	<b>Innovation Network App Note</b>
		<b>TPP: 10104 Date: January, 2012</b>
<b>Product: ShoreTel   Ascom i62</b>		<b>System version: ShoreTel 12.x</b>

## Abstract

The Ascom i62 offers a high class telephony, messaging and alarm solution for enterprise business based on the WiFi technology. With offering Voice over WiFi, only one network is needed to be installed and maintained for all applications running, such as Internet access, e-mail, voice and other business related applications. The latest 802.11n standard provides the benefits of higher throughput and longer range possibilities which will increase the ability to integrate to other systems and build efficient applications. With the new generation networks and handsets the capacity and versatility outperforms any other on-site wireless technology. The Ascom i62 offers a unique management tool with central management concept enabling remote management and SW upgrades of the handsets over the air.

Combining ShoreTel® IP-PBX together with Ascom i62 VoWiFi handsets allows our customers the opportunity to utilize ShoreTel’s unique distributed call control architecture and Ascom’s rugged, feature-rich wireless i62 handsets.

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*ShoreTel tests and validates the interoperability of the Member's solution with ShoreTel's published software interfaces. ShoreTel does not test, nor vouch for the Member's development and/or quality assurance process, nor the overall feature functionality of the Member's solution(s). ShoreTel does not test the Member's solution under load or assess the scalability of the Member's solution. It is the responsibility of the Member to ensure their solution is current with ShoreTel's published interfaces.*

*The ShoreTel Technical Support organization will provide Customers with support of ShoreTel's published software interfaces. This does not imply any support for the Member's solution directly. Customers or reseller partners will need to work directly with the Member to obtain support for their solution.*

## Overview

This Application Note describes the configuration process necessary to provide interoperability between ShoreTel Unified Communications solution and Ascom wireless i62 VoWiFi Session Initiation Protocol (SIP) handsets. Specific calling features tested and verified to operate correctly include attended/unattended transfer, conference call participation, conference call add/drop, conference call creation, multiple call appearances, caller ID operation, call forwarding unconditional, call forwarding on busy, call forwarding clear, pick groups, call pickup, bridged appearances, voicemail, MWI, hold and return from hold.

## Features and Benefits

Ascom i62® VoWiFi handsets:

- Supporting the latest WiFi Standards, IEEE 802.11a/b/g/n
- Interactive messaging
- Personal alarm
- Centralized Management
- Longest industry talk time

## Ascom Overview and Contact

Sales support for the Ascom i62 VoWiFi handset can be obtained through the following:

### For local US/Canada:

- Phone: 1-877-71ASCOM or 1-877-712-7266
- Internet: <http://www.ascom.us/us-en/index-us/products-solutions/sales-us.htm> (for your Regional Sales Director)
- Email: [techsupport@ascomwireless.com](mailto:techsupport@ascomwireless.com) (for Technical support)

### For international customers:

- Internet: [www.ascom.com/ws](http://www.ascom.com/ws) and select your country of interest, to find local sales and support contact information.



## Ascom Product Information

The Ascom i62 is available in three versions based on license, i62 Talker, i62 Messenger and i62 Protector.



Handset/Licence	i62 Talker	i62 Messenger	i62 Protector
<b>Key features</b>			
IP44 and possible to disinfect, perfectly suited for healthcare	✓	✓	✓
Location capabilities	✓	✓	✓
Loud-speaking function	✓	✓	✓
Standard headset connector	✓	✓	✓
Administrate all handsets centrally over-the-air, no need to collect all handsets for configurations or updates	✓	✓	✓
Central phone-book support, always have an up-to-date phone book of all employees and customer contacts	✓	✓	✓
Message receipt during active call		✓	✓
Large font option in messages		✓	✓
Remote control functions, e.g. open doors, set process values or ask for medical data		✓	✓
Push-to-talk, PTT, functionality to quickly set up group calls		✓	✓
Color-coded messages		✓	✓
Receive messages with acknowledge and reject options		✓	✓
Ascom Interactive Messaging - receive interactive message with several answer options		✓	✓
Activated alarm button with two different alarm types			✓
Man-down / no-movement alarm			✓
Several alarm customization possibilities			✓

## Architecture Overview

The network diagram shown below illustrates the testing environment used for compliance testing. The network consists of: a ShoreTel ShoreWare® Director, a ShoreTel Personal Call Manager, three different models of ShoreTel IP telephones (IP110, IP230, and IP560), three Ascom wireless i62 handsets, one non wireless non IP telephone, and a wireless network infrastructure providing network services such as Dynamic Host Configuration Protocol (DHCP), Trivial File Transfer Protocol (TFTP) and an access point (AP).

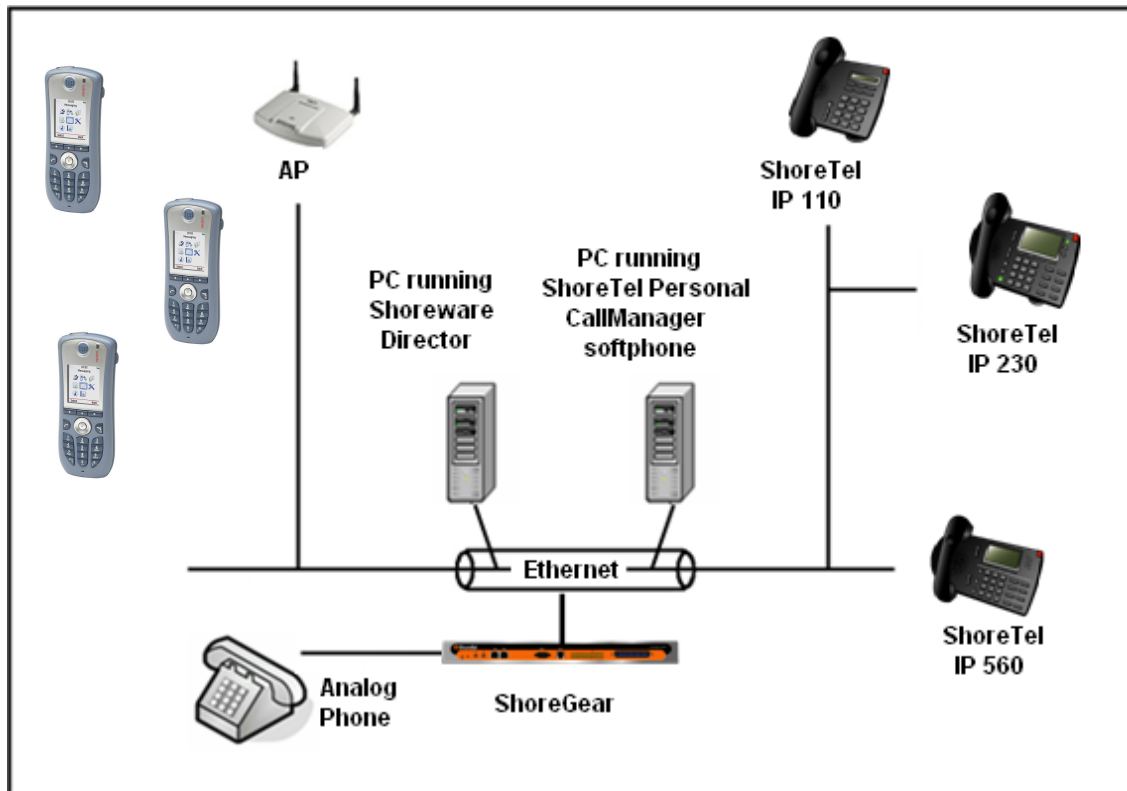


Figure 1 – Testing Environment

## Requirements, Certification and Limitations

Ascom Portable Device Manager (PDM) requirements include:

- PC with Windows XP® Professional SP2 or Windows Vista® Business operating system
- Sun Java Runtime Environment (JRE) 6 or higher
- Microsoft Internet Explorer 6.0™ (IE6) or higher
- USB port (USB 1.1 required, USB 2.0 supported)
- Acrobat Reader 4.0 or higher

## Version Support

		Ascom i75 VoWiFi handset **	Ascom i62 VoWiFi handset
		1.6.12 With v1.6.14 hotfix	2.5.7
ShoreTel Release	8.0	✓	
	8.1 Note: build 13.23.6912.0 or higher required	✓	
	10.1	✓	✓
	11.1	✓	✓
	12.1		✓

\*\*Note the Ascom i75 handset is not supported towards ShoreTel version 12.x and above..



