

Installation Guide CMS IPDECT

Abstract

This document describes the installation and configuration of the CMS ipdect process.

A basic knowledge of the CMS system and configuration is needed (see T100192) for the understanding of this document.

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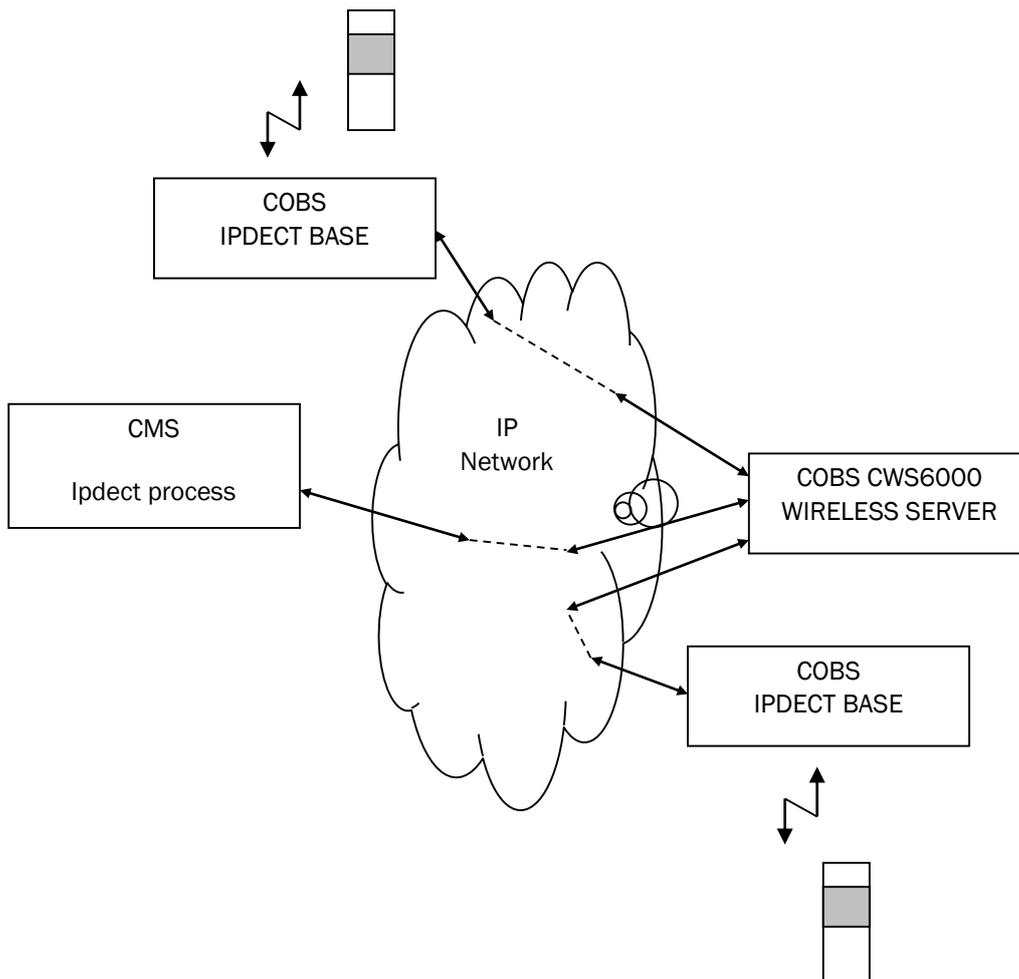
1 Introduction

1.1 General

The ipdect process is an interface for the COBS IPDECT products as for example the CWS6000.

An ipdect process communicates with the COBS IPDECT wireless server over the IP network.

The communication interface enables the CMS to send and receive messages to and from a handset as well as supervising the base stations.



There can be many ipdect processes in a CMS where each ipdect process communicates with one wireless server.

2 Getting Started

As an example we will configure an ipdect to communicate with a CWS6000 with IP address 192.168.0.127 (enable MSF support on the CWS6000).

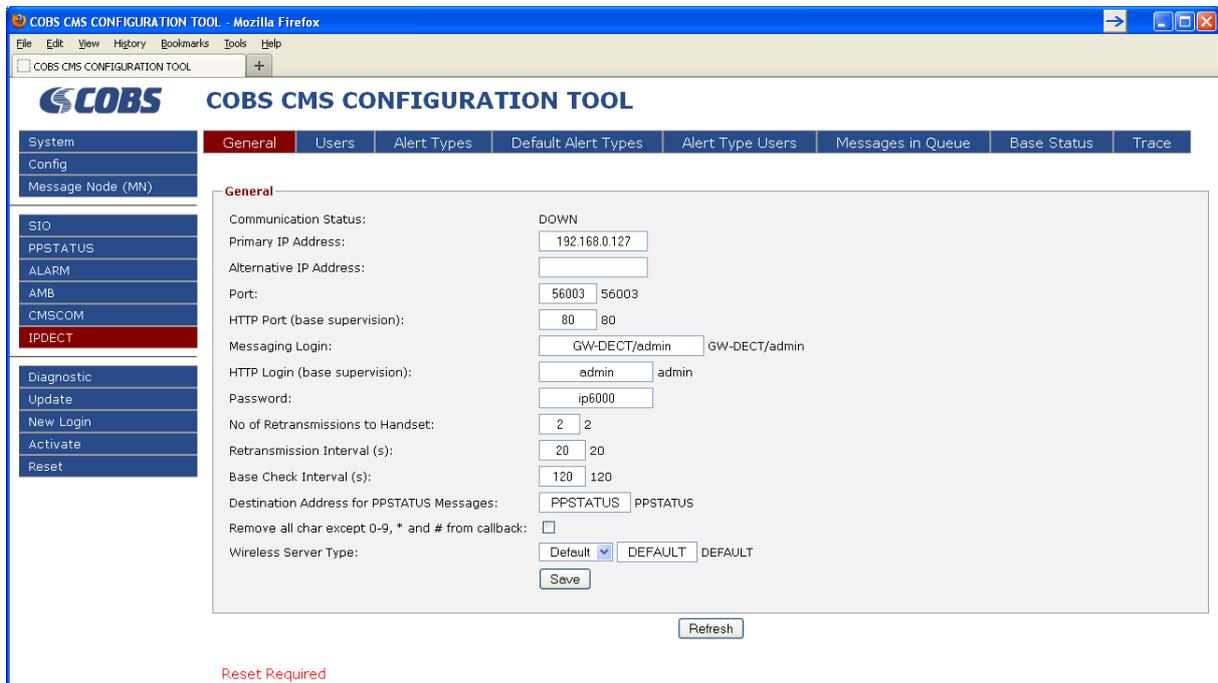
Register a handset with local number 100 in the CWS6000.

