repeat is required so that the phone's entry in the tables of the STUN server is retained. The repeat will be carried out for all activated VoIP phone numbers. Ask your VoIP provider for the STUN refresh time if necessary. Default setting: 240 seconds.

NAT refresh time (sec.)
Specify the intervals at which you want the phone to update its entry in the NAT routing table. Specify an interval in seconds that is a little shorter than the NAT session timeout. As a rule you should not change the default value for the NAT update. Default setting: 20 seconds.

Outbound proxy mode
Specify when the outbound proxy should be used.

Always	All signalling and voice data sent by the phone is sent to the outbound proxy.
Never	The outbound proxy is not used.

If you leave the **Outbound server address** field empty, the phone does not respond to the selected mode and operates as if **Never** were selected.

Outbound server address
Enter the DNS name or the IP address of your provider's outbound proxy. With many providers, the outbound proxy is identical to the SIP proxy.

Outbound proxy port
Enter the number of the communication port used by the outbound proxy. The default port is 5060.

DTMF in VoIP connections

To send DTMF signals via VoIP, you must first define how key codes are to be converted into and sent as DTMF signals: as audible information via the speech channel or as a "SIP Info" message.

Ask your provider which type of DTMF transmission is supported.

Automatic negotiation of DTMF transmission

You have the following options:

- If you activate the **Yes** option, the phone automatically attempts to set the appropriate DTMF signalling type for the current codec for each call.
- If you activate the **No** option, you can use the other options to specify the DTMF signalling type.

Send settings for DTMF transmission

Audio	As audible information in the voice channel, i.e., it is not known which key has been pressed.
RFC 2833	As a value (= key pressed) in an RTP packet. (Default)
SIP Info	As an "SIP Info" message. The value (= key pressed) is sent as an SIP data packet.

Counting missed and accepted calls

Missed and accepted calls for this VoIP account are recorded in the call lists for the phone if this function is activated.

- Select **Yes** for **Missed/accepted calls count**, if you wish to activate this function.

Allowing or blocking call waiting

If you receive another incoming call during a call, this is indicated by Call Waiting by default. For each connection, it is possible to set whether or not Call Waiting is permitted.

- If you want to deactivate the function, select **No**.

Setting ring tones

You can set ring tones for each configured VoIP account. You can specify different ring tones for external and internal calls as well as for group calls, if this information is available for incoming calls (depending on the telephone system).

- Choose a **Ring tone** for all call types or different ring tones for specific call types.
- Click **Test** to play your chosen melody.

Phone systems of the be.IP family, the hybird family or a Digitalization box support different ring tones for external and internal calls.

Saving settings

- Click on **Save** to save your settings for this connection.

Deleting a connection

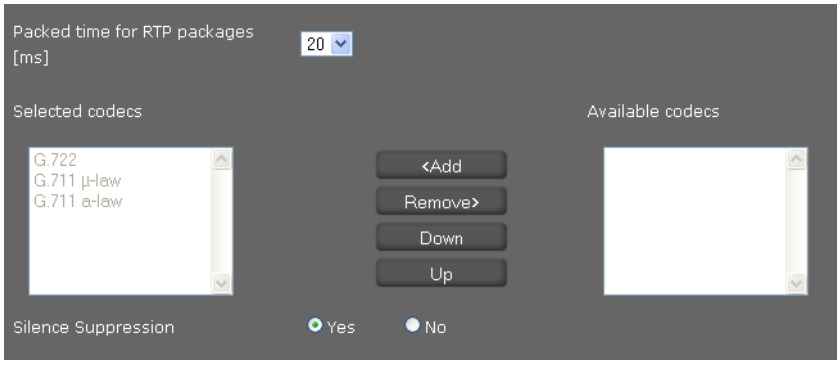
- Click on **Delete Connection** to delete the displayed connection.

Audio settings

The voice quality of your VoIP calls is determined by the codec used for the transmission. To increase the quality, more data must be transmitted. Depending on the bandwidth of your DSL connection, this can then lead to problems with the volume of data – especially if two VoIP calls are made simultaneously – so that the transmission no longer takes place smoothly. The following settings allow you to adjust your Gigaset to your individual DSL connection.

Settings → Telephony → Audio

You can set the following parameters for the voice quality for each connection:



Time interval for RTP packets

- Select the interval for sending RTP packets (20 or 30 ms).

  RTP (RTP = Real-Time Transport Protocol) is a protocol for the continuous transmission of audio-visual data (streams) via IP-based networks.

Voice quality

Both parties involved in a phone connection (caller/sender and recipient) must use the same voice codec. The voice codec is negotiated between the sender and the recipient when establishing a connection. You can influence the voice quality by selecting (bearing in mind the bandwidth of your Internet connection) the voice codecs your phone is to use, and specifying the order in which the codecs are to be suggested when a VoIP connection is established.

- Select the required codecs and define the sequence in which they should be used.

  The following voice codecs are supported by your phone:

  G.722 The broadband voice codec G.722 works at the same bit rate as G.711 (64 kbit/s per voice connection) but at a higher sampling rate (16 kHz) and therefore provides excellent sound quality.

  G.711 a law/G.711 µ law
  Excellent voice quality (comparable with ISDN). The required bandwidth is 64 kbit/s per voice connection.

Silence suppression

Silence suppression means that no data packets are sent during a pause in speaking. This means a lower data volume but call participants may interpret it as an interruption to the connection.

