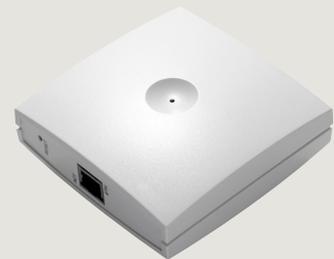


IP DECT 6000 System

QUICK CONFIGURATION GUIDE



About this Document

Document Scope

This document is intended for qualified technicians who will install, configure and maintain the IP DECT 6000 System. The document also provides information about the web browser-based user interface of the Server 6000 and base station.

The IP DECT 6000 System comprises the following:

Product	Part Number
IP DECT Server 6000	2211000100
IP DECT Base Station	2211000600
Repeater Wall / Repeater Ceiling	2211050100 / 2211050110
IP DECT Alarm Server	2210020000, 2210020002
IP DECT Handsets	2211100501, 2211100502, 2211100505, 2211100506

Before You Begin

This document assumes the following:

- You have a working knowledge of AlphaCom/ACM exchange operations and the exchange is installed and initialized and is working properly.
- You have a working knowledge of deployment in general.
- A site survey has been conducted and the installer has access to these plans. The site survey should determine the number of handsets and RF channels that are needed.

Publication Log

Rev.	Date	Author	Comments
1.0	03-11-2009	HKL	Published
1.5	28-01-2011	HKL	handsets
1.6	12-3-2012	HKL	Rough handsets Subscription

Related Documentation

For further information about the IP DECT 6000 System not covered by this manual, refer to the following documentation:

Doc. no.	Subject	Documentation
A100K10652	IP DECT 6000 System	IP DECT Installation & Configuration Guide
A100K10676	IP DECT Planning & Deployment	IP DECT Deployment Guide on Ships
A100K10677	IP DECT Alarm Server	IP DECT Alarm Server Configuration Guide
	IP DECT Handset Operation	IP DECT Handset User Guides

1 IP DECT 6000 System	4
2 IP DECT 6000 System Configuration Example	5
2.1 Configuring the Server 6000	5
2.2 Configuring the Base Station	10
2.3 Registering a Handset	12
2.4 Subscribing an EX Handset	13
2.5 Subscribing a Rough Handset	14
2.6 Subscribing an Office Handset	15
2.7 Configuring the Exchange	16

Zenitel Norway AS and its subsidiaries assume no responsibilities for any errors that may appear in this publication, or for damages arising from the information in it. No information in this publication should be regarded as a warranty made by Zenitel Norway AS.

The information in this publication may be revised or changed without notice. Product names mentioned in this publication may be trademarks of others and are used only for identification.

