

BroadSoft Partner Configuration Guide

Gigaset Single Cell IP DECT Phones

September 2016

Document Version 1.2

BroadWorks® Guide

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1.1	Introduced document for Gigaset Single Cell IP DECT Phones version 42.238 validation with BroadWorks Release 21.sp1.
1.2	Edited and published document.

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1 Overview

This guide describes the configuration procedures required for the Gigaset Single Cell IP DECT Phones for interoperability with BroadWorks. These include:

- A510 IP
- A540 IP
- C430 IP
- C430A IP
- C530 IP
- C530A IP
- C590 IP
- C595 IP
- C610 IP
- C610A IP
- N300IP
- N300A IP
- N510 IP PRO
- C430A GO
- CL750A GO
- E630A GO
- S850A GO
- SL400A GO
- SL450A GO

The Gigaset Single Cell IP DECT Phones are DECT base stations for small- and medium-sized businesses supporting up to six DECT handsets and six SIP accounts that use the Session Initiation Protocol (SIP) to communicate with BroadWorks for call control.

This guide describes the specific configuration items that are important for use with BroadWorks. It does not describe the purpose and use of all configuration items on the Gigaset Single Cell IP DECT Phones. For those details, see the *Gigaset Communications GmbH N510 IP PRO Guide* [\[1\]](#) supplied by Gigaset Communications GmbH.

2 Interoperability Status

This section provides the known interoperability status of the Gigaset Single Cell IP DECT Phones with BroadWorks. This includes the version(s) tested, the capabilities supported, and known issues.

Interoperability testing validates that the device interfaces properly with BroadWorks via the SIP interface. Qualitative aspects of the device or device capabilities not affecting the SIP interface such as display features, performance, and audio qualities are not covered by interoperability testing. Requests for information and/or issues regarding these aspects should be directed to Gigaset Communications GmbH.

2.1 Verified Versions

The following table identifies the verified Gigaset Single Cell IP DECT Phones and BroadWorks versions and the month/year the testing occurred. If the device has undergone more than one test cycle, versions for each test cycle are listed, with the most recent listed first.

Compatible Versions in the following table identify specific Gigaset Single Cell IP DECT Phones versions that the partner has identified as compatible so should interface properly with BroadWorks. Generally, maintenance releases of the validated version are considered compatible and may not be specifically listed here. For any questions concerning maintenance and compatible releases, contact Gigaset Communications GmbH.

NOTE: Interoperability testing is usually performed with the latest generally available (GA) device firmware/software and the latest GA BroadWorks release and service pack at the time the testing occurs. If there is a need to use a non-verified mix of BroadWorks and device software versions, customers can mitigate their risk by self-testing the combination themselves using the *BroadWorks SIP Phone Interoperability Test Plan* [\[5\]](#).

Verified Versions			
Date (mm/yyyy)	BroadWorks Release	Gigaset Single Cell IP DECT Phones Verified Version	Gigaset Single Cell IP DECT Phones Compatible Versions
09/2016	Release 21.sp1	42.238	Any maintenance revisions of the validated release.

2.2 Interface Capabilities Supported

This section identifies interface capabilities that have been verified through testing as supported by Gigaset Single Cell IP DECT Phones.

The *Supported* column in the tables in this section identifies the Gigaset Single Cell IP DECT Phones support for each of the items covered in the test plan, with the following designations:

- Yes Test item is supported
- No Test item is not supported
- NA Test item is not applicable to the device type
- NT Test item was not tested

Caveats and clarifications are identified in the *Comments* column.

2.2.1 SIP Interface Capabilities

The Gigaset Single Cell IP DECT Phones has completed interoperability testing with BroadWorks using the *BroadWorks SIP Phone Interoperability Test Plan* [5]. The results are summarized in the following table.

The BroadWorks test plan is composed of packages, each covering distinct interoperability areas, such as “Basic” call scenarios and “Redundancy” scenarios. Each package is composed of one or more test items, which in turn are composed of one or more test cases. The test plan exercises the SIP interface between the device and BroadWorks with the intent to ensure interoperability sufficient to support the BroadWorks feature set.

NOTE: *DUT* in the following table refers to the *Device Under Test*, which in this case is the Gigaset IP DECT Phones.