- Select **No** if you do not want silence suppression. Default setting: **Yes**

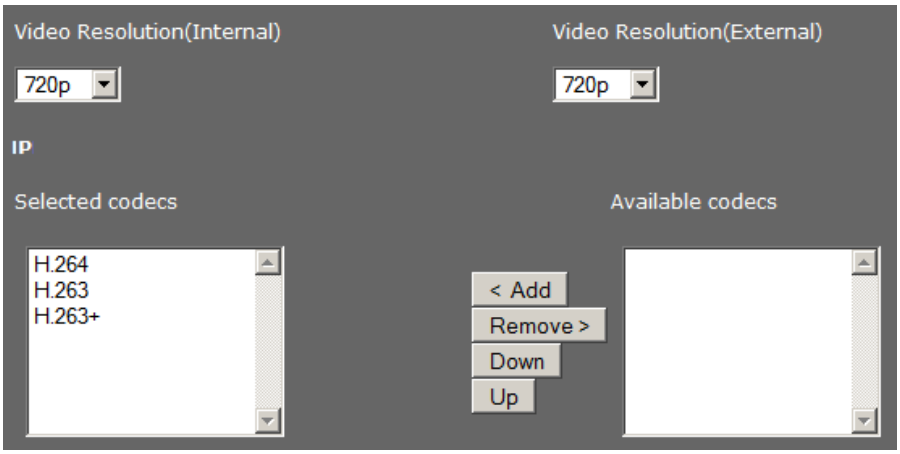
Saving settings

- Click on **Save** to save your settings on the screen.

Video settings

The video quality of your phone is determined by the resolution and the codec used for the transmission.

Settings → Telephony → Video



- Select the resolution to be used for video transmission: internal for the integrated camera on the front panel, external for a camera connected to the device's USB port (→ p. 4).
- Select the required codecs and define the sequence in which they should be used.
  The following video codecs are supported by your phone:

H.264	Video compression format for streaming internet sources, such as videos from Vimeo, YouTube, and the iTunes Store, web software such as the Adobe Flash Player and Microsoft Silverlight, and also various HDTV broadcasts.
H.263 / H.263+	Video compression standard originally designed as a low-bitrate compressed format for videoconferencing.

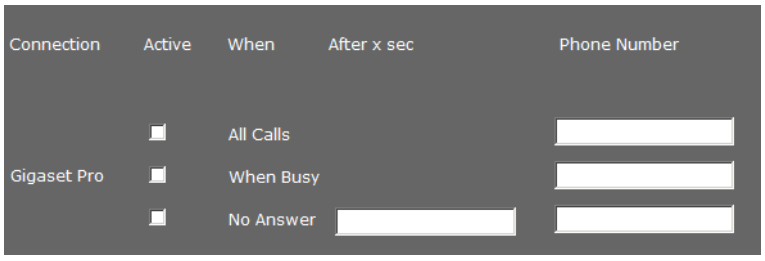
Saving settings

- Click on **Save** to save your settings on the screen.

Call divert

For each configured VoIP account you can automatically forward incoming calls to another phone number.

Settings → Telephony → Call Divert



- Specify for the VoIP account when a call should be diverted.

All calls	Call divert for all incoming calls.
When busy	Call divert if you are currently speaking to another participant.
No answer	Call divert if you do not answer the call.
	In the **After x sec.** field enter the time in seconds after which call divert is to be activated.

- Enter the **Phone number** to which calls are to be forwarded.
- Click on **Save** to activate the call divert.

Local settings

If your device is operated on a phone system of the be.IP family, the hybird family or a Digitalization box, the local settings are set via automatic provisioning and should not be changed.

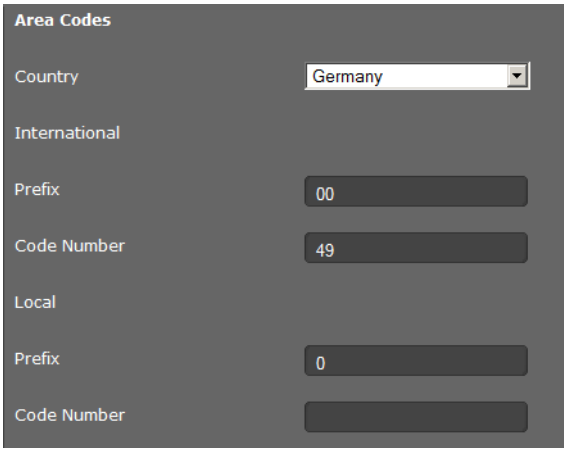
On this screen, you provide details about the location of your phone. These are used to determine the international and local area dialling codes as well as country-specific tones (e.g., dialling tone or ringback tone).

Settings → Telephony → Local Settings

Selecting the country

The time zone is determined automatically based on the country you select.

- Select the **Country** in which you are using your phone from the list.



Setting dialling codes

Depending on your country selection, the international and (if relevant for that country) national dialling codes are entered in the **Prefix** and **Code Number** fields automatically.

If your country is not offered in the list of countries enter the dialling code yourself. Save the complete area code (with international code) for the area in which you are using the phone. In general, you must always dial the area code for VoIP calls – even for local calls. To avoid having to dial the area code for local calls, your phone prefixes all VoIP calls in the local area with the area code entered, i.e., all numbers that do not begin with 0 – even when dialling numbers from the directory and other lists.

Exceptions: Numbers for which you have set dialling plans.

- Select **Other Country** from the end of the **Country** list.
- Enter the full prefix for the country in which you use your phone. Otherwise errors may occur with phone connections or during data exchange (e.g., between a fixed line network and a mobile network).

  The prefix consists of the international prefix (**International: Prefix** and **Code Number**, e.g. 00 49 for Germany) and, if applicable, the prefix used for calls within the country (**Local: Prefix** and **Code Number**, e.g. 0 for national long-distance calls in Germany).

Setting country-specific ringback and dialling tones

Tones, e.g. dialling tone, ringback tone, busy tone or call waiting tone, vary from one country or region to another. You can choose from various tone groups for your phone.

