



BroadSoft Partner Configuration Guide

Gigaset N870/N670 IP PRO

September 2018

Document Version 1.4

BroadWorks® Guide

Copyright Notice

Copyright© 2018 BroadSoft, Inc.

All rights reserved.

Any technical documentation that is made available by BroadSoft, Inc. is proprietary and confidential and is considered the copyrighted work of BroadSoft, Inc.

This publication is for distribution under BroadSoft non-disclosure agreement only. No part of this publication may be duplicated without the express written permission of BroadSoft, Inc., 9737 Washingtonian Boulevard, Suite 350, Gaithersburg, MD 20878.

BroadSoft reserves the right to make changes without prior notice.

Trademarks

Any product names mentioned in this document may be trademarks or registered trademarks of BroadSoft or their respective companies and are hereby acknowledged.

This document is printed in the United States of America.

Document Revision History

Version	Reason for Change
1.1	Introduced document for Gigaset N870/N670 IP PRO version 2.5.0 validation with BroadWorks Release 22.0.
1.2	Edited and published document.
1.3	Updated section 5 Device Management .
1.4	Edited changes and published document.

Table of Contents

1	Overview	7
2	Interoperability Status	8
2.1	Verified Versions.....	8
2.2	Interface Capabilities Supported.....	8
2.2.1	SIP Interface Capabilities.....	9
2.2.2	Other Interface Capabilities.....	14
2.3	Known Issues	16
3	BroadWorks Configuration	17
3.1	BroadWorks Device Profile Type Configuration	17
3.2	BroadWorks Configuration Steps	18
4	Gigaset N870/N670 IP PRO Configuration	19
4.1	Configuration Method	19
4.2	System Level Configuration.....	19
4.2.1	Configure Network Settings	19
4.2.2	Configure SIP Interface Settings	20
4.2.3	Configure Service Settings.....	21
4.3	Subscriber Level Configuration.....	22
4.4	SIP Advanced Feature Configuration.....	23
4.4.1	Busy Lamp Field Configuration.....	23
4.4.2	Feature Key Synchronization Configuration	23
4.4.3	Call Center Feature Configuration	23
4.4.4	Call Recording Feature Configuration	23
4.4.5	Security Classification Feature Configuration	23
4.4.6	Emergency Call Configuration	24
4.4.7	Advice of Charge Configuration.....	24
4.4.8	Conference Event Configuration	24
4.5	Extended Services Interface (Xsi) Feature Configuration	24
4.6	Instant Message and Presence Configuration.....	24
5	Device Management	25
5.1	Device Management Capabilities Supported	25
5.1	Device Management Configuration.....	26
5.1.1	Configure BroadWorks Tags	27
5.1.2	Configure BroadWorks Device Profile Type	28
5.1.3	Create Device Profile Instance	33
5.1.4	Configure BroadWorks User.....	34
5.1.5	Customize Tags.....	34
5.1.6	Configure Gigaset N870/N670 IP PRO.....	35
5.2	Upgrade from Previous CPE Kits	36
	Appendix A: Reference N870/N670 IP PRO Configuration Files	37

References	40
-------------------------	-----------

Table of Figures

Figure 1 Device Identity/Profile Type.....	18
Figure 2 List of Providers	23
Figure 3 System Default Tag Settings.....	27
Figure 4 Device Type-specific Tag Settings	28
Figure 5 Device Access FQDN.....	29
Figure 6 %BWMACADDRESS%.xml File Settings.....	32
Figure 7 N870%FirmwareVersion%.bin File Settings	33
Figure 8 Device Profile Instance.....	34
Figure 9 N870/N670 IP PRO Provisioning Screen.....	36
Figure 10 N870/N670 IP PRO Security Screen.....	36

1 Overview

This guide describes the configuration procedures required for the Gigaset N870/N670 IP PRO for interoperability with BroadWorks.

The N870/N670 IP PRO is an IP DECT base device 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 N870/N670 IP PRO. For those details, see the *Gigaset N870/N670 Installation Guide* [1] supplied by Gigaset.

2 Interoperability Status

This section provides the known interoperability status of the Gigaset N870/N670 IP PRO 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 N870/N670 IP PRO 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 N870/N670 IP PRO 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* [6].

Verified Versions			
Date (mm/yyyy)	BroadWorks Release	N870/N670 IP PRO Verified Version	N870/N670 IP PRO Compatible Versions
07/2018	Release 22.0	2.5.0	Any maintenance release of verified version.

2.2 Interface Capabilities Supported

This section identifies interface capabilities that have been verified through testing as supported by Gigaset N870/N670 IP PRO.

The *Supported* column in the tables in this section identifies the Gigaset N870/N670 IP PRO'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 N870/N670 IP PRO has completed interoperability testing with BroadWorks using the *BroadWorks SIP Phone Interoperability Test Plan* [6]. 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 N870/N670 IP PRO.

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	No	
	Voice Portal Outcall	Yes	
	Advanced Alerting – Ringing	No	
	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	No	
	Meet-Me Conferencing – Opus	No	
	Collaborate – Audio	Yes	
	Collaborate – Audio – G722	Yes	
	Collaborate – Audio – Opus	No	
	Call Decline Policy	Yes	
DUT Services – Call Control Services	Call Waiting	Yes	
	Call Hold	Yes	
	Call Transfer	Yes	
	Three-Way Calling	No	
	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	
	REGISTER with P-Access-Network-Info Header	No	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
DUT Services – P-Access-Network-Info Header	INVITE with P-Access-Network-Info Header	No	
DUT Services – Miscellaneous	Do Not Disturb	No	
	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	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	
	Security Classification	No	
Advanced Phone Services – Missed Calls Display Synchronization	Missed Calls Display Sync	No	
Advanced Phone Services – Shared Call	Line-Seize	No	
	Call-Info/Lamp Management	No	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
Appearance using Call Info	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	
	Invite Failover/Failback	No	
	Bye Failover	No	
SBC/ALG – Basic	Register	Yes	
	Outgoing Invite	Yes	

BroadWorks SIP Phone Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
	Incoming Invite	Yes	
SBC/ALG – Failover/Failback	Register Failover/Failback	Yes	
	Invite Failover/Failback	No	
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	
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	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	
	Redundancy	No	
	SBC	No	
	Video	No	

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

2.2.2 Other Interface Capabilities

This section identifies whether the Gigaset N870/N670 IP PRO has 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 Xsi and XMPP Test Plan* [7]. 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	

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	
Xsi Features – Push Notification	Register/Deregister for Push Notifications	No	
	Incoming Call via Push Notification	No	
	Call Update via Push Notification	No	
	Incoming Call via Push Notification; Second Incoming Call	No	
	MWI via Push Notification	No	
	Ring Splash via Push Notification	No	
Xsi Features – Call Recording Configurations	Call Record Mode Get	No	
	Set Record Mode	No	
	Set Play Call Recording to Start and Stop Announcement	No	
	Set Record Voice Messaging	No	
	Set Pause and Resume Notification	No	
	Set Recording Notification	No	
Xsi Features – Call Recording Controls	Record Mode set to Never	No	
	Record Mode set to Always	No	
	Record Mode set to Always with Pause/Resume	No	
	Start Recording Mid-Call with Record Mode set to On Demand	No	
	Start Recording During Call Setup with Record Mode set to On Demand	No	
	Perform User Initiated Start with Record Mode set to On Demand	No	
	Perform Mid-Call Start Recording after Placing Call on Hold	No	
	Perform Mid-Call Change to Call Recording Mode	No	
	Record Local Three-Way Call	No	
	Record Network Three-Way Call	No	
	Contacts	No	

BroadWorks Xtended Services Interface (Xsi) and BroadCloud IM&P Support Table			
Interface	Feature	Supported	Comments
XMPP Features – Contact/Buddy List	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			
		2.5.0			
	No issues identified.				

