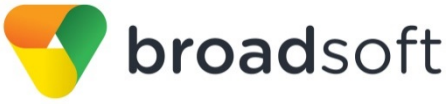

BroadSoft Partner Configuration Guide

Gigaset Maxwell 10

February 2017

Document Version 1.2

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BroadWorks® Guide

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Document Revision History

Version	Reason for Change
1.1	Introduced document for Gigaset Maxwell 10 version 80_1_2.2.128 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 Maxwell 10 for interoperability with BroadWorks.

The Maxwell 10 is an Android Desktop phone that uses 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 Maxwell 10. For those details, see the *Maxwell 10 Administration* [1] supplied by Gigaset.

2 Interoperability Status

This section provides the known interoperability status of the Gigaset Maxwell 10 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.

2.1 Verified Versions

The following table identifies the verified Gigaset Maxwell 10 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 Maxwell 10 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.

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	Maxwell 10 Verified Version	Maxwell 10 Compatible Versions
01/2017	Release 21.sp1	80_1_2.2.128	None.

2.2 Interface Capabilities Supported

This section identifies interface capabilities that have been verified through testing as supported by Gigaset Maxwell 10.

The *Supported* column in the tables in this section identifies the Gigaset Maxwell 10's 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 Maxwell 10 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 Maxwell 10.

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	Yes	
	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 Services	Third-Party Call Control – Basic	Yes	
	Third-Party Call Control – Advanced	No	
	Voice Message Deposit/Retrieval	Yes	
	Message Waiting Indicator – Unsolicited	Yes	
	Message Waiting Indicator – Solicited	Yes	
	Message Waiting Indicator – Detail	Yes	
	Voice Portal Outcall	Yes	
	Advanced Alerting – Ringing	Yes	
	Advanced Alerting – Call Waiting	No	
	Advanced Alerting – Ring Splash	No	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	**Test Plan Package Items**	**Supported**	**Comments**
	Advanced Alerting – Silent Alerting	No	
	Calling Line ID	Yes	
	Calling Line ID with Unicode Characters	Yes	
	Connected Line ID	Yes	
	Connected Line ID with Unicode Characters	Yes	
	Connected Line ID on UPDATE	Yes	
	Connected Line ID on Re-INVITE	Yes	
	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	Yes	
	Meet-Me Conferencing – Opus	NT	This feature is not included in Release 21.0 test plan.
	Collaborate – Audio	Yes	
	Collaborate – Audio – G722	Yes	
	Collaborate – Audio – Opus	Yes	
	Call Decline Policy	Yes	
DUT Services – Call Control Services	Call Waiting	Yes	
	Call Hold	Yes	
	Call Transfer	Yes	Does not support Blind Transfer feature.
	Three-Way Calling	Yes	Does not support Three-Way Call Before Answer feature.
	Network-Based Conference	No	
DUT Services – Registration and Authentication	Register Authentication	Yes	
	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 – P-	REGISTER with P-Access-Network-	NT	This feature is not included in

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	**Test Plan Package Items**	**Supported**	**Comments**
Access-Network-Info Header	Info Header		Release 21.0 test plan.
	INVITE with P-Access-Network-Info Header	NT	This feature is not included in Release 21.0 test plan.
DUT Services – Miscellaneous	Do Not Disturb	Yes	
	Call Forwarding Always	Yes	
	Call Forwarding Always Diversion Inhibitor	No	
	Anonymous Call	Yes	
	Anonymous Call Block	No	
	Remote Restart Via Notify	No	
Advanced Phone Services – Busy Lamp Field	Busy Lamp Field	Yes	Does not support below features: ▪ BLF Modify Monitored User List with Unicode. ▪ BLF NOTIFY of User Busy, Multi-Dialog. ▪ BLF NOTIFY of Terminating User Busy: Directed Call Pickup.
	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	
	Security Classification	No	
Advanced Phone Services – Missed Calls Display	Missed Calls Display Sync	No	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	**Test Plan Package Items**	**Supported**	**Comments**
Synchronization			
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	
Redundancy	DNS SRV Lookup	Yes	
	Register Failover/Failback	Yes	Does not support Register Failback.
	Invite Failover/Failback	No	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	**Test Plan Package Items**	**Supported**	**Comments**
	Bye Failover	No	
SBC/ALG - Basic	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	
SBC/ALG – Failover/Failback	Register Failover/Failback	No	
	Invite Failover/Failback	No	
Video – Basic Video Calls	Call Origination	Yes	
	Call Termination	Yes	
	Call Hold	Yes	
	Call Waiting	Yes	
	Call Transfer	Yes	
Video – BroadWorks Video Services	Auto Attendant	Yes	
	Auto Attendant – HD	No	
	Voice Messaging	Yes	
	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	
Video – BroadWorks WebRTC Client	Call from WebRTC Client	No	
	Call to WebRTC Client	No	
TCP	Register	Yes	
	Outgoing Invite	Yes	
	Incoming Invite	Yes	
IPV6	Call Origination	Yes	
	Call Termination	Yes	
	Session Audit	Yes	
	Ringback	Yes	
	Codec Negotiation/Renegotiation	Yes	
	Voice Message Deposit/Retrieval	Yes	
	Call Control	Yes	
	Registration with Authentication	Yes	
	Busy Lamp Field	Yes	
	Redundancy	No	

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

2.2.1 Other Interface Capabilities

The Gigaset Maxwell 10 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	
	Do Not Disturb	No	
Xsi Features – Directories	Enterprise Directory	No	
	Enterprise Common Phone List	No	
	Group Directory	No	
	Group Common Phone List	No	
	Personal Phone List	No	
	Search All Directories	No	
Xsi Features – Call Logs	Placed Calls	No	
	Received Calls	No	
	Missed Calls	No	
	All Calls	No	

BroadWorks Xtended Services Interface (Xsi) and BroadCloud IM&P Support Table			
Interface	**Feature**	**Supported**	**Comments**
	Sort by Name	No	
Xsi Features – Visual Voice Mail	View Messages	No	
	Listen to Audio Message	No	
	Watch Video Message	No	
	Mark Message Read/Unread	No	
	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 Gigaset's tracking system. If it is a BroadWorks issue, the issue number is from BroadSoft's 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			
		80_1_2.2.128			
AFM-913	**Basic Call Control with ALLOW-EVENT Header.** For the basic call control feature, the device generates180 Ringing with “talk” and “hold” included in ALLOW-EVENT header. The ALLOW-EVENT header with talk and hold should not be generated for basic call control. Workaround: None.				

3 BroadWorks Configuration

This section identifies the required BroadWorks device profile type for the Gigaset Maxwell 10 as well as any other unique BroadWorks configuration required for interoperability with the Maxwell 10.