The **Tone scheme** is automatically determined on the basis of the country selected above. You can change the setting.

- Select the country or region whose tone scheme should be used for your phone.

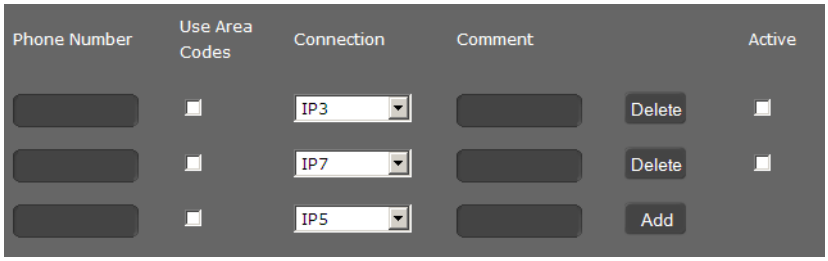
Saving settings

- Click on **Save** to save your settings on the screen.

Dialling plans

You can use dialling plans to define which phone numbers should be called using which configured VoIP account and whether an area code should be dialled first.

Settings ➜ Telephony ➜ Dialling Plans



- Enter the **Phone number** that the dialling plan is to apply to.
- Select **Use area codes** if you want to call this number with an area code.
- Select the connection that should be used to call this phone number from the drop-dow list.
- Enter a name for this dialling plan in the **Comment** field.
- Click on **Add** to add the rule to the list.
- Click on **Delete** to delete a rule from the list.
- Select **Active** to activate the rule.

Access Code

The access code you enter is automatically added as prefix to numbers during dialling.

- Define when it should be used. The prefix can be added if a call is initiated via
  - **Outgoing calls list**
  - **Incoming calls list**
  - **LDAP**
  - **Local directory**
  - **Public net directory**
  - **Dial editor**

Saving settings

- Click on **Save** to save your settings on the **Dialling Plans** screen.

Do Not Disturb (DND)

Block individual phone numbers and/or all anonymous calls. You will then be unavailable for these calls; your phone will not ring.

Settings → Telephony → Do Not Disturb

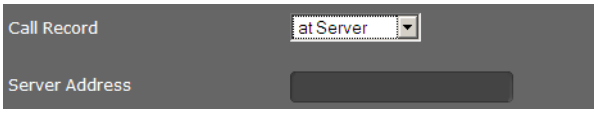
- Select **Yes** to activate the **Do Not Disturb** function.
- Enter the **Name** and **Phone number** for the call.
- Click on **Add** to save the entry to the do not disturb list.
- Click on **Delete** to delete an entry.
- Click on **Delete all** to delete all entries.
- Activate the **Block anonymous caller** option to block all anonymous calls.
- Click on **Save** to save your settings on this screen.

Call records

On this screen you define where call records should be saved.

You can start and replay call records within the **CALL RECORDS** area of the **Call list** app.

Settings → Telephony → Call Live Recording



- Select where recorded calls should be saved:
  - **on USB stick**
  - **on server**: The recording is saved on the SIP server.
  - **on phone**
- Click on **Save** to save the settings.

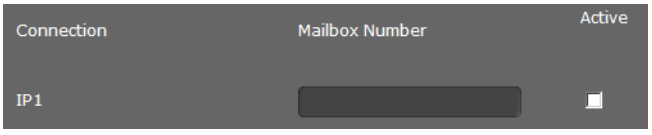
Voice mail services

Some VoIP providers offer answer machines on the network – network mailboxes. These accept incoming calls on the corresponding VoIP phone number.

You can access voice mails on the network mailbox within the **VOICEMAIL** area of the **Call list** app.

To record all calls, set up a network mailbox for each of your VoIP accounts.

Settings → Telephony → Voicemail Services



- Enter the **Mailbox number** for the VoIP connection and activate the network mailbox.
- Click on **Save** to save the settings.

Services

The **Services** menu offers functions for setting up the following services:

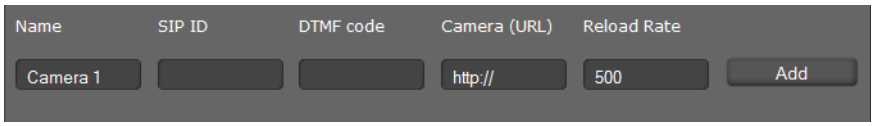
- **Door interphone** (→ p. 29)
- **Online directory** (→ p. 29)
- **LDAP directory** (→ p. 30)

Door interphone

You can operate one or more door interphones with video surveillance using the phone. Enter the data for the door interphone on this page.

> The door interphone can also be set up for your phone using the Gigaset phone system. If automatic configuration is permitted, configuration is carried out automatically on your phone.

Settings → Services → Door Interphone



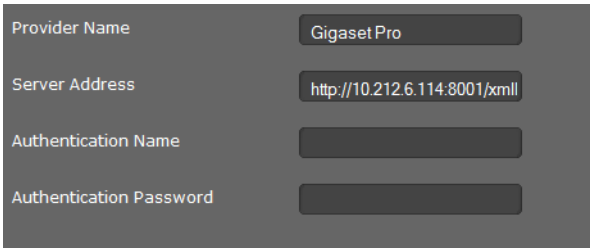
- Enter a name and the **SIP ID** for the camera.
- Enter the code for the door opener in the **DTMF code** field. This DMFV code is required to operate the door opener from the phone. The DMFV code can be found in the description of your door interphone.
- Enter the URL of the camera in the **Camera(URL)** field.
- Set how often the image should be refreshed in ms in the **Reload rate** field. Minimum time: 200 ms.
- Click on **Add** to add a camera to the list.
- Click on **Delete** if you want to remove a camera from the list.
- Click on **Save** to save your settings.