3 BroadWorks Configuration

This section identifies the required BroadWorks device profile type for the Gigaset N870/N670 IP PRO as well as any other unique BroadWorks configuration required for interoperability with the N870/N670 IP PRO.

3.1 BroadWorks Device Profile Type Configuration

This section identifies the device profile type settings to use when deploying the Gigaset N870/N670 IP PRO with BroadWorks.

Create a device profile type for the Gigaset N870/N670 IP PRO with settings as shown in the following example. The settings shown are recommended for use when deploying the Gigaset N870/N670 IP PRO with BroadWorks. For an explanation of the profile parameters, see the *BroadWorks Device Management Configuration Guide* [3].

The device profile type shown provides the *Number of Ports* (number of SIP lines) setting for Gigaset N870/N670 IP PRO.

Model Name	Number of SIP Lines
N870 IP PRO	250
N670 IP PRO	8

Identity/Device Profile Type: Gigaset-N870_IP_PRO
 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

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

Figure 1 Device Identity/Profile Type

3.2 BroadWorks Configuration Steps

There are no additional BroadWorks configuration steps required.

4 Gigaset N870/N670 IP PRO Configuration

This section describes the configuration settings required for the Gigaset N870/N670 IP PRO integration with BroadWorks, primarily focusing on the SIP interface configuration. The N870/N670 IP PRO 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 N870/N670 Installation Guide* [1] for N870/N670 IP PRO.

4.1 Configuration Method

The Gigaset N870/N670 DECT IP PRO can be configured through WebUI or XML configuration file. The WebUI can be access through `https://<device IP address>`. The default login username and password are admin/admin. The XML configuration file is downloaded from the HTTP/HTTPS server. The different configuration methods for N870/N670 are described in the document *Gigaset IP and IP-PRO Phones Provisioning/Remote Management and Parameter-list Working General* [2].

Configuration Files

N870/N670 IP PRO Configuration Files	Level	Description
<code>N<model number><Software version>.bin</code>	System	Contains the device firmware load.
<code>MAC.xml</code> Example: <code>0004f2000fbb.xml</code>	Subscriber	Contains configurable parameters that apply to an individual device in a deployment.

4.2 System Level Configuration

This section describes system-wide configuration items that are generally required for each N870/N670 IP PRO 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. Log in to WebUI. Go to Settings>Network>IP>IP Address Type.	Enable or disable to retrieve the address from a DHCP server. This can only be changed through the WebUI.
Step 2	Set the IP address. Log in to WebUI. Go to Settings>Network>IP>IP Address.	This is the IPv4 address. Available only when IP Address Type is set to "Static". This can only be changed through the WebUI.
Step 3	Set the subnet mask. Log in to WebUI. Go to Settings>Network>IP> Subnet mask.	This is the Subnet address. Available only when IP Address Type is set to "Static". This can only be changed through the WebUI.
Step 4	Set the standard gateway. Log in to WebUI. Go to Settings>Network>IP> Standard gateway.	This is the Gateway address. Available only when IP Address Type is set to "Static". This can only be changed through the WebUI.

Step	Command	Description
Step 5	Set the Preferred DNS address. Log in to WebUI. Go to Settings>Network>IP> Preferred DNS.	This is the Preferred DNS address. Available only when IP Address Type is set to "Static". This can only be changed through the WebUI.
Step 6	Set the Alternate DNS address. Log in to WebUI. Go to Settings>Network>IP> Alternate DNS.	This is the Alternate DNS address. Available only when IP Address Type is set to "Static". This can only be changed through the WebUI.
Step 7	Set VLAN tagging. Log in to WebUI. Go to Settings>Network>LAN> VLAN tagging.	Enable or disable VLAN tagging. This can only be changed through the WebUI.
Step 8	Set the VLAN ID. Log in to WebUI. Go to Settings>Network>LAN> VLAN identifier.	Enter the VLAN identifier. This can only be changed through the WebUI.
Step 9	Set the VLAN priority. Log in to WebUI. Go to Settings>Network>LAN> VLAN priority.	Enter the VLAN priority. This can only be changed through the WebUI.

4.2.2 Configure SIP Interface Settings

Step	Command From <MAC>.xml File	Description
Step 1	Set connection name or number. <pre><param name="SipProvider.<0-9>.Name " value="Broadsoft" /></pre>	Enter a name for the Provider.
Step 2	Set connection name or number. <pre><param name="SipProvider.<0-9>. PhoneSystem" value="6" /></pre>	0 = Automatic 1 = Standard 6 = BroadSoft 8 = Openscape 9 = Nfon 10 = Swyx 11 = 3CX
Step 3	Set the domain. <pre><param name="SipProvider.<0-9>. Domain " value="myprovider.com" /></pre>	Set the domain value. This field must match the domain part of the subscriber's line/ port configuration on BroadWorks. Example: myprovider.com
Step 4	Set the proxy server address. <pre><param name="SipProvider.<0-9>. ProxyServerAddress " value=" myprovider.com" /></pre>	Set the SIP proxy address. This field must match the domain part of the subscriber's line/port configuration on BroadWorks. Example: myprovider.com.
Step 5	Set the proxy server port. <pre><param name="SipProvider.<0-9>. ProxyServerPort " value="5060" /></pre>	Enter the number (1 – 65535) 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.

Step	Command From <MAC>.xml File	Description
Step 6	Set the registration server. <pre><param name="SipProvider.<0-9>.RegServerAddress" value="reg.myprovider.com" /></pre>	Set the registration server. This field must match the domain part of the subscriber's line/port configuration on BroadWorks. Example: myprovider.com.
Step 7	Set the registration server port. <pre><param name="SipProvider.<0-9>.RegServerPort" value="5060" /></pre>	Enter the communication port (1 – 65535) used on the registrar. Port 5060 is used in most cases.
Step 8	Set the registration refresh time. <pre><param name="SipProvider.<0-9>.RegServerRefreshTimer" value="180" /></pre>	Enter the time interval (in seconds, 1-5 digits) 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.
Step 9	Set the network protocol. <pre><param name="SipProvider.<0-9>.TransportProtocol" value="1" /></pre>	1 = UDP 2 = TCP 3 = TLS
Step 10	Set the outbound proxy mode. <pre><param name="SipProvider.<0-9>.OutboundProxyMode" value="0" /></pre>	Specify when the outbound proxy should be used. 0 = Always 2 = Never
Step 11	Set the outbound server address. <pre><param name="SipProvider.<0-9>.OutboundProxyAddress" value="proxy.mydomain.com" /></pre>	Enter the DNS name (fully qualified domain name) or the IP address of your provider's outbound proxy.
Step 12	Set the outbound proxy port. <pre><param name="SipProvider.<0-9>.OutboundProxyPort" value="5060" /></pre>	Enter the number (1 – 65535) of the communication port used by the outbound proxy. The default port is "5060".

