Alcatel-Lucent Application Partner Program Inter-Working Report

Partner: New Voice AG
Application type: Alarm Server
Application name: Mobicall
Alcatel-Lucent Platform: OmniPCX Office – 400/500 DECT

The product and release listed have been tested with the Alcatel-Lucent Communication Platform and the release specified hereinafter. The tests concern only the inter-working between the AAPP member's product and the Alcatel-Lucent Communication Platform. The inter-working report is valid until the AAPP member's product issues a new major release of such product (incorporating new features or functionality), or until Alcatel-Lucent issues a new major release of such Alcatel-Lucent product (incorporating new features or functionalities), whichever first occurs.

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Certification overview

Date of the certification	November 2011

Alcatel-Lucent's representative	Jerôme Fournier
AAPP member representative	Dave Signer

Alcatel-Lucent Communication Platform	OmniPCX Office
Alcatel-Lucent Communication Platform Release	R8.1
AAPP member application version	7.5
Application Category	Event monitoring & Alerting
	Healthcare dedicated software
	Mobility

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Reviewer(s): D Lienhart, R Himmi

Revision History

Edition 1: creation of the document – *November 2011*
Edition 2: extension to OXO R9.0 – *January 2013*

Test results

☑ Passed ☐ Refused ☐ Postponed

☐ Passed with restrictions

Refer to the section 6 for a summary of the test results.

IWR validity extension

The validity of this IWR has been extended to the following software releases/products:

- OmniPCX Office Release 9.0 – *January 2013*

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1 Introduction

This document is the result of the certification tests performed between the AAPP member's application and Alcatel-Lucent's platform.

It certifies proper inter-working with the AAPP member's application.

Information contained in this document is believed to be accurate and reliable at the time of printing. However, due to ongoing product improvements and revisions, Alcatel-Lucent cannot guarantee accuracy of printed material after the date of certification nor can it accept responsibility for errors or omissions. Updates to this document can be viewed by Business Partners on the Technical Support page of the Enterprise Business Portal (https://businessportal.alcatel-lucent.com) in the Application Partner Interworking Reports corner.

2 Validity of the Interworking Report

This Interworking report specifies the products and releases which have been certified.

This inter-working report is valid unless specified until the AAPP member issues a new major release of such product (incorporating new features or functionalities), or until Alcatel-Lucent issues a new major release of such Alcatel-Lucent product (incorporating new features or functionalities), whichever first occurs.

A new release is identified as following:

- a Major Release" is any x. enumerated release. Example Product 1.0 is a major product release.
- a "Minor Release" is any x.y enumerated release. Example Product 1.1 is a minor product release

The validity of the Interworking report can be extended to upper major releases, if for example the interface didn't evolve, or to other products of the same family range. Please refer to the "IWR validity extension" chapter at the beginning of the report.

Note: *The Interworking report becomes automatically obsolete when the mentioned product releases are end of life.*

3 Limits of the Technical support

Technical support will be provided only in case of a valid Interworking Report (see chapter 2 "Validity of the Interworking Report) and in the scope of the features which have been certified. That scope is defined by the Interworking report via the tests cases which have been performed, the conditions and the perimeter of the testing as well as the observed limitations. All this being documented in the IWR. The certification does not verify the functional achievement of the AAPP member's application as well as it does not cover load capacity checks, race conditions and generally speaking any real customer's site conditions.

Any possible issue will require first to be addressed and analyzed by the AAPP member before being escalated to Alcatel-Lucent.

For any request outside the scope of this IWR, Alcatel-Lucent offers the "On Demand Diagnostic" service where assistance will be provided against payment.

For more details, please refer to Appendix F "AAPP Escalation Process".

3.1 Case of additional Third party applications

In case at a customer site an additional third party application NOT provided by Alcatel-Lucent is included in the solution between the certified Alcatel-Lucent and AAPP member products such as a Session Border Controller or a firewall for example, Alcatel-Lucent will consider that situation as to that where no IWR exists. Alcatel-Lucent will handle this situation accordingly (for more details, please refer to Appendix F "AAPP Escalation Process").

The goal of these tests is to qualify an external application as an Alcatel-Lucent Application Partner Program solution for the Alcatel-Lucent Communication Platform.

The scope of the tests is the interoperability of the application with the Alcatel-Lucent Communication Platform. It covers a basic or complex inter-working to ensure that services requested by the application and provided by the Communication Platform (and/or conversely) are properly completed.
These tests do not verify the functional achievement of the application as well as they do not cover load capacity checks, race conditions and generally speaking any real customer's site conditions.

Here is a functional description of the Geolocation and notification Services interface. Those features have been fully tested in the report.

3.2 Location service

The DECT Handset monitors the radio coverage that it perceives to be able to set up at any time a call with the infrastructure with the best audio conditions.

Therefore it has the knowledge at a given location of all the Base Stations he can receive a signal from and the associated strength of the signal (RSSI) gives a relation with the distance between the Base Station and the DECT Handset.

When signaling an alarm to the Alarm server, the DECT handset will send the RSSI of the 3 (Office mode) or 4 (Enterprise mode) best Base Stations that he can see, so that the server can locate accurately the DECT Handset position.

In case the DECT Handset sees less than 4 (or 3) Bases stations, the message will indicate the valid Base Stations that the server should use in the message to compute the DECT Handset location (Enterprise & Office modes only)

This service is available on 400 and 500 DECT handsets.

3.3 Live & Notification service

The DECT Handset is able to send regular information (defined as “Live”) or event triggered (defined as “Notifications”, “Key events” or “Status”) to an Alarm server.

These messages are sent to the Alarm Server by setting up a call toward the Call Server. These calls are set up by dialing a trunk access code to gain access to the Alarm server, followed by digits containing the data to be processed by the Alarm server (Enterprise & Office modes only). Those digits will indicate the type of call (“Live”, “Notifications”, “Key events” or “Status”) and additional information related to the call type.

The details about the “Live & Notification service” are explained in Chapter 2 for the messages format used and Chapter 3 for each case.

This service is available on 400 and 500 DECT handsets.

3.3.1 Live calls

Live calls are triggered at programmable intervals, when the Handset is in idle state, and provide the Alarm Server the current DECT Handset location and state. This will enable the Alarm Server to monitor that the Handset is performing correctly, and that end user monitoring is active. Location can be used by the Alarm server to activate Notifications to the proper located user if an emergency shall occur, thus allowing the best response time to manage such event (Enterprise & Office modes only)

3.3.2 Status calls

Status calls are triggered by DECT Handset status change such as being put in/out of charger, being switched on/off. This will allow the Alarm server to know that monitoring should start or stop and that subsequent messages call might be irrelevant and could be discarded (Enterprise & Office modes only).