Online directory

If you want to use an online directory, select the provider on this screen which supplies the directory on the Internet. Also specify which service you want to use.

Settings → Services → Online Directories

- To use the online services of a provider, enter the access data:
  - **Provider name, Server address, Authentication name, Authentication password**



- Activate the service(s) you wish to use:
  - **White Pages**: A public directory supplied on the Internet by the provider entered above.
  - **Yellow Pages:** Yellow pages supplied on the Internet by the provider entered above.
  - **Private NetDirectory:** A private directory supplied on the Internet by the provider entered above.

  You can activate one or more services.
- Enter a name for each of the selected services in the **Name of directory** field. This is the name under which the directory will be displayed on your device.
- Click the checkbox to activate the service.

Saving settings

- Click on **Save** to save your settings on the **Online Directories** screen.

LDAP directory

If your corporate network provides a directory via an LDAP server, you can access this on your phone (LDAP = Lightweight Directory Access Protocol). You can set up the function on this screen. You will need information about the configuration of the LDAP server to do this.

On a phone system of the be.IP family, the hybird family or a Digitalization box the system phone book as well as personal phone book entries are provided via LDAP. Thereby participants and phone numbers can be maintained.

The LDAP server is configured automatically.

Phone numbers of incoming calls are resolved via LDAP using the system phone book, if **Automatic lookup of caller name** is enabled **(Yes)**.

Settings → Services → LDAP

- Enter a name in the **Name of directory**. This is the name under which the directory will be displayed on your device.
- Enter all the data for your LDAP server and the directory.

Max. hits
Maximum number of search results to be displayed. Default setting: 50

Access to the LDAP data base

Server address
IP address for the LDAP server in your network.

Server port
Port number that is used to provide the LDAP service. Default setting: 10389

LDAP search base (BaseDN)
Range in the hierarchical LDAP database where the search begins. All areas have defined designations.

User name
Access ID for the LDAP server.

Password
Password for the access ID to the LDAP server.

Filter

Using the filter, you can define criteria against which specific entries can be searched in the LDAP database. One filter consists of one or more search criteria. A search criterion contains the query for an LDAP attribute, e. g. sn=%. The percent symbol (%) is a placeholder for the user entry.

LDAP name filter

The name filter decides which attribute is used for the search.

Example: (sn=%)

The percent symbol (%) is replaced by the name or part of the name entered by the user. If a user enters the letter "A" for example, all entries in which the attribute **sn** begins with "A" are searched for in the LDAP database . If the user then enters a "b", entries are searched in which the **sn** attribute begins with "Ab".

LDAP number filter

The number filter stipulates the criteria for the automatic completion of telephone numbers.

Example: (|(telephoneNumber=%)(mobile=%))

The percent symbol (%) is then replaced by the part of the telephone number entered by the user. When dialling, if a user enters the numbers "123" for example, all telephone numbers (office and mobile) that begin with "123" are searched for in the LDAP database. The telephone number is completed with the addition of information from the database.

Multiple criteria can be connected using logical AND (&) and/or OR (|) operators. The logical operators "&" and "|" are placed before the search criteria. The search criterion must be placed in brackets and the whole expression must be terminated with a bracket again. AND and OR operations can also be combined.

Examples:

AND operation:	(& (givenName=%) (mail=%)) Searches for entries in which the first name **and** mail address begin with the letters entered by the user.
OR operation:	(| (cn=%) (sn=%)) Searches for entries in which the common name **or** surname begin with the letters entered by the user.
Combined operation:	(|(& (givenName=%) (mail=%))(& (sn=%) (mail=%))) Searches for entries in which the first name **and** mail address **or** the surname **and** mail address begin with the letters entered by the user.

Configuration of directory entries

A range of attributes are defined in the LDAP database for a directory entry, e.g. surname, first name, telephone number, address, company, etc. The quantity of all attributes, which can be saved in one entry, is saved in the relevant LDAP server scheme. In order to be able to access attributes or define search filters, you must know the attributes and their designation in the LADP server. The majority of attribute designations are standardised, however specific attributes can also be defined.

The elmeg IP680 supports the following attributes:

Attribute name	In the directory	Meaning
givenName	**First name**	Name
sn / cn / displayName	**Surname**	Name with which the entry is listed (cn = common name, sn = surname)
homePhone / telephoneNumber	**Phone Home**	Private number
telephoneNumber	**Phone Work**	Office number
mobile	**Phone Mobile**	Mobile number
mail	**Email**	E-mail address
facsimileTelephoneNumber	**Fax**	Facsimile numer
company / o / ou	**Company**	Company name
street	**Street**	Street
postalAddress	**City**	City or town
postalCode	**Postcode**	Post code
friendlyCountryName / c	**Country**	Country

Saving settings

- Click on **Save** to save your settings on this screen.

Function keys

The function keys can be configured and saved on a phone system of the be.IP family, the hybird family or a Digitalization box and transferred automatically to the phone.

To enable the local configuration described here, the flag "not configured" must be set on the phone system.

On this screen you can programme the function keys.

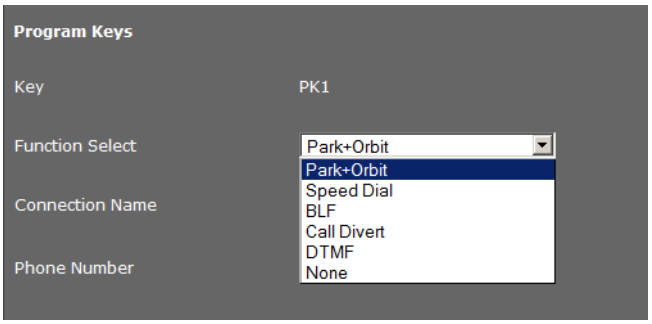
Settings → Function Keys

Your elmeg IP680 allows you to assign frequently used functions or phone numbers to up to 100 keys so that you can access them with one key press.