4.2.3 Configure Service Settings

Step	Command From <MAC>.xml File	Description
Step 1	MWI subscription. <pre><param name="SipProvider.<0-9>.MWISubscription" value="1" /></pre>	SIP SUBSCRIBE for Net-AM MWI: When activated, a subscription is established for the purpose of receiving notifications about new messages on the network mailbox. 0 = Do not send SIP Subscribe for MWI 1 = Send SIP Subscribe for MWI

Step	Command From <MAC>.xml File	Description
Step 2	Set the DTMF type. <pre><param name="SipProvider.<0-9>.DTMFTransmission" value="1" /></pre>	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 129 = Automatic DTMF Negotiation
Step 3	Set signaling option for "Hold" option in SDP. <pre><param name="SipProvider.<0-9>.HoldType" value="0" /></pre>	Signaling options for "Hold" in Session Description Protocol (SDP): Call hold means that a user request to put an active call on hold. The holding part sends a re-INVITE request to the held client with an SDP offer (Session Description Protocol). This SDP offer contains the attribute line a=inactive or a=sendonly. 0 = Inactive 1 = Sendonly (Default)
Step 3	Set Hold towards Transfer-Target. <pre><param name="SipProvider.<0-9>.CT_HoldTT_Attended" value="0" /></pre>	Hold towards Transfer-Target: The device enables call transfer after consultation or without consultation. Define whether a consultation call with transfer target is put on-hold prior to the execution of the call transfer (Yes) or not (No). 0 = No 1 = Yes

4.3 Subscriber Level Configuration

This section identifies the device-specific parameters, including registration and authentication. These settings must be unique across devices in order to be matched with the settings for a BroadWorks SIP trunk or subscriber. SIP Registration requires that a unique address of record (AoR) be provisioned on BroadWorks and the device.

Step	Command From <MAC>.xml File	Description
Step 1	Set the SIP Authentication name. <pre><param name="SipAccount.<ipui>.AuthName" value="name" /></pre>	SIP Authentication name: Specify the SIP authentication (HTTP digest) name. The Authentication name acts as access ID when registering with the SIP proxy/registrar server. It is usually identical to the phone number for the VoIP account (maximum 74 characters).
Step 2	Set the SIP Authentication password. <pre><param name="SipAccount.<ipui>.AuthPassword" value="password" /></pre>	SIP Authentication password: Enter the password for SIP authentication (HTTP digest). The phone needs the password when registering with the SIP proxy/registrar server (maximum 74 characters).
Step 3	Set the SIP Username. <pre><param name="SipAccount.<ipui>.UserName" value="user" /></pre>	SIP Username: Enter the caller ID for the VoIP provider account. It is usually identical to the phone number for the VoIP account (maximum 74 characters).

Step	Command From <MAC>.xml File	Description
Step 4	Set the SIP Display name. <pre><param name=" SipAccount.<ipui>.DisplayName " value=" display" /></pre>	SIP Display name example (maximum 74 characters).
Step 5	Set the VoIP provider. <pre><param name=" SipAccount.<ipui>.ProviderId " value="1" /></pre>	Choose the VoIP provider from the list of available configured providers (0-9). See the following figure.

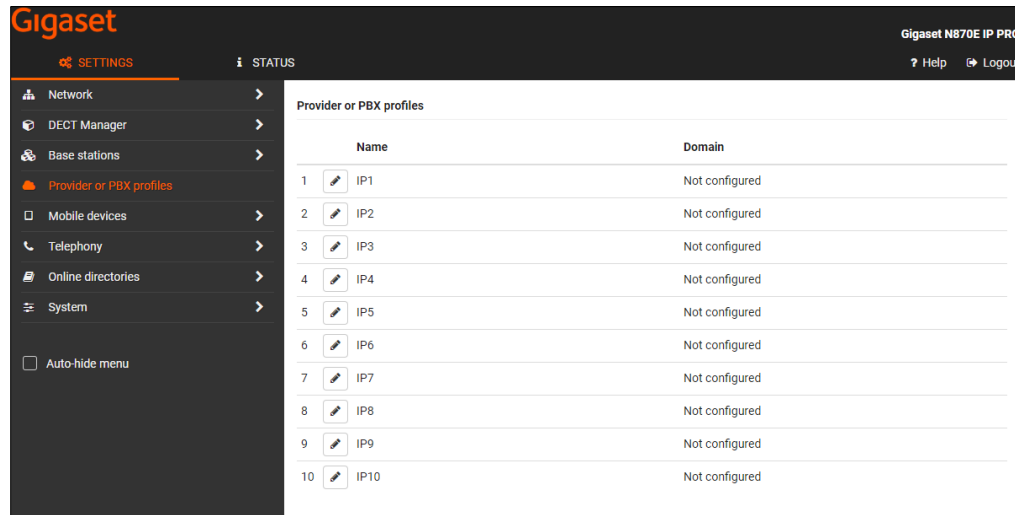


Figure 2 List of Providers

4.4 SIP Advanced Feature Configuration

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

4.4.1 Busy Lamp Field Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

4.4.2 Feature Key Synchronization Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

4.4.3 Call Center Feature Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

4.4.4 Call Recording Feature Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

4.4.5 Security Classification Feature Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

4.4.6 Emergency Call Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

4.4.7 Advice of Charge Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

4.4.8 Conference Event Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

4.5 Xtended Services Interface (Xsi) Feature Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

4.6 Instant Message and Presence Configuration

This feature is currently not supported by Gigaset N870/N670 IP PRO.

5 Device Management

The BroadWorks Device Management feature provides the capability to automate generation of device configuration files to support mass deployment of devices. This section identifies the Device Management capabilities supported by the Gigaset N870/N670 IP PRO and the configuration steps required. For Device Management configuration details not covered here, see the *BroadWorks Device Management Configuration Guide* [3] and the *BroadWorks CPE Kit Usage Guide* [9].

5.1 Device Management Capabilities Supported

The Gigaset N870/N670 IP PRO has completed Device Management interoperability testing with BroadWorks using the *BroadWorks Device Management Interoperability Test Plan* [8]. The results are summarized in the following table.

The BroadWorks test plan is composed of packages, each covering distinct interoperability areas. 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 Device Management interface between the device and BroadWorks with the intent to ensure interoperability.

The *Supported* column in the following table identifies the Gigaset N870/N670 IP PRO's support for each of the items covered in the test plan packages, with the following designations:

- Yes Test item is supported
- No Test item is not supported
- NA Test item is not applicable
- NT Test item was not tested

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

NOTE: *DUT* in the following table refers to the *Device Under Test*, which in this case is the Gigaset N870/N670 IP PRO.

Test Plan Package	Test Plan Package Items	Supported	Comments
HTTP File Download	HTTP Download Using XSP IP Address	Yes	
	HTTP Download Using XSP FQDN	Yes	
	HTTP Download Using XSP Cluster FQDN	Yes	
	HTTP Download With Double Slash	Yes	
HTTPS File Download	HTTPS Download Using XSP FQDN	Yes	
	HTTPS Download Using XSP Cluster FQDN	Yes	
HTTPS File Download with	HTTPS Download with Client Authentication Using XSP FQDN	No	

BroadWorks Device Management Interoperability Test Plan Support Table			
Test Plan Package	Test Plan Package Items	Supported	Comments
Client Authentication	HTTPS Download with Client Authentication Using XSP Cluster FQDN	No	
Time Zone Mapping	Inspect Time Zone Setting	Yes	
Language Mapping	Inspect Language Setting	No	
File Inspection	Inspect System Config File	No	
	Inspect Device-Specific Config File	Yes	
	Inspect Other Config Files	No	
	Inspect Static Files	Yes	
Device Inspection	Inspect SIP Settings	Yes	
	Inspect Line Settings	Yes	
	Inspect Service Settings	No	
HTTP File Upload	HTTP Upload Using XSP IP Address	No	
	HTTP Upload Using XSP FQDN	No	
	HTTP Upload Using XSP Cluster FQDN	No	
Call Processing Sanity Tests	Register with Authentication	Yes	
	Call Origination	Yes	
	Call Termination	Yes	
	Remote Restart	No	
	Shared Line Origination	No	
	Shared Line Termination	No	
	Shared Line Status	No	
	Busy Lamp Field	No	
	Network-Based Conference	No	
Flexible Seating	Association via Voice Portal	No	
	Association via Phone	No	
No Touch Provisioning	Provision via DHCP Options Field	No	
	No Touch Provision via DM redirect	No	
	No Touch Provision via Vendor redirect	No	

5.1 Device Management Configuration

This section identifies the steps required to enable the Gigaset N870/N670 IP PRO for device management. For Device Management configuration details not covered here, see the *BroadWorks Device Management Configuration Guide* [3] and the *BroadWorks CPE Kit Usage Guide* [9].