## Certification Testing Results Summary

Table 1: Basic Test Cases

ID	Name	Description	Results
1.1	Device initialization with static IP address	Verify successful startup and initialization of the device up to a READY/IDLE state using a static IP address	Pass
1.2	Device reset – idle (for static configurations)	Verify successful re-initialization of device after power loss while device is idle	Pass
1.3	Device initialization with DHCP	Verify successful startup and initialization of the device up to a READY/IDLE state using DHCP	Pass
1.4	Device reset – idle (for dynamic configurations)	Verify successful re-initialization of device after power loss while device is idle	Pass
1.5	Verify Diffserv Code Point support	Verify the ability to set Diffserv Code Point from SIP DUT (device under test)	Not Tested
1.6	Verify Date and Time Update support	Verify setting of Date and Time Update on SIP DUT	Pass
1.7	Place call	Verify successful call placement with normal dialing to a variety of terminating phones	Pass
1.8	Receive call	Verify successful call placement with normal dialing to a variety of terminating phones	Pass
1.9	CODEC support (DUT to ShoreTel Phone)	Verify successful call connection and audio path using all supported CODECs (G.711-Ulaw and G.729)	Pass
1.10	CODEC support (DUT to SIP reference)	Verify successful call connection and audio path using all supported CODECs (G.711-Ulaw and G.729)	Pass
1.11	CODEC negotiation	Verify successful negotiation between devices configured with different default CODECs (G.711-Ulaw and G.729)	Pass
1.12	Hold DUT to SIP reference	Verify successful hold and resume of connected call	Pass
1.13	Hold DUT to ShoreTel	Verify successful hold and resume of connected call	Pass
1.14	Forward	Verify successful forwarding of incoming calls	Pass *
1.15	Forward from SIP DUT	Verify successful forwarding of incoming calls	Pass *
1.16	Dual-tone multi-frequency (DTMF) transmission	Verify successful transmission of in-band and out-of-band digits (RFC2833) for calls placed to and from the DUT with a variety of other devices	Pass RFC2833 only



**Table 2: Extended Feature Test Cases**

ID	Name	Description	Notes
2.1	Call waiting	Verify appropriate notification and successful connection of incoming call while busy with another party	Pass
2.2	Park	Verify successful park and retrieval of connected call	Pass
2.3	Transfer – blind	Verify successful blind transfer of connected call	Pass
2.4	Transfer – monitored	Verify successful monitored transfer of connected call	Pass
2.5	Conference – ad hoc	Verify successful ad hoc conference of three parties	Pass
2.6	Caller ID	Verify that Caller ID name and number is sent and received from SIP endpoint device	Pass **
2.7	911	Verify dialing “911” on DUT could connect with “911” services	Not Tested
2.8	Auto Attendant Menu	Verify that calls are properly terminated on the ShoreTel Auto Attendant menu and that you can transfer to the desired extension.	Pass
2.9	Auto Attendant Menu “Dial by Name”	Verify that calls are properly terminated on the ShoreTel Auto Attendant menu and that you can transfer to the desired extension using the “Dial by Name” feature.	Pass
2.10	Auto Attendant Menu checking Voice Mail mailbox	Verify that calls are properly terminated on the ShoreTel Auto Attendant menu and that you can transfer to the Voice Mail Login Extension.	Pass
2.11	Initiate call to a Hunt Group	Initiate a call from DUT and verify that calls route to the proper Hunt Group and are answered by an available hunt group member with audio in both directions using G.729 and G.711 codecs.	Pass
2.12	Initiate call to a Workgroup	Initiate a call from DUT and verify that calls route to the proper Workgroup and are answered successfully by an available workgroup agent with audio in both directions using G.729 and G.711 codecs.	Pass
2.13	Hunt Group Member	Verify that incoming calls to a hunt group can be answered properly when DUT is a member of the hunt group.	Pass
2.14	Workgroup Agent	Verify that incoming calls to a workgroup can be answered properly when DUT is an agent of the workgroup.	Pass
2.15	Call Forward – “FindMe”	Verify that calls are forwarded to DUT’s “FindMe” destination.	Pass
2.16	ShoreTel Converged Conferencing Server	Verify that calls are properly forwarded to the ShoreTel Converged Conferencing Server and it properly accepts the access code and you’re able to participate in the conference bridge.	Pass
2.17	Bridged Call Appearance (BCA) extension	Verify that calls are properly presented to all of the phones that have BCA configured and that the call can be answered, placed on-hold and then transferred.	Pass

\* ) Call forwarding was configured from ShoreTel GUI (Web Client). Local Call Forward not possible as ShoreTel does not allow 3<sup>rd</sup> party devices to redirect calls.

\*\* ) Caller initiating a call will see only called party’s number and not name. Called party will display the callers name. This applies to internal calls.



## Remarks

- Call forwarding has to be done via the ShoreTel user interface.
- The de-registration (Expire=0) that was sent prior to registration after lost WLAN connection is removed from i62 version 2.3.11 and above.  
It is still recommended to add the parameter **DelayUnregister=15** to the SIP profile in order to alleviate re-registration issues. Refere to ShoreTel configuration section for details.
- Display information. Caller will see only called party's number.  
If A calls B. B will see A's name but A will see only B's number.
- Music on hold is handled locally in the handset (tone).





## Configuration Overview

This document describes the major steps needed to configure the ShoreTel system and the Ascom i62 VoWiFi handset so that they work together.

## ShoreTel Configuration

This section describes the ShoreTel system configuration to support the Ascom. The section is divided into general system settings and individual user configuration needed to support the i62 VoWiFi handsets.

### *ShoreTel System Settings - General*

The first settings to address within the ShoreTel system are the general system settings. These configurations include the call control, the switch and the site settings. If these items have already been configured on the system, skip this section and go on to the “ShoreTel System Settings – Individual Users” section below.

### *Call Control Settings*

The Call Control Options within ShoreWare Director may need to be reconfigured. To configure these settings for the ShoreTel system, log into ShoreWare Director and select “Administration” “Call Control” and then “Options” (Figure 2).

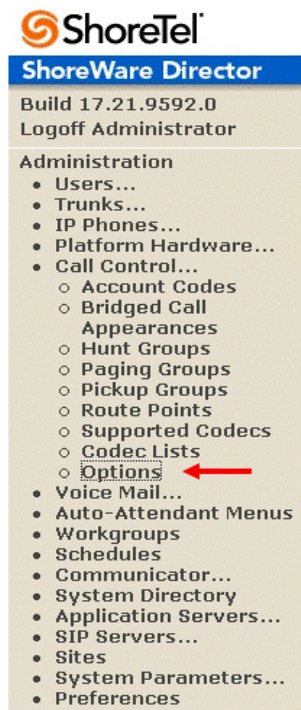


Figure 2 – Administration Call Control/Options



The “Call Control/Options” screen will then appear (Figure 3).

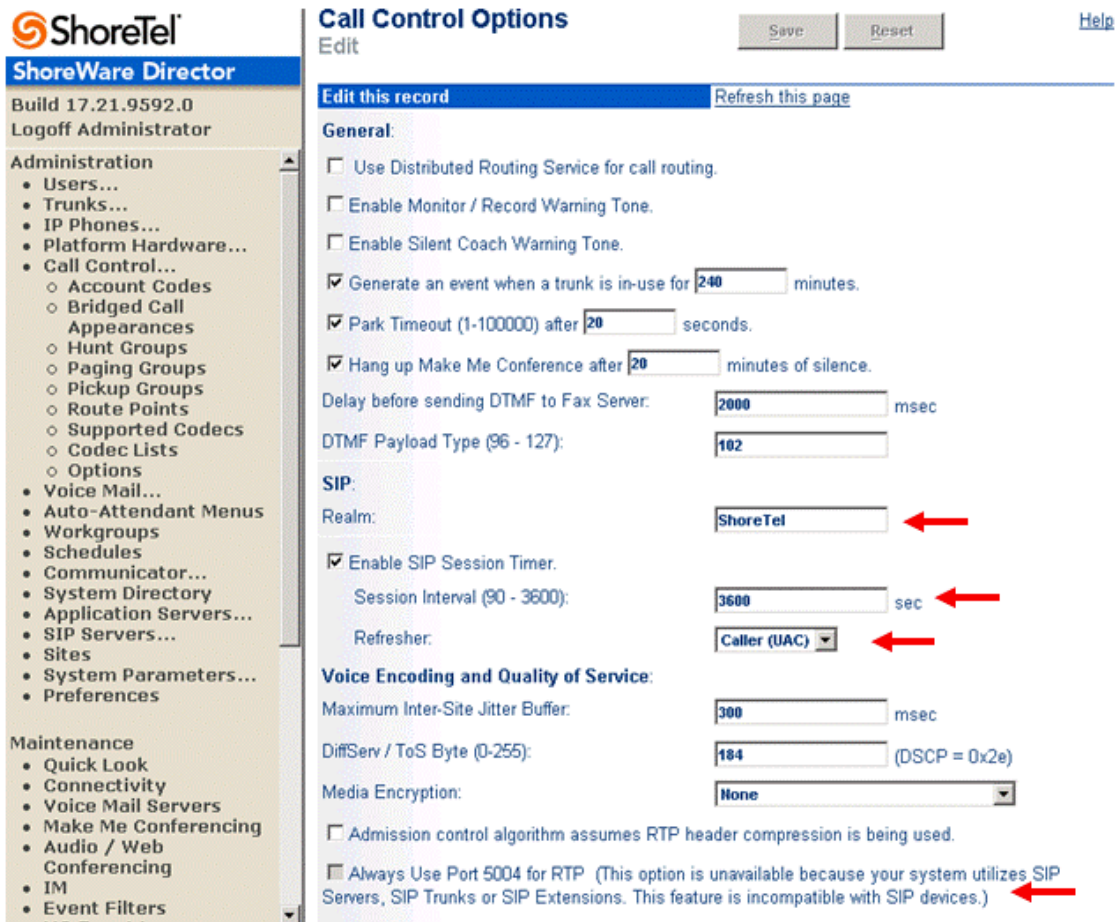


Figure 3 – Call Control/Options Screen

- If this is an upgrade from previous ShoreTel versions, you may see a parameter named “Always Use Port 5004 for RTP.” If so, you will need to disable this parameter by unchecking the box and saving the setting. When enabled, SIP extension configuration will fail. It is also important to note that this “one time” setting requires a system restart (all servers first, then ShoreGear switches followed by IP Phones) to take effect. Once the server has been restarted, this configuration parameter will no longer be visible, or may be grayed out. The default for new installations is disabled, thus the parameter is not visible (as shown in Figure 3).
- Realm: The realm is used in authenticating all SIP devices. It is typically a description of the computer or system being accessed. Changing this value will require reboot of switches serving as SIP extensions. It is not necessary to modify this parameter to get the i62 VoWiFi handsets functional.