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
Basic	Call Origination	Yes	
	Call Termination	Yes	
	Session Audit	Yes	
	Session Timer	No	
	Ringback	Yes	
	Forked Dialog	Yes	
	181 Call Being Forwarded	Yes	
	Dial Plan	Yes	
	DTMF – Inband	Yes	
	DTMF – RFC 2833	Yes	
	DTMF – DTMF Relay	Yes	
	Codec Negotiation	Yes	
	Codec Renegotiation	Yes	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
BroadWorks Services	Third-Party Call Control – Basic	Yes	
	Third-Party Call Control – Advanced	No	
	Voice Message Deposit/Retrieval	Yes	Only Solicited
	Message Waiting Indicator – Unsolicited	No	
	Message Waiting Indicator – Solicited	Yes	
	Message Waiting Indicator – Detail	Yes	Except saved and urgent message information
	Voice Portal Outcall	Yes	
	Advanced Alerting – Ringing	No	
	Advanced Alerting – Call Waiting	No	
	Advanced Alerting – Ring Splash	No	
	Advanced Alerting – Silent Alerting	No	
	Calling Line ID	Yes	
	Calling Line ID with Unicode Characters	Yes	
	Connected Line ID	No	
	Connected Line ID with Unicode Characters	No	
	Connected Line ID on UPDATE	No	
	Connected Line ID on Re-INVITE	No	
	Diversion Header	Yes	
	History-Info Header	Yes	
	Advice of Charge	No	
	Meet-Me Conferencing	Yes	
	Meet-Me Conferencing – G722	Yes	
	Meet-Me Conferencing – AMR-WB	No	
	Collaborate – Audio	Yes	
Collaborate – Audio – G722	Yes		
Call Decline Policy	Yes		
DUT Services – Call Control Services	Call Waiting	Yes	
	Call Hold	Yes	
	Call Transfer	Yes	Except Blind Transfer
	Three-Way Calling	Yes	Except Before Answer
	Network-Based Conference	No	
	Register Authentication	Yes	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
DUT Services – Registration and Authentication	Maximum Registration	Yes	
	Minimum Registration	Yes	
	Invite Authentication	Yes	
	Re-Invite/Update Authentication	Yes	
	Refer Authentication	Yes	
	Device Authenticating BroadWorks	No	
DUT Services – Emergency Call	Emergency Call	No	
	Emergency Call with Ringback	No	
DUT Services – Miscellaneous	Do Not Disturb	No	
	Call Forwarding Always	Yes	
	Call Forwarding Always Diversion Inhibitor	No	
	Anonymous Call	No	
	Anonymous Call Block	No	
	Remote Restart Via Notify	No	
Advanced Phone Services – Busy Lamp Field	Busy Lamp Field	No	
	Call Park Notification	No	
Advanced Phone Services – Feature Key Synchronization, Private Line	Do Not Disturb	No	
	Do Not Disturb Ring Splash	No	
	Call Forwarding	No	
	Call Forwarding Always Ring Splash	No	
	Call Forwarding Always Diversion Inhibitor	No	
	Call Center Agent Logon/Logoff	No	
	Call Center Agent Unavailable Code	No	
	Executive – Call Filtering	No	
	Executive-Assistant – Call Filtering	No	
	Executive-Assistant – Diversion	No	
	Call Recording	No	
	Security Classification	No	
Advanced Phone Services – Feature Key Synchronization, Shared Line	Do Not Disturb	No	
	Do Not Disturb Ring Splash	No	
	Call Forwarding	No	
	Call Forwarding Always Ring Splash	No	
	Call Forwarding Always Diversion Inhibitor	No	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
	Security Classification	No	
Advanced Phone Services – Missed Calls Display Synchronization	Missed Calls Display Sync	No	
Advanced Phone Services – Shared Call Appearance using Call Info	Line-Seize	No	
	Call-Info/Lamp Management	No	
	Public Hold	No	
	Private Hold	No	
	Hybrid Key System	No	
	Multiple Call Arrangement	No	
	Bridge Active Line	No	
	Bridge Active Line – Silent Monitor	No	
	Call Park Notification	No	
Advanced Phone Services – Call Park Notification	Call Park Notification	No	
Advanced Phone Services – Call Center	Hold Reminder	No	
	Call Information	No	
	Hoteling Event	No	
	Status Event	No	
	Disposition Code	No	
	Emergency Escalation	No	
	Customer Originated Trace	No	
Advanced Phone Services – Call Recording Controls	Pause/Resume	No	
	Start/Stop	No	
	Record Local Conference	No	
	Record Network Conference	No	
Advanced Phone Services – Call Recording Video	Basic Call	No	
	Record Local Conference	No	
	Record Network Conference	No	
Advanced Phone Services – Security Classification	Security Classification	No	
Advanced Phone Services – Conference Event	Network-Based Conference Creator	No	
	Network-Based Conference Participant	No	
	Meet-Me Conference Participant	No	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
Redundancy	DNS SRV Lookup	Yes	
	Register Failover/Failback	Yes	
	Invite Failover/Failback	No	Takes 32 seconds
	Bye Failover	No	Takes 32 seconds
SBC/ALG - Basic	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	
SBC/ALG – Failover/Failback	Register Failover/Failback	Yes	
	Invite Failover/Failback	No	Takes 32 seconds
Video – Basic Video Calls	Call Origination	No	
	Call Termination	No	
	Call Hold	No	
	Call Waiting	No	
	Call Transfer	No	
Video – BroadWorks Video Services	Auto Attendant	No	
	Auto Attendant – HD	No	
	Voice Messaging	No	
	Voice Messaging – HD	No	
	Custom Ringback	No	
Video – BroadWorks Video Conference	Network-based Conference	No	
	Network-based Conference – HD	No	
	Collaborate – Video	No	
	Collaborate – Video – HD	No	
TCP	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	
IPV6	Call Origination	No	
	Call Termination	No	
	Session Audit	No	
	Ringback	No	
	Codec Negotiation/Renegotiation	No	
	Voice Message Deposit/Retrieval	No	
	Call Control	No	
	Registration with Authentication	No	
Busy Lamp Field	No		

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
	Redundancy	No	
	SBC	No	
	Video	No	
	Dual Stack with Alternate Connectivity	No	

2.2.1 Other Interface Capabilities

The Gigaset Single Cell IP DECT Phones may have implemented support for the following:

- BroadWorks Xtended Services Interface (Xsi)
- Extensible Messaging and Presence Protocol (XMPP) (BroadCloud/BroadWorks Collaborate Instant Messaging and Presence [IM&P])

Support for these interfaces is demonstrated by completing the *BroadWorks SIP Phone Functional Test Plan* [6]. Support for these interfaces is summarized in the following table.

BroadWorks Xtended Services Interface (Xsi) and BroadCloud IM&P Support Table			
Interface	Feature	Supported	Comments
Xsi Features – Authentication	Authenticate with SIP Credentials	No	
	Authenticate with BroadWorks User Login Credentials	No	
	Authenticate with BroadWorks User Directory Number	No	
Xsi Features – User Service Configuration	Remote Office	No	
	BroadWorks Anywhere	No	
	Simultaneous Ringing	No	
	Caller ID Blocking	No	
	Call Forwarding Always	No	
	Call Forwarding Busy	No	
	Call Forwarding No Answer	No	
Xsi Features – Directories	Do Not Disturb	No	
	Enterprise Directory	No	
	Enterprise Common Phone List	No	
	Group Directory	No	
	Group Common Phone List	No	
	Personal Phone List	No	
Xsi Features – Call Logs	Search All Directories	No	
	Placed Calls	No	
	Received Calls	No	
	Missed Calls	No	
	All Calls	No	
Xsi Features – Visual Voice Mail	Sort by Name	No	
	View Messages	No	
	Listen to Audio Message	No	
	Watch Video Message	No	
	Mark Message Read/Unread	No	

BroadWorks Xtended Services Interface (Xsi) and BroadCloud IM&P Support Table			
Interface	Feature	Supported	Comments
	Delete Message	No	
	Mark All Messages Read/Unread	No	
XMPP Features – Contact/Buddy List	Contacts	No	
	Favorites	No	
	Groups	No	
	Non-XMPP Contacts	No	
	Conferences	No	
XMPP Features – Presence	Login Invisible	No	
	Presence State	No	
	Presence Status	No	
	Contact's Presence State	No	

2.3 Known Issues

This section lists the known interoperability issues between BroadWorks and specific partner release(s). Issues identified during interoperability testing and known issues identified in the field are listed.

The following table provides a description of each issue and, where possible, identifies a workaround. The verified partner device versions are listed with an “X” indicating that the issue occurs in the specific release. The issues identified are device deficiencies or bugs, and are typically not BroadWorks release dependent.

The *Issue Number* is a tracking number for the issue. If it is a Gigaset issue, the issue number is from the Gigaset tracking system. If it is a BroadWorks issue, the issue number is from the BroadSoft tracking system.

For more information on any issues related to the particular partner device release, see the partner release notes.

Issue Number	Issue Description	Partner Version			
		42.238			
	Invite Failover/Fallback Failover/Fallback takes 32 seconds to switch over or back to the working Application Server. Workaround: None.	x			

3 BroadWorks Configuration

This section identifies the required BroadWorks device profile type for the Gigaset Single Cell IP DECT Phones as well as any other unique BroadWorks configuration required for interoperability with the Gigaset Single Cell IP DECT Phones.

3.1 BroadWorks Device Profile Type Configuration

This section identifies the device profile type settings to use when deploying the Gigaset Single Cell IP DECT Phones with BroadWorks.

Create a device profile type for the Gigaset Single Cell IP DECT Phones with settings as shown in the following example. The settings shown are recommended for use when deploying the Gigaset Single Cell IP DECT Phones with BroadWorks. For an explanation of the profile parameters, see the *BroadWorks Device Management Configuration Guide* [2].

The following table shows the *Number of Ports* (number of SIP lines) setting for Gigaset Single Cell IP DECT Phones.