5.1.1 Configure BroadWorks Tags

The template files in Device Management use tags to represent the data stored on BroadWorks. When a configuration changes for a user, Device Management parses the template files and replaces the Device Management tags with the associated data stored on BroadWorks. There are default tags defined in the Device Management software and there are custom tags that the service provider can create and define via the web portal for use by Device Management. There are two types of custom tags that can be defined: system-default tags that are common to all devices on the system and device type-specific tags that are common to Gigaset device models only.

The Gigaset N870/N670 IP PRO makes use of custom tags which can be configured by a BroadWorks administrator as either system default or device type-specific tags. This section identifies the required tags.

5.1.1.1 Create System Default Tags

Browse to *System* → *Resources* → *Device Management Tag Sets* and select the *System Default* tag set. The Gigaset configuration templates make use of the tags in the following table. Add the tags if they do not already exist.

Tag Name	Valid Settings	Description
%SBC_ADDRESS%	IP address/FQDN	SBC SIP address.
%SBC_PORT%	Port	SBC SIP port. The port should be set if the defined session border controller (SBC) address is an IP address. If the SBC address is an FQDN, then the SBC port should not be set.

Example System Default Tag Settings

The screenshot shows the 'Device Management Tag Sets Modify' interface. The page title is 'System' and 'Welcome Default Administrator [Logout]'. The left sidebar contains navigation options: Profile, Resources (selected), Services, Communication Barring, and Utilities. The main content area displays the 'Tag Set: System Default' and a table of tags. The table has columns for 'Delete', 'Tag Name', 'Tag Value', and 'Edit'. Below the table, there is a search filter section with 'Tag Name' and 'Starts With' dropdowns, a search input field, and 'Find' and 'Find All' buttons. At the bottom, there are 'OK', 'Apply', 'Add', and 'Cancel' buttons.

Delete	Tag Name	Tag Value	Edit
<input type="checkbox"/>	%APPLICATION_DOMAIN%	as.iop1.broadworks.net	Edit
<input type="checkbox"/>	%DNS_SERVER_1%	199.19.193.12	Edit
<input type="checkbox"/>	%DNS_SERVER_2%	199.19.193.39	Edit
<input type="checkbox"/>	%DNS_SERVER%	199.19.193.12	Edit
<input type="checkbox"/>	%SBC_ADDRESS%	sbcl.iop1.broadworks.net	Edit
<input type="checkbox"/>	%SBC_PORT%	5060	Edit
<input type="checkbox"/>	%SNTP_SERVER_1%	time-a.nist.gov	Edit
<input type="checkbox"/>	%SNTP_SERVER_2%	time-b.nist.gov	Edit
<input type="checkbox"/>	%SNTP_SERVER%	time-b.nist.gov	Edit
<input type="checkbox"/>	%USE_SBC_BOOLEAN%	1	Edit

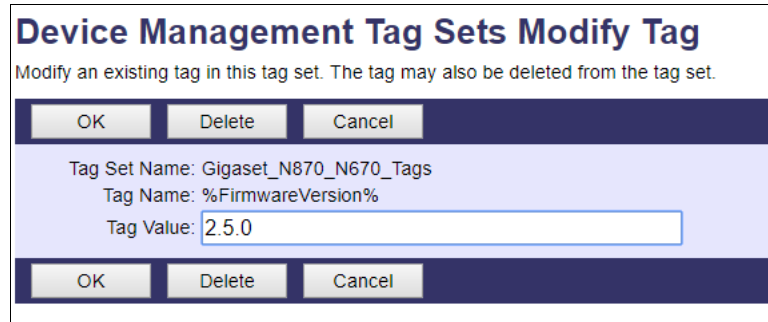
Figure 3 System Default Tag Settings

5.1.1.2 Create Device Type-specific Tags

Browse to *System* → *Resources* → *Device Management Tag Sets* and then click **Add** to add a new tag set. Configure the tag set name using the device name appended by *Tags*: *Gigaset_N870_N670_Tags*. Add the device type specific tags in the following table to the device tag set. If the tag set already exists, make sure that the following tags are defined.

Tag Name	Valid Settings	Description
%FirmwareVersion%	<firmware-version-name>	Device firmware version.

Example Device Type-specific Tag Settings



Device Management Tag Sets Modify Tag
Modify an existing tag in this tag set. The tag may also be deleted from the tag set.

OK Delete Cancel

Tag Set Name: Gigaset_N870_N670_Tags
Tag Name: %FirmwareVersion%
Tag Value: 2.5.0

OK Delete Cancel

Figure 4 Device Type-specific Tag Settings

5.1.2 Configure BroadWorks Device Profile Type

The device profile type is a system-level structure that defines how the device interfaces with BroadWorks. It also identifies the default configuration files and other files, such as firmware, which are required for the device to operate correctly. The device profile type is created by the system administrator. Group administrators use the device profile type to create a device profile. The device profile is an instance of the device profile type that is associated with a physical device.

There are two BroadWorks device profile configuration methods described: import and manual. The import method takes a DTAF as input and builds the BroadWorks device profile type(s) automatically. The manual method takes the administrator through the steps to manually add and configure the device profile type(s).

The import method should be used if all of the following prerequisites are met:

- The BroadWorks Release is 17.0 or later.
- The device profile type(s) being imported do not already exist on the system. (If either a previous import or manual configuration was done, then the import fails.)
- There is a DTAF file available for import with a BroadWorks release level that is the same as or prior to the release to which it is being imported. If the DTAF file is at a release level later than the release being imported to, then the import can fail.

Otherwise, use the manual method.

For more detailed instructions, refer to the *BroadWorks CPE Kit Usage Guide* [9] and the *BroadWorks Device Management Configuration Guide* [3].

5.1.2.1 Configuration Method 1: Import

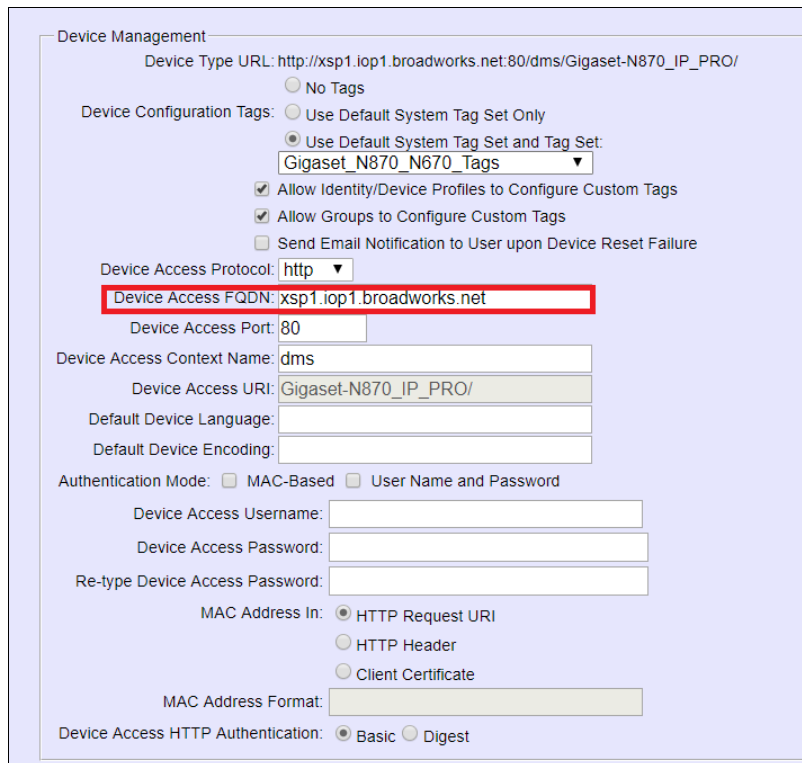
This section identifies the steps necessary to make use of the Device Management import feature to configure BroadWorks to add the Gigaset N870/N670 IP PRO as a Device Management-enabled device type. Also, see the *BroadWorks CPE Kit Usage Guide* [9].