The communication parameters for the CWS6000 in this example are (default parameters in CWS6000):

Username for messaging: "GW-DECT/ admin"
 Password: "ip6000".
 Port no: 56003

See ch. 4 or contact COBS Support for more info on user name and password on different COBS IPDECT products.

Configure an ipdect process named "IPDECT" and add a license (see T100192).



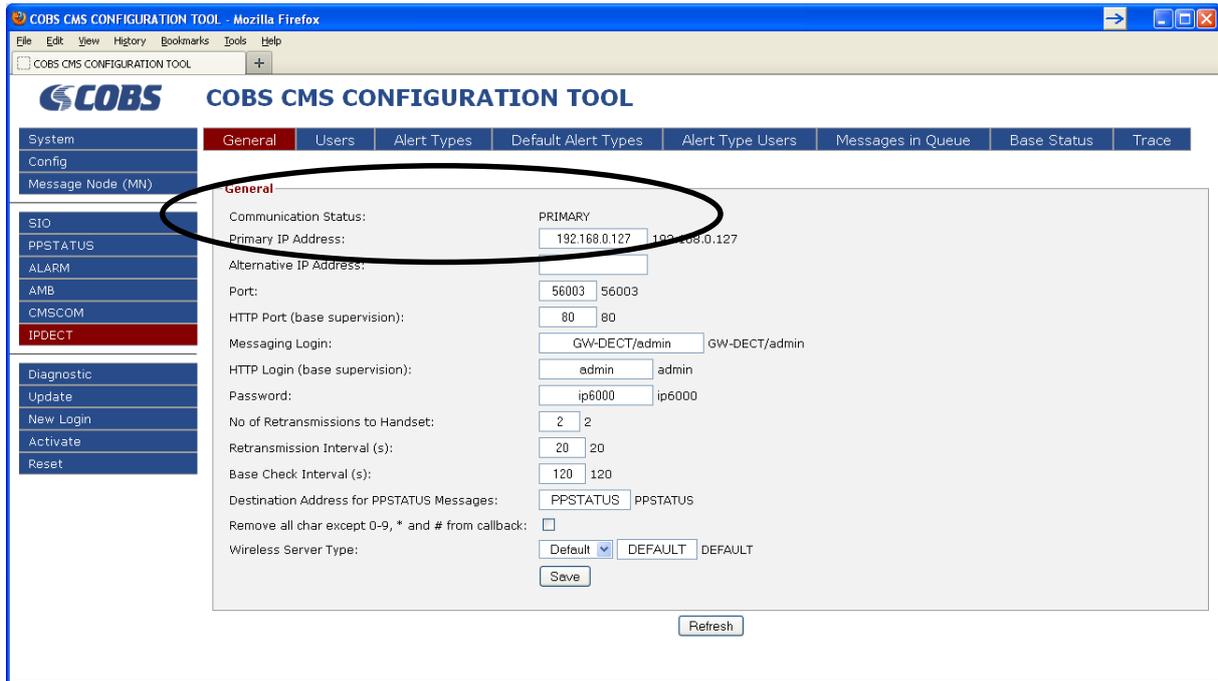
Enter the IP address, "192.168.0.127", of the CWS6000 as Primary IP Address.
 Enter the password "ip6000"

Leave the other fields as they are (default).

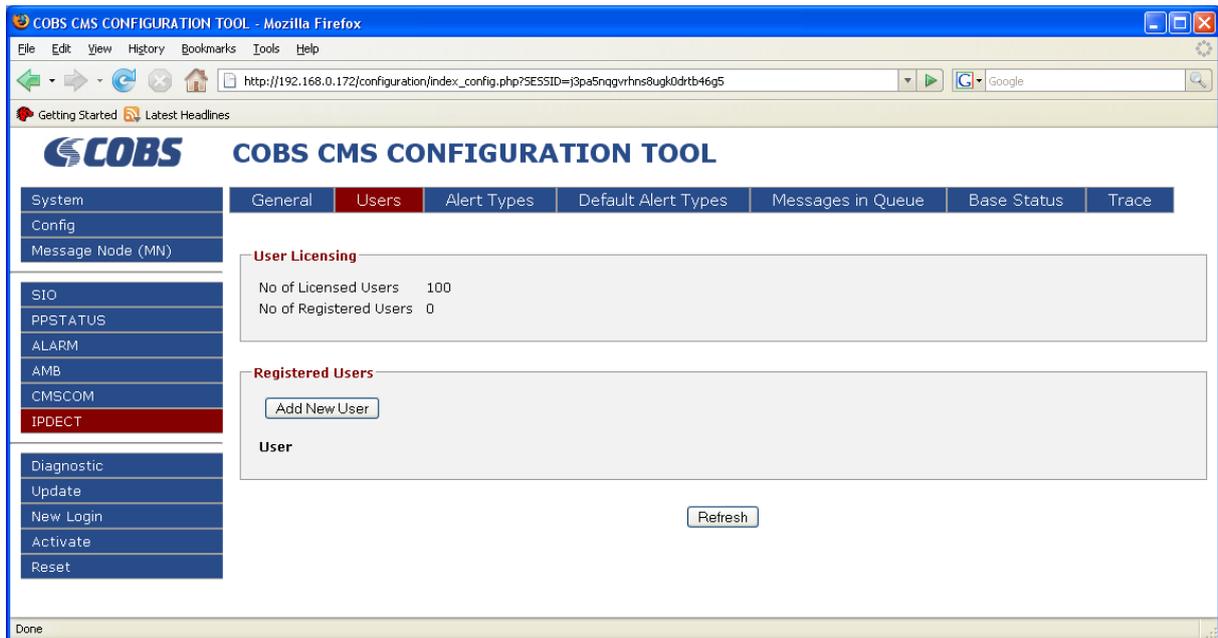
Press the "Save" button.

Restart the CMS.

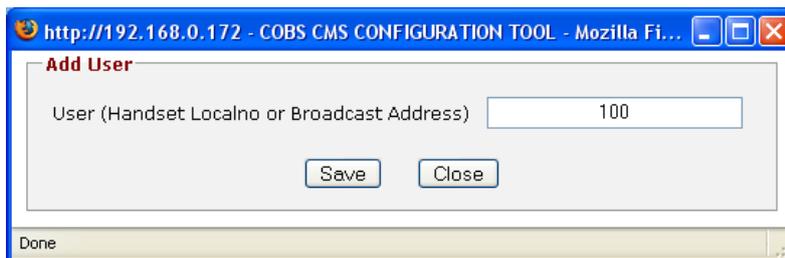
Now the communication status should indicate that the communication is up with the primary Wireless Server.