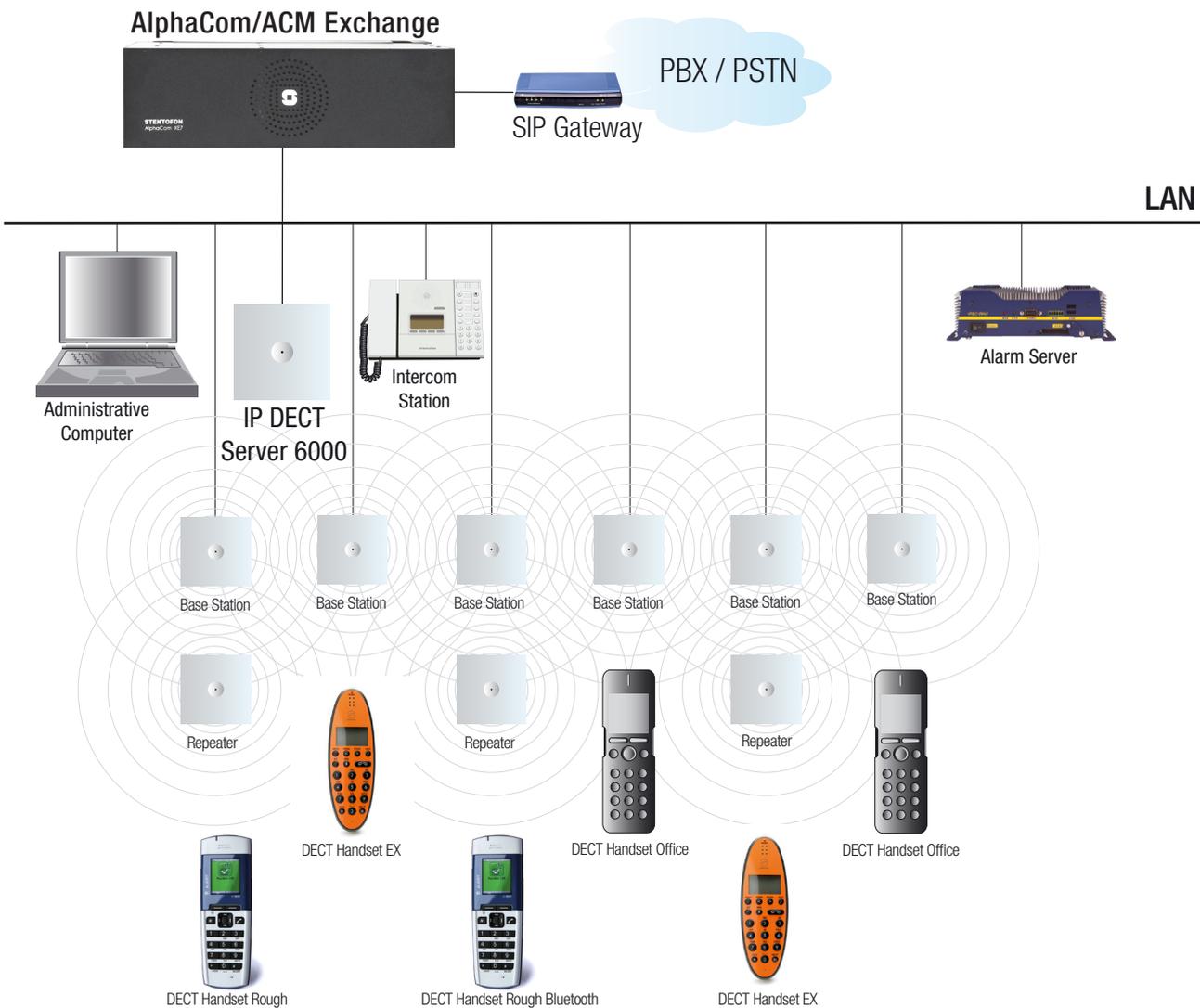
Zenitel Norway AS ©2009

1 IP DECT 6000 System

A typical IP DECT 6000 System comprises the following components:

- IP DECT Server 6000
- Base Stations
- Repeaters
- Administrative Computer
- Handsets and accessories

The IP DECT Server 6000 communicates with the AlphaCom/ACM exchange over a LAN (Local Area Network).



IP DECT 6000 System Configuration

2 IP DECT 6000 System Configuration Example

This section describes a step-by-step configuration example of an IP DECT 6000 System, from configuring the server and base station to registering and subscribing handsets. The main procedure for configuring the whole system is as follows:

1. Configuring the Server 6000
2. Configuring the Base Station
3. Registering a Handset
4. Subscribing a Handset
5. Configuring the Exchange

2.1 Configuring the Server 6000

Connecting a Computer to the Server 6000:

The Server 6000 communicates with the computer through a cross-over patch cable.

1. Connect the cross-over patch cable to the computer.
2. Connect the cross-over patch cable to the Ethernet (ETH) port of the Server 6000.

Accessing the Server 6000:

In order for your computer to communicate with the Server 6000 it is necessary to change its **Internet Protocol Properties** to use the following:

- IP address: **192.168.0.2**
- Subnet mask: **255.255.255.0**

After the IP properties have been changed, access the Server 6000 by logging into the web interface using a standard web browser:

1. Open a web browser.
2. In the browser's **Address** bar, enter IP address **192.168.0.1** and press the ENTER key
 - The **Login** page appears.

To log in:

1. In the **User name** field, enter **admin**.
2. In the **Password** field, enter **ip6000**.
3. Click **OK**.

The Server 6000 home page is displayed.