Model Name	Number of SIP Lines
A510 IP	6
A540 IP	6
C430 IP	6
C430A IP	6
C530 IP	6
C530A IP	6
C590 IP	6
C595 IP	6
C610 IP	6
C610A IP	6
N300 IP	6
N300A IP	6
N510 IP PRO	6
C430A GO	6
CL750A GO	6
E630A GO	6
S850A GO	6
SL400A GO	6
SL450A GO	6

Identity/Device Profile Type Modify

Modify an existing identity/device profile type.

OK Apply Delete Export Cancel

Identity/Device Profile Type: Gigaset_IP_DECT
 Signaling Address Type: Intelligent Proxy Addressing
 Obsolete

Standard Options

Number of Ports: Unlimited Limited To

Ringback Tone/Early Media Support: RTP - Session
 RTP - Early Session
 Local Ringback - No Early Media

Authentication: Enabled
 Disabled
 Enabled With Web Portal Credentials

Hold Normalization: Unspecified Address
 Inactive
 RFC3264

Registration Capable Authenticate REFER
 Static Registration Capable Video Capable
 E164 Capable Use History Info Header
 Trusted

Advanced Options

Route Advance Forwarding Override
 Wireless Integration Conference Device
 PBX Integration Mobility Manager Device
 Add P-Called-Party-ID Music On Hold Device
 Auto Configuration Soft Client Requires BroadWorks Digit Collection
 Requires BroadWorks Call Waiting Tone Requires MWI Subscription
 Advice of Charge Capable Support Call Center MIME Type
 Support Emergency Disconnect Control Support Identity In UPDATE and Re-INVITE
 Enable Monitoring Support RFC 3398
 Static Line/Port Ordering Support Client Session Info
 Support Call Info Conference Subscription URI Support Remote Party Info
 Support Visual Device Management Bypass Media Treatment
 Support Cause Parameter

Reset Event: reSync checkSync Not Supported
 Trunk Mode: User Pilot Proxy
 Hold Announcement Method: Inactive Bandwidth Attributes

Unscreened Presentation Identity Policy: Profile Presentation Identity
 Unscreened Presentation Identity
 Unscreened Presentation Identity With Profile Domain

Web Based Configuration URL Extension:

Device Configuration Options: Not Supported Device Management Legacy

OK Apply Delete Export Cancel

Figure 1 Device Identity/Profile Type

3.2 BroadWorks Configuration Steps

No special BroadWorks configuration is required.

4 Gigaset Single Cell IP DECT Phones Configuration

This section describes the configuration settings required for the Gigaset Single Cell IP DECT Phones integration with BroadWorks, primarily focusing on the SIP interface configuration. The Gigaset Single Cell IP DECT Phones configuration settings identified in this section have been derived and verified through interoperability testing with BroadWorks. For configuration details not covered in this section, see the *Gigaset Communications GmbH N510 IP PRO Guide* [1] for Gigaset Single Cell IP DECT Phones.

4.1 Configuration Method

The capabilities of the Gigaset Single Cell IP DECT Phones have been verified for use with BroadWorks using the default settings, where only the SIP information to register to BroadWorks is entered. The following tables provide more information about how to change the individual configuration items to adjust to specific customer requirements. For more information, see the Gigaset [wiki](#) site.

Configuration Files

Gigaset Single Cell IP DECT Phones Configuration Files	Level	Description
<i>master.bin</i>	System	Contains all the information about the firmware files, language files, and siu files for this device.
<i>baselines.bin</i>	System	Contains all the information about the software version.
<i>version.bin</i>	System	Web interface coded date and time. This is an optional file that can be used to determine if it is necessary to replace a possibly outdated web interface language file on the device.
<i>wl_xx.bin</i>	System	Web interface language files: 02 = German, 09 = French, 10 = Netherlands, 07 = Italian, 04 = Spanish, 20 = Portuguese, 17 = Polish Note that "01" is optional, it can contain the English language, if required. However, this language is already implemented on the device and it is the only language that is fixed on the device.
<i>siu_444.bin</i>	System	Contains all the information about the location of the configuration files and the naming used.
<i>merkur"Softwareversion"_42.bin</i>	System	Device firmware file.
<i>MAC.xml</i> Example: <i>0004f2000fbb.xml</i>	Subscriber	Contains configurable parameters that apply to an individual device in a deployment. The naming can be different and it depends on the <i>siu_444.bin</i> file settings.

4.2 System Level Configuration

This section describes system-wide configuration items that are generally required for each Gigaset Single Cell IP DECT Phones to work with BroadWorks. Subscriber-specific settings are described in the next section.

4.2.1 Configure Network Settings

Step	Command	Description
Step 1	Set the DHCP or static IP address. <pre><SYMB_ITEM ID="BS_IP_Data1.ucB_USE_DHCP" class="symb_item" value="0x1"/></pre>	Enable or disable to retrieve the address from a DHCP server. DHCP enabled (Default) = 0x1 Static IP = 0x0
Step 2	Set the IP address. <pre><SYMB_ITEM ID="BS_IP_Data1.ulI_IP" class="symb_item" value="0xc0a80202"/></pre>	This is the IPv4 address in hexadecimal format. Example: 192.168.2.2 → 0xC0A80202 192(C0)168(A8)2(02)2(02)
Step 3	Set the subnet mask. <pre><SYMB_ITEM ID="BS_IP_Data1.ulI_SUBNET_MAS K" class="symb_item" value="0xfffff00"/></pre>	This is the IPv4 address in hexadecimal format. Example: 255.255.255.0 → 0xFFFFF00 255(FF)255(FF)255(FF)0(00)
Step 4	Set the standard gateway. <pre><SYMB_ITEM ID="BS_IP_Data1.ulI_DEFAULT_RO UTER" class="symb_item" value="0xc0a80201"/></pre>	This is the IPv4 address in hexadecimal format. Example: 192.168.2.1 → 0xC0A80201 192(C0)168(A8)2(02)1(01)
Step 5	Set the preferred DNS server. <pre><SYMB_ITEM ID="BS_IP_Data1.ulI_DNS_SERVER 1" class="symb_item" value="0xc0a802fd"/></pre>	This is the IPv4 address in hexadecimal format. Example: 192.168.2.253 → 0xC0A802FD 192(C0)168(A8)2(02)253(FD)
Step 6	Set the alternate DNS server. <pre><SYMB_ITEM ID="BS_IP_Data1.ulI_DNS_SERVER _2" class="symb_item" value="0xc0a802fe"/></pre>	This is the IPv4 address in hexadecimal format. Example: 192.168.2.1 → 0xC0A802FE 192(C0)168(A8)2(02)254(FE)
Step 7	Allow access from other networks. <pre><SYMB_ITEM ID="BS_IP_Data1.ucB_ACCEPT_FOR EIGN_SUBNET" class="symb_item" value="0x0"/></pre>	To authorize access from other networks, select "Yes". To disable remote access, select "No" (access is then limited to PCs in your local network). Allow access = 0x1 No access (Default) = 0x0
Step 8	Set the device name in the network. <pre><SYMB_ITEM ID="BS_IP_Data3.aucS_NETWORK_D EVICENAME[0]" class="symb_item" value="'N510 IP PRO'"/></pre>	This is the <i>Device Name</i> in the <i>Network</i> field, maximum 20 characters (0-9, a-z, A-Z). The phone can be addressed with this name in the local network.