3.1 BroadWorks Device Profile Type Configuration

This section identifies the device profile type settings to use when deploying the Gigaset Maxwell 10 with BroadWorks.

Create a device profile type for the Gigaset Maxwell 10 with settings as shown in the following example. The settings shown are recommended for use when deploying the Gigaset Maxwell 10 with BroadWorks. For an explanation of the profile parameters, see the *BroadWorks Device Management Configuration Guide* [2].

Model	Number of Lines
Maxwell 10	12

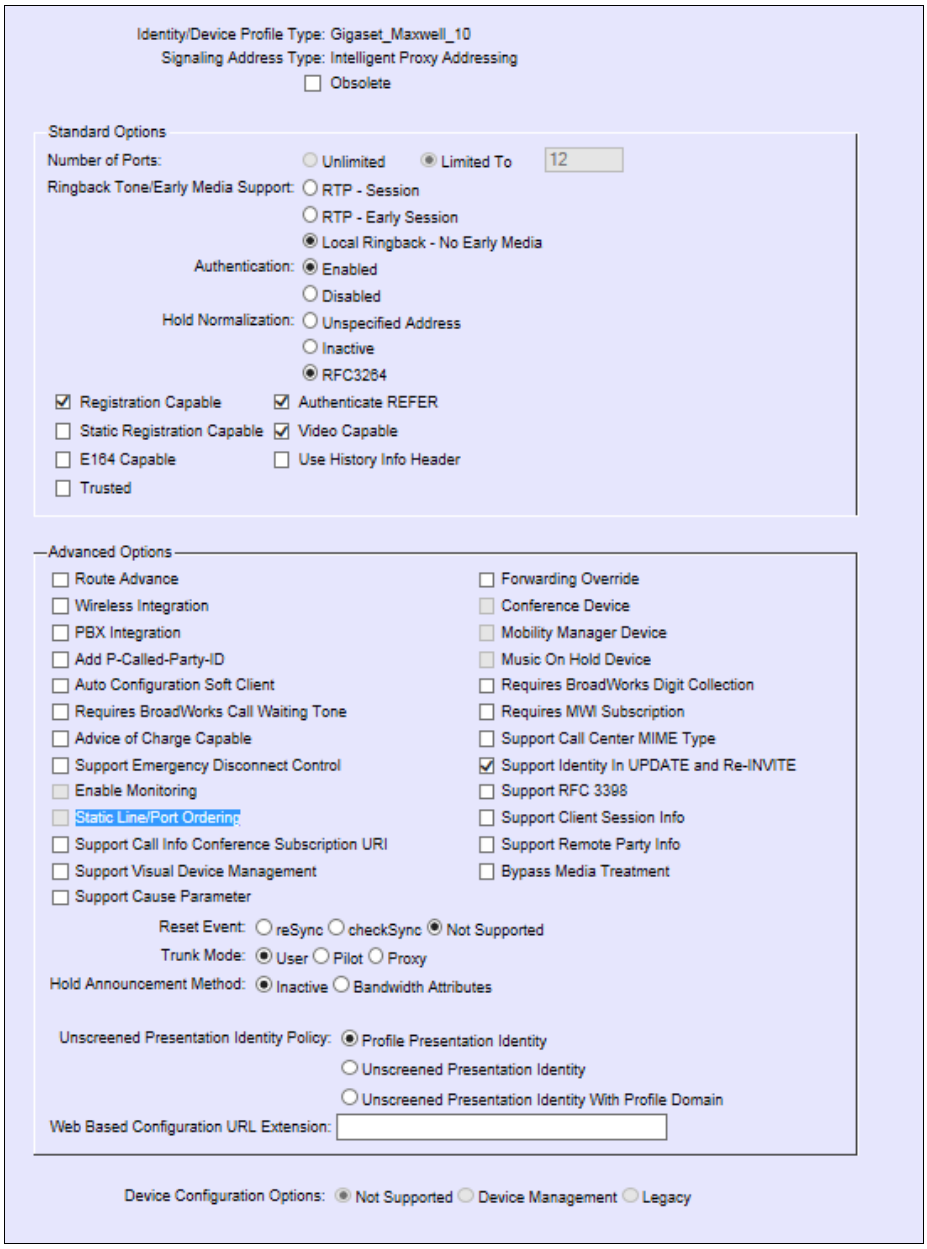

Figure 1 Device Identity/Profile Type

3.2 BroadWorks Configuration Steps

There are no additional BroadWorks configuration steps required.

4 Maxwell 10 Configuration

This section describes the configuration settings required for the Maxwell 10 integration with BroadWorks, primarily focusing on the SIP interface configuration. The Maxwell 10 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 *Maxwell 10 Administration* [1] for Maxwell 10.

4.1 Configuration Method

Gigaset Maxwell 10 can be configured through the web interface (GUI), directly on the phone, via a provisioning server, or by directly importing a configuration file. The web interface address for the phone is *http(s)://<IPv4 address of the phone>* or *http://[IPv6_address]:8080*, or *https://[IPv6_address]:443*. The default password for the web interface is *password*. The username is not required for web interface login.

Configuration Files

Maxwell 10 Configuration Files	Level	Description
master.bin	System	Contains all the information about the firmware files, language files, and siu files for this device.
baselines.bin	System	Contains all the information about the software version.
siu_555.bin	System	Contains all the information about the location of the configuration files and the naming used.
"Softwareversion"_maxwell_10-user_firmware_enc.zip	System	Device firmware file.
profile.xml	Subscriber	Contains configurable parameters that apply to an individual device in a deployment. The naming can be different and it depends on the *siu_555.bin* file settings.

4.2 System and Subscriber Level Configuration

This section describes system-wide and subscriber related configuration items that are generally required for each Maxwell 10 to work with BroadWorks.

4.2.1 Configure Network Settings

Network settings can be configured from the configuration file *profile.xml*.

Step	Command	Description

Step 1	Set the DHCP or static IP address
	`<B USE DHCP value="" class="boolean" />`
	
	`Example:`
	`<B_USE_DHCP value="true" class="boolean" />`
		Enable or disable using DHCP.
		Values:
		true: Enable DHCP.
		false: Disable DHCP.