General Status

General	
IP-addr	192.168.0.1
NTP-Server	
Time	01-01-2006 00:01:00
Serial	8391885
MAC address	00:13:d1:80:0c:cd
Hardware	
PartNo	14129900
PCS	PCS03E_
Firmware	
PartNo	14166200
PCS	PCS03A_
Build	19844

General Configuration:

1. Click **Configuration**, and then click **General**.

Status	Configuration	Users	Administration	Firmware
General	Wireless Server	Media Resource	Security	SIP
		Provisioning	Import/Export	

General Configuration

IP

DHCP assigned

Use static IP address

IP addr**

Netmask**

Gateway**

MTU**

DNS

Domain

Primary Server

Secondary Server

NTP

Server

Time zone

Posix timezone string

UPnP

Enabled**

Broadcast announcements**

Save Cancel Reboot

*) Required field **) Require restart

2. Click the **Use static IP address** radio button.
3. In the **IP addr** field, enter the IP address of the Server 6000, which in this example is **10.5.11.50**.
- the IP address should be in the same network range as that of the AlphaCom/ACM exchange
4. In the **Netmask** field, enter the network mask, which in this example is **255.255.255.0**.
5. In the **Gateway** field, enter the IP address of the default gateway, which in this example is **10.5.11.1**.
6. In the **MTU** (Maximum Translation Unit) field, enter the size of the largest packet that your network protocol can transmit (optional).
7. In the **Domain** field, enter the domain name of the system (optional).
8. In the **Primary Server** and **Secondary Server** fields, enter the IP

address of the DNS server (optional).

- In the **Server** field, enter the IP address of the NTP server from which the system will obtain the current time, which in this example is **10.5.2.20**.
- From the **Time Zone** dropdown list, select your time zone.
- For **UPnP** (Universal Plug and Play) leave both **Enabled** and **Broadcast announcements** with their default values (optional).
- Click **Save** to save your general configuration data.

Wireless Server Configuration:

- Click **Configuration**, and then click **Wireless Server**.

Wireless Server Configuration

DECT

Subscription allowed

Authenticate calls

Encrypt voice/data

Autocreate users

System access code

Send date and time

Application interface

Username *

New password

New password again

Enable MSF **

Enable XML-RPC **

- Check the **Subscription allowed** checkbox.
- Uncheck the **Autocreate users** checkbox.
- Enter an access code in the **System access code** field (optional).
- Check the **Send date and time** checkbox.
- For all the fields under **Application interface** leave them with their default values.
- Click **Save**.

SIP Configuration:

- Click **Configuration**, and then click **SIP**.

SIP Configuration

General

Local port * **

Transport * **

Default domain * **

Register each endpoint on separate port

Send all messages to current registrar

Registration expire(sec) *

Max forwards *

SIP type of service (TOS/Diffserv) * **

Proxies

	Priority	Weight	URI
Proxy 1 **	<input type="text" value="1"/>	<input type="text" value="100"/>	<input type="text" value="sip:10.5.11.99"/>
Proxy 2 **	<input type="text" value="2"/>	<input type="text" value="100"/>	<input type="text"/>
Proxy 3 **	<input type="text" value="3"/>	<input type="text" value="100"/>	<input type="text"/>
Proxy 4 **	<input type="text" value="4"/>	<input type="text" value="100"/>	<input type="text"/>

Authentication

Default user *

Default password

DTMF signalling

Send as RTP (rfc2833)

Offered rfc2833 payload type

Send as SIP INFO

Tone duration(msec) *

Message waiting indication

Enable indication

Enable subscription **

Subscription expire(sec) *

Media

Packet duration(msec) *

Media type of service (TOS/Diffserv) * **

Port range start * **

Codec priority *

1:	<input type="text" value="PCMU/8000"/>
2:	<input type="text" value="None"/>
3:	<input type="text" value="None"/>
4:	<input type="text" value="None"/>
5:	<input type="text" value="None"/>
6:	<input type="text" value="None"/>