Step	Command	Description
Step 9	Set the HTTP proxy. <pre><SYMB_ITEM ID="BS_IP_Data3.ucB_HTTP_PROXY_ENABLED" class="symb_item" value="0x0"/></pre>	<p>If the phone handles HTTP calls via the network's HTTP proxy server, then select "Yes".</p> <p>If you select "No", then the phone attempts to directly access the Internet.</p> <p>HTTP proxy disabled (Default) = 0x0 HTTP proxy enabled = 0x1</p>
Step 10	Set the proxy server address. <pre><SYMB_ITEM ID="BS_IP_Data3.aucS_HTTP_PROXY_URL" class="symb_item" value="'Proxy Server'"/></pre>	<p>Enter the URL of the proxy server to which your phone is to send HTTP calls. The proxy server then creates the connection to the Internet.</p>
Step 11	Set the proxy server port. <pre><SYMB_ITEM ID="BS_IP_Data3.uiI_HTTP_PROXY_PORT" class="symb_item" value="0x0"/></pre>	<p>Enter the communication port used on the HTTP proxy server, (which is a number between 1 and 55000). Usually port 80 is used.</p>
Step 12	Set VLAN tagging. <pre><SYMB_ITEM ID="BS_IP_Data1.ucB_VLAN_ENABLED" class="symb_item" value="0x0"/></pre>	<p>Enable or disable VLAN tagging.</p> <p>VLAN disabled (Default) = 0x0 VLAN enabled = 0x1</p>
Step 13	Set the VLAN ID. <pre><SYMB_ITEM ID="BS_IP_Data1.uiI_VLAN_ID" class="symb_item" value="0x0"/></pre>	<p>Enter the VLAN identifier. The numbers range from 0 through 4094 (12-bit values).</p>
Step 14	Set the VLAN priority. <pre><SYMB_ITEM ID="BS_IP_Data1.ucI_VLAN_PRIORITY" class="symb_item" value="0x0"/></pre>	<p>Enter the VLAN priority. The numbers range from 0 through 7 (3-bit values).</p>

Browse to *Settings* → *Network* → *IP Configuration*.

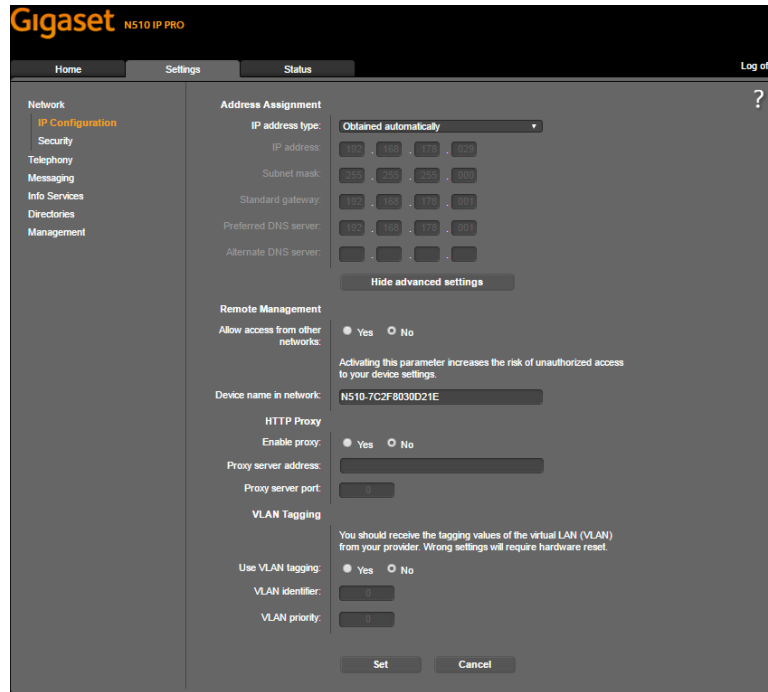


Figure 2 Gigaset IP DECT – IP Configuration

4.2.1.1 Configure IPV6 Settings

IPv6 is not supported by the Gigaset IP DECT Phones.

4.2.2 Configure SIP Interface Settings

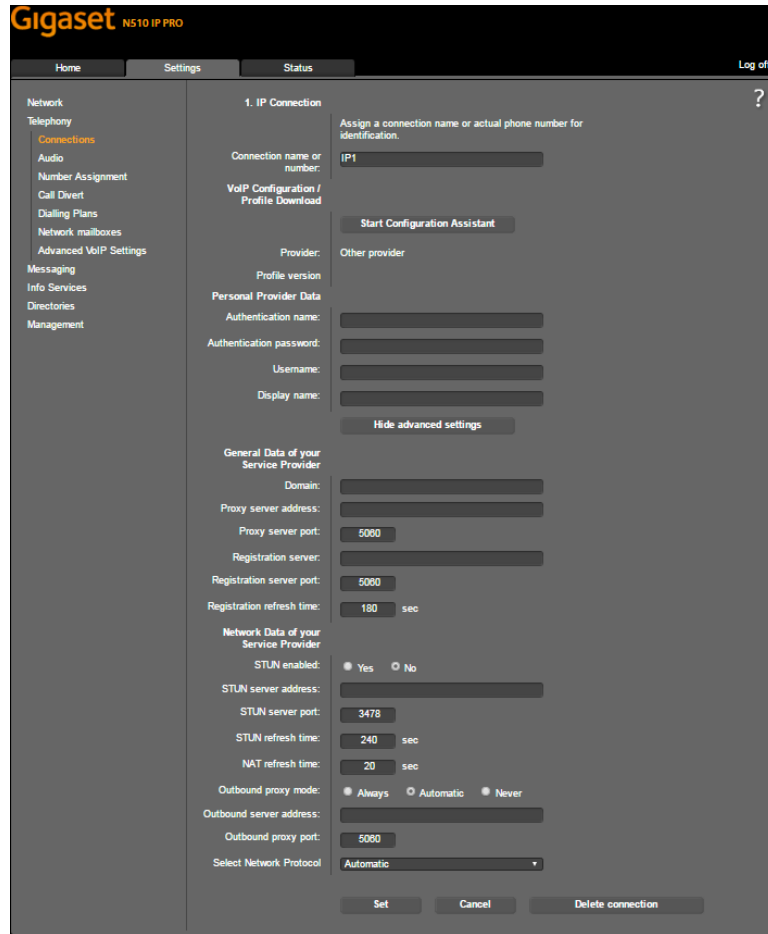
Step	Command	Description
Step 1	Set connection name or number. <pre><SYMB_ITEM ID="BS_IP_Data1.aucS SIP ACCOU NT NAME N (N=1-6)" class="symb_item" value="Account1"/></pre>	Enter a name for the IP account.
Step 2	Set the authentication name. <pre><SYMB_ITEM ID="BS_IP_Data3.aucS SIP LOGIN ID N (N=2-6)" class="symb_item" value="Authentication name"/></pre>	Specify the authentication name agreed with your VoIP provider. The authentication name acts as an access ID when registering with the SIP proxy/registrar server.
Step 3	Set the authentication password. <pre><SYMB_ITEM ID=" BS_IP_Data1.aucS SIP_PASSWORD_ N (N=2-6)" class="symb_item" value="Password"/></pre>	Enter the password that you have agreed with your VoIP provider. The phone requires the password when registering with the SIP proxy/registrar server.
Step 4	Set the user name. <pre><SYMB_ITEM ID=" BS_IP_Data1.aucS SIP_USER_ID N (N=2-6)" class="symb_item" value="Username"/></pre>	Enter the caller ID for your VoIP provider account (maximum 32 characters). The ID is usually the same as the phone number for this VoIP account.