3.3.3 Key events call

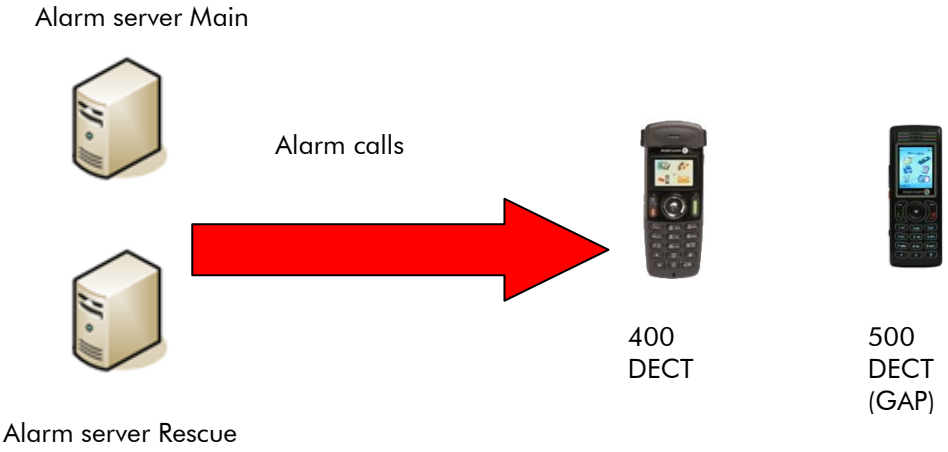
Key Events calls are triggered by the end user long press of any digit key, for reporting process of completed tasks. For example : in Hotel business, the cleaning personnel shall report progress on room availability to allow the registration of new customers at the front desk (Enterprise & Office modes only).

3.3.4 Notification calls

Notifications calls are triggered by the end user pressing the Alarm button on the DECT Handset to signal an unexpected or emergency situation. This will allow the Alarm server to launch the appropriate actions to give assistance to the end user.

The embedded location data will provide means to activate the best appropriate means to ensure adequate response time to the end user request (Enterprise & Office modes only).

3.4 Alarm server Notification service



Additionally to the Handset Alarming feature, the Alarm server can send alarm messages or make voice calls upon trigger of external events, to ask the user to react and make corrective actions. Messages can be sent with or without ringing, and are displayed on the DECT Handset screen with an audible signal.

The messages are sent by using the first two characters of the Caller Name Identification (CNI) field. When the alarm server initiates a call to the DECT handset, it has priority on all other actions being done on the handset. The DECT handset then reads the CNI being sent and does the appropriate action. For example: displaying “Fire Alarm” on the screen and ringing at maximum level at the same time.

List of available alarm features:

400 DECT:

- trigger Handset ringing at maximum volume with melody 5
  regardless of the user settings for current volume, melody, or vibrator

500 DECT:

- trigger handset ringing with normal alarm ring and volume as programmed in the Alarm settings menu

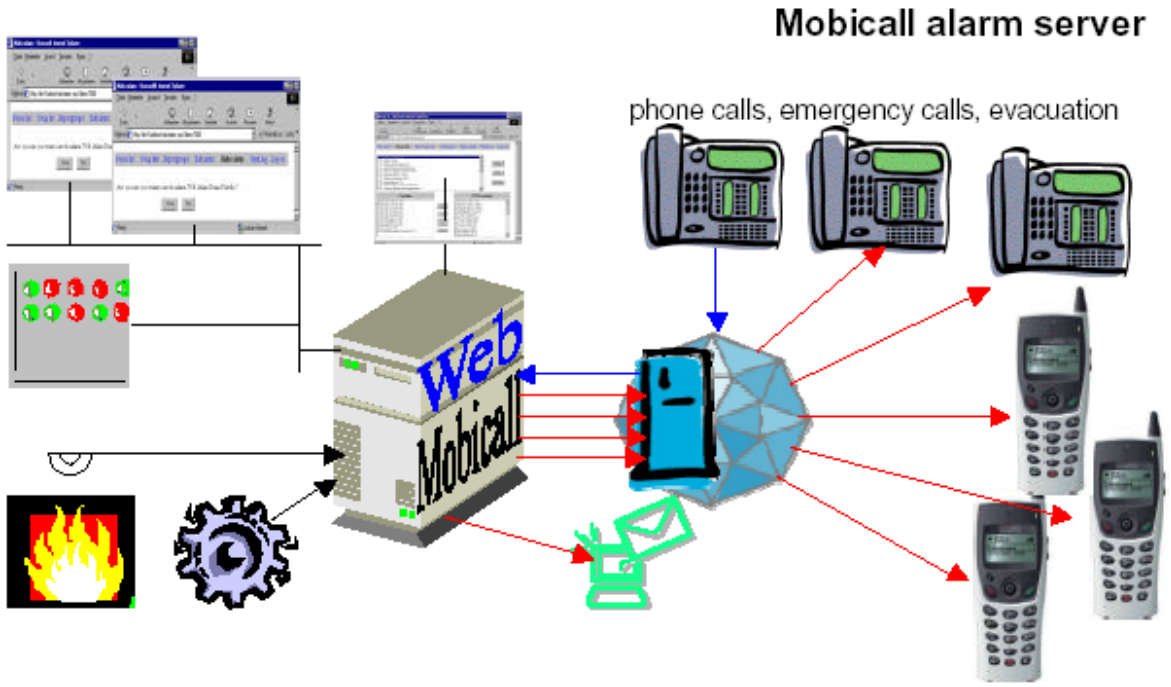
- trigger handset ringing with urgent alarm ring and volume as programmed in the Alarm settings menu
- trigger handset ringing with very urgent alarm ring and volume as programmed in the Alarm settings menu
- trigger handset automatic answer in Handsfree mode

4 Application information

Application family :	Alarm Server
Application commercial name:	Mobicall
Application version:	7.5
Interface type:	SIP trunk, T2/ISVPN with geolocation and notification services

Brief application description:

Mobicall is based on a modular and multi-lingual concept with a seamless integration into OmniPCX 4400/Enterprise and OmniPCX Office.



The server runs Mobicall Server, which purpose is to post alarms to groups or individuals.