- SIP session interval: Session interval value indicates the session (call) “keep alive” period. There is no need to modify the default value of “3600” seconds.
- SIP session refresher: The refresher setting decides if user agent client or user agent server refreshes the session. Again, there is no need to modify the default value of “Caller (UAC).” This allows the i62 VoWiFi handset to be in control of the session timer refresh.

## Switch Settings

When allocating Ports for SIP extensions, these changes are modified by selecting “Administration” “Platform Hardware...” followed by “Voice Switches / Service Appliances...”, then “Primary” in ShoreWare Director (**Figure 4**).

The screenshot shows the ShoreWare Director web interface. The left-hand navigation menu is expanded to 'Voice Switches / Service Appliances...'. The main content area displays the 'Primary Voice Switches / Service Appliances' configuration page. At the top, there is a form to 'Add new switch/appliance at site: Ascom U.S. of type: Appliance 100 Collaboration'. Below this is a table listing existing switches:

Name	Quick Launch	Description	Site	Server	Database Server	Type	IP Address	MAC Address	Serial Number	IP Phones In Use	IP Phones Capacity
AscomShoreTel			Ascom U.S.	Headquarters		408	172.20.106.161	00-10-49-0C-A9-31	08JC08130CA931	6	10
SoftSwitch		SoftSwitch	Ascom U.S.	Headquarters	Headquarters	SW	172.20.106.101			0	0
<b>Total</b>										6	10

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Figure 4 – Administration/Switches

This action brings up the “Switches” screen. From the “Switches” screen, simply select the name of the switch to configure. The “Edit ShoreGear ...Switch” screen will be displayed. Within the “Edit ShoreGear ...Switch” screen, define one of the “Port Type” settings from the available ports to “100 SIP Proxy” as well as sufficient “IP Phone” ports to support the total number of i62 VoWiFi handsets (**Figure 5**), then save the change.

**Note:** If your installation requires more than 100 SIP extensions configure the “Port Type” as “100 SIP Proxy” as necessary (i.e., two ports configured for “100 SIP Proxy” will provide 200 SIP extensions). Remember, SIP endpoints also utilize IP Phone Ports.

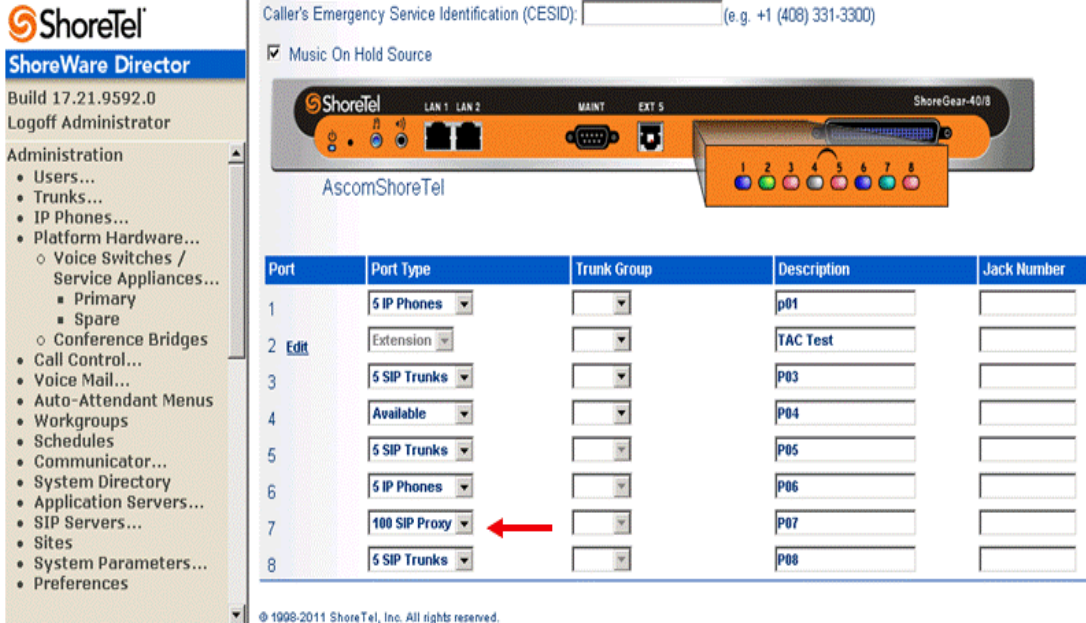


Figure 5 – Edit Switches

If the ShoreGear switch that you have selected has “built-in” capacity (i.e., ShoreGear 50/90/220T1/E1, etc.) for IP phones and SIP trunks, you can also remove 5 ports from the total number available to provide the “100 SIP Proxy” configuration necessary (Figure 6).

**Note:** Every 5 ports you remove from the total available will result in “100 SIP Proxy” ports being made available.

One dedicated ShoreGear 120 switch can act as a proxy for the entire site and support up to 2400 SIP phones.

**Switches**  
Edit ShoreGear 90 Switch

---

**Edit this record** [Refresh this page](#)

Name:   
 Description:   
 Site: [Headquarters](#)  
 IP Address:    
 Ethernet Address:   
 Server to Manage Switch:   
 Caller's Emergency Service Identification (CESID):  (e.g. +1 (408) 331-3300)  
 Built-in Capacity: IP Phone + SIP Trunk = Total  
 +  = 25 of 30 (100 SIP proxy ports) ←  
 Music On Hold Source  
 Music On Hold Gain (-49 to 13):  dB  
 Use Analog Extension Ports as DID Trunks


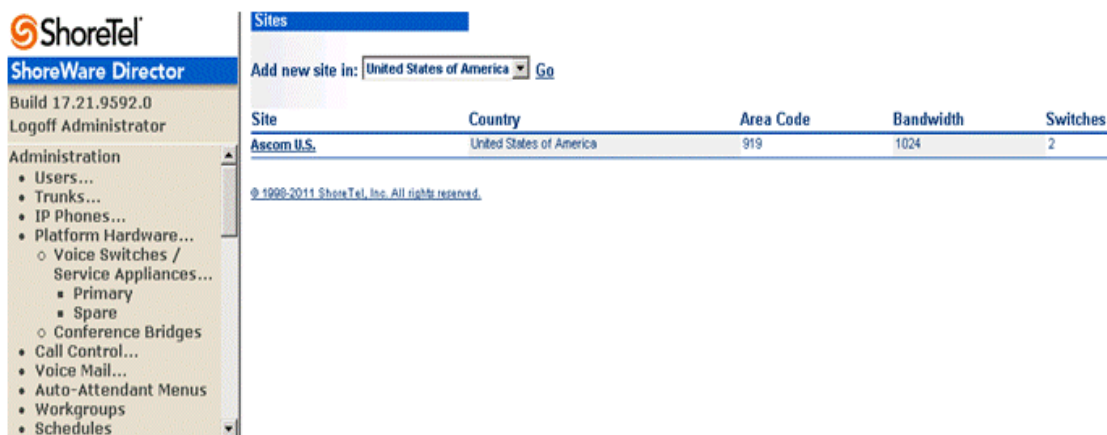


Figure 6 – ShoreGear Switch Built-in Capacity

### Sites Settings

The next settings to address are the administration of sites. These settings are modified under the ShoreWare Director by selecting “**Administration**” then “**Sites**” (Figure 7).



**ShoreTel**  
**ShoreWare Director**  
 Build 17.21.9592.0  
 Logoff Administrator

**Administration**  
 • Users...  
 • Trunks...  
 • IP Phones...  
 • Platform Hardware...  
   o Voice Switches / Service Appliances...  
     ▪ Primary  
     ▪ Spare  
   o Conference Bridges  
 • Call Control...  
 • Voice Mail...  
 • Auto-Attendant Menus  
 • Workgroups  
 • Schedules

**Sites**  
 Add new site in:

Site	Country	Area Code	Bandwidth	Switches
<a href="#">Ascom U.S.</a>	United States of America	919	1024	2

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Figure 7 – Administration/Sites

This selection brings up the “Sites” screen. Within the “Sites” screen, select the name of the site to configure. The “Edit Site” screen will then appear. Scroll down to the “SIP Proxy” parameters (**Figure 8**).