Step	Command	Description
Step 2	Set the IP address <S_IP value="" class="string" /> <S IP value="10.10.10.10" class="string" />	Set static IP address if DHCP is not enabled.
Step 3	Set the subnet mask <S_SUBNET_MASK value="" class="string" /> Example: <S_SUBNET_MASK value="255.255.255.240" class="string" />	Set the subnet mask in IPv4.
Step 4	Set the standard gateway <S_DEFAULT_ROUTER value="" class="string" /> Example: <S_DEFAULT_ROUTER value="10.10.10.1" class="string" />	Set the IPv4 address of default router.
Step 5	Set the preferred DNS server <S_DNS_SERVER_1 value="" class="string" /> Example: <S_DNS_SERVER_1 value="8.8.8.8" class="string" />	Set the IPv4 address of the preferred DNS server.
Step 6	Set the alternate DNS server <S DNS SERVER 2 value="" class="string" /> <S_DNS_SERVER_2 value="8.8.4.4" class="string" />	Set the IPv4 address of the alternate DNS server.
Step 7	Set VLAN tagging <I VLAN ACTIVATE class="boolean" value=""/>	Values: 0x0: disable VLAN tagging 0x1: enable VLAN tagging
Step 8	Set the VLAN ID <I_VLAN_ID class="integer" value=""/>	Set the VLAN ID. The value of the VLAN ID ranges from 1 to 4094.
Step 9	Set the VLAN priority <I_VLAN_LAN_PRIORITY class="integer" value=""/>	Set the VLAN priority. The value of the VLAN priority ranges from 0 to 7.

The network setting can be also configured from device web interface *Settings → Network and Connections → Local Area Network (LAN)* screen.

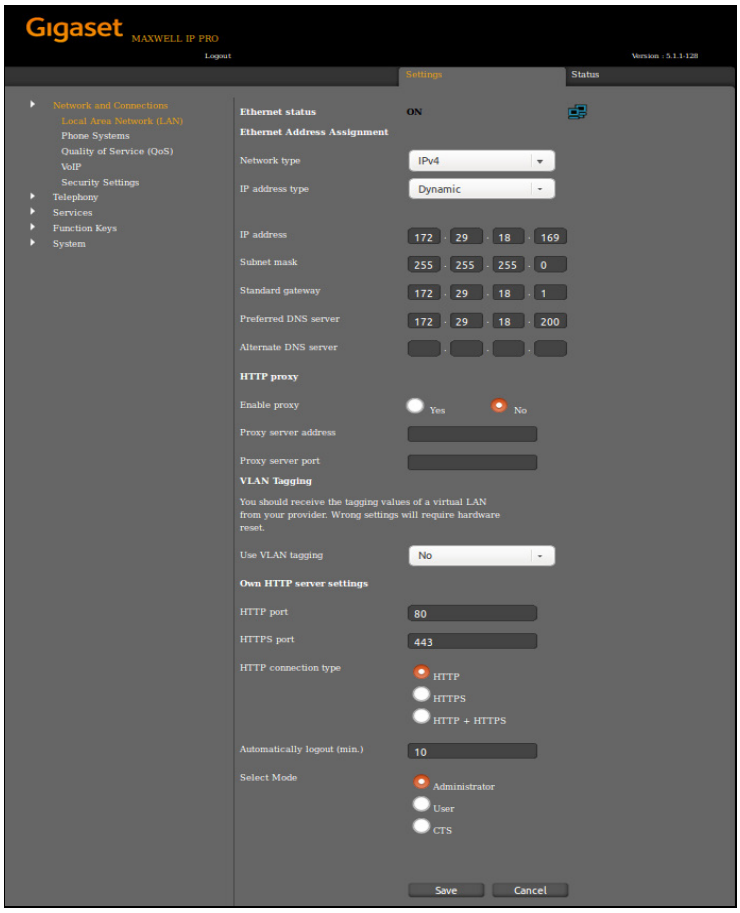

Figure 2 Gigaset Maxwell 10 – IP Configuration

4.2.1.1 Configure IPV6 Settings

Step	Command	Description
Step 1	Enable IPv6 `<I_NETWORK_TYPE value="" class="integer" />`	Set value to 0: disable IPv6. IPv4 is enabled. Set value to 1: Enable IPv6. IPv4 is disabled.
Step 2	Set the prefix length of the IPv6 address `<I_PREFIX_LENGTH value="" class="integer" />`	Set the prefix length of the IPv6 address.
Step 3	Set a default gateway `<S_DEFAULT_ROUTER value="" class="string" />`	Set the IPv6 address of default gateway.
Step 4	Set DNS server address `<S_DNS_SERVER_1 value="" class="string" />`	Set the IPv6 address of DNS server.

Step 4	Set alternate DNS server address
	`Command:`
	`<S_DNS_SERVER_2 value="" class="string" />`
		Set the IPv6 address of alternate DNS server.

4.2.2 Configure Subscriber and SIP Interface Settings

Subscriber and SIP interface settings can be configured from the configuration file *profile.xml*.

Step	Command	Description
Step 1	Set an account name <S SIP ACCOUNT NAME N class="string" value=""/> Example: <S_SIP_ACCOUNT_NAME_1 class="string" value="Broadsoft"/>	Maximum 16 characters. N stands for a number of an account. Possible N value: 1-12
Step 2	Enable or disable an account <B_SIP_ACCOUNT_IS_ACTIVE_N class="boolean" value=""/> Example: <B SIP ACCOUNT IS ACTIVE 1 class="boolean" value="1"/>	Values can be: 0 – inactive 1 – active (default) N stands for a number of an account. Possible N value: 1-12
Step 3	Set the authentication name <S_SIP_LOGIN_ID_N class="string" value=""/> Example: <S_SIP_LOGIN_ID_1 class="string" value="2417779999"/>	The field has maximum 32 characters. It must match SIP authentication user name configured for the user on BroadWorks. N stands for a number of an account. Possible N value: 1-12
Step 4	Set the authentication password <S_SIP_PASSWORD_N class="string" value=""/> Example: <S_SIP_PASSWORD_1 class="string" value="abcd1234"/>	The field has maximum 32 characters. It must match SIP authentication password configured for the user on BroadWorks. N stands for a number of an account. Possible N value: 1-12
Step 5	Set the user name <S_SIP_USER_ID_N class="string" value=""/> Example: <S_SIP_USER_ID_1 class="string" value="2417779999"/>	The field has maximum 32 characters. N stands for a number of an account. Possible N value: 1-12 The field must match the user part of line/port configuration on BroadWorks.
Step 6	Set the display name <S SIP DISPLAYNAME N class="string" value=""/> Example: <S_SIP_DISPLAYNAME_1 class="string" value="Reception"/>	Maximum 32 characters. N stands for a number of an account. Possible N value: 1-12