The alarm calls can be:

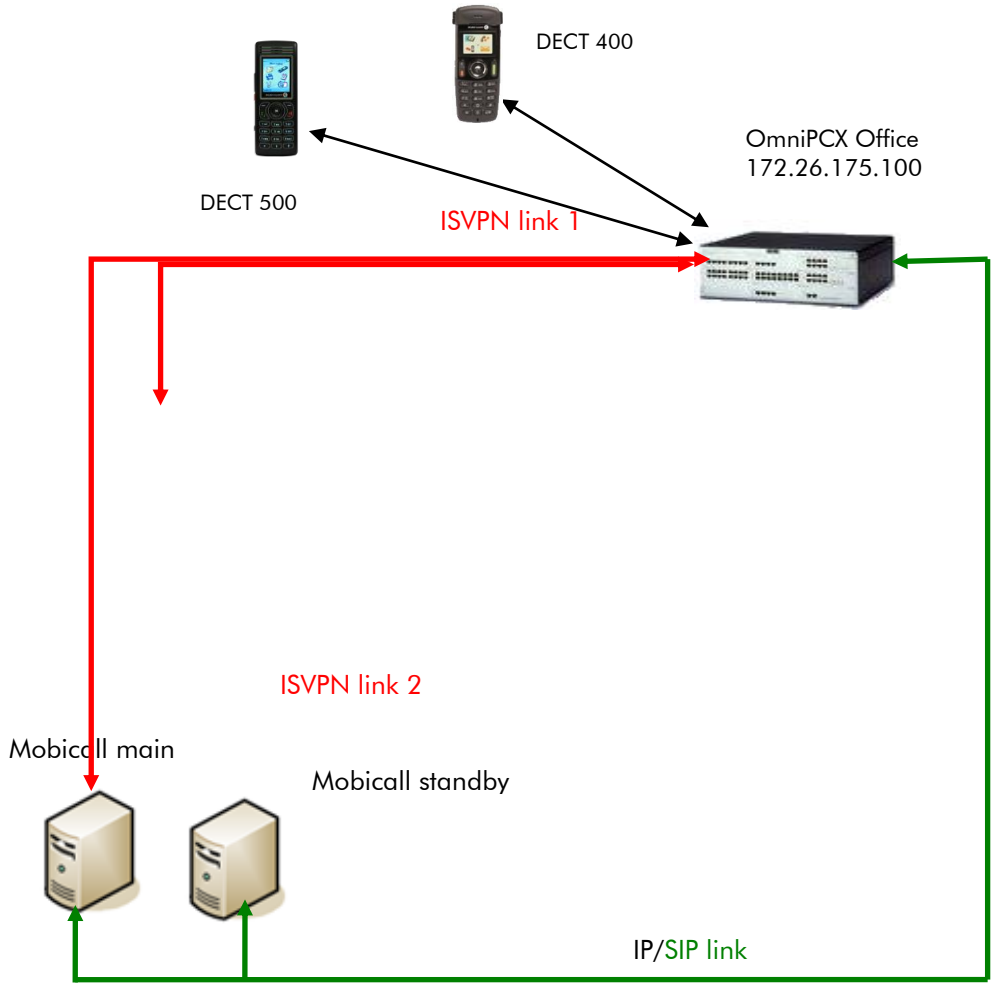
- manually launched,
- triggered on call reception,
- sent from a Web-based client.

The server is made of Mobicall services, a Web Apache server and a database (MySql). It could as well connect to any ODBC database.

Fore more details, refer to Appendix A.

5 Test environment

Figure 1 **Test environment**



5.1 Hardware configuration

See Appendix A

- **OmniPCX Office**:
  - PowerCPU
  - MIX 2/4/4 (ISDN T0, digital & analog interfaces)
  - 500 dect and 400 dect

5.2 Software configuration

See Appendix B

- **Alcatel Communication Platform**: OmniPCX Office 810/0036.001
- **DECT 500** : 00.21
- **DECT 400** : 91 99 06 (the specific geolocation firmware must be download on the 400)
- **Partner Application** : Mobicall 7.5

6 Summary of test results

6.1 Summary of main functions supported

Two protocols support this type of alarms notification, using the messages mode Office (Enterprise mode is not supported by OXO)

- **ISVPN on T2**
  - **Message mode Office (17 characters)**

Mobicall - OXO / ISVPN – Mode Office

Features		Global status	Mobile 400	Mobile 500
Live call		**OK**	✓	✓
Notification call		**OK**	✓	✓
Status call		**OK**	✓	✓
Keys event call		**OK**	✓	✓
Man down call		**OK**	NA	✓
No movement call		**OK**	NA	✓
Shock call		**OK**	NA	✓
Normal alarm		**OK**	✓	✓
Urgent alarm		**OK**	✓	✓
Very urgent alarm		**OK**	NA	✓
Hands free mode alarm (loudspeaker and microphone active)		**OK**	NA	✓

- **SIP**
  - **Message mode Office (17 characters)**

Mobicall with OXO / SIP – Message Office

Features		Global status	Mobile 400	Mobile 500
Live call		**OK**	✓	✓
Notification call		**OK**	✓	✓
Status call		**OK**	✓	✓
Keys event call		**OK**	✓	✓
Man down call		**OK**	NA	✓
No movement call		**OK**	NA	✓

Shock call		**OK**	NA	✓
Normal alarm		**OK**	✓	✓
Urgent alarm		**OK**	✓	✓
Very urgent alarm		**OK**	NA	✓
Hands free mode alarm (loudspeaker and microphone active)		**OK**	NA	✓

6.2 Summary of problems

No problem.

6.3 Summary of limitations

No limitation.

6.4 Notes, remarks

On the 400 DECT, the specific firmware 93 91 97 must be loaded, to activate the notification features.

The interoperability has been tested on T2 but is also supported on T0.

7 Test Result Template

The results are presented as indicated in the example below:

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Test case 1** • Action • Expected result	☐	☒	☐	
2	**Test case 2** • Action • Expected result	☐	☒	☐	The application waits for PBX timer or phone set hangs up
3	**Test case 3** • Action • Expected result	☒	☐	☐	Relevant only if the CTI interface is a direct CSTA link
4	**Test case 4** • Action • Expected result	☐	☐	☒	No indication, no error message
…	**…**	☐	☐	☐	

Test Case Id: a feature testing may comprise multiple steps depending on its complexity. Each step has to be completed successfully in order to conform to the test.
Test Case: describes the test case with the detail of the main steps to be executed the and the expected result
N/A: when checked, means the test case is not applicable in the scope of the application
OK: when checked, means the test case performs as expected
NOK: when checked, means the test case has failed. In that case, describe in the field "Comment" the reason for the failure and the reference number of the issue either on Alcatel-Lucent side or on Application Partner side
Comment: to be filled in with any relevant comment. Mandatory in case a test has failed especially the reference number of the issue.

8 Test Results using the SIP trunk

The Mobicall is linked using two SIP trunk to the OXO. One message mode is available: Office.