Step	Command	Description
Step 5	<p>Set the display name.</p> <pre><SYMB_ITEM ID="BS_IP_Data1.aucS_SIP_DISPL AYNAME_N (N=2-6)" class="symb_item" value="'Display Name'"/></pre>	<p>Enter the name that is shown on the other caller's display. All characters in the UTF8 character set (Unicode) are permitted.</p>
Step 6	<p>Set the domain.</p> <pre><SYMB_ITEM ID="BS_IP_Data1.aucS_SIP_DOMAI N_N (N=2-6)" class="symb_item" value="'provider.com'"/></pre>	<p>Specify the last part of the SIP address (URI), for example, for the SIP address "987654321@provider.com", enter "provider.com" under <i>Domain</i>.</p>
Step 7	<p>Set the proxy server address</p> <pre><SYMB_ITEM ID="BS_IP_Data1.aucS_SIP_SERVE R_N (N=2-6)" class="symb_item" value="'myprovider.com'"/></pre>	<p>The SIP proxy is your VoIP provider's gateway server. Enter the IP address or the DNS name (fully qualified domain name) of your SIP proxy server. Example: myprovider.com.</p>
Step 8	<p>Set the proxy server port.</p> <pre><SYMB_ITEM ID="BS_IP_Data1.uiI_SIP_SERVER PORT_N (N=2-6)" class="symb_item" value="'5060'"/></pre>	<p>Enter the number of the communication port that the SIP proxy uses to send and receive signaling data (SIP port). Port 5060 is used by most VoIP providers.</p>
Step 9	<p>Set the registration server.</p> <pre><SYMB_ITEM ID="BS_IP_Data1.aucS_SIP_REGIS TRAR_N (N=2-6)" class="symb_item" value="'reg.myprovider.com'"/></pre>	<p>Enter the DNS name (fully qualified domain name) or the IP address of the registrar server. The registrar is required when the phone is registered. It assigns the public IP address/port number that was used by the phone on registration to your SIP address (Username@Domain). With most VoIP providers, the registrar server is the same as the SIP server. Example: reg.myprovider.com.</p>
Step 10	<p>Set the registration server port.</p> <pre><SYMB_ITEM ID=" BS_IP_Data1.uiI_SIP_REGISTRAR PORT_N (N=2-6)" class="symb_item" value="'5060'"/></pre>	<p>Enter the communication port used on the registrar. Port 5060 is used in most cases.</p>
Step 11	<p>Set the registration refresh time.</p> <pre><SYMB_ITEM ID="BS_IP_Data1.uiI_RE_REGISTR ATION_TIMER_N (N=2-6)" class="symb_item" value="'180'"/></pre>	<p>Enter the time interval (in seconds) whereby the phone repeats the registration with the VoIP server (SIP proxy). A request is sent to establish a session. The registration is repeated so that the phone's entry in the SIP proxy tables is retained and the phone can be reached. The registration is repeated for all enabled VoIP connections. The default is 180 seconds. If you enter 0 seconds, then the registration is not periodically repeated.</p>

Step	Command	Description
Step 12	Set STUN. <pre><SYMB_ITEM ID="BS_IP_Data1.ucB SIP USE ST UN N (N=2-6) " class="symb_item" value="0x0"/></pre>	<p>If the phone to use STUN, select "Yes".</p> <p>Note that STUN can only be used if your router uses an asymmetric NAT and a non-blocking firewall.</p> <p>STUN disabled (default) = 0x0 STUN enabled = 0x1</p>
Step 13	Set the STUN server address. <pre><SYMB_ITEM ID="BS_IP_Data1.aucS STUN SERV ER N (N=2-6) " class="symb_item" value=""'/></pre>	<p>Enter the DNS name (fully qualified domain name) or the IP address of the STUN server on the Internet (maximum 74 characters, 0-9, a-z, A-Z, -, _).</p> <p>The phone can determine its public address via the STUN. The phone requires this address to receive caller voice data.</p>
Step 14	Set the STUN server port. <pre><SYMB_ITEM ID="BS_IP_Data1.uiI STUN SERVE R_PORT_N (N=2-6) " class="symb_item" value="'3478'"/></pre>	<p>Enter the number of the communication port on the STUN server. The default port is 3478.</p>
Step 15	Set the STUN refresh time. <pre><SYMB_ITEM ID="BS_IP_Data1.uiI_RE_STUN_TI MER N (N=2-6) " class="symb_item" value="'240'"/></pre>	<p>Enter the time intervals at which the phone should repeat the registration with the STUN server. The registration must be repeated so that the entry of the phone in the STUN server tables is retained. The registration is repeated for all enabled VoIP connections.</p> <p>The default is 240 seconds. If you enter 0 seconds, the registration is not repeated periodically.</p>
Step 16	Set NAT refresh time <pre><SYMB_ITEM ID="BS_IP_Data1.uiI NAT REFRES H TIME N (N=2-6) " class="symb_item" value="0x14"/></pre>	<p>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 less than the NAT session timeout.</p>
Step 17	Set the outbound proxy mode. <pre><SYMB_ITEM ID="BS_IP_Data1.ucI OUTBOUND P ROXY MODE N (N=2-6) " class="symb_item" value="0x1"/></pre>	<p>Specify when the outbound proxy should be used. All signaling and voice data is always sent by the phone to the outbound proxy. Automatic data sent by the phone is only sent to the outbound proxy when the phone is connected to a router with symmetric NAT or a blocking firewall. If the phone is behind an asymmetric NAT, then the STUN server is used. The outbound proxy is never used.</p>
Step 18	Set the outbound server address. <pre><SYMB_ITEM ID="BS_IP_Data1.aucS OUTBOUND PROXY N (N=2-6) " class="symb_item" value=""'/></pre>	<p>Enter the DNS name (fully qualified domain name) or the IP address of your provider's outbound proxy.</p>
Step 19	Set the outbound proxy port. <pre><SYMB_ITEM ID="BS_IP_Data1.uiI OUTBOUND P ROXY_PORT_N (N=2-6) " class="symb_item" value="'5060'"/></pre>	<p>Enter the number of the communication port used by the outbound proxy. The default port is "5060".</p>

Step	Command	Description
Step 20	Set the network protocol. <pre><SYMB_ITEM ID="BS_IP_Data1.ucI_SIP_PREFER RED_TRANSPORT_LAYER_N (N=2-6) " class="symb_item" value="0x0"/></pre>	<p>The SIP server usually communicates using the User Datagram Protocol (UDP).</p> <p>Note that UDP does not guarantee reliable transmission, that is, the SIP server does not check whether messages have been successfully transferred. If you need reliable transmission, you can use the Transmission Control Protocol (TCP).</p> <p>Automatic – The protocol is defined automatically.</p> <p>UDP only – Communication occurs exclusively via UDP.</p> <p>TCP only – Communication occurs exclusively via TCP.</p> <p>Integer: 0 = automatic 6 = TCP only 17 = UDP only</p>
Step 21	Enable the SIP account. <pre><SYMB_ITEM ID="BS_IP_Data1.ucB_SIP_ACCOUNT_IS_ACTIVE_N (N=1-6) " class="symb_item" value="0x1"/></pre>	

Browse to *Settings* → *Telephony* → *Connections*.