Step	Command	Description
Step 7	Set the domain <S_SIP_DOMAIN_N class="string" value=""/> Example: <S SIP DOMAIN 1 class="string" value="as.iop1.broadworks.net"/>	Maximum 64 characters. N stands for a number of an account. Possible N value: 1-12
Step 8	Set the Proxy Server address <S SIP SERVER N class="string" value=""/> Example: <S SIP SERVER 1 class="string" value="as.iop1.broadworks.net"/>	Maximum 64 characters. N stands for a number of an account. Possible N value: 1-12
Step 9	Set the Proxy Server port <I SIP SERVER PORT N class="integer" value=""/> Example: <I_SIP_SERVER_PORT_1 class="integer" value="5060"/>	Value has to be in range: 1025 – 65535 N stands for a number of an account. Possible N value: 1-12
Step 10	Set the Registration Server address <S_SIP_REGISTRAR_N class="string" value=""/> Example: <S_SIP_REGISTRAR_1 class="string" value="as.iop1.broadworks.net"/>	Maximum 64 characters. N stands for a number of an account. Possible N value: 1-12
Step 11	Set the Registration Server port <I SIP REGISTRAR PORT N class="integer" value=""/> Example: <I SIP REGISTRAR PORT 1 class="integer" value="5060"/>	Value has to be in range: 1025 – 65535 N stands for a number of an account. Possible N value: 1-12
Step 12	Set the registration refresh time <I_RE_REGISTRATION_TIMER_N class="integer" value=""/> Example: <I_RE_REGISTRATION_TIMER_1 class="integer" value="180"/>	Value has to be in range: 60 – 9999s. N stands for a number of an account. Possible N value: 1-12
Step 13	Enable or disable using of STUN server <B SIP USE STUN 1 class="boolean" value=""/>	Values: 0 – disabled (default) 1 – enabled N stands for a number of an account. Possible N value: 1-12

Step	Command	Description
Step 14	Set STUN server address <S_STUN_SERVER_N class="string" value=""/>	Maximum 64 characters. N stands for a number of an account. Possible N value: 1-12
Step 15	Set STUN server port <I STUN SERVER PORT N class="integer" value=""/>	Value has to be in range: 1025-65535. N stands for a number of an account. Possible N value: 1-12
Step 16	Set STUN refresh time <I_RE_STUN_TIMER_N class="integer" value=""/>	Value has to in range: 0-9999. N stands for a number of an account. Possible N value: 1-12
Step 17	Set NAT refresh time <I_NAT_REFRESH_TIME_N class="integer" value=""/>	Value has to in range: 0-9999. N stands for a number of an account. Possible N value: 1-12
Step 18	Set Outbound Proxy mode <I OUTBOUND PROXY MODE N class="integer" value=""/> Example: <I_OUTBOUND_PROXY_MODE_1 class="integer" value="0"/>	Values: 0:Never (default) 1:Always 2:Automatic N stands for a number of an account. Possible N value: 1-12
Step 19	Set Outbound Proxy address <S_OUTBOUND_PROXY_N class="string" value=""/> Example: <S OUTBOUND PROXY 1 class="string" value=""/>	Maximum 64 characters. N stands for a number of an account. Possible N value: 1-12
Step 20	Set Outbound Proxy port <I OUTBOUND PROXY PORT N class="integer" value=""/> Example: <I_OUTBOUND_PROXY_PORT_1 class="integer" value="5060"/>	Value has to be in range: 1025-65535. Default = 5060 N stands for a number of an account. Possible N value: 1-12
Step 21	Set DTMF negotiation mode <B_AUTOMATIC_DTMF_N class="boolean" value=""/>	Values: 0 – disabled (default) 1 – automatic N stands for a number of an account. Possible N value: 1-12
Step 22	Set DTMF method <I DTMF TX MODE BITS N class="integer" value=""/>	Values: 1:Audio 2:RFC 2833 3:Audio + RFC 2833 4:Sip Info 5:Audio + Sip Info (default) 6:RFC 2833 + Sip Info 7:Audio + RFC 2833 + Sip Info N stands for a number of an account. Possible N value: 1-12

Step	Command	Description
Step 23	Set Enable incoming calls counting <B_MISSED_ACCEPTED_COUNT_N class="boolean" value=""/>	Values: 0 – disabled 1 – enabled (default) N stands for a number of an account. Possible N value: 1-12
Step 24	Enable or disable Call Waiting <B_CALL_WAITING_N class="boolean" value=""/>	Values: 0 – disabled 1 – enabled (default) N stands for a number of an account. Possible N value: 1-12
Step 25	Set the main ringtone <S_RINGER_MELODIES_(N) class="integer" value=""/>	Values: 0: Individual (only available when N is equal to "0") 1~21: 21 selectable types as present in MMI 1: 01_call1 (default) 2: 02_call2 3: 03_call3 4: 04_call4 5: 05_call5 6: 06_gigaset 7: 07_balance 8: 08_Plug2010 9: 09_Key_Pad 10: 10_Dunken 11: 11_Sonic 12: 12_set 13: 13_tone_one 14: 14_phone 15: 15_green_tea 16: 16_slippin_c 17: 17_spliss 18: 18_MInd Moon 19: 19_hello 20: 20_Guitar 21: 21_piano 22: 22_beep First account indication, "_(N)" is not necessary for this parameter. N stands for a number of an account. Possible N value: 2-12

Step	Command	Description
Step 26	Set the ringtone for external calls <I_RINGER_MELODIES_EC_(N)class="integer" value=""/>	Values: 1: 01_call1 2: 02_call2 3: 03_call3 4: 04_call4 5: 05_call5 6: 06_gigaset (default) 7: 07_balance 8: 08_Plug2010 9: 09_Key_Pad 10: 10_Dunken 11: 11_Sonic 12: 12_set 13: 13_tone_one 14: 14_phone 15: 15_green_tea 16: 16_slippin_c 17: 17_spliss 18: 18_MInd Moon 19: 19_hello 20: 20_Guitar 21: 21_piano 22: 22_beep First account indication, "_(N)" is not necessary for this parameter. N stands for a number of an account. Possible N value: 2-12
Step 27	Set the ringtone for internal calls. <I RINGER MELODIES IC (N) class="integer" value=""/>	Values: 1: 01_call1 2: 02_call2 3: 03_call3 4: 04_call4 5: 05_call5 6: 06_gigaset (default) 7: 07_balance 8: 08_Plug2010 9: 09_Key_Pad 10: 10_Dunken 11: 11_Sonic 12: 12_set 13: 13_tone_one 14: 14_phone 15: 15_green_tea 16: 16_slippin_c 17: 17_spliss 18: 18_MInd Moon 19: 19_hello 20: 20_Guitar 21: 21_piano 22: 22_beep First account indication, "_(N)" is not necessary for this parameter. N stands for a number of an account. Possible N value: 2-12

Step	Command	Description
Step 28	Set the ringtone for group calls <I_RINGER_MELODIES_GC_(N) class="integer" value=""/>	Values: 1: 01_call1 2: 02_call2 3: 03_call3 4: 04_call4 5: 05_call5 6: 06_gigaset 7: 07_balance 8: 08_Plug2010 9: 09_Key_Pad 10: 10_Dunken 11: 11_Sonic 12: 12_set 13: 13_tone_one 14: 14_phone 15: 15_green_tea 16: 16_slippin_c 17: 17_spliss 18: 18_MInd Moon 19: 19_hello 20: 20_Guitar 21: 21_piano 22: 22_beep First account indication, "_(N)" is not necessary for this parameter. N stands for a number of an account. Possible N value: 2-12

The Subscriber and SIP Interface configuration can be also configured from device web interface *Settings* → *Connections* screen.