8.1 Test cases using Office message Mode

The Office message mode is 17 characters long. Here is the description of the message format. The following tests verify that the Mobicall receives and decodes well thoses messages

Office Mode

400 DECT Handset
17 digits numbering with the following fields:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
RPN 1			Signal level 1	RPN 2			Signal level 2	RPN 3			Signal level 3	State	Pressed key	Battery level	call type	reserved

500 DECT Handset
17 digits numbering with the following fields:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
RPN 1			Signal level 1	RPN 2			Signal level 2	RPN 3			Signal level 3	State	Pressed key	Battery level	call type	Call type 2

8.1.1 Test cases linked to “Live signal” on 400 and 500 DECT

Live signal is executed if the appropriate function has been activated in the MMI configuration and the handset is in idle state.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Live_Delay_500** Step 1: - Put the live delay value at 60 sec. - Check that two prefixes are defined (the messages are sent alternately to the first and second alternative with the defined delay between the messages). - 500 is in idle mode Step 2: Switch off the 500 and switch on. *- Check that the 500 handset sends an automatic call to the notification server and is using the prefix that is defined in the MMI access menu 1 and 2.*	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	Step 3: Make short press of any key *- Check working of the "Live signal" on Mobicall* *-check decoding of the live signal by Mobicall* *- Check hang on of the HS after reception of display information from CS*				
2	**Live_Delay_400** Step 1: - Put the live delay value at 60 sec. - Check that two prefixes are defined (the messages are sent alternately to the first and second alternative with the defined delay between the messages). - 400 is in idle mode Step 2: Switch off the 400 and switch on. *- Check that the 400 handset sends an automatic call to the notification server and is using the prefix that is defined in the MMI access menu 1 and 2.* Step 3: Make short press of any key *- Check working of the "Live signal" on Mobicall* *-check decoding of the live signal by Mobicall* *- Check hang on of the HS after reception of display information from CS*	☐	☒	☐	

8.1.2 Test cases linked to “Notification” using 500 DECT

The notification function is used to signal emergency situations by end user. Emergency situations can be injury, physical or material damage.
This handset performs Notification call with a dedicated Alarm Key or the OK key
Call type must be 1
Pressed key must be to 4

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Notification_HS_Idle_mode** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in idle mode - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by “F ~xxx” to the handset (The handset does not display F~ but only xxx).* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call.* *- Check that the notification server decodes well the message* Step 2: - Unplug SIP link1 (First access doesn’t respond) *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	
2	**Notification_HS_Communication_mode** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in communication mode - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by “F xxx” to the handset.* *- Check that the server will send an acknowledge voice*	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	message to the user or will involve the user in a conference call. *Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server decodes well the message.*				
3	**Notification_HS_Communication_mode_1_link_lost** - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in communication mode - Unplug SIP link 1 (First access doesn't respond) - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *Check that the handset after 4 sec starts to send a notification* *call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	
4	**Notification_HS_Dialling_state** <u>Step 1:</u> - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in dialling state - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference* *- Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server receives and decodes the message* <u>Step 2:</u> - Unplug SIP link 1 (First access doesn't respond) - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice*	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	message to the user or will involve the user in a conference call if a response message is received.				
5	**Notification_HS_Configuration_state** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in configuration state . - To send a notification call, make a long press on the red dedicated alarm key or on the OK key - *Check that the Lock/Unlock is inactive.* *- Check that the notification server answers in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call* *- Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server receives and decodes well the message* Step 2: - Unplug SIP link 1 (First access doesn't respond) - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	

8.1.3 Test cases linked to "Notification" on 400 DECT

The notification function is used to signal emergency situations by end user. Emergency situations can be injury, physical or material damage.
the call type must be 1 (Notification call). The key pressed:

- Key clear: 0
- key on hook: 1
- key ok: 4
- Key left: 5
- key right: 6
- Key up: 7
- Key down: 8

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Notification_HS_Idle_mode** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in idle mode - To send a notification call make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by "F ~xxx" to the handset (The handset does not display F~ but only xxx).* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call.* *- Check that the notification server decodes well the message* Step 2: - Unplug SIP link1 (First access doesn't respond) *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	
2	**Notification_HS_Communication_mode** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in communication mode - To send a notification call make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call.* *Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server decodes well the message.*	☐	☒	☐	
3	**Notification_HS_Communication_mode_1_link_lost** - Activate the Notify function in the MMI	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in communication mode - Unplug ABCF link 1 (First access doesn't respond) - Make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *Check that the handset after 4 sec starts to send a notification* *call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*				
4	**Notification_HS_Dialling_state** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in dialling state - To send a notification call make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference* *- Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server receives and decodes the message* Step 2: - Unplug SIP link 1 (First access doesn't respond) - Make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	
5	**Notification_HS_Configuration_state** Step 1: - Activate the Notify function in the MMI configuration	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in configuration state - To send a notification call make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. – *Check that the Lock/Unlock is inactive.* *- Check that the notification server answers in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call* *- Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server receives and decodes well the message* <u>Step 2:</u> - Unplug SIP link 1 (First access doesn't respond) - Make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*				

8.1.4 Test cases linked to “Key events on 400 and 500 DECT

Key events is used to signal the notification sever of the progress of tasks that are reported.
For example if a hotel room has been cleaned.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Key_events_500_Idle_mode** Step 1: - Initiate the Event function in the MMI configuration menu. - 500 is in idle mode - Make a long press of one of the keys 1, 2, 3, 4, 5, 6, 7, 8, 9 to trigger the function. *- Check that a call is performed* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
2	**Key_events_400_Idle_mode** Step 1: - Initiate the Event function in the MMI configuration menu. - 400 is in idle mode - Make a long press of one of the keys 0, 1, 2, 3, 4, 5, 6, # to trigger the function. *- Check that a call is performed* *- Check that the notification server receives and decodes the message*	☐	☒	☐	

The call type must be 2 (Key Event call). The key pressed :

400 DECT :

- Key 0: 0
- Key 1: 1
- Key 2: 2
- Key 3: 3
- Key 4: 4
- Key 5: 5
- Key 6: 6
- Key #: 7

500DECT :

- Key 1: 1
- Key 2: 2
- Key 3: 3
- Key 4: 4
- Key 5: 5
- Key 6: 6
- Key 7: 7
- Key 8: 8
- Key 9: 9

8.1.5 Test cases linked to “Status message” on 500 DECT

The status call is aimed to provide information about the handset when the function is active. The functions are activated in the MMI configuration menu.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Status_message_HS_In_charger** Step 1: - Initiate the Status function in the MMI configuration menu - A status call is made when the handset is in the charger. *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Call type 4. Possible state values: 1, 3, 5, 7, 9* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
2	**Status_message_HS_Out_of_charger** Step 1: - Initiate the Status function in the MMI configuration menu - A status call is made when the handset is out of the charger *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Call type 4. Possible state values: 0, 2, 4, 6, 8* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
3	**Status_messag e_HS_switched_off** Step 1: Handset is out of charger - Initiate the Status function in the MMI configuration menu - Switch off the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Call type 4. Possible state value: 8* *- Check that the notification server receives and decodes the message* Step 2: Handset is in charger - Initiate the Status function in the MMI configuration menu - Switch off the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Possible state value: 9* *- Check that the notification server receives and decodes the message*	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
4	**Status_message_HS_switched_on** Step 1: Handset is out of charger - Initiate the Status function in the MMI configuration menu - Switch on the handset *- Check the status in the message to the PBX (Message length of 30 of 20 bytes when sent to the OXO). Call type 4.* *- Check that the notification server receives and decodes the message* Step 2: Handset is in charger - Initiate the Status function in the MMI configuration menu - Switch on the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *- Check that the notification server receives and decodes the message*	☐	☒	☐	