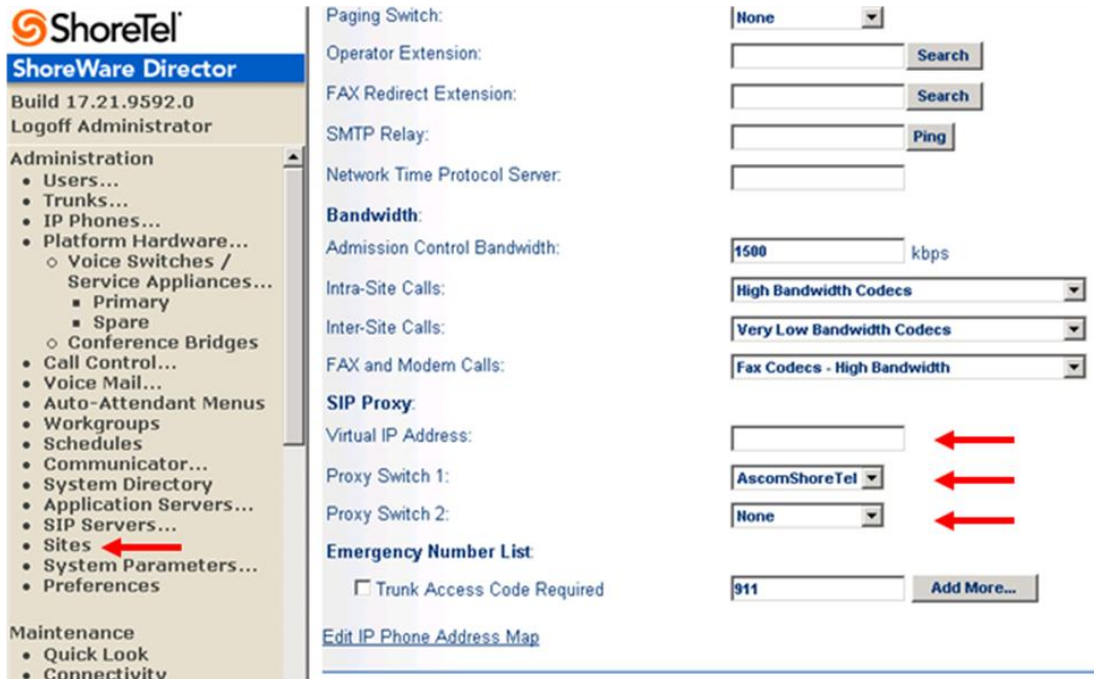


Figure 8 – Site Screen SIP Proxies

The “Virtual IP Address” parameter is a new configuration parameter beginning with ShoreTel 8. This “Virtual IP Address” is an IP address that can be moved to a different switch during a failure. For each site that supports SIP extensions, one “Virtual IP Address” is defined that will act as the SIP Proxy for the site. This IP address must be unique and static.

The ShoreTel server will assign this “Virtual IP Address” to the ShoreGear that is configured as SIP proxy for the site. Two ShoreGear switches can be configured as SIP proxy servers for redundancy and reliability purposes. If the primary proxy server goes down, the other proxy switch will take over the “Virtual IP Address.” Due to this “Virtual IP Address” mechanism, SIP phones will not know if the proxy switch goes off-line.

**Note:** If you choose not to define a “Virtual IP Address,” you can only define one proxy switch, and there is no redundancy or failover capabilities. The switches available in the “Proxy Switch 1 / 2” will only be shown if proxy resources have been enabled on the switch.

The Admission Control Bandwidth defines the bandwidth available to and from the site. This is important as SIP endpoints may be counted against the site bandwidth. See the ShoreTel Planning and Installation Guide for more information about this.

Beginning with ShoreTel 8.1, we now add 11 CODECs by default. These CODECs can be grouped as “Codec Lists” and defined in the sites page for “Inter-site” and “Intra-site” calls. See ShoreTel’s Administration Guide for more information. The default settings will work properly with the Ascom i62 VoWiFi handsets.

### Creating SIP Extension

You need to create a user extension for the i62 VoWiFi handset. This is accomplished from ShoreWare Director by selecting “Administration” followed by “Users...” then “Individual Users” This action will bring up the “Individual Users” screen at the top of the page. To the right of “Add new user at site:” select the site you wish to create the user in (from the drop down menu), and select “Go” (Figure 9).

The screenshot shows the 'Individual Users' management interface. At the top, there is a header 'Individual Users' with a 'Help' link. Below the header, there is a form to 'Add new user at site:' with a dropdown menu set to 'Ascom U.S.' and a 'Go' button. Below this, there is a 'Show page:' section with a dropdown set to '1: 1710 - TAC', navigation icons, and a '10 Records 25 per page' display. The main content is a table of users:

First Name	Last Name	Site	User Group	Access License	Extension	Mailbox	Switch	Port	Status
1710	1710	Ascom U.S.	Executives	Personal	1710	1710	SoftSwitch	Any IP Phone	Home
1714	1714	Ascom U.S.	Executives	Personal	1714	1714	SoftSwitch	Any IP Phone	Home
1715	1715	Ascom U.S.	Executives	Personal	1715	1715	SoftSwitch		Home
Ascom i62	5514	Ascom U.S.	Executives	Personal	5514	5514	AscomShoreTel		Assigned
Ascom Phone1	Lastname1	Ascom U.S.	Executives	Personal	1703	1703	SoftSwitch		Assigned
Ascom Phone2	Lastname2	Ascom U.S.	Executives	Personal	1704	1704	SoftSwitch		Assigned
Ascom Phone3	Lastname3	Ascom U.S.	Executives	Personal	1705	1705	SoftSwitch		Assigned
ShoreTel230	One	Ascom U.S.	Executives	Personal	1701	1701	AscomShoreTel	00-10-49-0A-F5-8F	Home
ShoreTel230	Two	Ascom U.S.	Executives	Personal	1702	1702	AscomShoreTel	00-10-49-0A-F5-90	Home
TAC	Test	Ascom U.S.	IP Telephones	Personal	1709		AscomShoreTel	2	Home

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Figure 9 – Individual Users Settings

This action brings up the “Users” “Edit Users” screen (Figure 10).

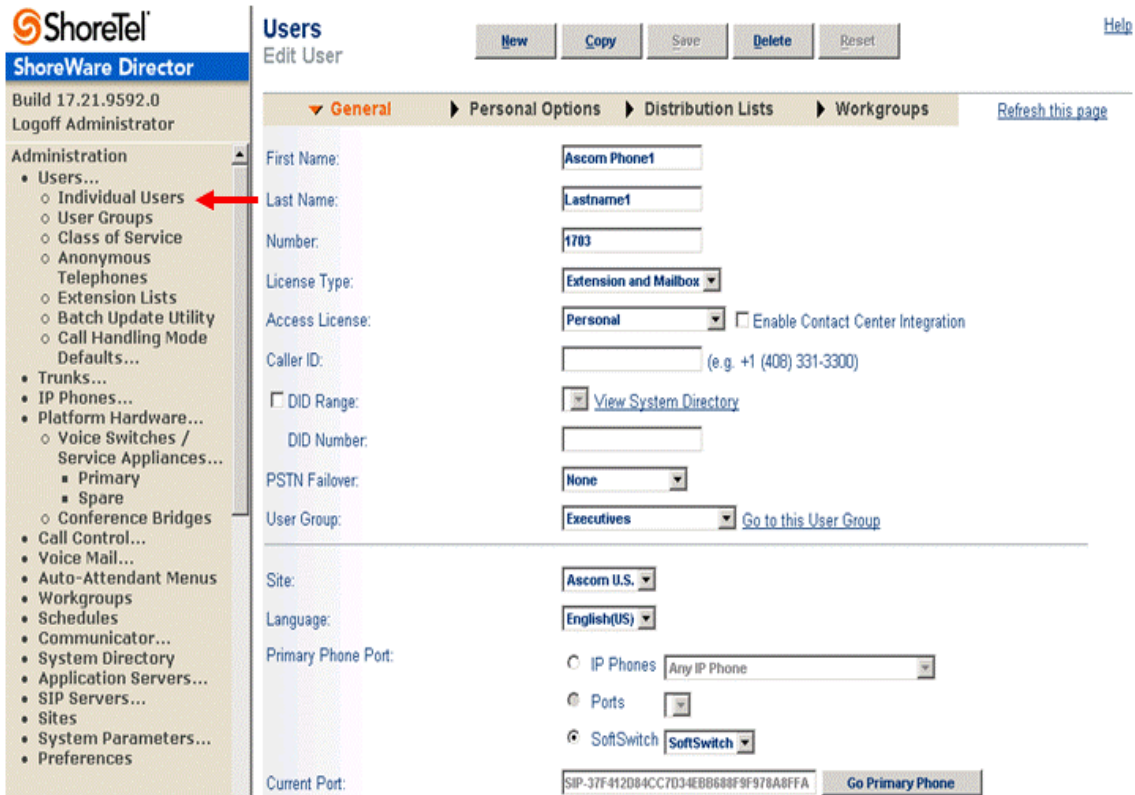


Figure 10 – Adding/Editing Users

Define the “**First Name**” and “**Last Name**” as you deem appropriate. ShoreWare Director will auto-assign the next available “**Number**” (i.e. extension), but you can modify it to any available extension. Define the “**License Type**” and “**Access License**” type as needed; in this example we chose “**Extension and Mailbox**” although it’s not necessary to have a mailbox, and “**Professional**” for “**Access License**”. Define the proper “**User Group**” and set the “**Primary Phone Port**” to “**Any IP Phone**.”