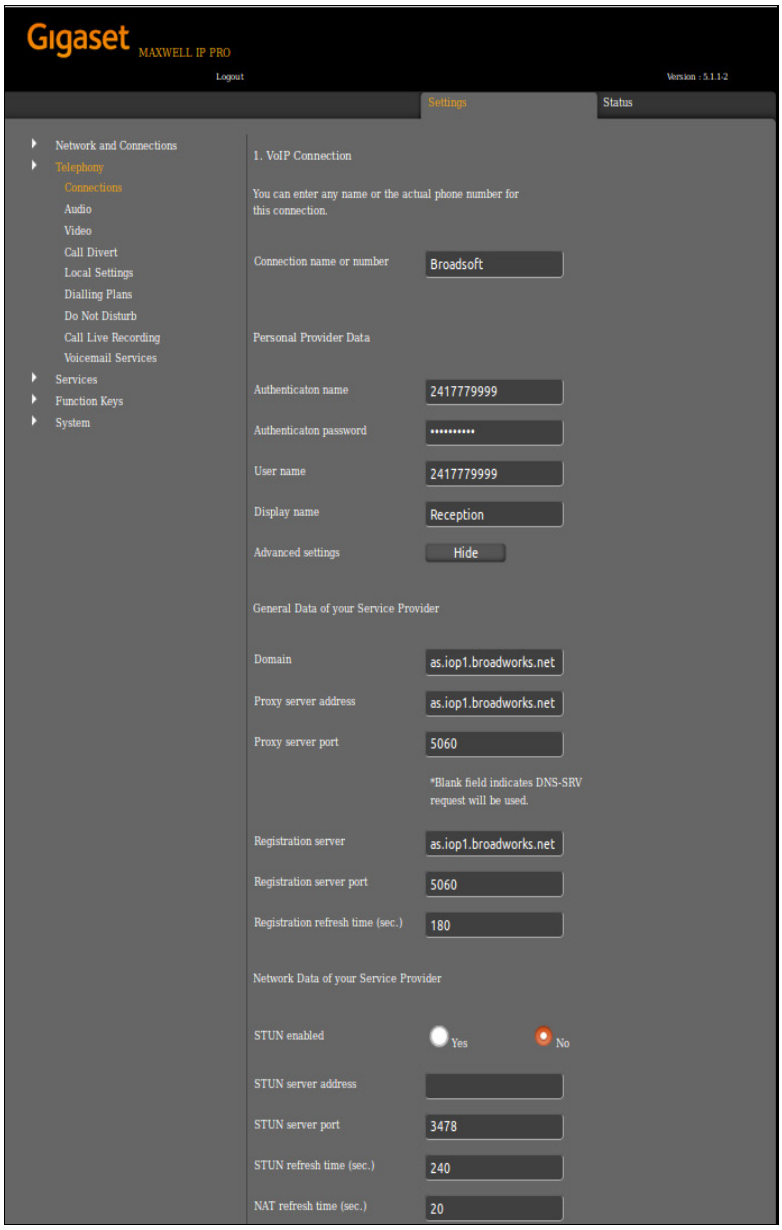

Figure 3 Gigaset Maxwell 10 – Connections (part 1)

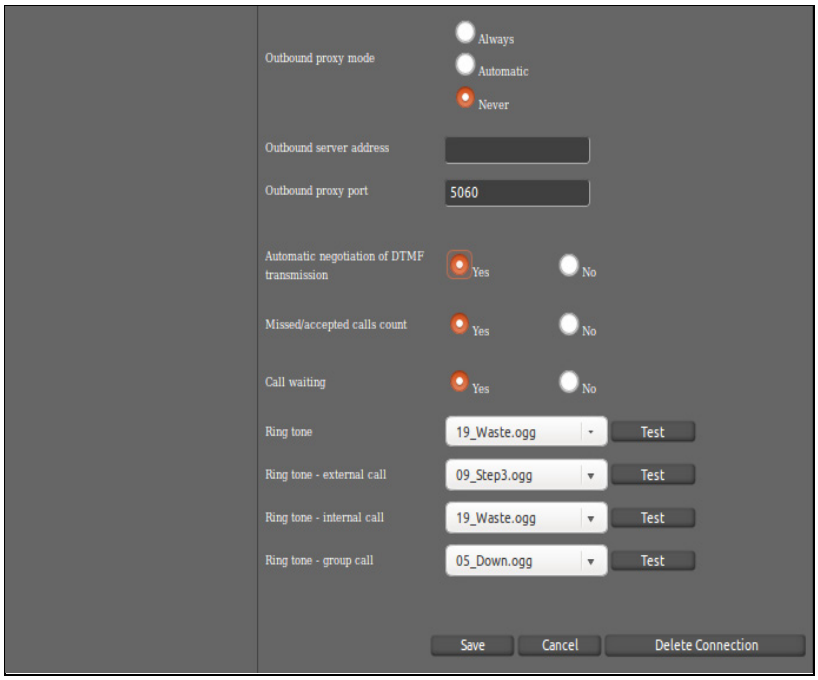

Figure 4 Gigaset Maxwell 10 – Connections (part 2)

4.2.1 Configure Service Settings

4.2.1.1 Voice Mail

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

Voice Mail settings can be configured from the configuration file *profile.xml*.

Step	Command	Description
Step 1	Set the Voice Mail number `<S_VOIP_NET_AM_NUMBER_(N) class="string" value=""/>`	Maximum 32 phone digits (0-9,*,#,R,P). Note that the Voice Mail account must not be empty if the Voice Mail is enabled. N= [2-12]
Step 2	Enable or disable Voice Mail `<B_VOIP_NET_AM_ENABLED_(N) class="boolean" value=""/>`	Values: 0: No (default) 1: Yes

The Voice Mail configuration can be also configured from device web interface *Settings* → *Telephony* → *Voicemail Services* screen**.**