8.1.6 Test cases linked to “Status message” on 400 DECT

The status call is aimed to provide information about the handset when the function is active. The functions are activated in the MMI configuration menu.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Status_message_HS_In_charger** Step 1: - Initiate the Status function in the MMI configuration menu - A status call is made when the handset is in the charger. *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Possible state values: 1, 3, 5, 7, 9* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
2	**Status_message_HS_Out_of_charger** Step 1: - Initiate the Status function in the MMI configuration menu - A status call is made when the handset is out of the charger *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Possible state values: 0, 2, 4, 6, 8* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
3	**Status_messag e_HS_switched_off** Step 1: Handset is out of charger - Initiate the Status function in the MMI configuration menu - Switch off the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Possible state value: 8* *- Check that the notification server receives and decodes the message* Step 2: Handset is in charger - Initiate the Status function in the MMI configuration menu - Switch off the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Possible state value: 9* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
4	**Status_message_HS_switched_on** Step 1: Handset is out of charger	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	- Initiate the Status function in the MMI configuration menu - Switch on the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *- Check that the notification server receives and decodes the message* <u>Step 2: Handset is in charger</u> - Initiate the Status function in the MMI configuration menu - Switch on the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *- Check that the notification server receives and decodes the message*				

8.1.7 Test cases linked to incoming alarm on 400 DECT

There is one type defined on 400 : CNI400in: C~ which activate the melody 5.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Force_HS_to_ring_silent_mode** - Set the handset in silent mode. - Send a CNI signal having a format of " C~xxx" with the CS (Alarm server) *- Check that the handset will ring at maximum level with melody 5*	☐	☒	☐	
2	**Force_HS_to_ring_vibrator_mode** - Set the handset in vibrator mode. Send a CNI signal having a format of " C~xxx" with the CS (Alarm server) *- Check that the handset will ring at maximum level with melody 5*	☐	☒	☐	

8.1.8 Test cases linked to incoming alarm on 500 DECT

There are four types of Incoming Alarms on 500:

- Normal Alarm: CNI1 identifier
- Urgent Alarm: CNI400in, CNI2 identifiers (400)
- Very Urgent Alarm: CNI3 identifier
- Hands-free mode Alarm (Loudspeaker & Microphone active): CNI4 identifier

500 DECT Handset:
CNI1: B~ will be preset as default value in the field
CNI2: C~ will be preset as default value in the field
CNI3: D~ will be preset as default value in the field
CNI4: E~ will be preset as default value in the field

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Force_HS_to_ring_normal alarm** - Set the handset in silent mode. - Send a CNI signal having a format of " B~xxx" with the CS (Alarm server) *- Check that the handset will with normal alarm ring and volume as programmed in the Alarm settings* menu	☐	☒	☐	
2	**Force_HS_to_ring_urgent alarm** - Set the handset in silent mode.	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	Send a CNI signal having a format of " C~xxx" with the CS (Alarm server) *- Check that the handset will with normal alarm ring and volume as programmed in the Alarm settings*				
3	**Force_HS_to_ring_very_urgent alarm** - Set the handset in silent mode. Send a CNI signal having a format of " D~xxx" with the CS (Alarm server) *- Check that the handset will with normal alarm ring and volume as programmed in the Alarm settings*	☐	☒	☐	
4	**Force_HS_to_ring_Hands-Free-Mode_ alarm** - Set the handset in silent mode. Send a CNI signal having a format of " E~xxx" with the CS (Alarm server) *- Check that the handset will with normal alarm ring and volume as programmed in the Alarm settings*	☐	☒	☐	

9 Test Results using the T2 trunk

The Mobicall is linked using two T2 trunk to the OXO. Two messages modes are available: Office and Enterprise.

9.1 Test cases using Office message Mode

The Enterprise message mode is 17 characters long. Here is the description of the message format. The following tests verify that the Mobicall receives and decodes well thoses messages

Office Mode

400 DECT Handset
17 digits numbering with the following fields:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
RPN 1			Signal level 1	RPN 2			Signal level 2	RPN 3			Signal level 3	State	Pressed key	Battery level	call type	reserved

500 DECT Handset
17 digits numbering with the following fields:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
RPN 1			Signal level 1	RPN 2			Signal level 2	RPN 3			Signal level 3	State	Pressed key	Battery level	call type	Call type 2

9.1.1 Test cases linked to “Live signal” on 400 and 500 DECT

Live signal is executed if the appropriate function has been activated in the MMI configuration and the handset is in idle state.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Live_Delay_500** Step 1: - Put the live delay value at 60 sec. - Check that two prefixes are defined (the messages are sent alternately to the first and second alternative with the defined delay between the messages). - 500 is in idle mode Step 2: Switch off the 500 and switch on. *- Check that the 500 handset sends an automatic call to the notification server and is using the prefix that is defined in the MMI access menu 1 and 2.*	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	Step 3: Make short press of any key *- Check working of the "Live signal" on Mobicall* *-check decoding of the live signal by Mobicall* *- Check hang on of the HS after reception of display information from CS*				
2	**Live_Delay_400** Step 1: - Put the live delay value at 60 sec. - Check that two prefixes are defined (the messages are sent alternately to the first and second alternative with the defined delay between the messages). - 400 is in idle mode Step 2: Switch off the 400 and switch on. *- Check that the 400 handset sends an automatic call to the notification server and is using the prefix that is defined in the MMI access menu 1 and 2.* Step 3: Make short press of any key *- Check working of the "Live signal" on Mobicall* *-check decoding of the live signal by Mobicall* *- Check hang on of the HS after reception of display information from CS*	☐	☒	☐	

9.1.2 Test cases linked to “Notification” using 500 DECT

The notification function is used to signal emergency situations by end user. Emergency situations can be injury, physical or material damage.
This handset performs Notification call with a dedicated Alarm Key or the OK key
Call type must be 1
Pressed key must be to 4

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Notification_HS_Idle_mode** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in idle mode - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by “F ~xxx” to the handset (The handset does not display F~ but only xxx).* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call.* *- Check that the notification server decodes well the message* Step 2: - Unplug ISVPN link1 (First access doesn’t respond) *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	
2	**Notification_HS_Communication_mode** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in communication mode - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by “F xxx” to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a*	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	conference call. *Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server decodes well the message.*				
3	**Notification_HS_Communication_mode_1_link_lost** - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in communication mode - Unplug ISVPN link 1 (First access doesn't respond) - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *Check that the handset after 4 sec starts to send a notification* *call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	
4	**Notification_HS_Dialling_state** <u>Step 1:</u> - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in dialling state - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference* *- Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server receives and decodes the message* <u>Step 2:</u> - Unplug ISVPN link 1 (First access doesn't respond) - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a*	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	conference call if a response message is received.				
5	**Notification_HS_Configuration_state** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in configuration state . - To send a notification call, make a long press on the red dedicated alarm key or on the OK key - *Check that the Lock/Unlock is inactive.* *- Check that the notification server answers in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call* *- Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server receives and decodes well the message* Step 2: - Unplug ISVPN link 1 (First access doesn't respond) - To send a notification call, make a long press on the red dedicated alarm key or on the OK key *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	