Require symmetric RTP **

Call status

Play on-hold tone

Display status messages

key ends overlap dialing

2. In the **Local port** field, enter the default local port number, **5060**.
3. For the **Transport** dropdown list, select **UDP only**.
4. In the **Default domain** field, enter the **IP address of the AlphaCom/ ACM exchange**, which in this example is **10.5.11.99**.
5. Uncheck the **Register each endpoint on separate port** checkbox.
6. Uncheck the **Send all messages to current registrar** checkbox.
7. For the **Registration expire(sec)** field, accept the default value, which in this example is **3600**.
8. For the **Max forwards** field, accept the default value, which in this example is **70**.
9. For the **SIP type of service (TOS/Diffserv)** field, accept the default value, which in this example is **96**.
10. In the **Proxy 1** field, enter the IP address of the exchange.
 - The prefix *sip:* will be automatically added to the IP address after the configuration data has been saved, e.g. **sip:10.5.11.99**
11. In the **Default user** field, accept the default value, which in this example is **someone**.
12. For the **Default password** field, leave it blank.
13. Uncheck the **Send as RTP (rfc2833)** checkbox.
14. For the **Offered rfc2833 payload type** field, accept the default value, which in this example is **96**.
15. Check the **Send as SIP INFO** checkbox.
16. For the **Tone duration(msec)** field, accept the default value, which in this example is **270**.
17. Uncheck the **Enable indication** checkbox.
18. Uncheck the **Enable subscription** checkbox.
19. For the **Subscription expire(sec)** field, accept the default value, which in this example is **3600**.
20. From the **Packet duration(msec)** dropdown list, select **20**.
21. For the **Media type of service (TOS/Diffserv)** field, accept the default value, which in this example is **184**.
22. For the **Port range start** field, enter the value **61040**
23. In the **Codec priority** dropdown list, select **PCMU/8000** as 1st priority. For the other codec priorities, select **None**.
24. Check the **Require symmetric RTP** checkbox.
25. Check the **Play on-hold tone** checkbox.
26. Check the **Display status messages** checkbox.
27. Uncheck the **# key ends overlap dialing** checkbox.
28. Click **Save**.

Rebooting the Server 6000:

Wireless Server

Wireless Server Status

Wireless Server Uptime 0d 20h 24m 14s

Service Status

Call establishment Allowed

Load license

License **

*) Required field **) Require restart

To reboot:

1. Click **Administration**, and then click **Wireless Server**.
2. Click **Reboot** next to **Wireless Server Uptime**.

☞ After rebooting, change the IP address of your computer to one that is in the same LAN range as that of the Server 6000 or set the TCP/IP properties to obtain an IP address automatically.

2.2 Configuring the Base Station

Connecting a Computer to the Base Station:

1. Connect the LAN cable or cross-over patch cable to the PoE switch.
2. Connect the LAN cable or cross-over patch cable to the Ethernet connector at the bottom of the base station.
3. Connect the PoE switch to the computer.

Accessing the Base Station:

In order for your computer to communicate with the base station it is necessary to change its Internet Protocol Properties to use the following:

- IP address: **192.168.0.2**
- Subnet mask: **255.255.255.0**

To access the base station, log into the web interface using a standard web browser.

1. Open a web browser.
2. In the browser's **Address** bar, enter IP address **192.168.0.1** and press the **ENTER** key.

The Login page is displayed.

To log in:

1. In the **User Name** field, enter **admin**.
2. In the **Password** field, enter **ip6000**.
3. Click **OK**.

The Base Station main page is displayed.

General Status

General	
IP-addr	192.168.0.1
NTP-Server	
Time	01-01-2006 00:04:52
Serial	8392491
MAC address	00:13:d1:80:0f:2b
Hardware	
PartNo	14135720
PCS	PCS10A_
Firmware	
PartNo	14128100
PCS	PCS02A_
Build	17577

General Configuration:

1. Click **Configuration**, and then click **General**.

General Configuration

IP

DHCP assigned

Use static IP address

IP addr* **

Netmask**

Gateway**

MTU**

DNS

Domain

Primary Server

Secondary Server

UPnP

Enabled**

Broadcast announcements**

2. Click the **DHCP assigned** radio button.
3. Leave the following fields blank:
 - **MTU**
 - **Domain**
 - **Primary Server**
 - **Secondary Server**
4. For **UPnP** (Universal Plug and Play) leave both **Enabled** and **Broadcast announcements** with their default values.
5. Click **Save**.