Download the Gigaset N870/N670 IP PRO CPE kit from BroadSoft Xchange at xchange.broadsoft.com. Extract the DTAF file(s) from the CPE kit. These are the import files. Repeat the following steps for each model you wish to import.

- 1) Log in to BroadWorks as an administrator.
- 2) Browse to *System* → *Resources* → *Identity/Device Profile Types* and then click **Import**.
- 3) Select *Browse* to find the extracted DTAF file for the model and then click **OK** to start the import.

After the import finishes, complete the following post-import configuration steps:

- 4) Browse to *System* → *Resources* → *Identity/Device Profile Types*.
- 5) Perform a search to find the imported Gigaset device profile type, for example, Gigaset-N870_IP_PRO.
- 6) Browse to the *Profile* page and change the Device Management Device Access FQDN to your Xtended Services Platform (Xsp) or Xsp cluster address.



The screenshot shows the 'Device Management' configuration page. The 'Device Access FQDN' field is highlighted with a red box and contains the value 'xsp1.iop1.broadworks.net'. Other visible fields include 'Device Access Protocol' set to 'http', 'Device Access Port' set to '80', 'Device Access Context Name' set to 'dms', and 'Device Access URI' set to 'Gigaset-N870_IP_PRO/'.

Figure 5 Device Access FQDN

- 7) Click the **Files and Authentication** link and then select the option to rebuild all the system files.

Firmware files must be obtained from Gigaset. These files are not included in the import. Complete the steps in section [5.2.2.2.2 Define Device Profile Type Files](#) to define the static firmware files and to upload the firmware.

NOTE: The non-firmware static files in section [5.2.2.2.2 Define Device Profile Type Files](#) are normally included in the import.

- 8) After importing the DTAFs, restart the Application Server to load the *TimeZoneAlias* files.

5.1.2.2 Configuration Method 2: Manual

This section identifies the basic steps necessary for an administrator to manually configure BroadWorks to add the Gigaset N870/N670 IP PRO as a Device Management-enabled device type. This method should not be used except in special cases as described in the opening to section [5.2.2 Configure BroadWorks Device Profile Type](#).

For more detailed instruction on manual configuration, refer to the *BroadWorks CPE Kit Usage Guide* [9] and the *BroadWorks Device Management Configuration Guide* [3].

The steps in this section can also be followed to update previously imported or configured device profile type(s) with new configuration files and firmware.

If there are DTAFs for more than one device model, these steps must be completed for each model.

5.1.2.2.1 Create or Modify Device Profile Type

This section identifies the BroadWorks device profile type settings relevant to Device Management for the Gigaset N870/N670 IP PRO.

Browse to *System* → *Resources* → *Identity/Device Profile Types* and perform a search to find the Gigaset device profile type(s) created in section [3.1 BroadWorks Device Profile Type Configuration](#) or add the device profile type for each model using the settings from section [3.1 BroadWorks Device Profile Type Configuration](#) if they do not exist.

Configure the device profile type *Signaling Address Type*, *Standard* and *Advanced* options settings to match the settings in section [3.1 BroadWorks Device Profile Type Configuration](#).

Configure the device profile type *Device Management* options as shown in section [5.2.2.1 Configuration Method 1: Import](#).

The following subsections identify the required settings specific to Device Management.

5.1.2.2.2 Define Device Profile Type Files

This section describes the BroadWorks Device Management configuration necessary to identify the configuration files and other files that the Gigaset N870/N670 IP PRO downloads.

Configuration templates and firmware the Gigaset N870/N670 IP PRO uses must be uploaded to BroadWorks. Download the Gigaset N870/N670 IP PRO CPE kit from BroadSoft Xchange at xchange.broadsoft.com. Extract the configuration files from the *Configuration Files* folder of the CPE kit. Obtain the firmware files directly from Gigaset.

The following table identifies the Gigaset configuration files distributed with the 2.5.0 version CPE kit.

File Name	CPE Kit Template File Name	File Type	Description
Examples			
<code>%BWMACADDRESS%.xml</code>	<code>%BWMACADDRESS%.xml.template</code>	Device-specific	This file contains all the configuration and firmware files that the device needs to load.

File Name	CPE Kit Template File Name	File Type	Description
<i>TimeZoneAliasLabels_Gigaset-N<model number>_IP_PRO.properties</i>	<i>TimeZoneAliasLabels_Gigaset-N<model number>_IP_PRO.properties</i>	Time Zone Alias	The time zone alias file is a BroadWorks Device Management file used to map time zone identifiers between BroadWorks and Gigaset devices. A time zone alias file is required for each model.

The following table identifies other files that the Gigaset N870/N670 IP PRO downloads from the server or uploads to the server. These files are not provided in the CPE kit and must be obtained from Gigaset.

File Name	File Type	Description
<i>N<model number>%FirmwareVersion%.bin</i>	Static	Firmware load

Browse to *System* → *Resources* → *Identity/Device Profile Types* → *Files and Authentication* to add the files as described in the following subsections.

5.1.2.2.2.1 %BWMACADDRESS%.xml

Add the %BWMACADDRESS%.xml file to the device profile type with the settings shown in [Figure 6](#).

After creating the device profile type file, upload %BWMACADDRESS%.xml, which is extracted from the CPE kit. Use the **Browse** button on the file definition screen. Be sure to click **Apply** after uploading the file.

Device Access File Format: %BWMACADDRESS%.xml

Repository File Format: %BWFQDEVICEID%.xml

Access File: http://xsp1.iop1.broadworks.net:80/dms/Gigaset-N870_IP_PRO/{%25BWMACADDRESS%25}.xml
 Note: this URL has undefined content. Validate it manually by replacing any content between {} with valid value(s).

Repository File: [Download](#)

Template File: [Download](#)

File Category: Static Dynamic Per-Type Dynamic Per-Device

File Customization: **Administrator and User** ▼

Allow Upload from Device

Extended File Capture
 Default Extended File Capture Mode
[Enable for All File Instances](#) [Disable for All File Instances](#)

Assign File

Manual
 Custom

Upload File: No file chosen

Currently using /var/broadworks/IpDeviceConfig/type/Gigaset-configuration file: N870_IP_PRO/%BWMACADDRESS%.xml.template

```

<?xml version="1.0" encoding="UTF-8"?>
<gigaset>
<provisioning version="1.1" productID="e2">
  <nvm>
<!-- Handset 1 -->
<oper value="%BWLINPORT-1%" name="add_hs">
<param name="hs.RegStatus" value="ToReg"/>
</oper>
<param name="SipAccount.%BWLINPORT-1%.AuthName"
value="%BWAUTHUSER-1%" />
        
```

File Authentication

Authentication Mode: MAC-Based User Name and Password

MAC Address In: HTTP Request URI
 HTTP Header
 Client Certificate

MAC Address Format:

Device Access HTTP Authentication: Basic Digest

Allowed Access Protocols: http https tftp

Figure 6 %BWMACADDRESS%.xml File Settings

5.1.2.2.2 Firmware file

Add the *N<model number>%FirmwareVersion%.bin* file to the device profile type with the settings shown in the following figure.