9.1.3 Test cases linked to "Notification" on 400 DECT

The notification function is used to signal emergency situations by end user. Emergency situations can be injury, physical or material damage.
the call type must be 1 (Notification call). The key pressed:

- Key clear: 0
- key on hook: 1
- key ok: 4
- Key left: 5
- key right: 6
- Key up: 7
- Key down: 8

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Notification_HS_Idle_mode** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in idle mode - To send a notification call make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by "F ~xxx" to the handset (The handset does not display F~ but only xxx).* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call.* *- Check that the notification server decodes well the message* Step 2: - Unplug ISVPN link1 (First access doesn't respond) *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	
2	**Notification_HS_Communication_mode** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in communication mode - To send a notification call make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call.* *Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server decodes well the message.*	☐	☒	☐	
3	**Notification_HS_Communication_mode_1_link_lost** - Activate the Notify function in the MMI	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in communication mode - Unplug ISVPN link 1 (First access doesn't respond) - Make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *Check that the handset after 4 sec starts to send a notification* *call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*				
4	**Notification_HS_Dialling_state** Step 1: - Activate the Notify function in the MMI configuration menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in dialling state - To send a notification call make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the Lock/Unlock is inactive.* *- Check that the notification server responds in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference* *- Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server receives and decodes the message* Step 2: - Unplug ISVPN link 1 (First access doesn't respond) - Make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*	☐	☒	☐	
5	**Notification_HS_Configuration_state** Step 1: - Activate the Notify function in the MMI configuration	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	menu - Define the first and second access prefix in the Edit Notify configuration screen Access 1 and Access 2. - HS is in configuration state - To send a notification call make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. – *Check that the Lock/Unlock is inactive.* *- Check that the notification server answers in a proper way to the handset. By sending the display message: ID… followed by "F xxx" to the handset.* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call* *- Check that the handset during the notification call displays the normal call-processing screen.* *- Check that the notification server receives and decodes well the message* <u>Step 2:</u> - Unplug ISVPN link 1 (First access doesn't respond) - Make a long press of any of the following keys on the handset: C, on-hook, ok and the four navigation keys. *- Check that the handset hangs-up after 4 sec if the first access is called and no response is received in the display.* *- Check that the handset after 4 sec starts to send a notification call to the second prefix in the access menu if no response has been made by the notification server ID* *- Check that the server will send an acknowledge voice message to the user or will involve the user in a conference call if a response message is received.*				

9.1.4 Test cases linked to “Key events on 400 and 500 DECT

Key events is used to signal the notification sever of the progress of tasks that are reported.
For example if a hotel room has been cleaned.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Key_events_500_Idle_mode** Step 1: - Initiate the Event function in the MMI configuration menu. - 500 is in idle mode - Make a long press of one of the keys 1, 2, 3, 4, 5, 6, 7, 8, 9 to trigger the function. *- Check that a call is performed* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
2	**Key_events_400_Idle_mode** Step 1: - Initiate the Event function in the MMI configuration menu. - 400 is in idle mode - Make a long press of one of the keys 0, 1, 2, 3, 4, 5, 6, # to trigger the function. *- Check that a call is performed* *- Check that the notification server receives and decodes the message*	☐	☒	☐	

The call type must be 2 (Key Event call). The key pressed :

400 DECT :

- Key 0: 0
- Key 1: 1
- Key 2: 2
- Key 3: 3
- Key 4: 4
- Key 5: 5
- Key 6: 6
- Key #: 7

500DECT :

- Key 1: 1
- Key 2: 2
- Key 3: 3
- Key 4: 4
- Key 5: 5
- Key 6: 6
- Key 7: 7
- Key 8: 8
- Key 9: 9

9.1.5 Test cases linked to “Status message” on 500 DECT

The status call is aimed to provide information about the handset when the function is active. The functions are activated in the MMI configuration menu.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Status_message_HS_In_charger** Step 1: - Initiate the Status function in the MMI configuration menu - A status call is made when the handset is in the charger. *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *Call type 4.* *Possible state values: 1, 3, 5, 7, 9* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
2	**Status_message_HS_Out_of_charger** Step 1: - Initiate the Status function in the MMI configuration menu - A status call is made when the handset is out of the charger *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *Call type 4.* *Possible state values: 0, 2, 4, 6, 8* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
3	**Status_messag e_HS_switched_off** Step 1: Handset is out of charger - Initiate the Status function in the MMI configuration menu - Switch off the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *Call type 4.* *Possible state value: 8* *- Check that the notification server receives and decodes the message* Step 2: Handset is in charger - Initiate the Status function in the MMI configuration menu - Switch off the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *Possible state value: 9* *- Check that the notification server receives and decodes the message*	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
4	**Status_message_HS_switched_on** Step 1: Handset is out of charger - Initiate the Status function in the MMI configuration menu - Switch on the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Call type 4.* *- Check that the notification server receives and decodes the message* Step 2: Handset is in charger - Initiate the Status function in the MMI configuration menu - Switch on the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *- Check that the notification server receives and decodes the message*	☐	☒	☐	

9.1.6 Test cases linked to “Status message” on 400 DECT

The status call is aimed to provide information about the handset when the function is active. The functions are activated in the MMI configuration menu.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Status_message_HS_In_charger** Step 1: - Initiate the Status function in the MMI configuration menu - A status call is made when the handset is in the charger. *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Possible state values: 1, 3, 5, 7, 9* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
2	**Status_message_HS_Out_of_charger** Step 1: - Initiate the Status function in the MMI configuration menu - A status call is made when the handset is out of the charger *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Possible state values: 0, 2, 4, 6, 8* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
3	**Status_messag e_HS_switched_off** Step 1: Handset is out of charger - Initiate the Status function in the MMI configuration menu - Switch off the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Possible state value: 8* *- Check that the notification server receives and decodes the message* Step 2: Handset is in charger - Initiate the Status function in the MMI configuration menu - Switch off the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO). Possible state value: 9* *- Check that the notification server receives and decodes the message*	☐	☒	☐	
4	**Status_message_HS_switched_on** Step 1: Handset is out of charger	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	- Initiate the Status function in the MMI configuration menu - Switch on the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *- Check that the notification server receives and decodes the message* <u>Step 2: Handset is in charger</u> - Initiate the Status function in the MMI configuration menu - Switch on the handset *- Check the status in the message to the PBX (Message length of 20 bytes when sent to the OXO).* *- Check that the notification server receives and decodes the message*				

9.1.7 Test cases linked to incoming alarm on 400 DECT

There is one type defined on 400 : CNI400in: C~ which activate the melody 5.