Click on the "Users" tab in the top menu.



In this example we have a license for 100 Users.
Click on the "Add New User" button.

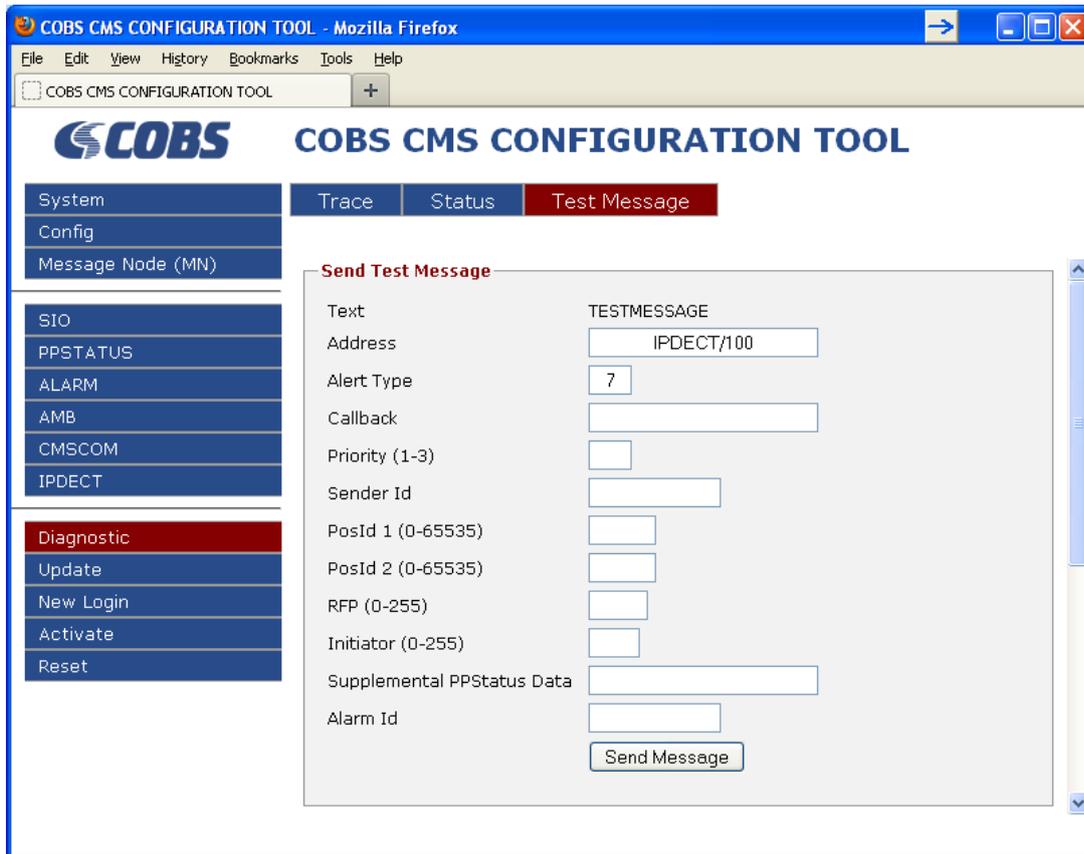


Enter the local number of the handset registered to the CWS6000.
Press "Save".

Activate the Configuration.

Send a test message to a handset on the CWS6000.

Go to "Diagnostics" -> "Test Message"



The screenshot shows the 'COBS CMS CONFIGURATION TOOL' web interface. The browser window title is 'COBS CMS CONFIGURATION TOOL - Mozilla Firefox'. The page has a menu on the left with 'Diagnostic' selected. The main content area shows the 'Send Test Message' form with the following fields:

Field	Value
Text	TESTMESSAGE
Address	IPDECT/100
Alert Type	7
Callback	
Priority (1-3)	
Sender Id	
PosId 1 (0-65535)	
PosId 2 (0-65535)	
RFP (0-255)	
Initiator (0-255)	
Supplemental PPStatus Data	
Alarm Id	

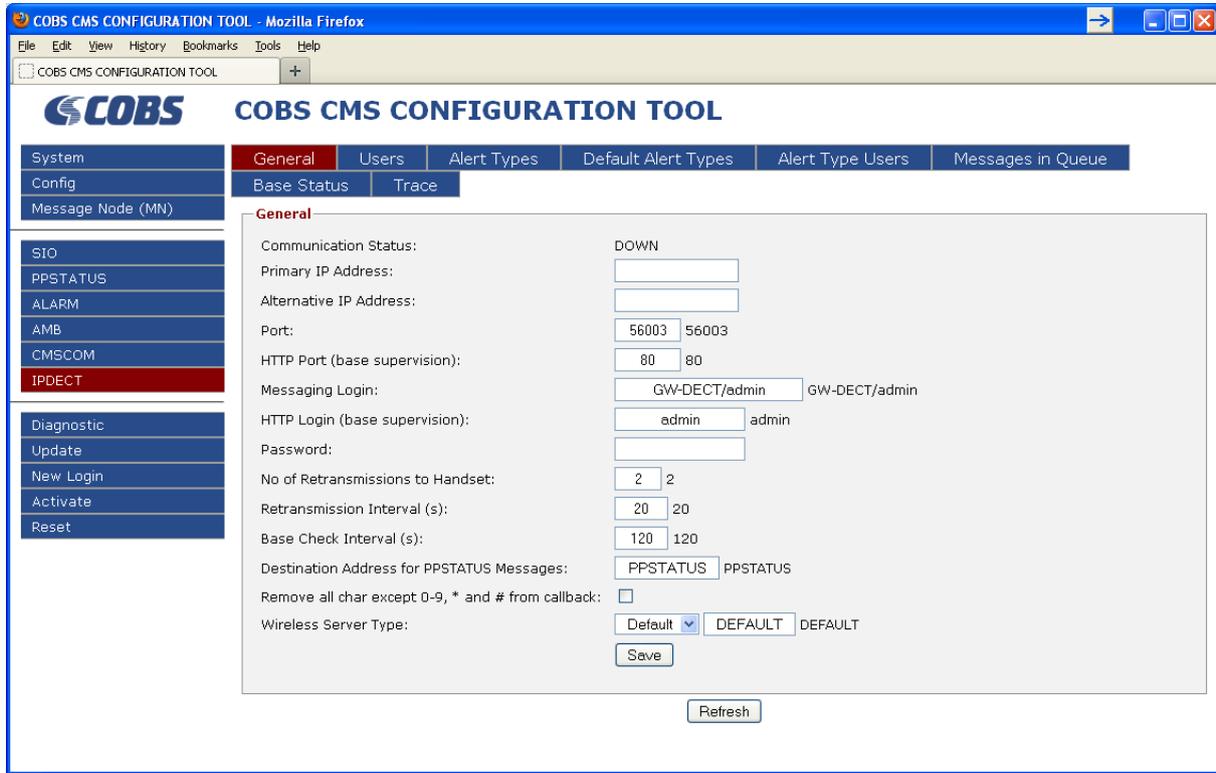
A 'Send Message' button is located at the bottom of the form.