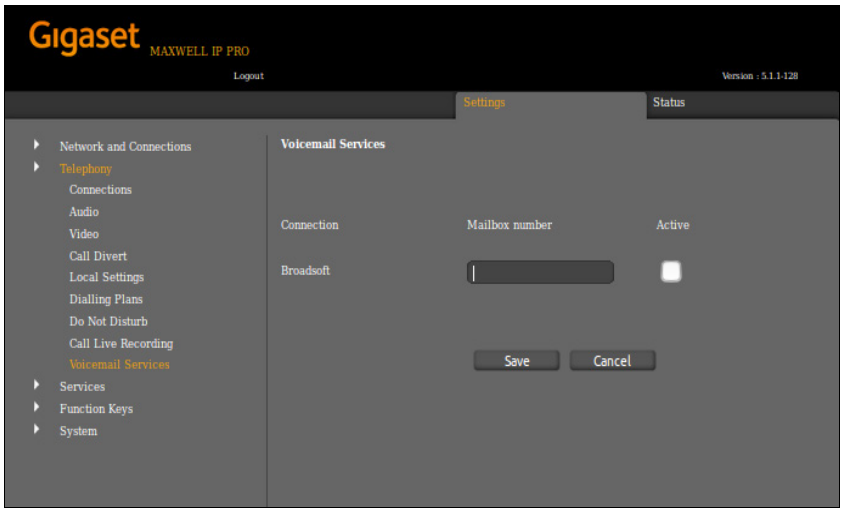

Figure 5 Gigaset Maxwell 10 – Voicemail Services

4.2.1.2 Device Language, Country Settings

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

4.2.1.2.1 Web Interface Language

Web interface language settings can be configured from the configuration file *profile.xml*.

Step	Command	Description
Step 1	Set the web interface menu language `<I_WEB_LANGUAGE class="integer" value=""/>`	Values: 1: German (default) 2: English 3: Spanishl 4: Italian 5: Dutch 6: French 7: Danish 8: Polish 9: Swedish 10: Turkish

Web interface language settings can be also set from the device web interface. It can be set right after the device web interface address is entered from a browser.

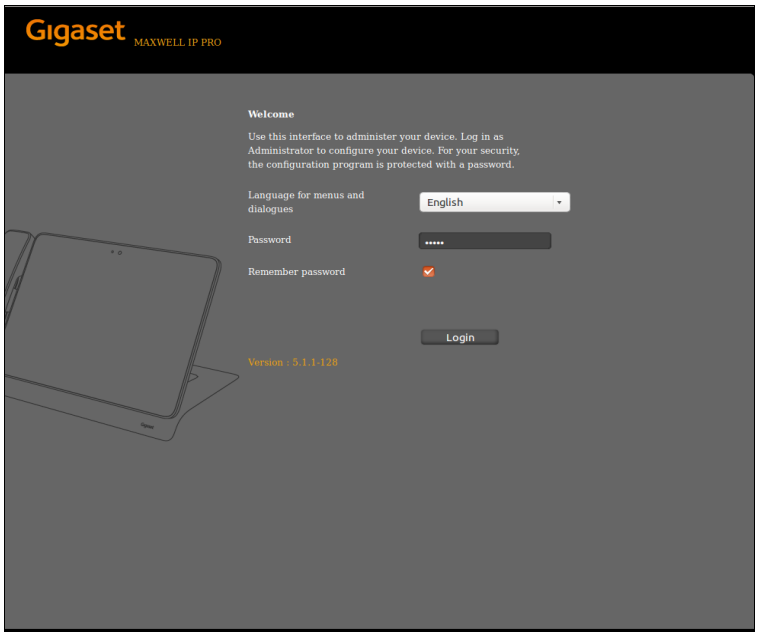

Figure 6 Gigaset Maxwell 10 – Languages for Menus and Dialogues

4.2.1.2.2 Local Settings for Telephony Service

Local settings can be configured from the configuration file *profile.xml.*

Step	Command	Description
Step 1	Set country `<I_AREA_COUNTRY class="integer" value=""/>`	Values: 0:Albania 1: Argentina 2: Australia 3: Austria 4: Bahrain 5: Belarus 6: Belgium 7: Bolivia 8: Bosnia and Herzegovina 9: Brazil 10: Bulgaria 11: Canada 12: Chile 13: China 14: Colombia 15: Costa Rica 16: Croatia 17: Cyprus 18: Czech Republic 19: Denmark 20: Ecuador 21: Egypt 22: Estonia 23: Finland 24: France 25: Germany 26: Greece 27: Hong Kong 28: Hungary 29: Iceland 30: India 31: Indonesia 32: Ireland

Step	Command	Description
		33: Israel 34: Italy 35: Japan 36: Jordan 37: Korea, Republic of 38: Kuwait 39: Latvia 40: Lebanon 41: Liechtenstein 42: Lithuania 43: Luxembourg 44: Macedonia 45: Malaysia 46: Mexico 47: Morocco 48: Netherlands 49: New Zealand 50: Norway 51: Pakistan 52: Panama 53: Paraguay 54: Peru 55: Philippines 56: Poland 57: Portugal 58: Puerto Rico 59: Romania 60: Russia 61: Saudi Arabia 62: Serbia 63: Singapore 64: Slovakia 65: Slovenia 66: South Africa 67: Spain 68: Sweden 69: Switzerland 70: Taiwan 71: Thailand 72: Turkey 73: United Arab Emirates 74: United Kingdom 75: United States of America 76: Uruguay 77: Venezuela 78: Vietnam 79: Namibia 80: Palestine 81: Montenegro 82: Other Country
Step 2	Set the prefix for international calls `<S AREA INTERL PREX class="string" value=""/>`	Maximum 4 phonedigits (0-9,*,#,R,P) default: 00
Step 3	Set the Country Code `<S_AREA_INTERL_AREA class="string" value=""/>`	Maximum 4 phonedigits (0-9,*,#,R,P) default: 49
Step 4	Set the local prefix `<S AREA LOCAL PREX class="string" value="">`	Maximum 4 phonedigits (0-9,*,#,R,P) default: 0
Step 5	Set the Area Code `<S_AREA_LOCAL_AREA class="string" value=""/>`	Maximum 8 phonedigits (0-9,*,#,R,P)

Step	Command	Description
Step 6	Set tone scheme <I_TONE_SCHEME class="integer" value=""/>	Values: 2 Austria 3 Canada 4 Czech Republic 5 Denmark 6 Egypt 7 Finland 8 France 9 Germany (default) 10 Greece 11 Netherlands 12 Poland 13 Portugal 14 Romania 15 RSA - South Africa 16 Russian Federation 17 Saudi Arabia 18 Slovakia 19 Spain 20 Sweden 21 Switzerland 22 United Arab Emirates 23 United Kingdom of Great Britain 24 USA

The local setting can be also configured from device web interface *Settings → Local Settings* screen.