Base Station Configuration:

To configure the base station:

1. Click **Configuration**, and then click **Base Station**.

Base station Configuration

Wireless Server Host

Host* **

*) Required field **) Require restart

2. In the **Host** field, enter the IP address of the Server 6000, which in this example is **10.5.11.50**.

3. Click **Save** and click **OK** on the next page.
4. Click **Reboot** to enable the configuration changes.

You will now have to connect the base station to a PoE switch that is on the same network as the Server 6000 and the AlphaCom/ACM exchange.

Log into the web interface of the Server 6000 by entering **IP address 10.5.11.50** in the **address bar** of the web browser.

2.3 Registering a Handset

The web interface of the Server 6000 is used to register handsets.

To register a handset:

1. Click **Users**, and then click **List Users**.

The screenshot shows the 'User List' page in the Server 6000 web interface. The navigation bar at the top includes 'Status', 'Configuration', 'Users', 'Administration', and 'Firmware'. The 'List Users' link is highlighted in red. Below the navigation bar, there is a 'User List' section with a 'Users overview' table. The table has columns for 'Users Subscribed' and 'Registered'. The 'Total' row shows 0 users subscribed and 0 registered. The 'Listed' row shows 0 users listed. There are navigation buttons for 'New', 'Search', and page navigation (1, <<, >>).

2. Under **User List**, click **New**.

The screenshot shows the 'User' configuration page in the Server 6000 web interface. The navigation bar at the top includes 'Status', 'Configuration', 'Users', 'Administration', and 'Firmware'. The 'List Users' link is highlighted in red. Below the navigation bar, there is a 'User' configuration form. The form has two sections: 'DECT' and 'SIP'. The 'DECT' section includes fields for 'IPEI' (00077 0931023), 'Access code', and 'Standby text' (Cher Folly). The 'SIP' section includes fields for 'Username / Extension *' (4001), 'Domain', 'Displayname' (Cher Folly), 'Authentication user' (4001), and 'Authentication password'. There are 'Save', 'Delete', and 'Cancel' buttons at the bottom of the form.

3. In the **IPEI** field, enter the IPEI number of the handset, which in this example is **00077 0931023**.
 - To view the IPEI number on the Rough handset, press ***99984*** and then ✓
 - To view the IPEI number on the Office handset, press **Menu > Status > Firmware version**
4. In the **Access code** field, enter the Authentication Code (optional)
5. In the **Standby text** field, enter a text to be displayed when the handset is on hook, which in this example is **Cher Folly**.
6. In the **Username/Extension** field, enter a directory number, which in this example is **4001**.
 - This should be the same as the directory number registered in the AlphaCom/ACM exchange.
7. Leave the **Domain** field blank.

8. In the **Displayname** field, enter the name to be displayed (caller ID), which in this example is **Cher Folly**.
9. In the **Authentication user** field, enter a directory number, which in this example is **4001**.
 - This number should be the same as that registered in the AlphaCom/ACM exchange.
10. Leave the **Authentication password** field blank.
11. Uncheck the **Disabled** checkbox.
12. Click **Save** and then click **OK** on the next page.
The following will be displayed:

Status	Configuration	Users	Administration	Firmware	Statistics
List Users	Import/Export				

User List			
Users overview			
	Users	Subscribed	Registered
Total	1	0	1
Listed	1	0	1

New Search << < 1 > >>

Enabled	User	Displayname	IP/EI	Sw PartNo - Pcs	Subscription	Registration
✓	4001	Cher Folly	00077 0931023	00000000 - 000	✗	✓

2.4 Subscribing an EX Handset

The subscription procedure of the EX Handset is carried out on the handset itself.

To subscribe an EX Handset:

1. Press **MENU** and go to **MENU LOGIN**.
2. Press ✓ and go to **SUBSCRIPTION CREATE** to subscribe to a system.
3. Press ✓ .
 - The handset will search for the ARI code of the Server 6000.
4. As soon as the correct ARI code of the Server 6000 appears in the display, press ✓ .
5. Enter the AC (if required) and press ✓ .