All available function keys are shown below **Programmable Keys**.

- Click on **Add** to add a new function key configuration or on **Edit** to change an existing.

  The window for programming the selected key will open.
- Select the required function from the **Key function** list.



Park + Orbit

This function key is used to "park" a call. The participant hears the hold music. This function key allows you to transfer calls within a group, which share a common line. It will be configured on all extensions for the group. The "Park + Orbit" keys on all extensions flash if a call has been "parked" on an extension. The call can be picked up on any extension by pressing the key.

This function is only available if your telephone is connected to a Gigaset phone system and the number has been assigned to a group. The function key can also be assigned using the phone system.

- Select the required connection and enter the **Phone number** of the shared line.
- Enter a name for the key.

Speed Dial

Assigns the speed dial for a phone number to the function key.

- Select the required connection and enter the **Phone number** that should be selected using this function key.
- Enter a name for the key.

BLF

A function key that is configured as BLF (Busy Lamp Field) indicates the status of a shared line. It will be configured on all extensions for the group. The keys will flash on all extensions if a call comes in and light up if the line on any extension is busy.

You can accept an incoming call if you have set the **Directed call pickup code**.

This function is only available if your telephone is connected to a Gigaset phone system and the number has been assigned to a group. The function key can also be assigned using the phone system.

- Enter the **Phone number** for the shared line.
- If you wish you accept calls with the key, enter the **Directed call pickup code**. For a Gigaset phone system this code is *8.
- Enter a name for the key.

Call Divert

Assigns a call divert to the function key.

- Select the connection for which the call divert should apply and enter the **Phone number** to which the calls should be diverted.

The call divert set up here applies to all calls. To configure different call divert rules, use the screen **Settings** → **Telephony** → **Call Divert** (→ p. 25).

- Enter a name for the key.

DTMF
Assigns a number to the function key that is dialled using DTMF. This is required, for example, for querying and controlling certain network mailboxes via digit codes or for remote operation of the local answering machine.

- Enter the **Phone number** that should be dialled using DTMF signalling.
- Enter a name for the key.

None
Nothing assigned.

- Click on **Save** to accept the key assignment.

You will now be returned to the **Function Keys** screen, where you can programme more keys.

Saving settings

- Click on **Save** to save the settings on this screen.

System settings

You can create the following settings in the **System** menu:

- Define the date and time or time server
- **Security** – Change passwords for user identification (→ p. 35)
- **Rebooting the system and restoring factory settings** (→ p. 36)
- **Auto Provisioning** – Start configuration setting via automatic rovisioning (→ p. 36)
- **Saving and restoring telephone data** (→ p. 36)
- **Updating firmware** – Perform and configure a firmware update (→ p. 37)
- **Screenshot** – Enable screenshot capture (→ p. 38)
- **System log** – Configure and start system logging (→ p. 38)

Date and time

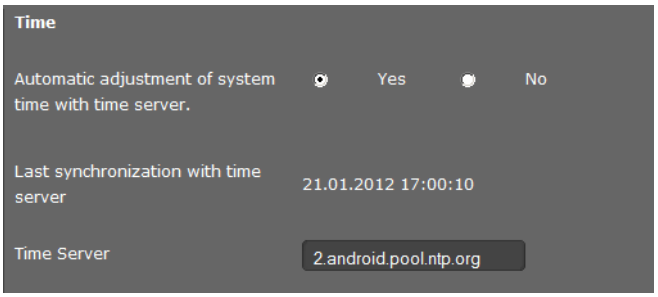
On this screen you can specify a time server or enter the date and time manually.

Settings → System → Date and Time

Defining the time server

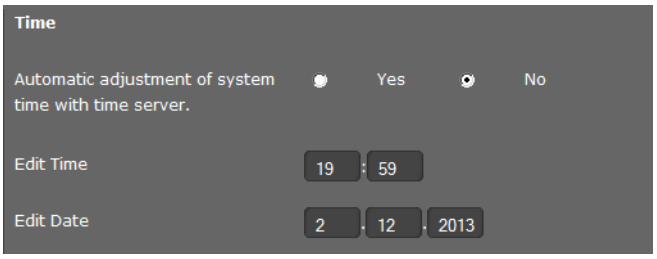
- Select **Yes** for **Automatic adjustment of system time with time server**.
- Enter the IP address of the required server in the **Time server** field.

The most recent synchronisation carried out with the time server is shown.



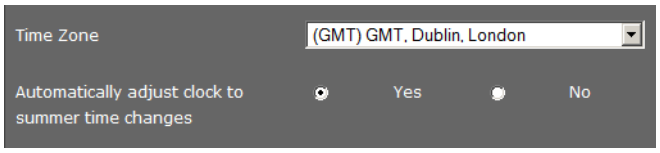
Entering the date and time manually

- Select **No** for **Automatic adjustment of system time with time server.**
- Enter the **date** and **time**:
  - **Time format**: ss:mm
  - **Date format**: dd.mm.yyyy



Setting the time zone

- Select your **Time zone** from the list.
- Activate the **Automatically adjust clock to summer time** option if necessary.



Saving settings

- Click on **Save** to save the settings on this screen.

Security

The access to the Web configurator is password-protected for security purposes.

Default setting for the web configuration password: **admin**

Settings → System → Security

For security reasons, you should always change the password after getting started with your device and then again at regular intervals.

- Enter a new password for web configurator access.
- For security reasons, the password is not displayed. To display it in plain text, select the option **Password visible**.