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Force_HS_to_ring_silent_mode** - Set the handset in silent mode. - Send a CNI signal having a format of " C~xxx" with the CS (Alarm server) *- Check that the handset will ring at maximum level with melody 5*	☐	☒	☐	
2	**Force_HS_to_ring_vibrator_mode** - Set the handset in vibrator mode. Send a CNI signal having a format of " C~xxx" with the CS (Alarm server) *- Check that the handset will ring at maximum level with melody 5*	☐	☒	☐	

9.1.8 Test cases linked to incoming alarm on 500 DECT

There are four types of Incoming Alarms on 500:

- Normal Alarm: CNI1 identifier
- Urgent Alarm: CNI400in, CNI2 identifiers (400)
- Very Urgent Alarm: CNI3 identifier
- Hands-free mode Alarm (Loudspeaker & Microphone active): CNI4 identifier

500 DECT Handset:
CNI1: B~ will be preset as default value in the field
CNI2: C~ will be preset as default value in the field
CNI3: D~ will be preset as default value in the field
CNI4: E~ will be preset as default value in the field

Test Case Id	Test Case	N/A	OK	NOK	Comment
1	**Force_HS_to_ring_normal alarm** - Set the handset in silent mode. - Send a CNI signal having a format of " B~xxx" with the CS (Alarm server) *- Check that the handset will with normal alarm ring and volume as programmed in the Alarm settings* menu	☐	☒	☐	
2	**Force_HS_to_ring_urgent alarm** - Set the handset in silent mode.	☐	☒	☐	

Test Case Id	Test Case	N/A	OK	NOK	Comment
	Send a CNI signal having a format of " C~xxx" with the CS (Alarm server) *- Check that the handset will with normal alarm ring and volume as programmed in the Alarm settings*				
3	**Force_HS_to_ring_very_urgent alarm** - Set the handset in silent mode. Send a CNI signal having a format of " D~xxx" with the CS (Alarm server) *- Check that the handset will with normal alarm ring and volume as programmed in the Alarm settings*	☐	☒	☐	
4	**Force_HS_to_ring_Hands-Free-Mode alarm** - Set the handset in silent mode. Send a CNI signal having a format of " E~xxx" with the CS (Alarm server) *- Check that the handset will with normal alarm ring and volume as programmed in the Alarm settings*	☐	☒	☐	

10 Appendix A: AAPP member's Application description

10.1 Application description

Mobicall – system overview

Mobicall is based on 4 elements allocated to the server. These are fully integrated:

- The suppliers of information which bring the information to the Mobicall server.
- The receivers of information which receive the information from the Mobicall server.
- The Personnel-, Group & Alarm data which defines the way the information input is processed.
- Supervision & Analysis provides the user with all the required statistics for adequate management of the system.

*** Suppliers of information**

Mobicall basically supports all interfaces which are supported by standard computer systems. It is essential that the interfaces be reliable and, if possible, supervised by any kind of watchdog-concepts. Here are some examples:

- Supervision of contacts free of potential
- Integration of fire and intrusion detection systems
- Links to building management systems / SPS
- Nurse calls, heart alarm, emergency calls
- Launching alarms by phone calls, SMS, e-mail, mouse, key-board and screen, fax, internet / Web
- Connections through com-port interface, also ESPA 4.4.4
- Data connection over SNMP, TCP/IP, Socket, FTP, Netsend...

*** Receivers of information**

In principle, Mobicall supports all interfaces which are backed by standard computer systems. It is essential that the calls are confirmed by the person answering the call so that Mobicall may function successfully and continue mobilization. Depending on the situation, Mobicall may start the escalation and call upon additional persons.
Calls with clear messages (Voice) to internal and external phones

- Text-messages to DECT – phones and other system phone sets
- Text-messages sent as SMS to GSM mobile phones and pager
- Alarm messages and information sent by fax and or e-mail
- Broadcasting onto loudspeaker system
- Alarm signal through broadcast to any PC-system in the network
- Emergency calls through SNMP, FTP, contacts (relays free of potential, others…
- Support of any H.323 terminal with Voice-over-IP connection

*** Personnel & Group Data**

Every person to be contacted by Mobicall has a record containing access numbers (e.g. telephone, fax, pager, email) and function.
Information receivers can be assigned to groups. In a matrix the various receivers with their particular identification (telephone number, email address, …) can be selected and allocated to the respective groups.

Depending on the concept of the mobilization and the definition of the processes, a person may have several telephone numbers assigned.

*** Supervision & Analysis**

The analysis of an event includes printing by a local or remote network printer. An automatic printout at the time of the event is also feasible by fax or by e-mail.
The printout shows the time, the calls were executed to the receivers, whether the called party answered, was busy or did not answer. It also shows a statistic of the calls answered, occupied or not answered, in percentage and in accordance with their escalation level.

Mobicall - top spot

Mobicall supports both mobilization types: Sequential (search for first success) and Parallel (e.g. all members of a group at the same time) and a combination of both.
Mobicall is able to record conversations – also in combination with configurable ACD concepts. If a number is busy, the next numbers and groups are dialed, until one answers the call. Mobicall also supports the free combination of traditional telephony and Voice over IP (MobiNETcall).
Mobicall supports broadcasting. A recorded message can be sent to comfort-phones. Their loudspeakers will automatically open to play the message.
Mobicall allows to call people according to their function and skills: e.g. Three avalanche rescue dogs, five policemen, two detonation-experts.
The Web-Interface / Mobicall Messenger !
Mobicall systems may be configured and monitored by using a web browser.
IP-Box Contact Controller
The contact controller with TCP/IP or V.24 - link!
Client specific watch-dog concepts