Enter the address "IPDECT/100" and the Alert Type "7" and press the "Send Message" button.

The handset shall now receive the text "TESTMESSAGE" and beep with the "Accept Tone".

3 Reference manual

3.1 General



Communication Status

This is the current communication status.

- “DOWN” No communication with the Wireless Server.
- “PRIMARY” Communication is up with the primary Wireless Server
- “ALTERNATIVE” Communication is up with the alternative Wireless Server
- “Unknown” The CMS is busy updating the status information, refresh the web page.

Primary IP Address

This is the IP address to the primary Wireless Server (see 5).

Alternative IP Address

This is the IP address to the alternative Wireless Server (see 5).

Port

This is the port number in the Wireless Server used for messaging.

HTTP Port (base supervision)

This is the port number for the user interface web server on the Wireless Server. It is used by the ipdect process for base station supervision.

Message Login

This is the username for messaging login on the Wireless Server.

HTTP Login (base supervision)

This is the username for the user interface web server on the Wireless Server. It is used by the ipdect for base supervision.

Password

This is the administration password for the Wireless Server.

No of Retransmissions to Handset

This is the number of retransmission of a message to a handset if the handset could not be reached.

Retransmission Interval (s)

This is the retransmission interval in seconds of a message to a handset.

Base Check Interval (s)

This is the interval in seconds between each time the ipdetect process will check the base station status. It is only used if base supervision is enabled (see chapter 10).

Destination Address for PPSTATUS Messages

This is the address to which all PP Status messages form a handset will be sent. It is normally the process name of the ppstatus process in the CMS (see chapter 7).

Remove all char except 0-9, * and # from callback

If this option is checked then the CMS will remove all character except 0-9, # and * from the callback number. In some special cases the callback number may contain other characters specific to certain applications and these cannot be handled by for example the CWS6000.

Wireless Server Type

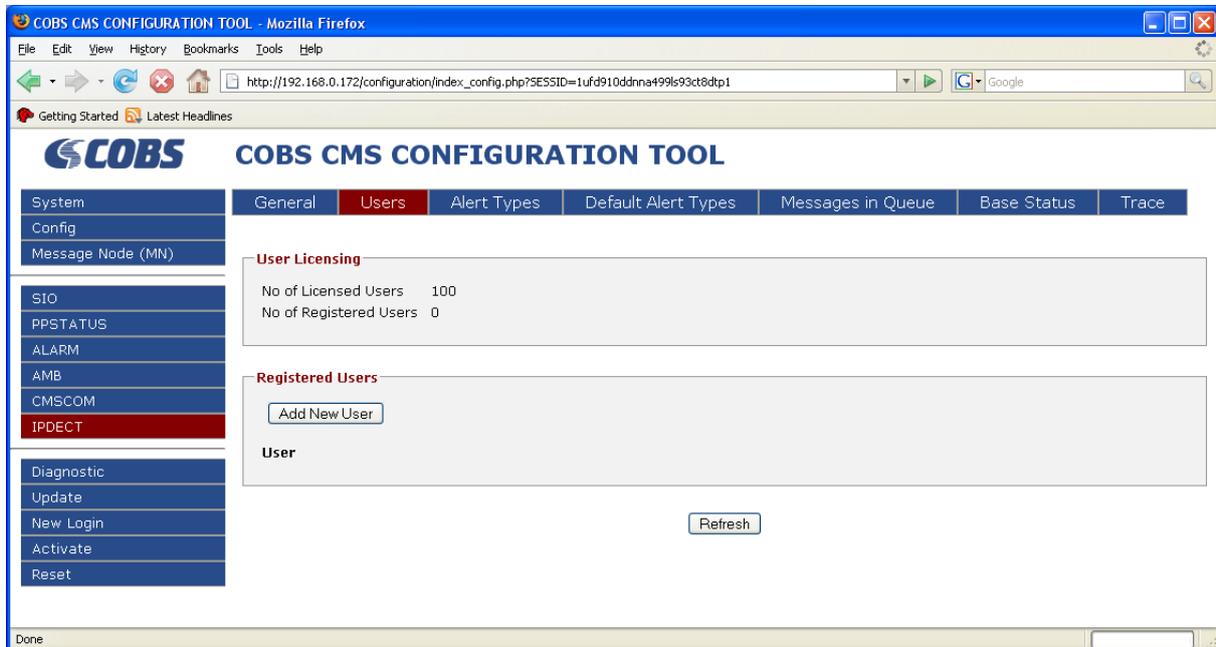
Select the type of wireless server connected. If the Server used is not available in the dropdown list then select "DEFAULT".

3.2 Users

A user is an address in the IPDECT system.

Normally the user is the local number of a handset but it can also for example be a broadcast group.

If a message is sent to an address that is not registered in the Users list the message will be rejected (see chapter 5).



No of Licensed Users

This is the number of licensed users.

“User List Not Used” indicates that the license enable unlimited number of users. If this is the case no users needs to be added.

No of Registered Users

This is the current number of registered users.