Gigaset NS10 IP PRO

Home Settings Status Log off

Network
Telephony
Connections
Audio
Number Assignment
Call Divert
Dialling Plans
Network mailboxes
Advanced VoIP Settings
Messaging
Info Services
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Management

1. IP Connection

Assign a connection name or actual phone number for identification.

Connection name or number: IP1

VolP Configuration / Profile Download

Start Configuration Assistant

Provider: Other provider

Profile version

Personal Provider Data

Authentication name:

Authentication password:

Username:

Display name:

Hide advanced settings

General Data of your Service Provider

Domain:

Proxy server address:

Proxy server port: 5060

Registration server:

Registration server port: 5060

Registration refresh time: 180 sec

Network Data of your Service Provider

STUN enabled: Yes No

STUN server address:

STUN server port: 3478

STUN refresh time: 240 sec

NAT refresh time: 20 sec

Outbound proxy mode: Always Automatic Never

Outbound server address:

Outbound proxy port: 5060

Select Network Protocol: Automatic

Set Cancel Delete connection

Figure 3 Gigaset IP DECT – Connections

4.2.1 Configure Service Settings

4.2.1.1 DTMF and Call Transfer Settings

Step	Command	Description
Step 1	Set the DTMF. <pre><SYMB_ITEM ID="BS IP Data1.ucB DTMF TX MO DE AUTO" class="symb item" value="0x1"/></pre>	If you select "Yes", then for each call, the phone attempts to set the appropriate DTMF signaling type for the codec currently being negotiated. If you select "No", then you can specify the DTMF signaling type explicitly.
Step 2	Set the DTMF type. <pre><SYMB_ITEM ID="BS IP Data1.ucI DTMF TX MO DE BITS" class="symb item" value="0x1"/></pre>	Enable <i>Audio</i> or <i>RFC 2833</i> if DTMF signals are to be transmitted acoustically (that is, in voice packets). Enable <i>SIP Info</i> if DTMF signals are to be transmitted as code. NOTE: Automatic negotiation for DTMF transmission must be set to "No". Integer: 1 = Audio 2 = RFC 2833 3 = Audio + RFC 2833 4 = SIP INFO 5 = Audio + SIP INFO 6 = RFC 2833 + SIP INFO 7 = Audio + RFC 2833 + SIP INFO
Step 3	Set transfer call by on-hook. <pre><SYMB_ITEM ID="BS CUSTOM ORG.bit.bEct" class="symb item" value="0x1"/></pre>	If you select "Yes", then the external parties are connected when you replace the handset. Your connections with the parties are terminated. Yes (Default) = 0x1 No = 0x0

Browse to *Settings* → *Telephony* → *Advanced VoIP Settings*.

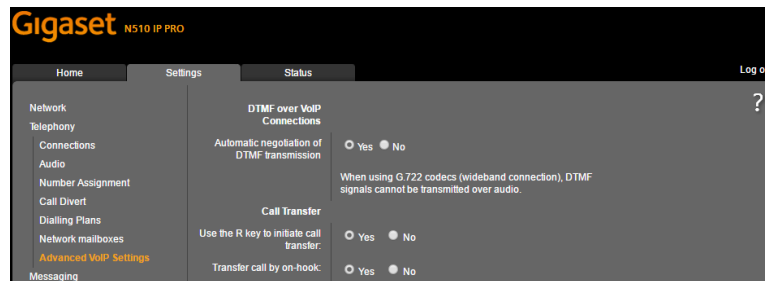


Figure 4 Gigaset IP DECT – Advanced VoIP Settings

4.2.1.2 MWI

This section provides configuration instructions to configure Voice Mail and Message Waiting Indicator (MWI) notification with BroadWorks.

- 1) Enter the BroadWorks voice mail number and name and then enable the service.

Step	Command	Description
Step 1	<pre>Set the voice mail box call number. <SYMB_ITEM ID="BS IP Data1.aucS VOIP NET AM NUMBER N[0] (N=1-6)" class="symb_item" value=""'/></pre>	<p>For the VoIP connections, the maximum is 32 characters and/or digits (0-9, A-Z, a-z, *, #, R, P, -).</p> <p>Enter the BroadWorks voice mail number and name. The device subscribes to the Message service.</p>
Step 2	<pre>Activate voice mail and MWI. <SYMB_ITEM ID="BS IP Data1.ucB VOIP NET A M ENABLED 1" class="symb_item" value="0x0"/></pre>	<p>You can enable or disable individual network mailboxes.</p> <p>Enable MWI = 0x1 Disable = 0x0</p>

Browse to *Settings* → *Telephony* → *Network mailboxes*.

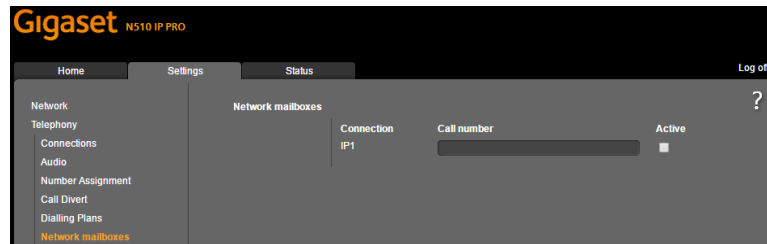


Figure 5 Gigaset IP DECT – Network Mailboxes

- 2) You can enable or disable the flashing MWI LED in the message key on your handsets.

Step	Command	Description
Step 1	<pre>Set the MWI network mailboxes. <SYMB_ITEM ID=" BS AE Subscriber.stMWI[N].bSho wMissedNetAM (N=0-5)" class="symb_item" value="0x1"/></pre>	<p>For each handset, you can individually set for which type of new messages the LED should flash.</p>

Browse to *Settings* → *Messaging* → *Message Notification*.