Saving settings

- Click on **Save** to save the settings on this screen.

Rebooting the system and restoring factory settings

You may have to reboot your phone in certain operational situations or reset the system to factory settings.

Settings → System → Reboot and Reset

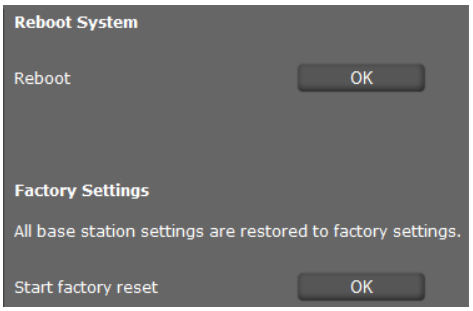
Reboot

- Click on **OK** next to **Reboot** to reboot the system.

Reset

All phone settings can be reset to the **Factory Settings**. This deletes all individual settings, lists and directory entries!

- Click on **OK** next to **Start factory reset** to reset the phone to factory condition.



You can save the individual settings as well as the directory entries of the phone before resetting the device using the **Save and Restore** function.

Auto Provisioning

Phone settings can also be set via automatic provisioning by a provisioning server in the network.

Settings → System → Auto Provisioning

- If you have entered or changed any provisioning data, click on **Save** to save the settings of this page.
- Click on **OK** to start auto provisioning.
  The device searches the network for a provisioning file providing configuration data for the phone.

Or:

- Enter the URL of a provisioning server, click on **Save** and then on **Start.**

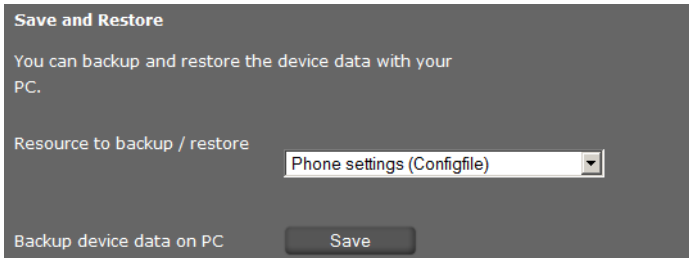
Saving and restoring telephone data

You can save data from your phone onto your computer and, if necessary, restore it back onto the phone.

Settings → System → Save and Restore

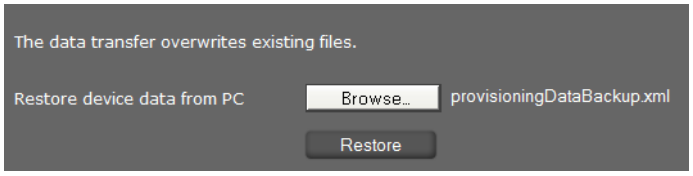
Transferring data from phone to PC

- Select which data you want to save:
  - **Directory**
  - **Ring tones**
  - **Phone settings (Configfile)**or
  - **All**
- Click **Save** to save the selected data to the PC and choose a storage location.



Transferring data from PC to phone

- Use the **Browse** button to select the file you want from your PC's file system.
- Click on **Restore**.



Updating firmware

Firmware updates are available from the Gigaset server profile.gigaset.net/device so you can ensure your phone is always up to date. You can find the current version of your firmware on the **Device** status screen (→ p. 39). You can update your phone automatically or manually. Your provider for Internet telephony can also deliver updates for the phone firmware and/or for the profile of your VoIP account.

Any PC connected to the phone will not be able to access the local network and the Internet during the firmware update.

Settings → System → Firmware Update

Updating firmware automatically

- Select **Yes** for **Automatic check for software updates** to search for new firmware updates.
- If you use another update server enter the Web address for the automatic update search in the **Data server** field.
- Click on **Update firmware** to start the search and to load the new firmware.

Saving settings

- Click on **Save** to save your settings.

Updating manually

- Download the new firmware from the Internet onto your PC and then open the firmware update screen.

- Click on **Browse** and select the file from the file system on your PC.
- Click on **Load** to start the update process.

When the firmware update is started, the device first checks whether the prerequisites are in place for successfully downloading the firmware. A successful update is indicated by an advisory message.

Screenshot

You can use the display key to capture a screenshot of the device display. The display key is located behind the right cradle cover on the back of the device. (→ p. 6).

Settings → System → Screenshot

- Select **Yes** to enable the display key to be used to capture a screenshot.
- Click on **Save** to save your settings.

If the function is disabled, pressing the display key will turn the display on/off.

System log

You can define that specific events are to be logged on an external syslog server. This information may be useful in the event of problems involving service personnel or Customer Care.

Settings → System → System Log

- Enter the **IP address** and the **Server port** of the syslog server.
- Click on **Activate syslog** to activate logging.

The events are logged with the date, time and message.

Set filter for system log

- Define the events you want to be logged:
  - **System processes**, e.g. system start, assigning an IP address etc.
  - **SIP events**, e.g. connection requests, connection establishment.
  - **Phone application**, e.g. incoming calls, new entry in call log app.
  - **Provisioning application**
  - **All events**
- Click on **Save** to save your settings.

Checking the status of the phone

You will find information about the status of the phone and diagnostic information in the **Status** menu.

Device

Status → Device

This screen shows general information about your phone.

IP configuration

IP address	The phone's current IP address within the local network.
MAC address LAN, MAC address WLAN, MAC address bluetooth	The phone's device addresses for LAN, WLAN and Bluetooth interfaces.
WLAN, WLAN encryption, Bluetooth	For each of these functions is shown whether it is activated or not.

Software

Firmware version	Version of the firmware currently loaded on the phone. You can download updates of the firmware to your phone (→ p. 37).