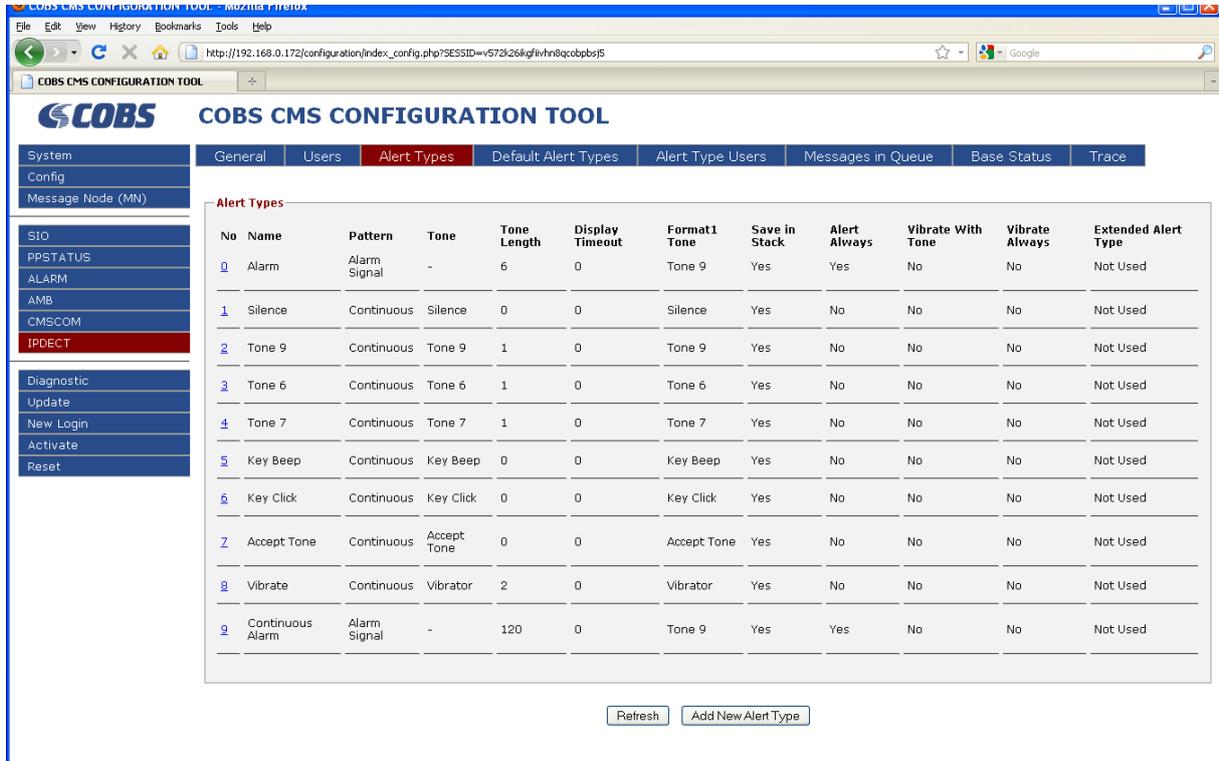
Registered Users

This is a list of all currently registered users.

3.3 Alert Types

The alert types define how the message shall be indicated in the handset.

By default there are 10 alert types 0 – 9.

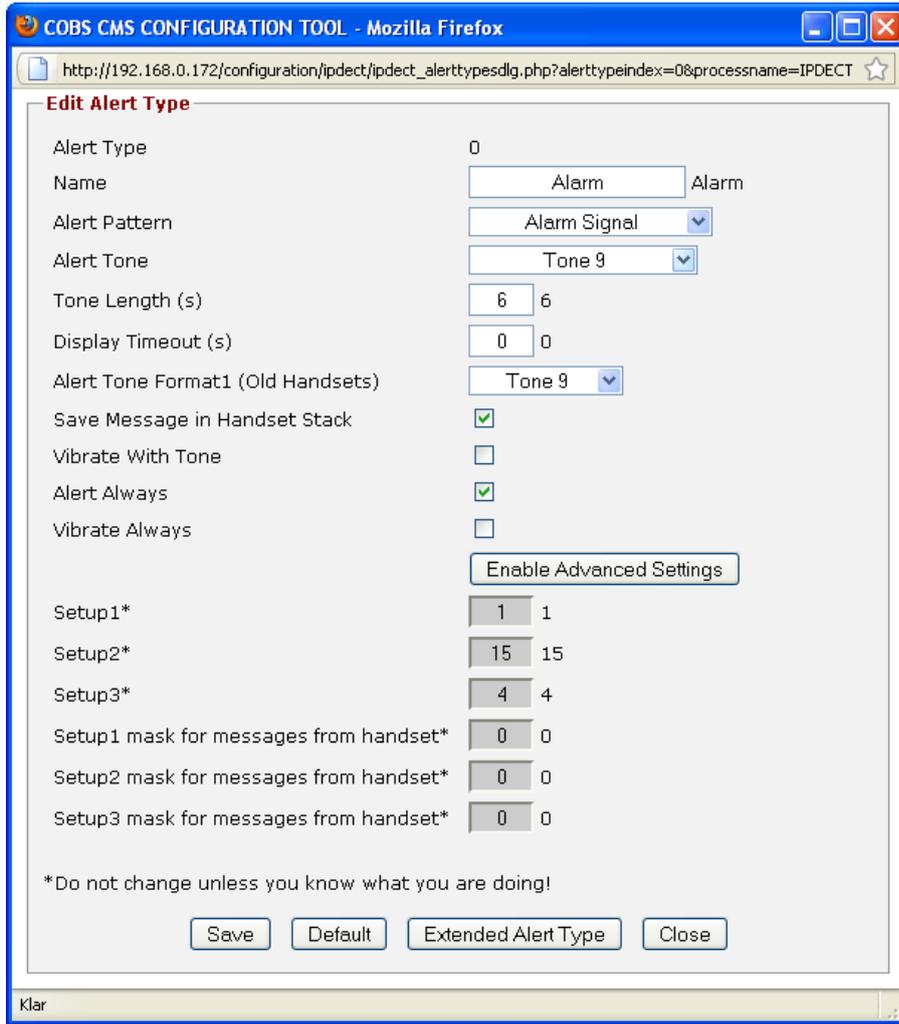


No	Name	Pattern	Tone	Tone Length	Display Timeout	Format1 Tone	Save in Stack	Alert Always	Vibrate With Tone	Vibrate Always	Extended Alert Type
0	Alarm	Alarm Signal	-	6	0	Tone 9	Yes	Yes	No	No	Not Used
1	Silence	Continuous	Silence	0	0	Silence	Yes	No	No	No	Not Used
2	Tone 9	Continuous	Tone 9	1	0	Tone 9	Yes	No	No	No	Not Used
3	Tone 6	Continuous	Tone 6	1	0	Tone 6	Yes	No	No	No	Not Used
4	Tone 7	Continuous	Tone 7	1	0	Tone 7	Yes	No	No	No	Not Used
5	Key Beep	Continuous	Key Beep	0	0	Key Beep	Yes	No	No	No	Not Used
6	Key Click	Continuous	Key Click	0	0	Key Click	Yes	No	No	No	Not Used
7	Accept Tone	Continuous	Accept Tone	0	0	Accept Tone	Yes	No	No	No	Not Used
8	Vibrate	Continuous	Vibrator	2	0	Vibrator	Yes	No	No	No	Not Used
9	Continuous Alarm	Alarm Signal	-	120	0	Tone 9	Yes	Yes	No	No	Not Used

Additional Alert Types 10-255 can be added pressing “Add New Alert Types”.

To edit the Alert Type click on the Alert Type No.

As an example we will use the Alert Type 0 but the parameters are the same for all the 10 alert types, only the values differ.



Alert Type

This is the Alert Type Number.