**Note:** If you configured the “**License Type**” for “**Extension-Only**,” you cannot select “**Any IP Phone**” but instead must set the “**Home Port**” for the “**SoftSwitch**” selection. Save your changes, then scroll down to the “**SIP Password:**” section (**Figure 11**).



ShoreTel  
ShoreWare Director  
Build 17.21.9592.0  
Logoff Administrator

Administration

- Users...
  - Individual Users
  - User Groups
  - Class of Service
  - Anonymous Telephones
  - Extension Lists
  - Batch Update Utility
  - Call Handling Mode Defaults...
- Trunks...
- IP Phones...
- Platform Hardware...
  - Voice Switches / Service Appliances...
    - Primary
    - Spare
  - Conference Bridges
- Call Control...
- Voice Mail...
- Auto-Attendant Menus
- Workgroups
- Schedules
- Communicator...
- System Directory
- Application Servers...
- SIP Servers...
- Sites
- System Parameters...
- Preferences

Associated BCA:

Allow Use of Soft Phone

Allow Phone API

---

Mobility Options

Allow Mobile Access

Allow Enhanced Mobility with Extension

---

Delayed Ringdown

Extension:  Search

External Number:  (e.g. 9+1 (408) 331-3300)

Ringdown Delay:  sec

Client User ID:

Client Password:

Voice Mail Password:    Must Change On Next Login

SIP Password:   ←

Email Address:

Conferencing Settings:

Appliance:

[Edit System Directory Record](#)

Figure 11 – Individual User SIP Settings

There is no default “**SIP Password**” it is masked with the appearance that there is, but don’t be confused to think that there’s a default password. You can modify it to any value you wish, but be certain to note what you changed it to, as you will need it when configuring the i62 VoWiFi handset parameters. Save your changes.

### **SIP Profiles**

ShoreWare Director’s “Call Control...” section contains an “SIP Profiles” option. ShoreTel 12.1 comes standard with a “\_System” and “\_ShorePhoneIP8000” SIP profiles (they cannot be deleted - only disabled). By default, the Ascom i62 VoWiFi handsets utilize the “\_System” profile. In order to optimize the functionality, you will need to add a custom profile. This is accomplished from ShoreWare Director by selecting “Administration” followed by “IP Phones...” then “SIP Profiles” This action brings up the “SIP Profiles” screen. At the top of the page, below the “SIP Profiles List” , select the “New...” radio button, as shown in **Figure 12**.

**ShoreTel**  
ShoreWare Director  
Build 17.21.9592.0  
Logoff Administrator

Administration

- Users...
  - Individual Users
  - User Groups
  - Class of Service
  - Anonymous
  - Telephones
  - Extension Lists
  - Batch Update Utility
  - Call Handling Mode Defaults...
- Trunks...
- IP Phones...
  - Individual IP Phones
  - IP Phone Address Map
  - SIP Profiles**
  - Phone Applications
  - Options
- Platform Hardware...
  - Voice Switches / Service Appliances...

**SIP Profiles** Help

SIP Extension Profiles 0 records checked.

Delete New...

<input type="checkbox"/>	Name	User Agent	Enabled	Priority
<input type="checkbox"/>	<u>ShorePhone IP8000</u>	*ShoreTelST_PH1_[2-6][0-9][0-9]([0-9])\$	Yes	50
<input type="checkbox"/>	<u>System</u>	*	Yes	10
<input type="checkbox"/>	<u>Ascom i62</u>	Ascom i62	Yes	100
<input type="checkbox"/>	<u>DECT</u>	Ascom P-DECT	Yes	100
<input type="checkbox"/>	<u>RoamAnywhere Client</u>	*ShoreTelMR.*AgtoRAMR.*	Yes	50

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Figure 12 – SIP Profiles

This action brings up the “Edit SIP Profile” screen, Figure 13.

**SIP Profile** Help  
Edit SIP Extension Profile

New Copy Save Delete Reset

**Edit this record** Refresh this page

Name:

User Agent:

Priority:

Enable

System Parameters:  
OptionsPing=0  
SendEarlyMedia=0  
MWI=none  
1CodecAnswer=1  
StripVideoCodec=0

Custom Parameters:

⚠ **Warning!** Please use ShoreTel's recommended SIP profile configurations to ensure optimal functionality. Improper customization may lead to faulty operation of telephone features.

Figure 13 – Edit SIP Profile

Define a “**Name:**” for the entry, and be sure to define an appropriate name. For the “**User Agent:**” option, enter “Ascom i62.\*” (without quotes); the “**Priority:**” defaults to 100, no change is required. Enable the profile by checking (enabling) the “**Enable**” option. In the “**Custom Parameters:**” options, add the following entries:

```
OptionsPing=1  
MWI=notify  
FakeDeclineAsRedirect=1  
XferFailureNotSupported=1  
AddGracePeriod=90  
DelayUnregister=15
```

**Save** the changes.

**Note:** Please do not disable any of the default SIP profiles. In case there are issues with the custom profile defined, disabling the system profiles may cause the i62VoWiFi handsets to not be added to the ShoreTel system. Refer to the ShoreTel’s Planning and Installation Guide for more information.