An antenna symbol and the user name will appear on the display to indicate a successful subscription. If not, the subscription has failed and the procedure must be repeated.



2.5 Subscribing a Rough Handset

Before starting the subscription process, register the handset in the IP DECT server:

1. Select **Users > List Users** and click **New** to define a new user without entering the IPEI number

Navigation: Status Configuration **Users** Administration Firmware

User 111

DECT

IPEI

Access code

Standby text 111 Bridge

SIP

Username / Extension * 111

Domain

Displayname 111 Bridge

Authentication user

Authentication password

Disabled

Features

Call forward unconditional

Save Delete Cancel

*) Required field

After registering all the handsets, the User List may look something like this :

Navigation: Status Configuration **Users** Administration Firmware Statistics

User List

Users overview

	Users	Subscribed	Registered
Total	6	0	6
Listed	6	0	6

New Search << < 1 > >>

Enabled	User	Displayname	IPEI	Sw PartNo - Pcs	Subscription	Registration
✓	111	111 Bridge		14179910 - 07P	✗	✓
✓	112	112 ECR 1		14179910 - 07P	✗	✓
✓	113	113 ECR 2		14179910 - 07P	✗	✓
✓	114	114 ECR 3		14179910 - 07P	✗	✓
✓	115	115 ECR 4		14179910 - 07P	✗	✓
✓	116	116 ECR 5		14179910 - 07P	✗	✓

To subscribe the handset to the system:

1. Turn on the handset
2. Press **Menu**
3. Scroll to **Settings** and press **Select**
4. Scroll to **Advanced** and press **Select**
5. Scroll to **Login** and press **Select**
6. Scroll to **Create login** and press **Select**
7. When the handset's ARI number appears, press **Select**
8. Press **OK** when asked for the AC (Authentication Code)
 - AC is normally not required
 - **Connecting...** is displayed as the handset acquires the user ID from the user list
9. When **Connecting...OK** is displayed, press **OK**
10. Press the Back button to return to the main page to check that the handset is now subscribed to the system

The **List Users** page on the DECT server should now automatically display the IPEI number of the subscribed handset:

Status		Configuration		Users		Administration		Firmware		Statistics	
List Users	Import/Export										
User List											
Users overview											
				Users		Subscribed		Registered			
Total				6		6		6			
Listed				6		6		6			
New		<input type="text"/>		Search		<<		<		1	
						>				>>	
Enabled	User	Displayname	IPEI	Sw PartNo - Pcs	Subscription	Registration					
✓	111	111 Bridge	05003 0058229	14179910 - 07P	✓	✓					
✓	112	112 ECR 1	05003 0058231	14179910 - 07P	✓	✓					
✓	113	113 ECR 2	05003 0052393	14179910 - 07P	✓	✓					
✓	114	114 ECR 3	05003 0056605	14179910 - 07P	✓	✓					
✓	115	115 ECR 4	05003 0058230	14179910 - 07P	✓	✓					
✓	116	116 ECR 5	05003 0056608	14179910 - 07P	✓	✓					

2.6 Subscribing an Office Handset

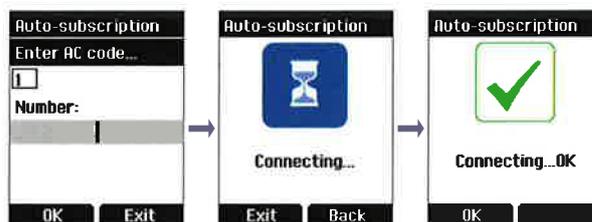
Before starting the subscription process, register the handset in the IP DECT server without the IPEI number as for the Rough handset above.



The **Auto-subscription** feature is used to subscribe an Office Handset. Some systems may require an Authentication Code (AC).