This number is a parameter in the incoming message that refers to this Alert Type.

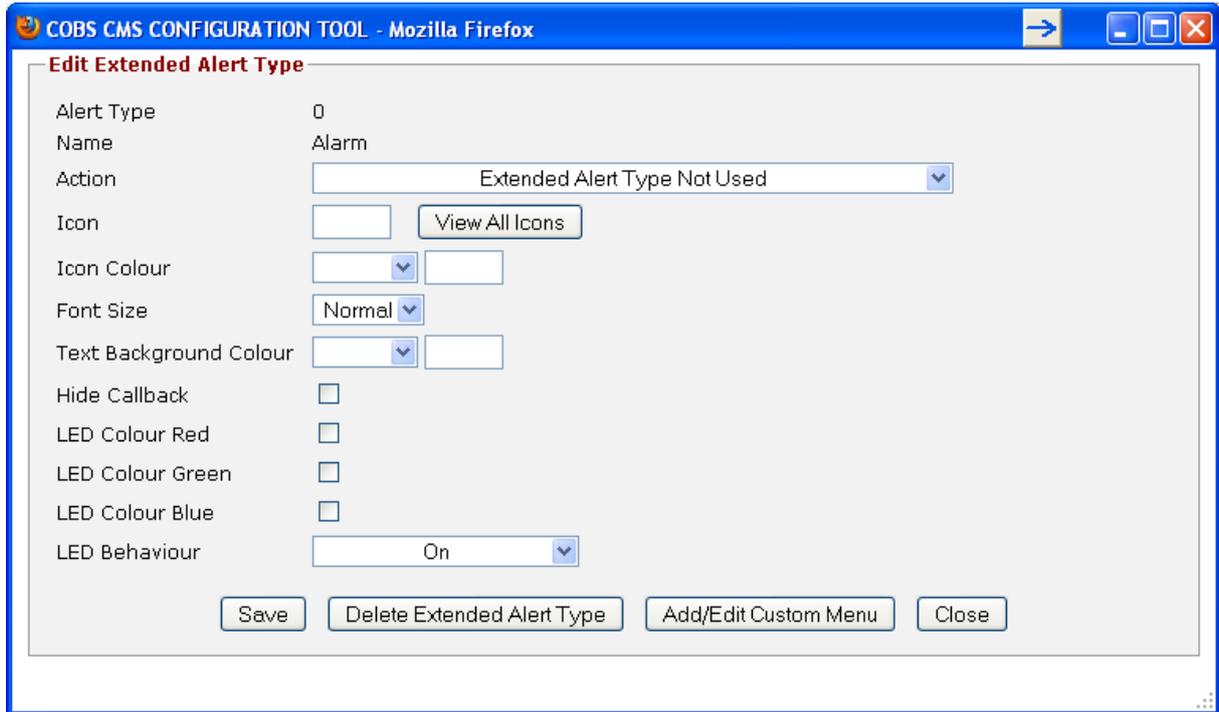
Name

This name is only used in the web user interface and can be set to an arbitrary text.

For a description of the other alert type parameters see chapter 8.1.

Extended Alert Type

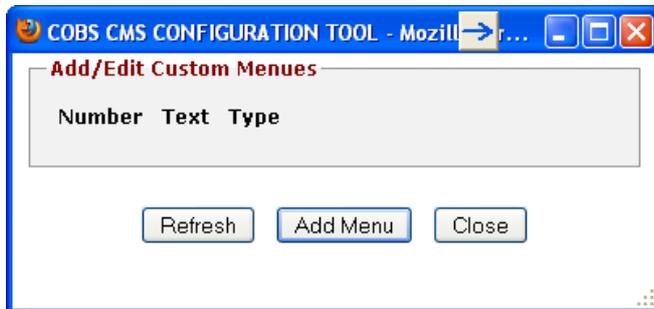
This enables the Extended Alert Types.



For a description of the Extended Alert Type Parameters see chapter 8.2.

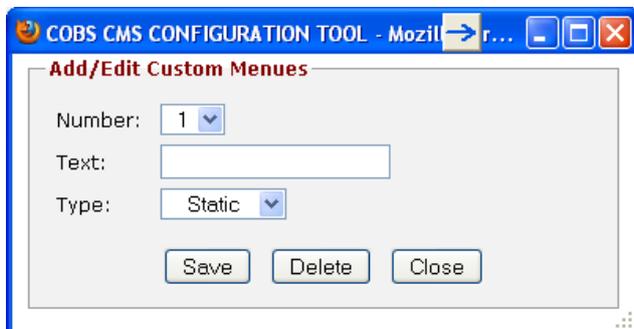
Add/Edit Custom Menu

Add or edit custom menus sent to the handset together with this message.



Add Menu

Add a menu sent to the handset together with this message.



Number

This defines the order the menus are presented in the handset.

Text:

This is the menu text (1-20 characters) that will be presented in the handset. If this field is empty then the menu will not be displayed in the handset and for a change message leaving this field empty will remove the existing menu with this number in the handset.

Type

This defines the possible replies to the menu.

Static:

The reply from the handset is sent with an initiator indicating the menu number and message alarmid.

Dynamic:

It is also possible for the user to key in arbitrary information that will be sent together with the reply. The information is sent in the ackdata field that can be used by an external application via OIP, a webpage application or in the ppstatus process.

3.4 Default Alert Types

3.4.1 Default Alert Type From a Handset

This alert type is used for a message sent from a handset where the alert type parameters set in the handset could not be matched with one of the configured alert types.

See chapter 8.4.

For a description of the alert type parameters see chapter 8.1.

3.4.2 Default Alert Type To a Handset

These alert type parameters are used for a message sent to a handset where the alert type is not specified within the configured alert types 0-9.

For a description of the alert type parameters see chapter 8.1.

3.5 Alert Type Users

The Extended Alert Types are not supported by all handsets. If a message with an Extended Alert Type is sent to a handset that does not support this then the handset will not receive the message.

Therefore the Extended Alert Type can be removed from a message to a single handset if the handset is entered in the Alert Type Users List with "Extended Alert Type Allowed" set to "No".

This way a system can have a mix of handsets supporting and not supporting the Extended Alert Type.

NOTE:

The Alert Type Users list is only needed if Extended Alert Types are used not all handsets support the Extended Alert Types.

3.6 Messages In Queue

All messages that are placed in the internal message queue in the ipdect process are shown here.

This could for example be messages not reached the handset and therefore wait for a retransmission.

If there is no communication with the Wireless Server all messages will be queued up and shown here until the message timeout expires.

3.7 Base Status

This page shows the status for the base stations that are set up for supervision.

NOTE!