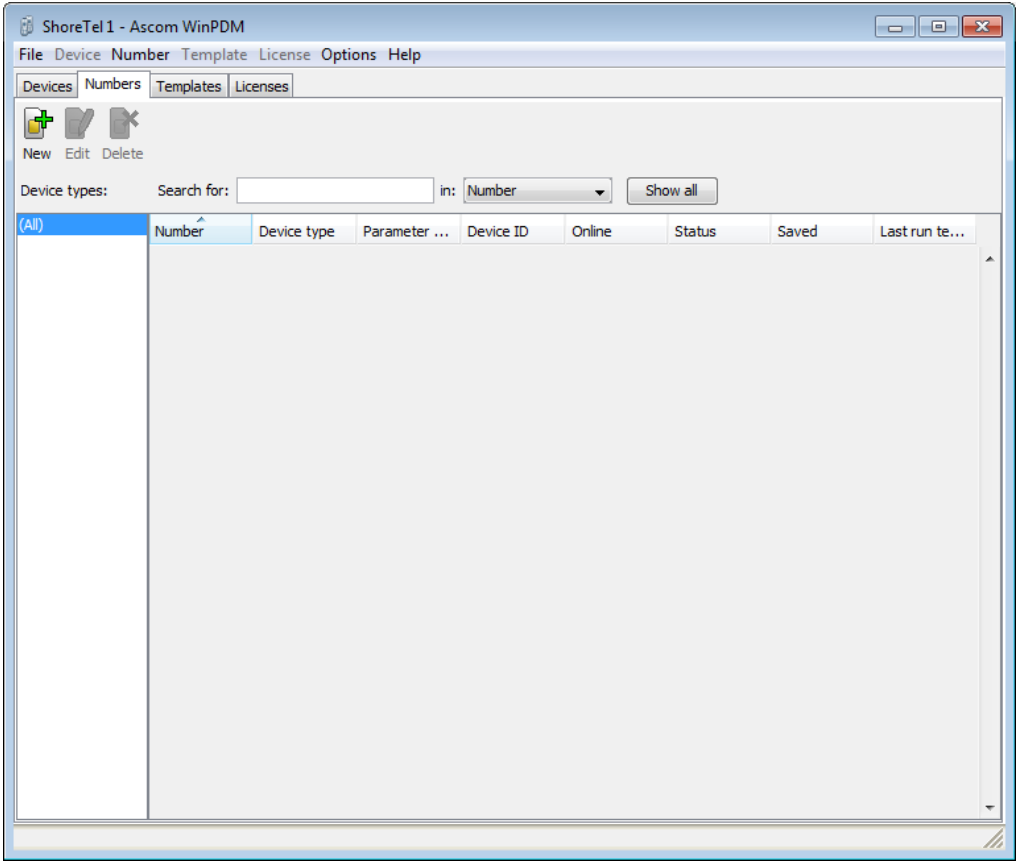
### ***IP address Phone Map***

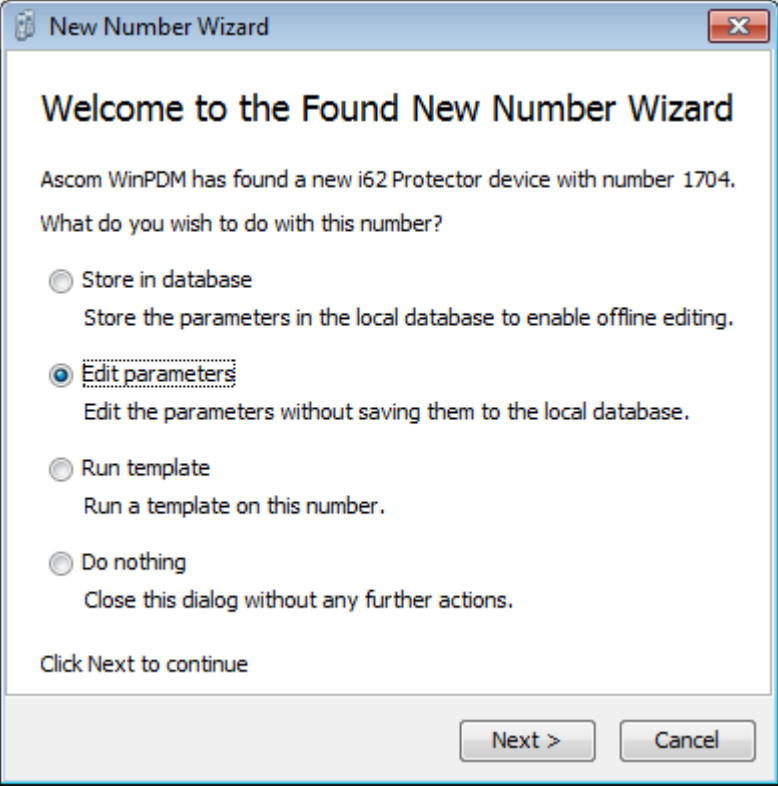
If you plan on adding Ascom i62 VoWiFi handsets at a different site, you will need to create an “IP Address Phone Map”. Create an “IP Address Phone Map”. You can do so via ShoreWare Director, navigating to the “**Administration**” “**IP Phones...**” “**IP Address Phone Map**” screen, then adding an entry for the desired site, with the IP address range of the i62 VoWiFi handsets. For more information on creating sites and adding switches, please refer to the ShoreTel Planning and Installation Guide.

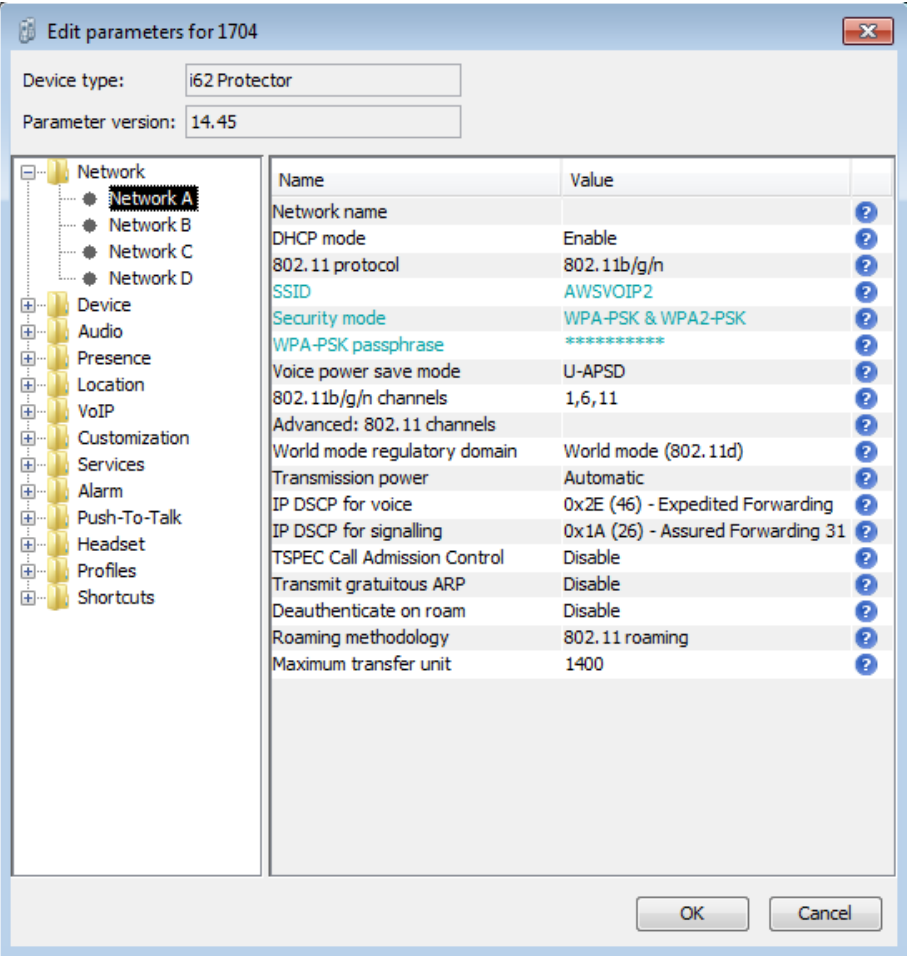
This completes all of the ShoreTel configuration parameters necessary to install the Ascom i62 VoWiFi handsets.