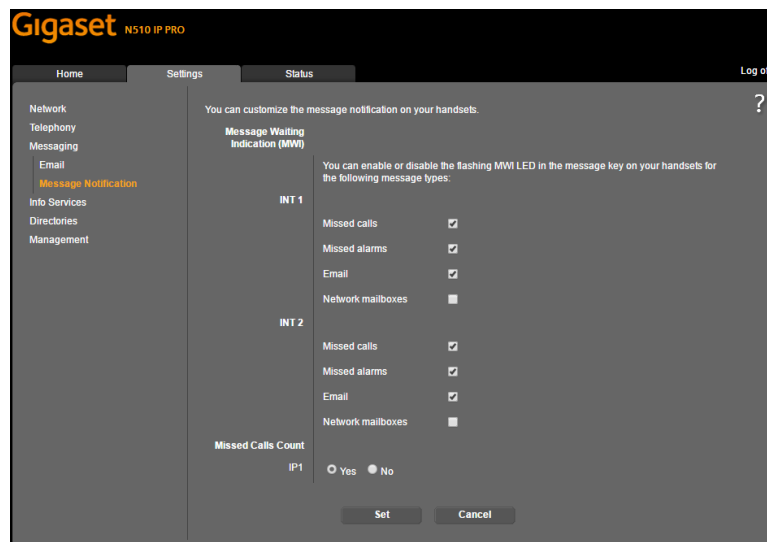


Figure 6 Gigaset IP DECT – Message Notification

4.2.1.3 Device Language, Country Settings, and Ringtones

This section provides configuration instructions to configure a device to be used in the different countries.

1) Set the web interface language setting.

Step	Command	Description
Step 1	<pre>Set the language of the web interface. <SYMB_ITEM ID="BS_IP_Data1.ucI_HTTPLANGUA GE" class="symb item" value="0x1"/></pre>	<p>This is the HTTP language of the device, where:</p> <p>UK = 0x1, DE = 0x2, ES = 0x4, IT = 0x7, FR = 0x9, NL = 0xa, PL = 0x11, TR = 0x10</p> <p>Some languages are stored on the device and others are downloaded from the Gigaset server. If a language cannot be found, then English is used.</p>

Browse to the web interface *Welcome* page.

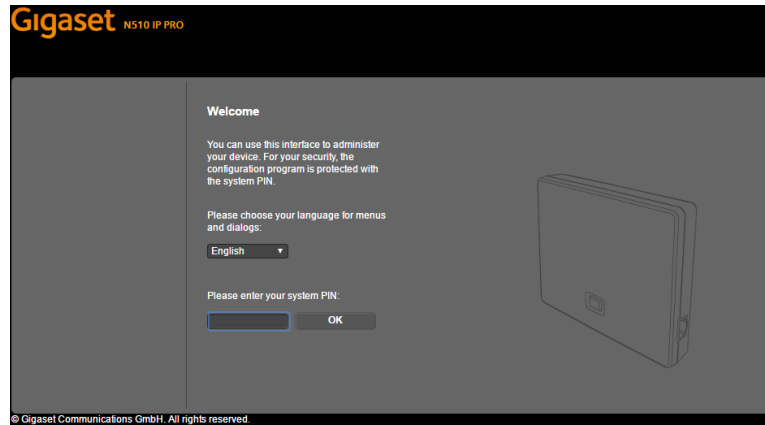


Figure 7 Gigaset IP DECT – Welcome Page

1) Set the local settings.

Step	Command	Description
Step 1	<pre>Select the country. <SYMB_ITEM ID="BS_IP_Data1.ucI_DIALING_PL AN_COUNTRY_ID" class="symb item" value="0x19"/></pre>	<p>Select the country in which you are using your phone, for example, "Germany". If your country is not included in the list, then select "Other Country" found at the end of the list.</p> <p>NL = 0x30, UK = 0x4A, DE = 0x19, FR = 0x18</p>
Step 2	<pre>Set the tone selection. <SYMB_ITEM ID="BS_AE_SwConfig.ucCountryCo deTone" class="symb item" value="12"/></pre>	<p>Tones such as dialing tones, call tones, busy tones, and call waiting tones are specific to a country or region. You can choose from various tone groups for your phone.</p> <p>The <i>Tone Selection</i> is automatically assigned according to the country selected in the previous step. However, you can change this setting. From the <i>Tone Selection</i> list, select the country or region to be used for your phone.</p> <p>International = 0, NL = 9, UK = 8, DE = 12, FR = 7</p>

Browse to *Settings* → *Management* → *Local Settings*.

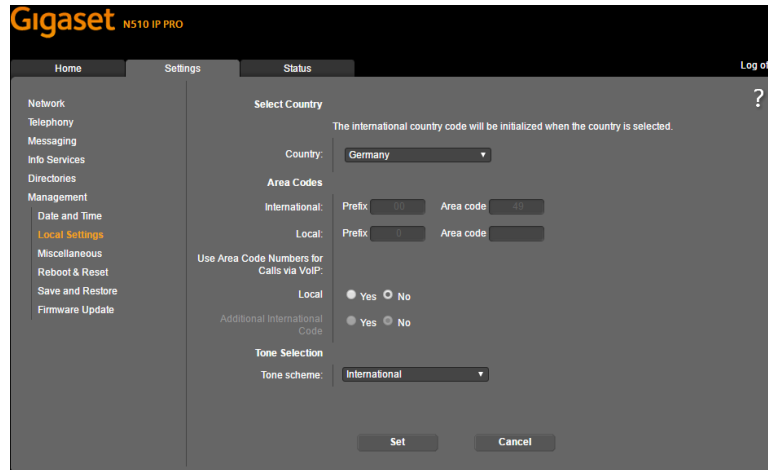


Figure 8 Gigaset IP DECT – Local Settings

1) Set the date and time.

Step	Command	Description
Step 1	<pre>Set the time server. <SYMB ITEM ID="BS_IP_Data1.aucS_TIME_NTP_ SERVER[0]" class="symb_item" value=" "europe.pool.ntp.org" "/ ></pre>	<p>Enter the Internet address or DNS name of the time server from which the time and date settings should be copied (maximum 74 characters, 0-9, a-z, A-Z, -, .). The time server "europe.pool.ntp.org" is set by default. However, you can overwrite this setting.</p>
Step 2	<pre>Set the time zone. <SYMB ITEM ID="BS_IP_Data1.uiI TIME TIMEZ ONE" class="symb_item" value="0x1b"/></pre>	<p>A list of the valid time zones appears. Each time zone shows the deviation between local time (not summer time) and Greenwich Mean Time (GMT). Select the appropriate time zone for the location of the phone from the list. NL = 0x1b, UK = 0x1a, DE = 0x1b, FR = 0x1b</p>
Step 3	<pre>Set clock to adjust automatically. <SYMB ITEM ID="BS_IP_Data1.ucB_TIME_USE_A UTOMATIC_DST" class="symb_item" value="0x1"/></pre>	<p>Select "Yes" (default), if you want the time to change automatically to summer time or standard time when summer time begins and ends respectively. Select "No", if you do not want to automatically change to summer time.</p>

Browse to *Settings* → *Management* → *Date and Time*.

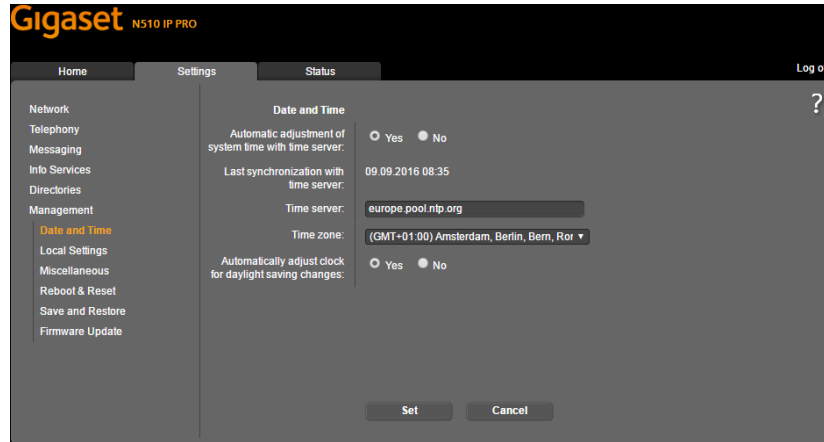


Figure 9 Gigaset IP DECT – Date and Time

4.3 Redundancy Support

This section identifies the device-specific redundancy related parameters. The Gigaset IP DECT Phones use the DNS SRV according to *RFC 3263* to locate SIP servers in case of redundancy.