The supervision must be activated in a supervisor process (see chapter 10 and T100201).

4 Default Wireless Server communication parameters

4.1 IP3000

Port:	23
HTTP Port	80
Messaging Login:	GW-DECT/MSF/admin
HTTP Login	admin
Password	ip1200

4.2 CWS6000

Port:	56003
HTTP Port	80
Messaging Login:	GW-DECT/admin
HTTP Login	admin
Password	ip6000

5 Users License

The ipdect process has a feature data license for the number of addressable destinations in the ipdect process.

This means that every time a message is sent to an address (a handset or a broadcast group) in the Wireless Server the ipdect process check if the address is in the Users list. If not then the message is rejected.

NOTE!

The Users check is only valid for message to a handset.
Messages can always be sent from a handset.

An ipdect process can be licensed for up to 1755 Users entries.

There is also a special license that gives unlimited number of addresses.
This license is intended for very large sites.

If more users are needed then an additional user license can be added to increase the number of users.

NOTE!

If there is more than one ipdect process then an additional user license must be placed immediately after the process enable license (the first license for this process) in the license file.

6 Primary/Alternative Wireless Server (only IP3000)

If the IPDECT system is setup with an alternative Wireless Server then the ipdect process must also be configured with the alternative Wireless Server address.

When the ipdect process loses communication with the primary Wireless Server for approx 3-4 minutes then it will try to switch over to the alternative Wireless Server.

If that is successful it will stay connect to the alternative
Every 120s it will check if the primary Wireless Server can be reached, if so then it will immediately switch back to the primary Wireless Server.

NOTE!

During the switchover process messages to/from a handset may be lost!

7 PP Status Messages

A handset can be setup to send PP Status messages. These messages are sent when the status of a handset is changed.

Example of status messages:

A function key has been activated.

The alarm key has been activated.

Handset powered on.

Handset with positioning has received a new position.

See the handset specification and ppstatus process documentation (T100199) for a complete list of all status events.

When the ipdect receives a PP Status Message it is always forwarded to the ppstatus destination address configured under General (see 3.1).

This destination is typically the process name of a ppstatus process.

In the ppstatus process a message can be generated depending on status event, handset number, status data etc.

8 Alert Types

8.1 Alert Type Parameters

NOTE!

The behaviour of the different settings may change between software versions of the receiving handset!

Alert Pattern

This is the how the tone in the handset shall sound.

Use Format 1	Use the Tone defined in "Alert Tone Format1"
Continuous	Continuous ring signal.
Internal Ring Cadence	Similar to a PBX internal ringing signal.
External Ring Cadence	Similar to a PBX external ringing signal.
Alarm Signal	Special Alarm signal (Alert Tone is ignored)

Alert Tone

This is the Alert tone in the handset.

Silence	
Tone 1	
Tone 2	
Tone 3	
Tone 4	
Tone 5	
Tone 6	
Tone 7	
Tone 8	
Tone 9	
Tone in PP	Uses the Tone set in the receiving handset profile
Vibrate	
Key Click	
Key Beep	
Accept Tone	
Error Tone	

Tone Length

Here you set for how long (0-255s) the Alert tone will sound.

Not applicable for the following Alert Tones:

Silence
Key Click
Key Beep
Accept Tone
Error Tone

Display Timeout

Here you set for how long (0-255s) the text message will be shown in the handset display. If it is set to 0 then the message will remain in the handset display until it is replaced by another text.

Alert Tone Format 1

This is the alert tone used in some older handsets or if Alert Pattern is set to "Use Format 1".

Save Message in Handset Stack

If this box is checked then the message will be stored in the handset mail stack memory, if not the message will only be shown in the handset display and not stored in the mail stack.

Alert Always

If this box is checked then the Alert Tone will break through Silent Mode in the handset. If Alarm Alert Pattern is chosen and this box checked then the Alarm signal will also break through an ongoing call.

Vibrate With Tone

If this box is checked then the vibrator (if enabled in the receiving handset profile) will be activated together with the alert tone using the cadence set in Alert Pattern.

Not applicable for the following alert tones:

Key Click

Key Beep

Accept Tone

Error Tone

Vibrate Always

If this box is checked then the vibrator will be activated even if it is not activated in the handset profile.

Advanced Settings

To be able to edit the advanced settings, press the "Enable Advanced Settings" button.

Setup1 - 3

The Setup1, Setup2 and Setup3 are parameter values (0-255) with information controlling how a message is presented in the handset. Some of the previously described parameters are included in the setup 1-3.

Setup1-3 mask for message from a handset

These values control how the ipdect process will try to match the Alert Type for an outgoing message from a handset, see chapter 8.

Contact COBS support for more information on how to use the values under Advanced Settings.

8.2 Extended Alert Type Parameters

NOTE!

The behaviour of the different settings may change between software versions of the receiving handset! Not all handsets support the Extended Alert Types.

If Extended Alert Types are used in a mixed environment where we have handsets that support the Extended Alert Type and handsets that does not, then the handsets not supporting Extended Alert Types must be entered in the Alert Type Users List.

Action

This is the how the handset shall act when receiving the message:

Extended Alert Type Not Used

The Extended Alert Type parameters are not used (even though they are saved in config).

New Message

Save Message as a new message.

Change First Message With AlarmId

Change the first existing message with the same AlarmId¹. If there is no existing message with the same AlarmId¹ then the message will be ignored.

Delete First Message With AlarmId

Delete the first existing message with the same AlarmId¹.

Delete All Messages With AlarmId

Delete all messages with this AlarmId

Delete All Messages

Delete all messages in handset.

New/Replace Message With AlarmId	Handle message as new message and delete any existing messages with same AlarmId
Status Message	Not treated as text message in handset.
Change First Message and Replace All Messages With AlarmId	Change the first message with this AlarmId and delete all other messages with the same AlarmId.

¹AlarmId is sent from for example the ALARM, OIP or WEBPAGE processes.

Icon

This is the Icon displayed when a new message is received.

The Icons are numbered from 1 to 255.

Note: All icons may not be available in all handsets.

Icon Colour

This is the background colour of the Icon.

The colour is defined by a number between 0 and 255.

Example:

Red	192
Green	16
Blue	79
White	255
Yellow	248
Grey	109

Font Size

If this is set to "Large" then the message text will be displayed with a larger font in the icon view.

Text Background Colour

This is the background colour of the text in the message list.

The colour is selected as the Icon Colour above.

Hide Callback

If this option is checked then the supplied callback number will never be shown, though it will be called when pressing hook key.

LED Colour Red

If this option is checked then the red LED will be used.

LED Colour Green

If this option is checked then the green LED will be used.