After creating the device profile type file, upload *N<model number>%FirmwareVersion%.bin*, which is obtained from Gigaset. Use the **Browse** button on the file definition screen. Be sure to click **Apply** after uploading the file.

Device Access File
Format: N870%FirmwareVersion%.bin

Repository File
Format: N870%FirmwareVersion%.bin

Access File:
http://xsp1.iop1.broadworks.net:80/dms/Gigaset-
N870_IP_PRO/N870{%25FirmwareVersion%25}.bin
Note: this URL has undefined content. Validate it manually by replacing any content between {} with valid value(s).

Repository File: [Download](#)

Template File: [Download](#)

File Category: Static Dynamic Per-Type Dynamic Per-Device

File Customization: Disallow

Enable caching

Assign File

Manual

Custom

Upload File: Choose File No file chosen

Currently using /var/broadworks/lpDeviceConfig/type/Gigaset-configuration file: N870_IP_PRO/N870%FirmwareVersion%.bin.template

```
./version0000644000000000000000000000000011113301013457011307
Oustar rootrootV2.5.0+build.5096990;einstein-albert;ci-xberry@2018-05-
22/13:51:20;a54a5
./00007550000000000000000000000000000000013301013460007700 5ustar
rootroot./swupdate-
Installer.aes0000644000175000017500000003460413301013457012460
Oustar "MóÉ□□!^+;;□□—
œlŒÉŪ□□éòéò/É□□oy@*RKDUaã#H5ž-□□_šŪ ä;bZ□□p□□Ä
ãð□MHcBšl@Y□□ÄèXYg□□x,]._C-Éſ□É¼Ud□□üz_ſ'aÖ-
D0ß□_ô□□ùGâyâpš™æÁWKWŷ□□éÁuot
```

File Authentication

Authentication Mode: MAC-Based User Name and Password

MAC Address In: HTTP Request URI

HTTP Header

Client Certificate

MAC Address Format:

Device Access HTTP Authentication: Basic Digest

Allowed Access Protocols: http https tftp

Figure 7 N870%FirmwareVersion%.bin File Settings

5.1.2.2.3 Time Zone Mapping

The CPE kit contains a time zone properties file for each device model. This file maps the BroadWorks user's time zone settings to the device's time zone settings.

This time zone mapping file must be added to the `/usr/local/broadworks/bw_base/conf/dms` directory on the Application Server using the following file name format: `TimeZoneAliasLabels_Gigaset-N<model number>_IP_PRO.properties`. A separate `TimeZoneAlias` file must be provided for each device profile type, corresponding to each Gigaset model.

You must restart the Application Server for the `TimeZoneAlias` files to be picked up by the system.

5.1.3 Create Device Profile Instance

The previous sections defined the device profile type such that the system is ready to mass deploy device profiles. A device profile is an instance of the device profile type and defines the BroadWorks interface to an individual Gigaset device.

Browse to the BroadWorks <group> → *Resources* → *Identity/Device Profiles* page and then select **Add** to add a new Gigaset N870/N670 IP PRO device profile, for example, Gigaset-N870_IP_PRO. Configure the device profile as shown in the [Figure 8](#) example.

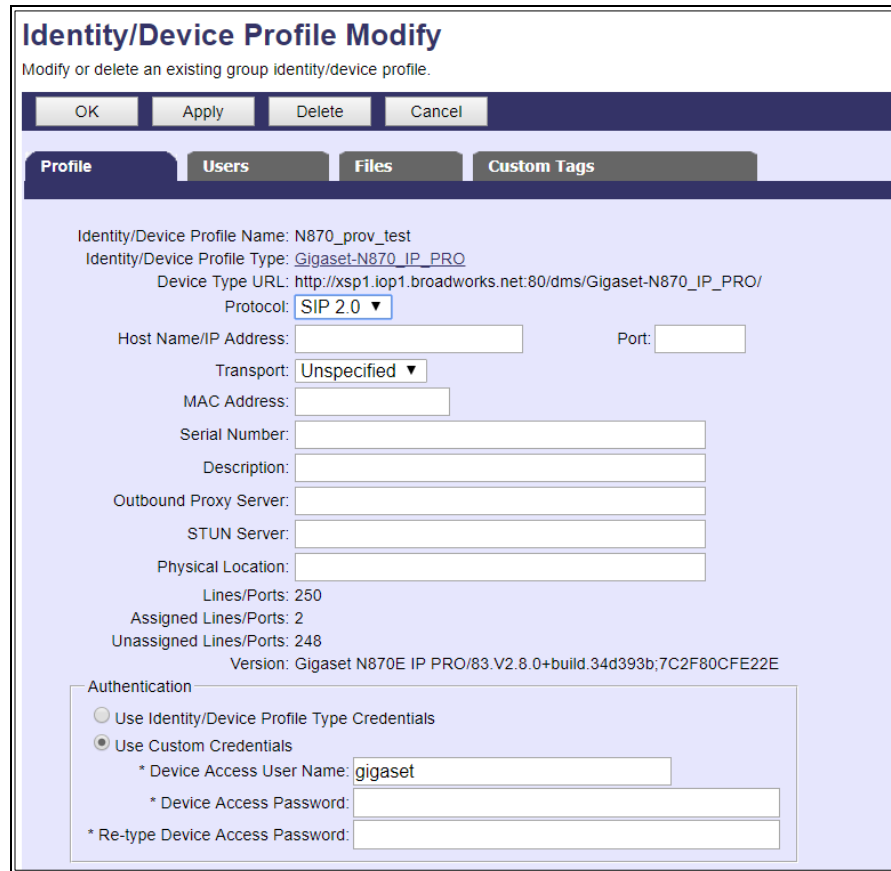


Figure 8 Device Profile Instance

5.1.4 Configure BroadWorks User

Configure the user with the desired BroadWorks configuration and services. Any services that require a specific configuration on the device are managed via Device Management and are defined in the device configuration files, if the template files are created with the correct Device Management tags.

The device profile created in the previous section must be assigned to the BroadWorks user. Assigning the device profile to the user automatically causes the Device Management feature to generate the device configuration files for this user's device.

To assign the device profile to the user, browse to the BroadWorks <user> → *Addresses*.

5.1.5 Customize Tags

This section identifies custom tags used by the Gigaset N870/N670 IP PRO that may need to be customized at the group or device profile. Customizing a tag at the group level overrides the setting on the device profile type for the device profiles created within the group. Customizing a tag at the device profile level overrides the setting at the device profile type and/or group level for the individual device profile.

5.1.5.1 SBC Address Customization for Edge Device

In many deployments, an edge device, such as an enterprise SBC or application layer gateway, is deployed on the enterprise edge. The edge device's SIP server or outbound proxy setting is configured with the service provider's SBC IP address or FQDN. If there is no edge device, the customization below does not apply.

To integrate the edge device with Device Management, the SBC address tag (%SBC_ADDRESS%) defined in section [5.2.1.1 Create System Default Tags](#) must be overridden at the group level with the LAN address of the edge device. To do so, perform the following steps.

- 1) At the *Group* → *Utilities* → *Configure Device* page, select the Gigaset device profile, for example, Gigaset-N870_IP_PRO.
- 2) Click on the *Custom Tags* tab.
- 3) Click **Add**.
- 4) For the tag, enter "SBC_ADDRESS".
- 5) For the value, enter the edge device LAN IP address.
- 6) To save the tag data, click **OK**.

Repeat these steps for each Gigaset model provisioned in the group.

5.1.6 Configure Gigaset N870/N670 IP PRO

This section describes the steps necessary to configure the Gigaset N870/N670 IP PRO to integrate with BroadWorks Device Management.