To subscribe the handset to the system:

1. Turn on the handset
2. Press **OK** to start Auto-subscription
- **Connecting...** will be displayed



3. When **Connecting...OK** is displayed, press **OK**

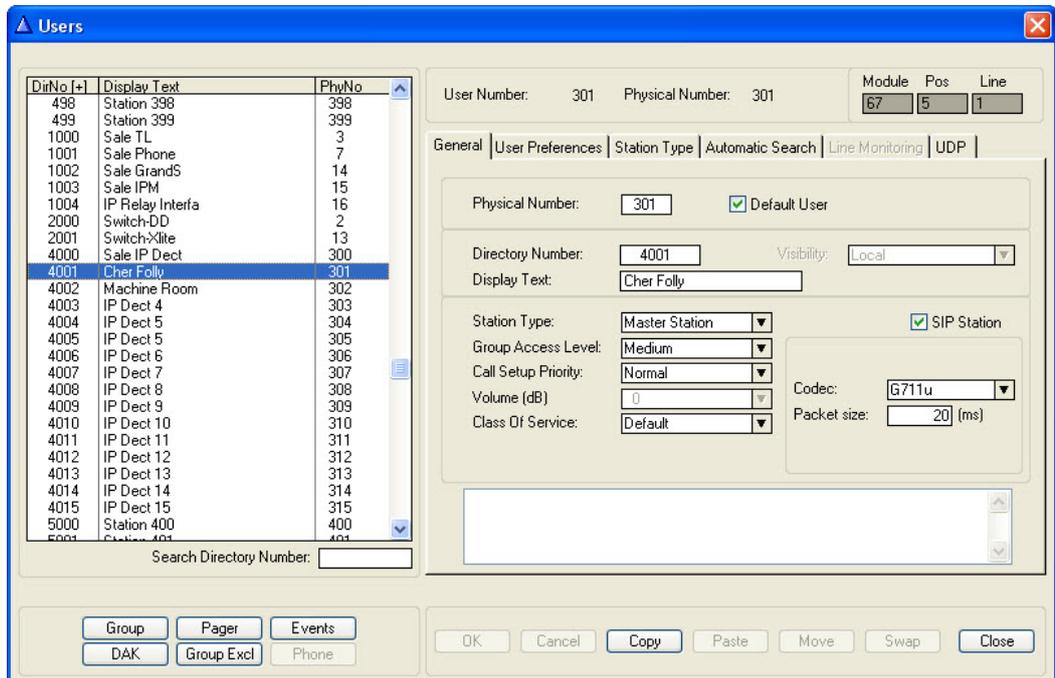
The handset is now subscribed to the system and the **List Users** page on the DECT server should now automatically display the IPEI number of the subscribed handset.

2.7 Configuring the Exchange

To configure the AlphaCom/ACM exchange, start the AlphaPro software tool.

Adding a DECT User/Handset:

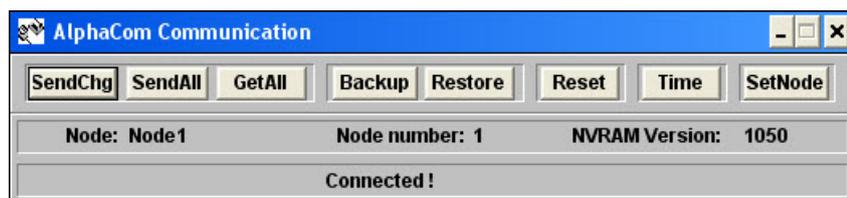
1. From the AlphaPro menu bar, click the **Users & Stations** icon.



2. Select the directory number corresponding to the handset number that was registered on the Server 6000.
3. Check the **SIP Station** checkbox.
4. Enter text of your choice in the **Display Text** field.
5. Click **OK**

Updating the Exchange:

Log on to the AlphaCom/ACM exchange.



To update the exchange:

- Click **SendAll**

Reset the AMC board when the transfer is completed.

You should now be able to use the IP DECT handsets as mobile intercom stations and make calls to/from any stations connected to the AlphaCom/ACM exchange.

www.stentofon.com

Zenitel Norway AS
P.O. Box 4498 Nydalen
NO-0403 OSLO
Norway

DOC NO.

A100K10777

support@stentofon.com
support@vingtor.com



STENTOFON and VINGTOR products are developed and marketed by Zenitel Norway AS. The company's Quality Assurance System is certified to meet the requirements in NS-EN ISO 9001:2008. Zenitel Norway AS reserves the right to modify designs and alter specifications without prior notice, in pursuance of a policy of continuous improvement. © 2009 Zenitel Norway AS.