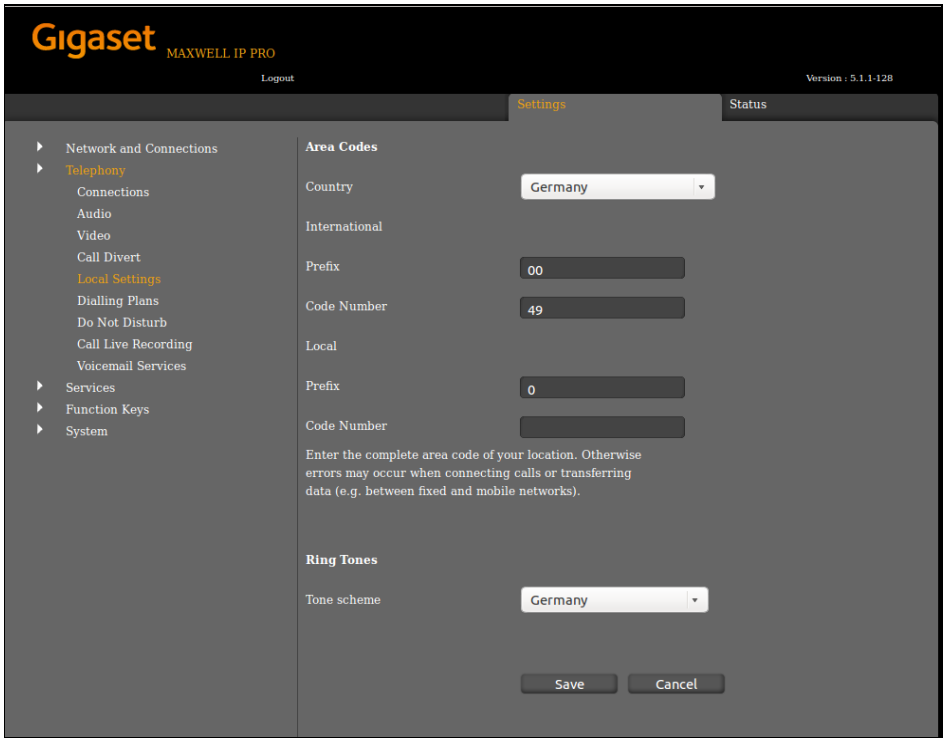

Figure 7 Gigaset Maxwell 10 – Local Settings

4.3 Redundancy Support

This section identifies the device-specific redundancy related parameters. The Gigaset Maxwell 10 uses the DNS SRV according to *RFC 3263* to locate SIP servers in case of redundancy.

The redundancy can be configured from the configuration file *profile.xml.*

Step	Command	Description
Step 1	Remove Proxy Server port <I SIP SERVER PORT N class="integer" value=''/>	To use DNS SRV query for Proxy Server addresses, remove the proxy server port settings by configuring an empty field.
Step 2	Remove Registration Server port <I_SIP_REGISTRAR_PORT_N class="integer" value=''/>	To use DNS SRV query for Registration Server addresses, remove the proxy server port settings by configuring an empty field.
Step 3	Remove Outbound Proxy port <I OUTBOUND PROXY PORT N class="integer" value=''/>	To use DNS SRV query for Outbound Proxy addresses, remove the proxy server port settings by configuring an empty field.

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

Currently this feature is not supported by Gigaset Maxwell 10.

4.4.2 Busy Lamp Field Configuration

The Busy Lamp Field implementation provides an attendant console function. Configuration of the phone to enable Busy Lamp Field from configuration file *profile.xml* is described in the following below.

Step	Command	Description
Step 1	Set BLF function key <I FUNCTION KEY TYPE (N) class="integer" value=""/> Example: <I_FUNCTION_KEY_TYPE_(N) class="integer" value="3"/>	Values: 0: default init (NULL) entry (end of list) 1: Park + Orbit 2: SpeedDial 3: BLF (this should be chosen) 4: Call Divert 5: DTMF 6: None (entry within the list with no function assigned)
Step 2	Select VoIP account for BLF <I_FUNCTION_KEY_CONNECTION_KEY_(N) class="integer" value=""/> Example: <I_FUNCTION_KEY_CONNECTION_KEY_(N) class="integer" value="0"/>	Values: 0: Connection 1 1: Connection 2 11: Connection 12
Step 3	Set BLF username <S FUNCTION KEY NUM (N) class="string" value=""/> Example: <S_FUNCTION_KEY_NUM_(N) class="string" value="blf1@as.iop1.broadworks.	This field has maximum 63 characters. It must match the user' BroadWork BLF lsit configuration.

Step	Command	Description
	net"/>	
Step 4	Set the BLF softkey name <S_FUNCTION_KEY_NAME class="string" value=""/> Example: <S_FUNCTION_KEY_NAME class="string" value="Sales"/>	This field assigns a name for BLF softkey (that is, “Sales”). Maximum 64 characters.
Step 5	Set the Call Pick-up code <S DIRECTED PICKUP CODE (N) class="string" value=""/> Example: <S DIRECTED PICKUP CODE (N) class="string" value="*97"/>	Maximum 4 characters: 0, 1~9, * and # (default = **)

The Busy Lamp Field setting can be also configured from device *web interface* → *Settings* → *Function Keys* screen.

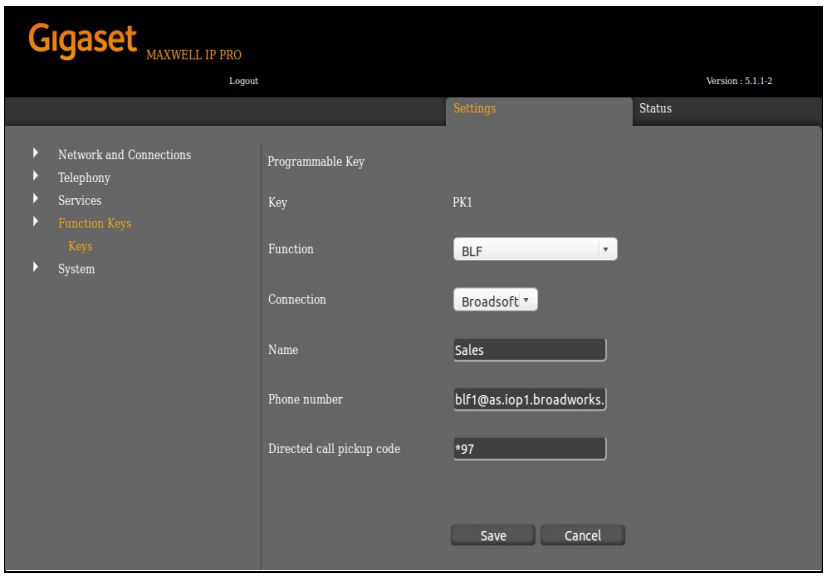

Figure 8 Gigaset Maxwell 10 – Function Keys

4.4.3 Feature Key Synchronization Configuration

Currently this feature is not supported by Gigaset Maxwell 10.

4.4.4 Call Center Feature Configuration

Currently this feature is not supported by Gigaset Maxwell 10.