Step	Command	Description
Step 1	<pre>Set the proxy server port. <SYMB_ITEM ID="BS IP Data1.uiI SIP SERVER PORT N (N=2-6) " class="symb_item" value="" /></pre>	Remove the proxy server port settings by configuring an empty field.
Step 2	<pre>Set the registration server port. <SYMB_ITEM ID=" BS IP Data1.uiI SIP REGISTRAR PORT N (N=2-6) " class="symb_item" value="" /></pre>	Remove the registration server port settings by configuring an empty field.
Step 3	<pre>Set the outbound proxy port. <SYMB_ITEM ID="BS IP Data1.uiI OUTBOUND P ROXY PORT N (N=2-6) " class="symb_item" value="" /></pre>	Remove the outbound proxy port settings by configuring an empty field.

Browse to *Settings* → *Management* – *Date and Time*.

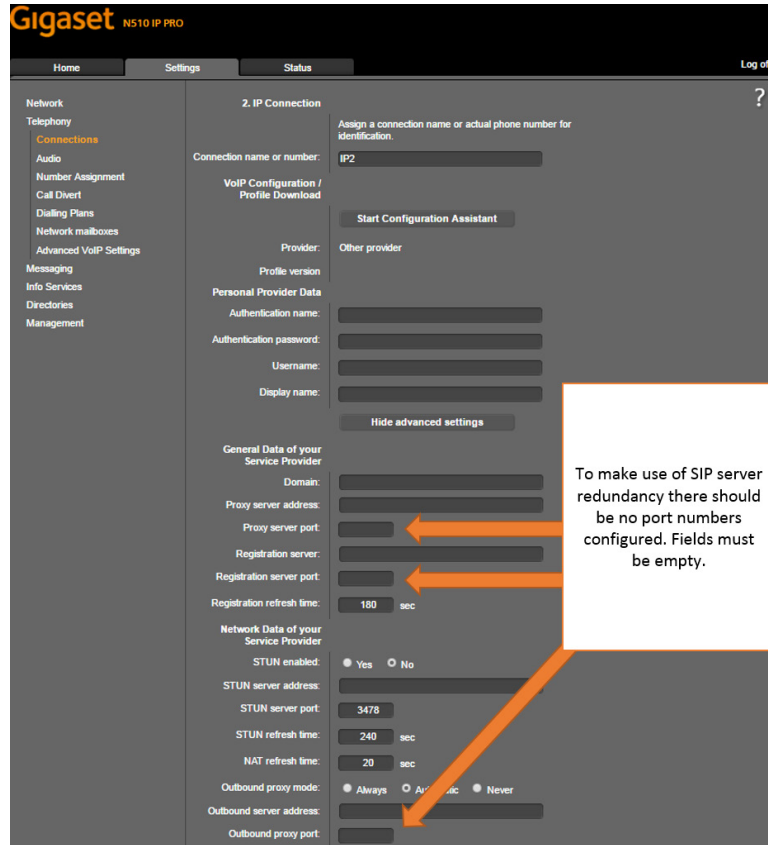


Figure 10 Gigaset IP DECT – DNS SRV

4.4 SIP Advanced Feature Configuration

This section provides configuration instructions for advanced SIP features supported by the phone including but not limited to Shared Call Appearance, Busy Lamp Field, Feature Key Synchronization, Call Center, Emergency Call, Advice of Charge, Call Recording, and Security Classification.

4.4.1 Shared Call Appearance Configuration

The Gigaset Single Cell IP DECT Phones do not support the Shared Call Appearance (SCA) feature.

4.4.1.1 Hybrid Key System Configuration

The Gigaset Single Cell IP DECT Phones do not support the Hybrid Key System feature.

4.4.2 Busy Lamp Field Configuration

The Gigaset Single Cell IP DECT Phones do not support the Busy Lamp Field feature.

4.4.3 Feature Key Synchronization Configuration

The Gigaset Single Cell IP DECT Phones do not support the Feature Key Synchronization feature.

4.4.4 Call Center Feature Configuration

The Gigaset Single Cell IP DECT Phones do not support the Call Center feature.

4.4.5 Call Recording Feature Configuration

The Gigaset Single Cell IP DECT Phones do not support the Call Recording feature.

4.4.6 Security Classification Feature Configuration

The Gigaset Single Cell IP DECT Phones do not support the Security Classification feature.

4.4.7 Emergency Call Configuration

The Gigaset Single Cell IP DECT Phones do not support the Emergency Call feature

4.4.8 Advice of Charge Configuration

The Gigaset Single Cell IP DECT Phones do not support the Advice of Charge feature.

4.4.9 Conference Event Configuration

The Gigaset Single Cell IP DECT Phones do not support the Conference Event feature.

4.5 Xtended Services Interface Feature Configuration

The Gigaset Single Cell IP DECT Phones do not support the Xtended Services Interface (Xsi) features.

4.6 Instant Message and Presence Configuration

The Gigaset Single Cell IP DECT Phones do not support the Instant Message and Presence features.

5 Device Management

The Gigaset IP DECT Phones do not currently support the BroadWorks Device Management feature.

References

- [1] Gigaset Communications GmbH. 2016. *N510 IP PRO A31008-M2217-R101-5-7619*. Available from Gigaset at wiki.gigasetpro.com.
- [2] BroadSoft, Inc. 2016. *BroadWorks Device Management Configuration Guide, Release 21.0*. Available from BroadSoft at xchange.broadsoft.com.
- [3] BroadSoft, Inc. 2015. *BroadWorks Redundancy Guide, Release 21.0*. Available from BroadSoft at xchange.broadsoft.com.
- [4] BroadSoft, Inc. 2016. *BroadWorks SIP Access Interface Interworking Guide, Release 21.0*. Available from BroadSoft at xchange.broadsoft.com.
- [5] BroadSoft, Inc. 2016. *BroadWorks SIP Phone Interoperability Test Plan, Release 21.0*. Available from BroadSoft at xchange.broadsoft.com.
- [6] BroadSoft, Inc. 2016. *BroadWorks SIP Phone Functional Test Plan, Release 21.0*. Available from BroadSoft at xchange.broadsoft.com.
- [7] BroadSoft, Inc. 2016. *BroadWorks Device Management Interoperability Test Plan, Release 21.0*. Available from BroadSoft at xchange.broadsoft.com.
- [8] BroadSoft, Inc. 2015. *BroadWorks CPE Kit Usage Guide, Release 21.0*. Available from BroadSoft at xchange.broadsoft.com.