5.1.6.1 Manually Configure Gigaset N870/N670 IP PRO

Manually configure Gigaset N870/N670 IP PRO through its web interface <https://<device IP Address>>. The default login username and password are admin/admin.

After logging into the Gigaset N870/N670 IP PRO, browse to the *Settings* → *System* → *Provisioning and configuration* screen, set the *Provisioning server* field to match the BroadWorks Device Management Access URL, for example:

`http://xsp1.iop1.broadworks.net:80/dms/Gigaset-N870_IP_PRO/%MACD.xml`

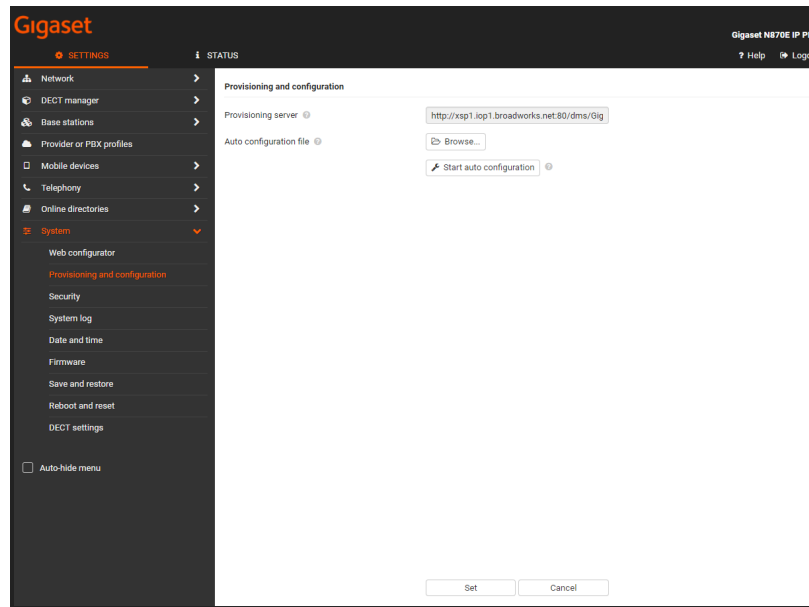


Figure 9 N870/N670 IP PRO Provisioning Screen

After configuring the provisioning server URL, browse to *Settings* → *System* → *Security*, set the *HTTP digest username* and *HTTP digest password* fields to match BroadWorks Device Management username and password.

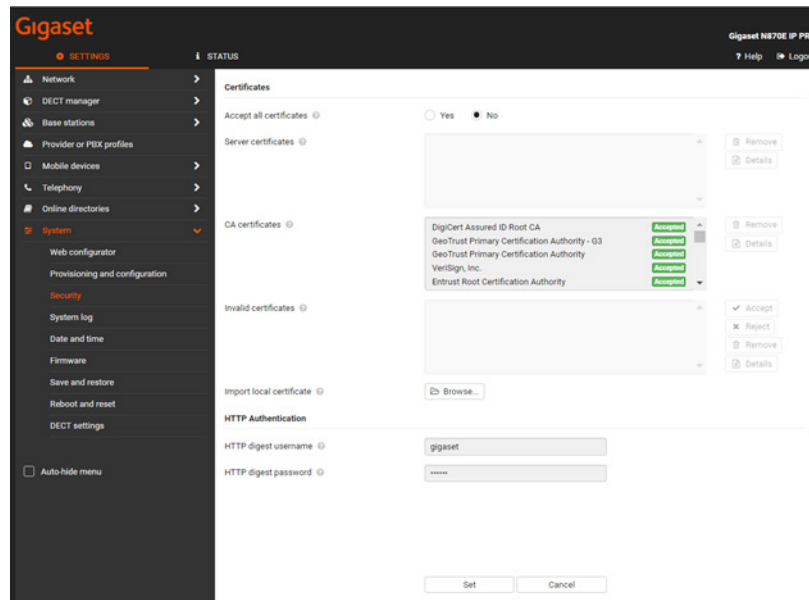


Figure 10 N870/N670 IP PRO Security Screen

5.2 Upgrade from Previous CPE Kits

The previous configuration sections are primarily structured around importing or manually configuring the Gigaset device profile types for the first time. Many of the steps are unnecessary when upgrading to a new firmware release or CPE kit version.

For general instructions on upgrading, see the *BroadWorks CPE Kit Usage Guide* [9].

Appendix A: Reference N870/N670 IP PRO Configuration Files

The following is a reference configuration for the N870/N670 IP PRO configured for use with BroadWorks.