VoIP status

List of all configured VoIP connections with the **Name**, **Status** and which connection is configured as the **Default send account**.

Date and time

Current **Time** and **Date** in the device and the date of the most recent synchronisation with the time server.

PCAP logging

Status → PCAP Logging

You can create a PCAP log file and save it for analysis at a later stage. PCAP (Packet Capture) analyses the data traffic in the network at the phone-Ethernet interface. This recording is carried out for diagnostic purposes and should only be made if requested by service personnel.

- Click on **Start**. Every incoming or outgoing data packet to or from your phone is recorded and stored on the internal device storage.
- Click on **Stop** to stop recording.
- To save the PCAP file on your computer, click on **Download** and select a directory in the file system on your computer where the file should be stored.
- To delete the recorded log file from the internal device storage, click on **Clear**.

- The information is recorded in a ring buffer that has limited storage capacity. If the buffer is full, the first packets will be overwritten and lost. You should therefore attempt to record scenarios that are as short as possible.
- This logging uses a lot of memory and CPU power and can negatively affect how the phone behaves (e.g. slowing the display screen, distorting the ring tone etc.)

Service (Customer Care)

You have questions? You can find help quickly in this User Manual, in the **Helper** app on the phone and at gigasetpro.com. If you have further queries regarding your Gigaset Professional phone system please contact the dealer you bought your phone system from.

Questions and answers

If you have any queries about the use of your telephone, visit our website at gigasetpro.com for assistance.

Protecting our environment

Our environmental mission statement

We, Gigaset Communications GmbH, bear social responsibility and are actively committed to a better world. Our ideas, technologies and actions serve people, society and the environment. The aim of our global activity is to secure sustainable life resources for humanity. We are committed to taking responsibility for our products throughout their entire life cycle. The environmental impact of products, including their manufacture, procurement, distribution, use, service and disposal, is evaluated early on, during product and process design.

Further information on environmentally friendly products and processes is available on the Internet at www.gigaset.com.

Environmental management system

Gigaset Communications GmbH is certified according to the international standards ISO 14001 and ISO 9001.

ISO 14001 (Environment): Certified since September 2007 by TüV SÜD Management Service GmbH.

ISO 9001 (Quality): Certified since 17/02/1994 by TüV Süd Management Service GmbH.

Disposal

All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.

This crossed-out wheeled bin symbol on the product means the product is covered by the European Directive 2002/96/EC.

The correct disposal and separate collection of your old appliance will help prevent potential negative consequences for the environment and human health. It is a precondition for reuse and recycling of used electrical and electronic equipment.

For more detailed information about disposal of your old appliance, please contact your local council refuse centre or the original supplier of the product.

Appendix

Care

Wipe the device with a **damp** cloth or an antistatic cloth. Do not use solvents or microfibre cloths.

Never use a dry cloth; this can cause static.

In rare cases, contact with chemical substances can cause changes to the device's exterior. Due to the wide variety of chemical products available on the market, it was not possible to test all substances.

Impairments in high-gloss finishes can be carefully removed using display polishes for mobile phones.

Contact with liquid

If the device comes into contact with liquid:

1. **Unplug the power supply**.
2. Allow the liquid to drain from the device.
3. Dry the device thoroughly.
4. Place the device in a dry, warm place **for at least 72 hours** (**not** in a microwave, oven etc.).
5. Do not switch on the device again until it is completely dry.

When it has fully dried out, you will normally be able to use it again.

Specifications

LAN	2 port LAN switch: 10 Mbit, 100 Mbit, 1Gbit
USB 2.0	type A, high/full/low host interface
Bluetooth®	Class 2, IEEE 802.15.1
DECT	GAP, CAT-iq1.0, EcoMode+
Wi-Fi Standards	IEEE 802.11b,g,n
Headset connections	Bluetooth®, EHS, corded, USB, DECT
Power supply	100–240 V, ~50/60 Hz
Power over Ethernet	PoE, IEEE 802.3af, class 3
Power consumption (standby)	4.6 W
Environmental conditions in operation	±0°C to +40°C, 10% to 93% relative humidity
Language codecs	G.711 µ-law/a-law, G.722
Quality of Service (QoS)	RSVP/DiffServ (RFC2474, RFC2475)
VoIP protocols	SIP (RFC3261, RFC2543), RTP
VoIP security	SRTP (RFC3711), TLS (RFC2246), SIPS
Internet protocols	IPv4 (RFC0791), IPv6(RFC2460)
Further protocols	STUN, ICE, TCP, DHCP

Open Source Software

General

Your Gigaset device includes Open Source software that is subject to various license conditions. With regard to Open Source software, the granting of usage rights that go beyond the operation of the device in the form manufactured by Gigaset Communications GmbH is governed by the relevant license conditions of the Open Source software.

Your Gigaset unit includes, among other things, Open Source software that is subject to various licence conditions. With regard to Open Source software, the granting of usage rights that go beyond the operation of the device in the form supplied by Gigaset Communications GmbH is governed by the relevant license conditions of the Open Source software.

Details can be found under

-  Application screen ▸  **Settings** ▸  **About tablet** ▸ **Legal information** ▸ **Open source licences**

Information on license rights and copyright

Your Gigaset unit includes Open Source software which is subject to the GNU General Public License (GPL) or the GNU Lesser General Public License (LGPL). You can download the corresponding source code from the Internet at www.gigaset.com/opensource. The appropriate source code can also be requested from Gigaset Communications GmbH at cost price within three years of purchasing the product. Please use the contact details provided at www.gigaset.com/service.

Your Gigaset unit includes Open Source software which is subject to Common Public License. The corresponding source code can be downloaded from the internet at www.gigaset.com/opensource. The corresponding source code can also be requested from Gigaset Communications GmbH. Please use the contact details provided at www.gigaset.com/service.