4.4.5 Call Recording Feature Configuration

Currently this feature is not supported by Gigaset Maxwell 10.

4.4.6 Security Classification Feature Configuration

Currently this feature is not supported by Gigaset Maxwell 10.

4.4.7 Emergency Call Configuration

Currently this feature is not supported by Gigaset Maxwell 10.

4.4.8 Advice of Charge Configuration

Currently this feature is not supported by Gigaset Maxwell 10.

4.4.9 Conference Event Configuration

Currently this feature is not supported by Gigaset Maxwell 10.

4.5 Xtended Services Interface (Xsi) Feature Configuration

Currently this feature is not supported by Gigaset Maxwell 10.

4.6 Instant Message and Presence Configuration

Currently this feature is not supported by Gigaset Maxwell 10.

5 Device Management

The Gigaset Maxwell 10 does not currently support the BroadWorks Device Management feature.

Appendix A: Reference Maxwell 10 Configuration File

The following is a reference configuration for the Maxwell 10 configured for use with BroadWorks.

Device-specific File: profile.xml

NOTE: This is an example file and it should be used for reference only.

```
# SIP Device-specific Configuration File
<?xml version="1.0" encoding="ISO-8859-1"?>
<ProviderFrame xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="profile.xsd">
<Provider>
<MAC_ADDRESS value="filled out by the ap script"/>
<PROFILE_NAME class="string" value="Broadsoft"/>
<S_AREA_LOCAL_PREX class="string" value="0"/>
<I_AREA_COUNTRY class="integer" value="25"/>
<I_CALL_RECORD class="integer" value="2"/>
<B_RANDOM_PORT class="boolean" value="0"/>
<S_DIRECTED_PICKUP_CODE_1 class="string" value="*97"/>
<I_NAT_REFRESH_TIME_1 class="integer" value="20"/>
<S_VIDEO_RESOLUTION_EXTERNAL class="integer" value="0"/>
<S_SIP_PASSWORD_1 class="string" value="abcd1234"/>
<S_AREA_INTERL_AREA class="string" value="49"/>
<I_SIP_TRANSPORT class="integer" value="0"/>
<S_SIP_ACCOUNT_NAME_1 class="string" value="Broadsoft"/>
<I_SIP_PORT class="integer" value="5060"/>
<I_TONE_SCHEME class="integer" value="9"/>
<I_VOICE_QUALITY_1 class="integer" value="0"/>
<B_AUTO_SYNC_TIME class="boolean" value="1"/>
<I_RTP_PACKET_SIZE_1 class="integer" value="2"/>
<S_AREA_INTERL_PREX class="string" value="00"/>
<B_ACCEPT_NON_SRTP class="boolean" value="1"/>
<B_SIP_USE_STUN_1 class="boolean" value="0"/>
<B_CALL_WAITING_1 class="boolean" value="1"/>
<I_FUNCTION_KEY_CONNECTION_KEY_1 class="integer" value="0"/>
<I_RE_REGISTRATION_TIMER_1 class="integer" value="180"/>
<S_VIDEO_RESOLUTION class="integer" value="0"/>
<S_SIP_USER_ID_1 class="string" value="2417779999"/>
<I_PHONE_SYSTEM class="integer" value="2"/>
<I_SIP_PORT_1 class="integer" value="5060"/>
<I_OUTBOUND_PROXY_MODE_1 class="integer" value="0"/>
<S_SIP_SERVER_1 class="string" value="as.iop1.broadworks.net"/>
<B_SIP_ACCOUNT_IS_ACTIVE class="boolean" value="1"/>
<B_MISSED_ACCEPTED_COUNT_1 class="boolean" value="1"/>
<I_SIP_SERVER_PORT_1 class="integer" value="5060"/>
<S_SIP_REGISTRAR_1 class="string" value="as.iop1.broadworks.net"/>
<S_SIP_DISPLAYNAME_1 class="string" value="Reception"/>
<I_FUNCTION_KEY_TYPE_1 class="integer" value="5"/>
<S_SIP_PREFERRED_VIDEOCODER_1 class="string" value="0,1,2"/>
<I_RTP_PORT class="integer" value="49153"/>
<B_VOIP_NET_AM_ENABLED_1 class="boolean" value="1"/>
<B_HTTP_PROXY_ACTIVATE class="boolean" value="0"/>
<I_DEFAULT_ACCOUNT class="integer" value="0"/>
<S_TIME_NTP_SERVER class="string" value="ntp.org"/>
<S_VOIP_NET_AM_NUMBER_1 class="string" value="9999"/>
<I_RINGER_MELODIES class="integer" value="19"/>
<S_FUNCTION_KEY_NUM_1 class="string" value="1234"/>
```

```
<S_SIP_LOGIN_ID_1 class="string" value="2417779999"/>
<B_DAYLIGHT_SAVING class="boolean" value="1"/>
<S_SIP_DOMAIN_1 class="string" value="as.iop1.broadworks.net"/>
<B_SRTP class="boolean" value="0"/>
<B_REMOTE_MANAGEMENT class="boolean" value="0"/>
<B_ICE class="boolean" value="0"/>
<I_TIME_ZONE class="integer" value="13"/>
<S_VOIP_PROVIDER_1 class="string" value="Broadsoft"/>
<I_RINGER_MELODIES_GC class="integer" value="5"/>
<B_AUTOMATIC_DTMF_1 class="boolean" value="1"/>
<I_RINGER_MELODIES_IC class="integer" value="19"/>
<I_RTP_PORT_1 class="integer" value="49500"/>
<I_RINGER_MELODIES_EC class="integer" value="9"/>
<I_SIP_REGISTRAR_PORT_1 class="integer" value="5060"/>
</Provider>
</ProviderFrame>
```

References

[1] Gigaset Communications GmbH. 2014. *Maxwell 10 Administration, A31008-N4001-R102-1-7620.* Available from Gigaset at wiki.gigasetpro.com.

[2] BroadSoft, Inc. 2016. *BroadWorks Device Management Configuration Guide*, *Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.

[3] BroadSoft, Inc. 2016. *BroadWorks Redundancy Guide, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.

[4] BroadSoft, Inc. 2016. *BroadWorks SIP Access Interface Interworking Guide, Release 22.0.* Available from BroadSoft at xchange.broadsoft.com.

[5] BroadSoft, Inc. 2016. *BroadWorks SIP Phone Interoperability Test Plan, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.

[6] BroadSoft, Inc. 2016. *BroadWorks SIP Phone Functional Test Plan, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.

[7] BroadSoft, Inc. 2016. *BroadWorks Device Management Interoperability Test Plan*, *Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.

[8] BroadSoft, Inc. 2016. *BroadWorks CPE Kit Usage Guide*, *Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.