Device-specific File <MAC>.xml

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

```
<?xml version="1.0" encoding="UTF-8"?>
<gigaset>
<provisioning version="1.1" productID="e2">
  <nvm>
<!-- Handset 1 -->
<oper value="%BWLINPORT-1%" name="add_hs">
<param name="hs.RegStatus" value="ToReg"/>
</oper>
<param name="SipAccount.%BWLINPORT-1%.AuthName" value="%BWAUTHUSER-1%"
/>
<param name="SipAccount.%BWLINPORT-1%.AuthPassword"
value="%BWAUTHPASSWORD-1%" />
<param name="SipAccount.%BWLINPORT-1%.UserName" value="%BWLINPORT-1%"
/>
<param name="SipAccount.%BWLINPORT-1%.DisplayName" value="%BWNAM-1%" />
<param name="SipAccount.%BWLINPORT-1%.ProviderId" value="0" />
<param name="hs.%BWLINPORT-1%.DirectAccessDir" value="0" />
<param name="hs.%BWLINPORT-1%.DECT_AC" value="0000" />
<!-- Handset 2 -->
<oper value="%BWLINPORT-2%" name="add_hs">
<param name="hs.RegStatus" value="ToReg"/>
</oper>
<param name="SipAccount.%BWLINPORT-2%.AuthName" value="%BWAUTHUSER-2%"
/>
<param name="SipAccount.%BWLINPORT-2%.AuthPassword"
value="%BWAUTHPASSWORD-2%" />
<param name="SipAccount.%BWLINPORT-2%.UserName" value="%BWLINPORT-2%"
/>
<param name="SipAccount.%BWLINPORT-2%.DisplayName" value="%BWNAM-2%" />
<param name="SipAccount.%BWLINPORT-2%.ProviderId" value="0" />
<param name="hs.%BWLINPORT-2%.DirectAccessDir" value="0" />
<param name="hs.%BWLINPORT-2%.DECT_AC" value="0000" />
<!-- Handset 3 -->
<oper value="%BWLINPORT-3%" name="add_hs">
<param name="hs.RegStatus" value="ToReg"/>
</oper>
<param name="SipAccount.%BWLINPORT-3%.AuthName" value="%BWAUTHUSER-3%"
/>
<param name="SipAccount.%BWLINPORT-3%.AuthPassword"
value="%BWAUTHPASSWORD-3%" />
<param name="SipAccount.%BWLINPORT-3%.UserName" value="%BWLINPORT-3%"
/>
<param name="SipAccount.%BWLINPORT-3%.DisplayName" value="%BWNAM-3%" />
<param name="SipAccount.%BWLINPORT-3%.ProviderId" value="0" />
<param name="hs.%BWLINPORT-3%.DirectAccessDir" value="0" />
<param name="hs.%BWLINPORT-3%.DECT_AC" value="0000" />
<!-- Handset 4 -->
<oper value="%BWLINPORT-4%" name="add_hs">
<param name="hs.RegStatus" value="ToReg"/>
</oper>
```

```
<param name="SipAccount.%BWLINPORT-4%.AuthName" value="%BWAUTHUSER-4%"
/>
</param>
<param name="SipAccount.%BWLINPORT-4%.AuthPassword"
value="%BWAUTHPASSWORD-4%" />
</param>
<param name="SipAccount.%BWLINPORT-4%.UserName" value="%BWLINPORT-4%"
/>
</param>
<param name="SipAccount.%BWLINPORT-4%.DisplayName" value="%BWNAM-4%" />
</param>
<param name="SipAccount.%BWLINPORT-4%.ProviderId" value="0" />
</param>
<param name="hs.%BWLINPORT-4%.DirectAccessDir" value="0" />
</param>
<param name="hs.%BWLINPORT-4%.DECT_AC" value="0000" />
</param>
<!-- Handset 5 -->
<oper value="%BWLINPORT-5%" name="add_hs">
<param name="hs.RegStatus" value="ToReg"/>
</oper>
</param>
<param name="SipAccount.%BWLINPORT-5%.AuthName" value="%BWAUTHUSER-5%"
/>
</param>
<param name="SipAccount.%BWLINPORT-5%.AuthPassword"
value="%BWAUTHPASSWORD-5%" />
</param>
<param name="SipAccount.%BWLINPORT-5%.UserName" value="%BWLINPORT-5%"
/>
</param>
<param name="SipAccount.%BWLINPORT-5%.DisplayName" value="%BWNAM-5%" />
</param>
<param name="SipAccount.%BWLINPORT-5%.ProviderId" value="0" />
</param>
<param name="hs.%BWLINPORT-5%.DirectAccessDir" value="0" />
</param>
<param name="hs.%BWLINPORT-5%.DECT_AC" value="0000" />
</param>
<!-- Handset 6 -->
<oper value="%BWLINPORT-6%" name="add_hs">
<param name="hs.RegStatus" value="ToReg"/>
</oper>
</param>
<param name="SipAccount.%BWLINPORT-6%.AuthName" value="%BWAUTHUSER-6%"
/>
</param>
<param name="SipAccount.%BWLINPORT-6%.AuthPassword"
value="%BWAUTHPASSWORD-6%" />
</param>
<param name="SipAccount.%BWLINPORT-6%.UserName" value="%BWLINPORT-6%"
/>
</param>
<param name="SipAccount.%BWLINPORT-6%.DisplayName" value="%BWNAM-6%" />
</param>
<param name="SipAccount.%BWLINPORT-6%.ProviderId" value="0" />
</param>
<param name="hs.%BWLINPORT-6%.DirectAccessDir" value="0" />
</param>
<param name="hs.%BWLINPORT-6%.DECT_AC" value="0000" />
</param>
<!-- Handset 7 -->
<oper value="%BWLINPORT-7%" name="add_hs">
<param name="hs.RegStatus" value="ToReg"/>
</oper>
</param>
<param name="SipAccount.%BWLINPORT-7%.AuthName" value="%BWAUTHUSER-7%"
/>
</param>
<param name="SipAccount.%BWLINPORT-7%.AuthPassword"
value="%BWAUTHPASSWORD-7%" />
</param>
<param name="SipAccount.%BWLINPORT-7%.UserName" value="%BWLINPORT-7%"
/>
</param>
<param name="SipAccount.%BWLINPORT-7%.DisplayName" value="%BWNAM-7%" />
</param>
<param name="SipAccount.%BWLINPORT-7%.ProviderId" value="0" />
</param>
<param name="hs.%BWLINPORT-7%.DirectAccessDir" value="0" />
</param>
<param name="hs.%BWLINPORT-7%.DECT_AC" value="0000" />
</param>
<!-- Handset 8 -->
<oper value="%BWLINPORT-8%" name="add_hs">
<param name="hs.RegStatus" value="ToReg"/>
</oper>
</param>
<param name="SipAccount.%BWLINPORT-8%.AuthName" value="%BWAUTHUSER-8%"
/>
</param>
<param name="SipAccount.%BWLINPORT-8%.AuthPassword"
value="%BWAUTHPASSWORD-8%" />
</param>
<param name="SipAccount.%BWLINPORT-8%.UserName" value="%BWLINPORT-8%"
/>
</param>
<param name="SipAccount.%BWLINPORT-8%.DisplayName" value="%BWNAM-8%" />
</param>
```

```
<param name="SipAccount.%BWLINERPORT-8%.ProviderId" value="0" />
<param name="hs.%BWLINERPORT-8%.DirectAccessDir" value="0" />
<param name="hs.%BWLINERPORT-8%.DECT_AC" value="0000" />

    <!-- VoIP Provider 1 settings -->

        <param name="SipProvider.0.Name" value="Broadsoft"/>

    <!-- General data of your service provider -->
        <param name="SipProvider.0.PhoneSystem" value="6"/>
        <param name="SipProvider.0.Domain" value="%BWHOST-1%"/>
        <param name="SipProvider.0.ProxyServerAddress"
value="%BWHOST-1%"/>
        <param name="SipProvider.0.ProxyServerPort" value="5060"/>
        <param name="SipProvider.0.RegServerAddress" value="%BWHOST-
1%"/>
        <param name="SipProvider.0.RegServerPort" value="5060"/>
        <param name="SipProvider.0.RegServerRefreshTimer"
value="180"/>
        <param name="SipProvider.0.TransportProtocol" value="1"/>
        <param name="SipProvider.0.UseSIPS" value="0"/>
        <param name="SipProvider.0.SRTP_Enabled" value="0"/>
        <param name="SipProvider.0.AcceptNonSRTPCalls" value="0"/>
        <param name="DmGlobal.0.HSIdleDisplay" value="1"/>
        <param name="DmGlobal.0.TimeZone" value="%BWTIMEZONE-
1%"/>

    <!-- Redundancy -->

        <param name="SipProvider.0.DnsQuery" value="0"/>

    <!-- Failover Server -->

        <param name="SipProvider.0.FailoverServerEnabled" value="0"/>
        <param name="SipProvider.0.FailoverServerAddress" value=""/>
        <param name="SipProvider.0.FailoverServerPort" value="5060"/>

    <!-- Network data of your service provider -->

        <param name="SipProvider.0.OutboundProxyMode" value="0"/>
        <param name="SipProvider.0.OutboundProxyAddress"
value="%SBC_ADDRESS%"/>
        <param name="SipProvider.0.OutboundProxyPort"
value="%SBC_PORT%"/>
        <param name="SipProvider.0.MWISubscription" value="0"/>

</nvm>
</provisioning>

</gigaset>
```

References

- [1] Gigaset Communications GmbH. 2011. *Gigaset N870/N670 Installation Guide*. Available from Gigaset Communications at wiki.gigasetpro.com.
- [2] Gigaset Communications GmbH. 2011. *Gigaset IP and IP-PRO Phones Provisioning/Remote Management and Parameter-list Working General*. Available from Gigaset Communications at <https://teamwork.gigaset.com/gigawiki/display/GPPPO/Gigaset+PRO+-+Public+Wiki+Home>.
- [3] BroadSoft, Inc. 2018. *BroadWorks Device Management Configuration Guide, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [4] BroadSoft, Inc. 2017. *BroadWorks Redundancy Guide, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [5] BroadSoft, Inc. 2016. *BroadWorks SIP Access Interface Interworking Guide, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [6] BroadSoft, Inc. 2018. *BroadWorks SIP Phone Interoperability Test Plan, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [7] BroadSoft, Inc. 2018. *BroadWorks SIP Phone Xsi and XMPP Test Plan, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [8] BroadSoft, Inc. 2018. *BroadWorks Device Management Interoperability Test Plan, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.
- [9] BroadSoft, Inc. 2017. *BroadWorks CPE Kit Usage Guide, Release 22.0*. Available from BroadSoft at xchange.broadsoft.com.