Your Gigaset unit includes the Fraunhofer FDK AAC Codec Library for Android. The corresponding source code can be downloaded from the internet at www.gigaset.com/opensource.

Index

A

Activating DTMF using a function key 34
Attributes, LDAP database 32
Audio quality 24
Auto provisioning
  configuration settings 36
Automatic configuration
  of VoIP accounts 21

B

BLF (Busy Lamp Field) 33
BLF, assigning a function key 33

C

CA certificates 19
Call divert 25, 33
Call divert, setting up 25
Call manager 16
Call Waiting, blocking 23
Camera 4
Caring for your telephone 40, 41
Certificate 19
  importing 19
Codec, audio
  G.711 a law 24
  G.711 µ law 24
  G.722 24
Codec, video
  H.263 25
  H.264 25
Connecting to the local network 9
Connector
  EHS headset 4
  handset (corded) 4
  HDMI 4
  headset 4
  LAN 4
  PC 4
  PC or LAN (PoE) 4
  power supply unit 4
  USB 4
Contact with liquid 41
Counting accepted calls 23
Counting missed calls 23
Country 26
Counts for missed and accepted calls 23

D

DECT handset, registering 9
DHCP server 10
Diagnostic information
  PCAP logging 39
  system log 38
Dialling code 26
Dialling plans 20, 27
DiffServ (Differentiated Services) 17
Directory
  LDAP 30
  online 29
  transferring from PC to phone 37
Directory, online
  selecting a provider 29
Display key 6
Display, switching on/off 6
Disposal 40
Do Not Disturb (DND) 28
Door interphone video camera
  configuring 29
DSL router 7
DTMF 23
DTMF transmission 23

E

EHS Headset 4
E-mail server 7
Encryption 19
Environment 40
Ethernet configuration 9
Ethernet switch 7

F

Factory settings 36
  restoring 36
File server 7
Filter, LDAP 31
Firmware update
  automatic 37
  manual 37
Firmware version 39
Function key
  BLF 33
  call divert 33
  DTMF 34
  Park + Orbit 33
  speed dial 33
Function keys, programming 32

G

Gateway 7
Getting started 9
Gigabit switch 7
GPL 42

H

HDMI 4
Headset 4
Headset, EHS 4
HTTP server
  operating 16

I

ICE (Interactive Connectivity Establishment) ... 18
Insert SD card ... 5
Internet telephony
  configuring ... 11, 21
IP address
  assigning automatically ... 10
  finding ... 12
  static ... 10

K

Kundenservice ... 40

L

LAN ... 9
LAN settings ... 14
Language ... 9
  for Web configurator ... 12
LDAP
  number filter ... 31
  search area ... 30
  server port ... 30
LDAP (Lightweight Directory Access Protocol) ... 30
LDAP attributes ... 32
LDAP contacts in display ... 30
LDAP filter ... 31
LDAP server ... 32
Local network, connecting to ... 9
Loudspeaker ... 4

M

Menu tree, Web configurator ... 13
Messaging
  voice ... 28
Microphone ... 4

N

NAS system ... 7
NAT ... 22
Network
  setting up via Web configurator ... 14
Network mailbox ... 28
Network provider data ... 22
Network SSID ... 11
Network, setting up via Web configurator ... 14
Number filter, LDAP ... 31

O

Outbound proxy ... 22
  mode ... 22
Outbound server
  address ... 23

P

Park + Orbit, assigning a function key ... 33
Password
  displaying in readable form ... 35
  for Web configurator ... 35
PC, connecting ... 4
PCAP log file ... 39
Phone
  factory settings ... 36
  rebooting ... 36
Phone system ... 7
  type ... 16
PoE ... 4
PoE (Power over Ethernet) ... 7
Power Supply Unit ... 4
Priority of voice data ... 15, 17
Provider profile ... 21
Provisioning file ... 11, 36
Proxy configuration ... 10
Proxy server
  address ... 21
  port ... 21

Q

QoS (Quality of Service) ... 17
Questions and answers ... 40

R

Reboot ... 36
Registering the DECT handset ... 9
Registration server ... 22
  port ... 22
Remote management ... 19
Ring tone setting
  administrator mode ... 23
RTP (Realtime Transport Protocol) ... 17

S

Screenshot, capturing ... 6
Screenshot, enabling ... 38
SD card, inserting ... 5
Security protocols for Wi-Fi ... 11
Security settings ... 19
  server certificates ... 19
Server certificates ... 19
Setting the language ... 9
Settings via auto provisioning ... 36
Silence suppression ... 24
SIP address ... 21
SIP provider ... 8
Specifications ... 41
Speed dial ... 33
SRTP (Secure Real-Time Protocol) ... 19
SSID ... 11
Status ... 39

STUN 22
STUN server 22
System log 38
System settings 34
  date and time 34
  security 35

T

Telephone system
  operating in the network 16
Telephony 20
Time zone 26
Tone scheme 26
Troubleshooting 40

U

Usage scenario
  professional environment with phone system 7
  without phone system 8
USB 4

V

Video settings 25
VLAN (Virtual Local Area Network) 14
VLAN priority 15
VLAN tagging 14
Voice mail 28
Voice quality 17, 24
VoIP account
  automatic configuration 21
  configuration via provider profile 21
  entering registration data 21
  personal provider data 21
  setting up 20
VoIP status 39

W

Web configurator 12
  accessing 12
  changing password 35
  login screen 12
  menu structure 13
  selecting language 12
  starting 12
WEP 11
Wi-Fi
  add manually 11
  scanning 10
  security protocols 11
Wi-Fi configuration 10
Workgroup server 7
WPA/WPA2 PSK 11

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