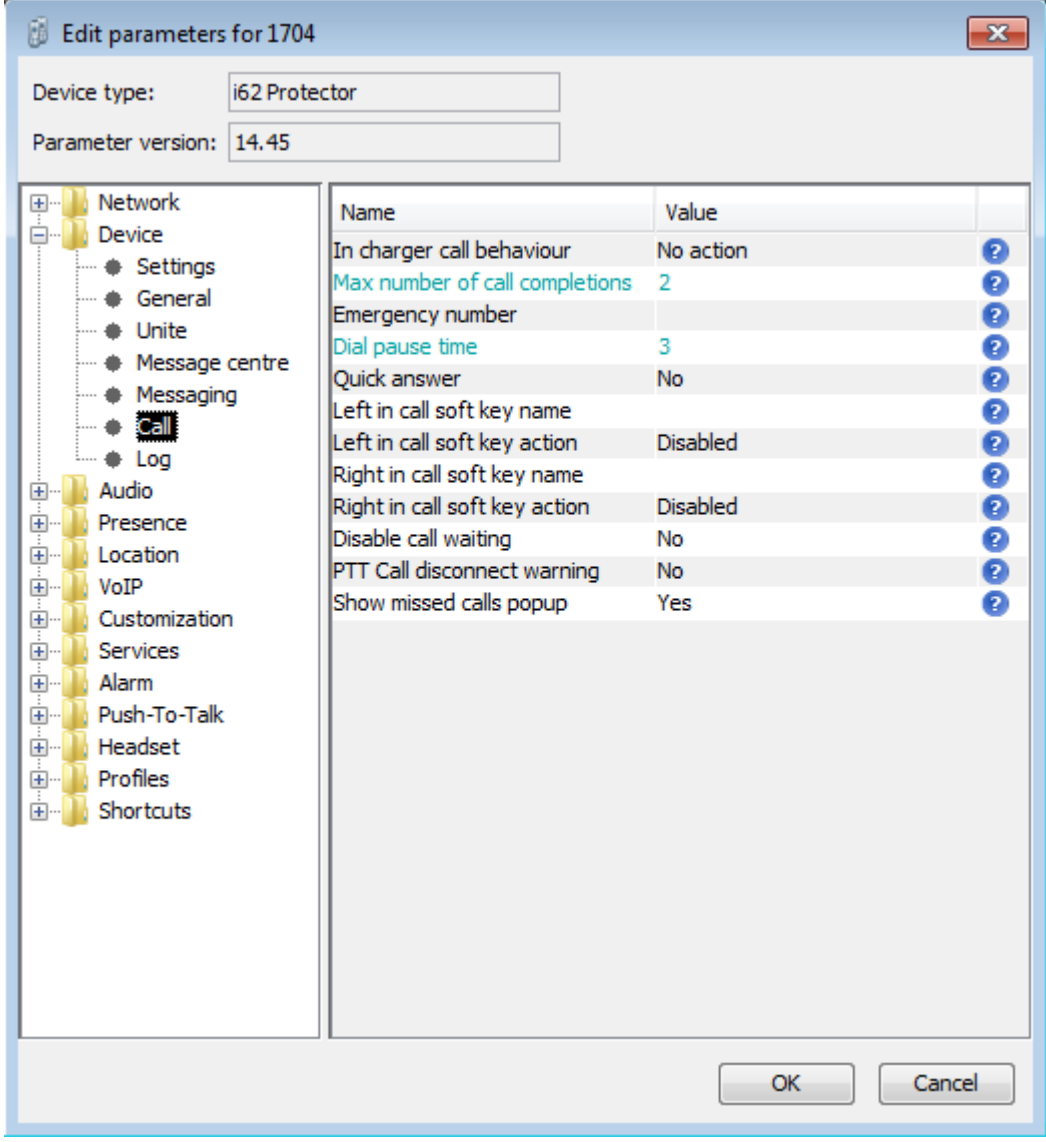
## Ascom Configuration

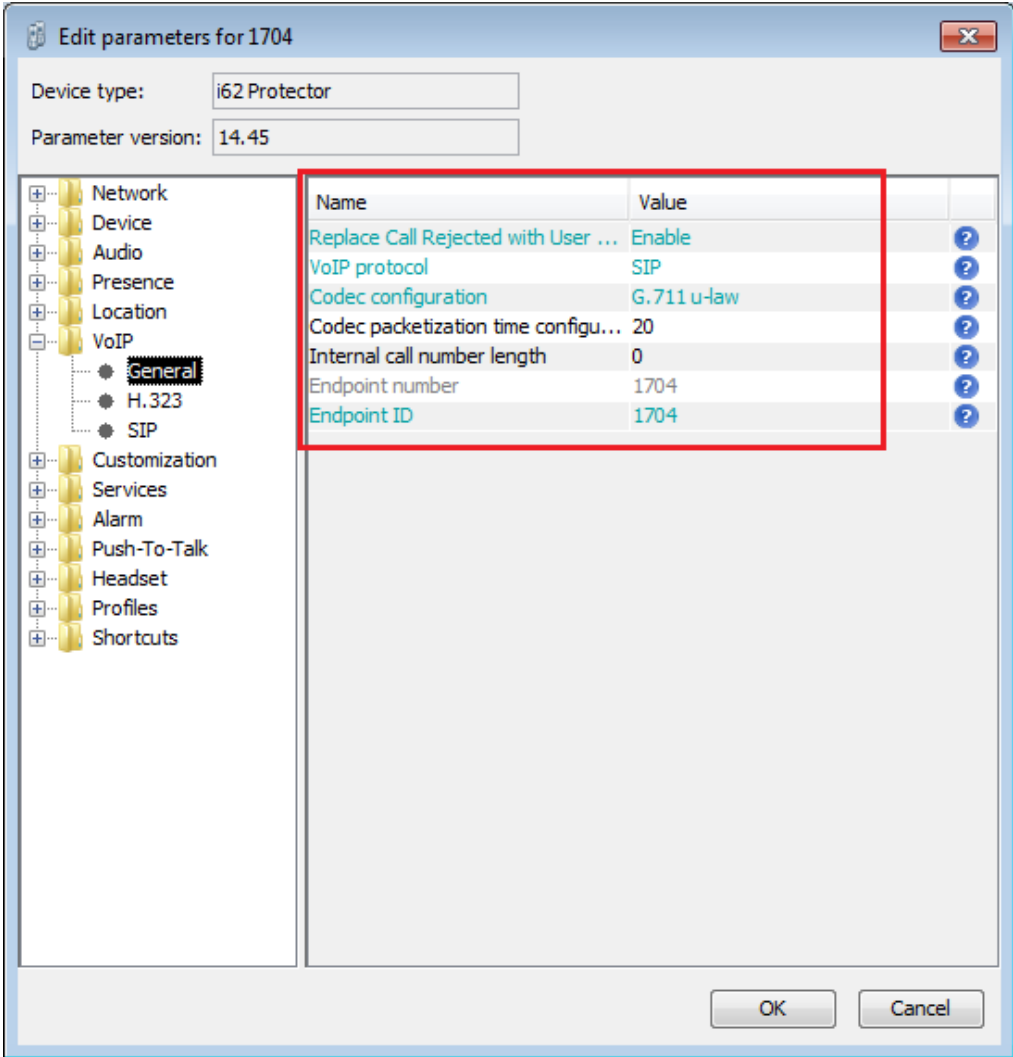
The following steps detail the configuration process for the Ascom i62 VoWiFi handset using the Ascom Portable Device Manager (PDM) Windows-based application.

Step	Description
1	<p>Launch the PDM application from the computer that has the application installed and has the PDM cradle physically attached via a USB cable. Before the user is presented with the following screen, a login is required. See Section 10 [3] for administration and configuration information on the PDM.</p> <p>After the user has logged onto the PDM, the following screen is displayed showing the devices found in the database. Since no devices have been plugged into the PDM, none are shown at this time.</p> 

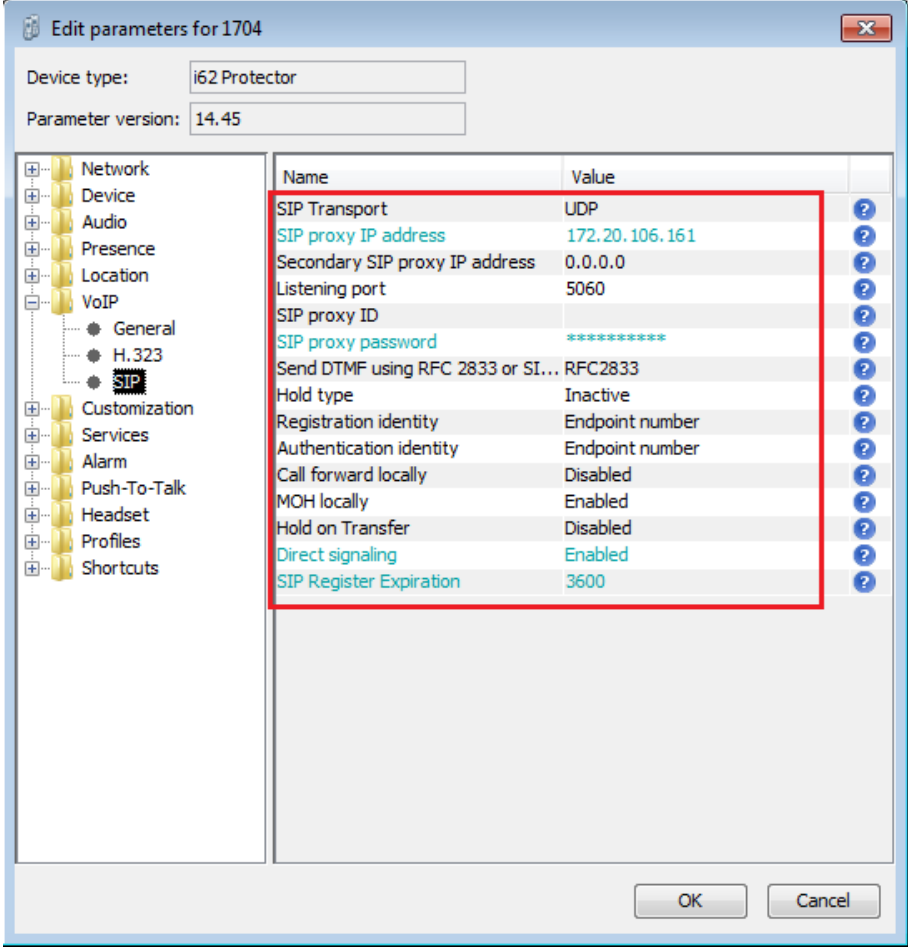
Step	Description
2	<p>Once an Ascom i62 portable handset is placed into the cradle, the PDM recognizes the telephone and cross references the database of telephones. If the telephone is not found in the database, the PDM prompts the user to save the new telephone to the database. Click the radio button labeled <b>Edit parameters</b> and then click <b>Next</b>.</p> 