LED Colour Blue

If this option is checked then the blue LED will be used.

LED Behaviour

This defines how the LED will be used.

On	LED's selected above will be lit.
Flashing Slow On/Off	LED's selected above will be flashing slowly.
Flashing Fast On/Off	LED's selected above will be flashing fast.
Flashing Slow Switching	The LED will be switching slowly between the colours selected above.
Flashing Fast Switching	The LED will be switching fast between the colours selected above

8.3 Messages to a handset

When a message is sent to a handset the message includes an alert type, 0-9.

This alert type is translated into the alert parameters configured for that alert type number.

If the message alert type for some reason is unknown then the parameters under "Default Alert Types To Handset" is used.

8.4 Messages from a handset

When the ipdect process receives a text message (MSF) from a handset it tries to match all the alert parameters to one of the configured alert types for the ipdect process.

If there is no match then the “Default Alert Type From a Handset” will be used.

In the handset a message MSF is configured with an alert type that has the same parameters as the alert types in the ipdect process.

NOTE!

Normally the following parameters are matched:

Alert Pattern

Alert Tone

Tone Length

Display Timeout

This means that if there is more than one alert type with the above settings identical then the ipdect process will choose the first alert type found.

This can be avoided using the Setup1-3 masks under each alert type.

Contact COBS support for more information on how to do this.

NOTE!

To avoid these “alert type” matching issues use the ppstatus messages instead.

Then the text message from a handset is configured in the CMS ppstatus process instead of in the handset itself.

9 Troubleshooting

9.1 No communication with Wireless Server

Check the login parameters (Login, Port No and password) for messaging.

Check that telnet is enabled in the IP3000 Master and that MSF is enabled in the CWS6000

9.2 Messages not received in handset

Check that the handset address exists in the Users list and that it is licensed.

9.3 No Base Status

Check the login parameters (Login, Port No and password) for HTTP.

Look at the radio page in the IP3000 Wireless Server or at the Administration->Base station page in the CWS6000 (this is the same information as the ipdect processes reads).

Check the supervisor configuration so that base station supervision is activated.

9.4 Delete or change message are not recognised by the handset

Check that any succeeding change or delete message has the same or lower priority than the original message. Otherwise the change or delete message may be prioritised and sent before the original message.

10 Supervision

All supervision are done in a separate process, the supervisor, see T100201 for more information on how to configure supervision.

NOTE!

The ipdect process never communicates with a base station directly; all information on base stations is read from the Wireless server.

The type of information for base station supervision can vary depending on the type of wireless server used.

10.1 Feature 1 (comstatus)

This supervision feature monitors the status of the communication with the Wireless Server. The default feature name is "comstatus".

10.1.1 Units

Wireless Server is always unit number 1.

The default unit name is "ipdect".

10.1.2 Values

Value	Default name	Description
0	"unknown"	The status is unknown (not updated)
1	"primary up"	Communication with the primary Wireless Server is up
2	"down"	Communication is down
3	"alt up"	Communication with the alternative Wireless Server is up

10.2 Feature 2 (rfp_ipmaster_status)

This supervision feature monitors the status of a base station in the Wireless Server. The default feature name is "rfp_ipmaster_status".

10.2.1 Units

The unit number (1 - 255) is the base station id+1 (unit number 0 is not valid).

This means that the base with id 255 cannot be supervised.

The default unit name is "rfp".

10.2.2 Values

Value	Default name	Description
0	"unknown"	The status is unknown (not updated)
1	"found in ipmaster"	The base is found in Wireless Server
2	"not found in ipmaster"	The base cannot be found in the Wireless Server

10.3 Feature 3 (rfpstatus)

This supervision feature monitors the radio status of a base station.

The default feature name is "rfpstatus".

10.3.1 Units

The unit number (1 - 255) is the base station id+1 (unit number 0 is not valid).

This means that the base with id 255 cannot be supervised.

The default unit name is "rfp".

10.3.2 Values

Value	Default name	Description
0	"unknown"	The status is unknown (not updated)
1	"up"	The radio is up
2	"down"	The radio is down (no sync)
3	"master"	The radio is up and this base is sync master.
4	"not found"	Parameter cannot be found in Wireless Server

10.4 Feature 4 (rfpsyncsource)

This supervision feature monitors the sync source for the radio in a base station.

The default feature name is "rfpsyncsource".

10.4.1 Units

The unit number (1 - 255) is the base station id+1 (unit number 0 is not valid).

This means that the base with id 255 cannot be supervised.
The default unit name is “rfp”.

10.4.2 Values

Value	Default name	Description
0-255	Value	The value and Default Name is the Radio Id of the sync source

If value not updated it will be displayed as 256 in GUI.

10.5 Feature 5 (Idapstatus)

This supervision feature monitors the base station LDAP replication (IP3000 only).
The default feature name is “Idapstatus”.

10.5.1 Units

The unit number (1 - 255) is the base station id+1 (unit number 0 is not valid).
This means that the base with id 255 cannot be supervised.
The default unit name is “rfp”.

10.5.2 Values

Value	Default name	Description
0	“unknown”	The status is unknown (not updated)
1	“up”	The base LDAP replication is up
2	“down”	The base LDAP replication is down
3	“server”	The base is LDAP server
4	“not found”	Parameter cannot be found in Wireless Server

10.6 Feature 6 (ipaddress)

This supervision feature monitors the IP address of a base station.
The default feature name is “ipaddress”.

10.6.1 Units

The unit number (1 - 255) is the base station id+1 (unit number 0 is not valid).
This means that the base with id 255 cannot be supervised.
The default unit name is “rfp”.

10.6.2 Values

Value	Default name	Description
0	“unknown”	The value is unknown (not updated)
1	The IP Address of the base	The name is the base IP address.
2	“not found”	The IP address parameter cannot be found

11 Abbreviations

In this document the following abbreviations are used.

MN	Message Node
PP	Portable Part / Handset
MSF	Message Service Function / Text message function in handset
RFP	Radio Fixed Part / Base station
LDAP	Lightweight Directory Access Protocol / Database replication used in the IP3000

12 Document History

080609 RA First edition



081209	RB	Alert Type Setup mask revised. CWS6000 parameters revised.
090804	RC	Base status supervision added for CWS6000.
091125	RD	“Remove all char except 0-9, * and # from callback” added.
101221	RE	Extended Alert Types added.
110110	RF	Extended Alert Types revised.
110408	RG	CWS Type added. “Add New Alert Type” added. Extended Alert Type s revised.
120620	RH	Extended Alert Type s revised. CWS6000 used as default example. IP Master changed to Wireless Server. Custom Menus added.
131106	RI	Corrected error in values under Supervision rfpssyncsource.