Step	Description																																						
3	<p>Navigate to the “System -&gt; A” configuration page by clicking <b>System</b> and then <b>A</b>. Configure the following parameters. These settings should be repeated for each Ascom i62 VoWiFi handset being provisioned. The <b>ESSID</b> field value must match the ESSID value specified in the AP.</p> <p>Note: Below is a typical configuration utilizing. Different Security modes might be used.</p> <p><b>SSID:</b> AWSVOIP2</p> <p><b>Security mode:</b> WPA2-PSK</p> <p><b>IP DSCP for voice</b> “0x2e (46) – Expedited Forwarding”</p> <p><b>IP DSCP for signaling</b> “0x1A (26) – Assured Forwarding 31”</p>  <table border="1" data-bbox="365 919 1243 1633"> <thead> <tr> <th>Name</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>Network name</td><td></td></tr> <tr><td>DHCP mode</td><td>Enable</td></tr> <tr><td>802.11 protocol</td><td>802.11b/g/n</td></tr> <tr><td>SSID</td><td>AWSVOIP2</td></tr> <tr><td>Security mode</td><td>WPA-PSK &amp; WPA2-PSK</td></tr> <tr><td>WPA-PSK passphrase</td><td>*****</td></tr> <tr><td>Voice power save mode</td><td>U-APSD</td></tr> <tr><td>802.11b/g/n channels</td><td>1,6,11</td></tr> <tr><td>Advanced: 802.11 channels</td><td></td></tr> <tr><td>World mode regulatory domain</td><td>World mode (802.11d)</td></tr> <tr><td>Transmission power</td><td>Automatic</td></tr> <tr><td>IP DSCP for voice</td><td>0x2E (46) - Expedited Forwarding</td></tr> <tr><td>IP DSCP for signalling</td><td>0x1A (26) - Assured Forwarding 31</td></tr> <tr><td>TSPEC Call Admission Control</td><td>Disable</td></tr> <tr><td>Transmit gratuitous ARP</td><td>Disable</td></tr> <tr><td>Deauthenticate on roam</td><td>Disable</td></tr> <tr><td>Roaming methodology</td><td>802.11 roaming</td></tr> <tr><td>Maximum transfer unit</td><td>1400</td></tr> </tbody> </table>	Name	Value	Network name		DHCP mode	Enable	802.11 protocol	802.11b/g/n	SSID	AWSVOIP2	Security mode	WPA-PSK & WPA2-PSK	WPA-PSK passphrase	*****	Voice power save mode	U-APSD	802.11b/g/n channels	1,6,11	Advanced: 802.11 channels		World mode regulatory domain	World mode (802.11d)	Transmission power	Automatic	IP DSCP for voice	0x2E (46) - Expedited Forwarding	IP DSCP for signalling	0x1A (26) - Assured Forwarding 31	TSPEC Call Admission Control	Disable	Transmit gratuitous ARP	Disable	Deauthenticate on roam	Disable	Roaming methodology	802.11 roaming	Maximum transfer unit	1400
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Step	Description																																																																																				
4	<p data-bbox="349 346 1356 378">Navigate to the “Device -&gt; General” configuration page by clicking <b>Device</b> and then <b>Call</b>.</p>  <p data-bbox="365 430 665 462">Edit parameters for 1704</p> <p data-bbox="373 483 901 514">Device type: <input type="text" value="i62 Protector"/></p> <p data-bbox="373 535 901 567">Parameter version: <input type="text" value="14.45"/></p> <table border="1" data-bbox="365 588 1372 1438"> <thead> <tr> <th data-bbox="365 588 665 630"></th> <th data-bbox="665 588 998 630">Name</th> <th data-bbox="998 588 1323 630">Value</th> <th data-bbox="1323 588 1372 630"></th> </tr> </thead> <tbody> <tr> <td data-bbox="365 630 665 661">+</td> <td data-bbox="665 630 998 661">Network</td> <td data-bbox="998 630 1323 661"></td> <td data-bbox="1323 630 1372 661"></td> </tr> <tr> <td data-bbox="365 661 665 693">-</td> <td data-bbox="665 661 998 693">Device</td> <td data-bbox="998 661 1323 693"></td> <td data-bbox="1323 661 1372 693"></td> </tr> <tr> <td data-bbox="365 693 665 724">●</td> <td data-bbox="665 693 998 724">Settings</td> <td data-bbox="998 693 1323 724"></td> <td data-bbox="1323 693 1372 724"></td> </tr> <tr> <td data-bbox="365 724 665 756">●</td> <td data-bbox="665 724 998 756">General</td> <td data-bbox="998 724 1323 756"></td> <td data-bbox="1323 724 1372 756"></td> </tr> <tr> <td data-bbox="365 756 665 787">●</td> <td data-bbox="665 756 998 787">Unite</td> <td data-bbox="998 756 1323 787"></td> <td data-bbox="1323 756 1372 787"></td> </tr> <tr> <td data-bbox="365 787 665 819">●</td> <td data-bbox="665 787 998 819">Message centre</td> <td data-bbox="998 787 1323 819"></td> <td data-bbox="1323 787 1372 819"></td> </tr> <tr> <td data-bbox="365 819 665 850">●</td> <td data-bbox="665 819 998 850">Messaging</td> <td data-bbox="998 819 1323 850"></td> <td data-bbox="1323 819 1372 850"></td> </tr> <tr> <td data-bbox="365 850 665 882">●</td> <td data-bbox="665 850 998 882"><b>Call</b></td> <td data-bbox="998 850 1323 882"></td> <td data-bbox="1323 850 1372 882"></td> </tr> <tr> <td data-bbox="365 882 665 913">●</td> <td data-bbox="665 882 998 913">Log</td> <td data-bbox="998 882 1323 913"></td> <td data-bbox="1323 882 1372 913"></td> </tr> <tr> <td data-bbox="365 913 665 945">+</td> <td data-bbox="665 913 998 945">Audio</td> <td data-bbox="998 913 1323 945"></td> <td data-bbox="1323 913 1372 945"></td> </tr> <tr> <td data-bbox="365 945 665 976">+</td> <td data-bbox="665 945 998 976">Presence</td> <td data-bbox="998 945 1323 976"></td> <td data-bbox="1323 945 1372 976"></td> </tr> <tr> <td data-bbox="365 976 665 1008">+</td> <td data-bbox="665 976 998 1008">Location</td> <td data-bbox="998 976 1323 1008"></td> <td data-bbox="1323 976 1372 1008"></td> </tr> <tr> <td data-bbox="365 1008 665 1039">+</td> <td data-bbox="665 1008 998 1039">VoIP</td> <td data-bbox="998 1008 1323 1039"></td> <td data-bbox="1323 1008 1372 1039"></td> </tr> <tr> <td data-bbox="365 1039 665 1071">+</td> <td data-bbox="665 1039 998 1071">Customization</td> <td data-bbox="998 1039 1323 1071"></td> <td data-bbox="1323 1039 1372 1071"></td> </tr> <tr> <td data-bbox="365 1071 665 1102">+</td> <td data-bbox="665 1071 998 1102">Services</td> <td data-bbox="998 1071 1323 1102"></td> <td data-bbox="1323 1071 1372 1102"></td> </tr> <tr> <td data-bbox="365 1102 665 1134">+</td> <td data-bbox="665 1102 998 1134">Alarm</td> <td data-bbox="998 1102 1323 1134"></td> <td data-bbox="1323 1102 1372 1134"></td> </tr> <tr> <td data-bbox="365 1134 665 1165">+</td> <td data-bbox="665 1134 998 1165">Push-To-Talk</td> <td data-bbox="998 1134 1323 1165"></td> <td data-bbox="1323 1134 1372 1165"></td> </tr> <tr> <td data-bbox="365 1165 665 1197">+</td> <td data-bbox="665 1165 998 1197">Headset</td> <td data-bbox="998 1165 1323 1197"></td> <td data-bbox="1323 1165 1372 1197"></td> </tr> <tr> <td data-bbox="365 1197 665 1228">+</td> <td data-bbox="665 1197 998 1228">Profiles</td> <td data-bbox="998 1197 1323 1228"></td> <td data-bbox="1323 1197 1372 1228"></td> </tr> <tr> <td data-bbox="365 1228 665 1260">+</td> <td data-bbox="665 1228 998 1260">Shortcuts</td> <td data-bbox="998 1228 1323 1260"></td> <td data-bbox="1323 1228 1372 1260"></td> </tr> </tbody> </table> <p data-bbox="1063 1470 1193 1501">OK</p> <p data-bbox="1226 1470 1356 1501">Cancel</p>		Name	Value		+	Network			-	Device			●	Settings			●	General			●	Unite			●	Message centre			●	Messaging			●	<b>Call</b>			●	Log			+	Audio			+	Presence			+	Location			+	VoIP			+	Customization			+	Services			+	Alarm			+	Push-To-Talk			+	Headset			+	Profiles			+	Shortcuts		
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Step	Description
5	<p>Navigate to the “VoIP/General” configuration page by clicking <b>VoIP</b> and then <b>General</b>. Configure the following parameters.</p> <p><b>Replace Call Rejected with User Busy:</b> Enable. If this value is not set correctly, certain calling features such as transfer will not operate properly.</p> <p><b>VoIP protocol</b> “SIP”</p> <p><b>Coder configuration</b> “G.711 u-law”</p> <p><b>Endpoint number</b> – This is the extension associated with the Ascom i62 VoWiFi handset being provisioned. This setting should be repeated for each Ascom i62 VoWiFi handset being provisioned.</p> 



Step	Description
6	<p>Navigate to the “VoIP / SIP” configuration page by clicking <b>VoIP</b> and then <b>SIP</b>. Configure the following information and then click <b>OK</b>. The <b>SIP proxy password</b> field must match the <b>Media Server Extension password</b> configured on ShoreTel IP-PBX. Once the information has been configured, the PDM reports the information as *****. After clicking <b>OK</b>, pick up the telephone from the PDM cradle in order to reboot the handset and activate the new configuration.</p> <p>The following screen shot shows:</p> <p><b>SIP proxy IP address</b> “172.20.106.161”</p> <p><b>SIP proxy password</b> “*****”</p> <p><b>Direct signaling: Enabled</b></p> <p><b>SIP Registration Expiration: 3600</b></p> 

## Ascom Troubleshooting

For troubleshooting of the Ascom i62 handset, see the following Ascom documentation:

User Manual – Ascom i62 VoWiFi Handset TD92597GB

Configuration Manual – Ascom i62 VoWiFi Handset 92675GB

## Ascom Technical Support

Technical support for the Ascom i62 VoWiFi handset can be obtained through the following:

### For local US/Canada support:

- **Phone:** 1-877-71ASCOM or 1-877-712-7266
- **Email:** [techsupport@ascomwireless.com](mailto:techsupport@ascomwireless.com) (for Technical support)

### For world wide support:

- **Phone:** 46 31 55 9450
- **Email:** [support@ascom.se](mailto:support@ascom.se) (for Technical support)

### For international customer:

- **Internet:** [www.ascom.com/ws](http://www.ascom.com/ws) and select your country of interest, to find local sales and support contact information.

## ShoreTel Technical Support

ShoreTel technical support can be obtained through the following:

- **Phone:** +1 800 742-2348
- **Web:** [www.support.shoretel.com](http://www.support.shoretel.com)



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