Mobicall – Alcatel-Lucent-Lucent OmniPCX integration

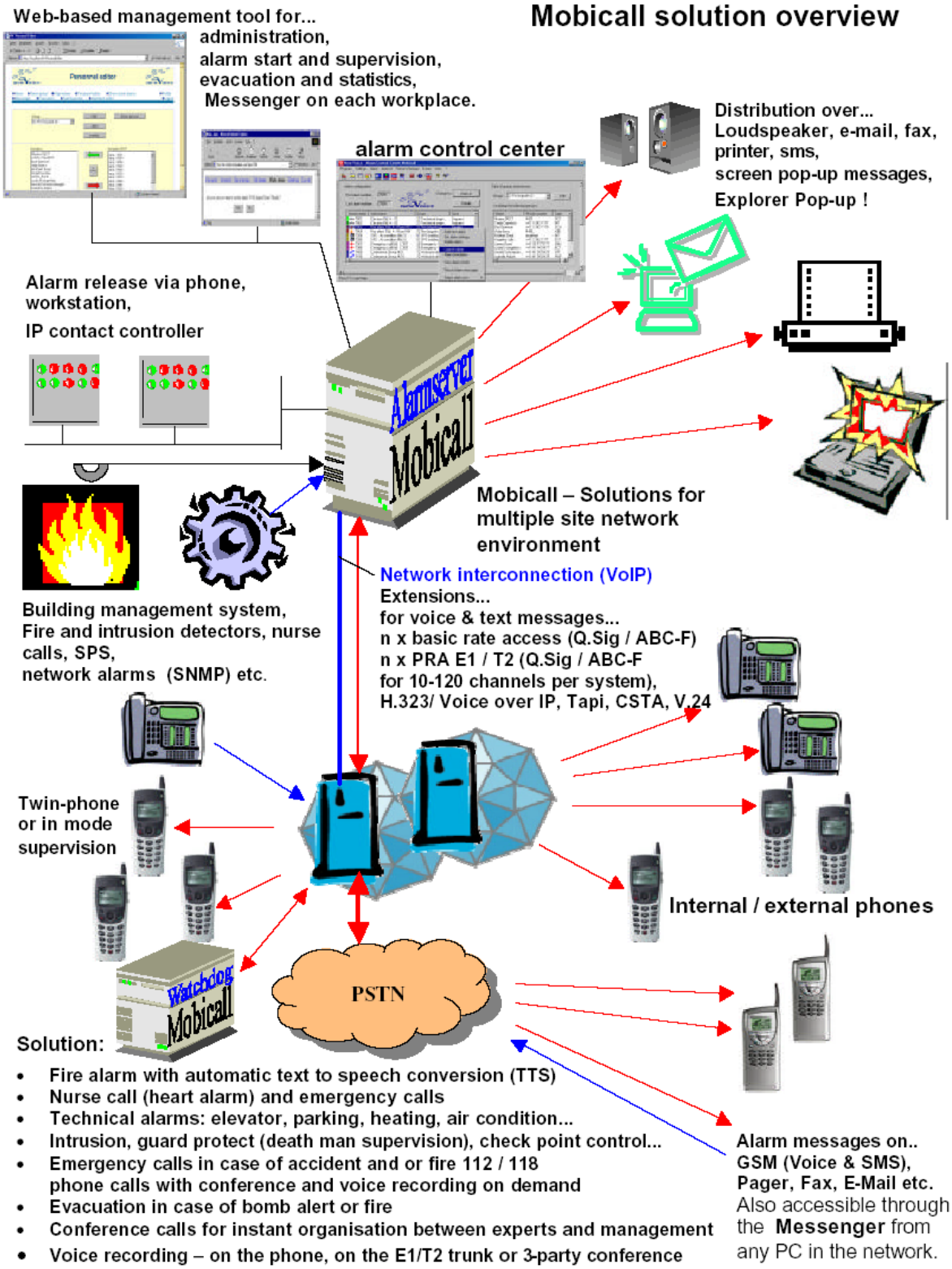
Mobicall is based on a modular and multi-lingual concept with a seamless integration into OmniPCX 4400/Enterprise and OmniPCX Office by using Q-SIG GF link.

The overall solution DECT – OmniPCX 4400-Enterprise / OmniPCX Office – Mobicall has unique selling points to replace pager-based solution. These are:

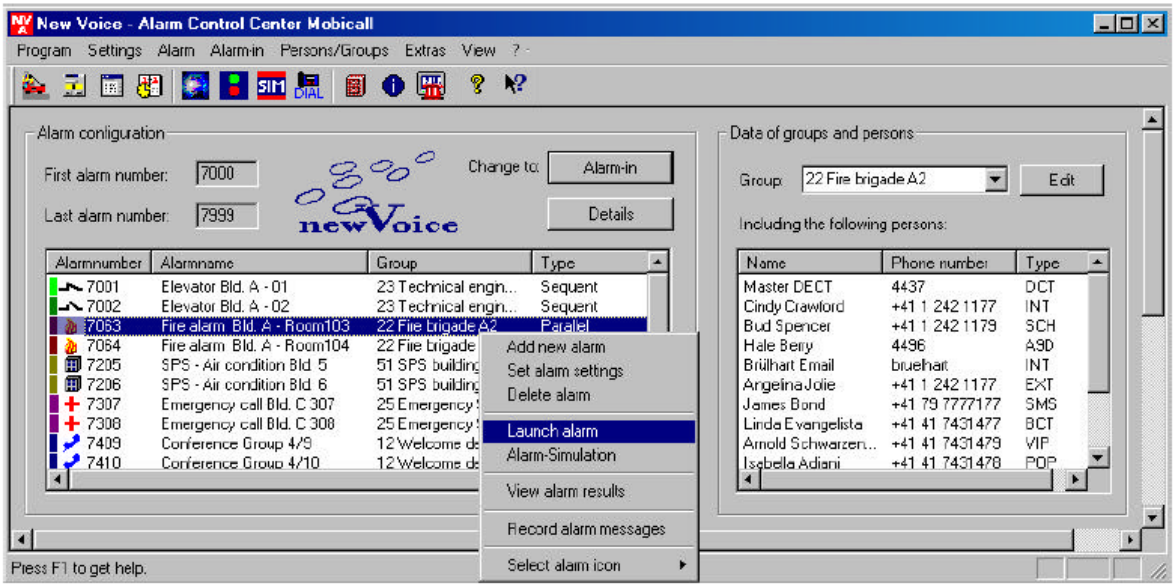
- Multi-line DECT, never occupied, can receive alarm calls at any time.
- Showing display messages while the handset is ringing.
- Showing a new display message during answer.
- Combination of voice messages and display-text supporting confirmation by answer, confirm with key 3, cancel with key 4, password or id and password.
- Showing a confirmation text when launching a conference call.

An important number of installed systems, satisfied customers and resellers and a growing demand for DECT – Alcatel-Lucent-Lucent OmniPCX – Mobicall gives reasons to certify this solution for a better promotion all over the world.

Return of investment with additional features by combining other interfaces of the Alcatel-Lucent-Lucent OmniPCX for intrusion, broadcast, sending mini-message and more !



Mobicall – the components



Alarm configurator; Every alarm contact can be individually identified and configured with individual attributes.
Personnel & group editor; In a matrix alarm receivers with identification (telephone number, email address and others) can be assigned to groups.
Alarm evaluation and presentation; It is possible at any time to analyze mobilizations. The alarm view program visualizes running or previous alarms.
Scheduler year / week; The scheduler allows to specify the work shifts individually. Also, the responsible person for the 24 hour-hotline support can be specified.
Alarm launcher; All defined alarms can be launched manually for testing and training purposes. Every launched alarm is reported and traced.
Alarm simulation; Different alarm simulations can be defined and stored for repetitive testing. Alarms and escalations are running as defined without disturbing anything.
Test dial program; This feature allows to test easily all features of outbound calls.
Post job-manager / configurator; Lists all queued jobs. Jobs may be stopped or cancelled by the system administrator.
Timer job-program; This screen shows all jobs that are queued for later execution. Jobs may be started prematurely or cancelled.
Voicemail configurator - Backup-tool - Centralised management - IP-box - Information/configuration of the system - Watchdog - Fax server and more…

Mobicall – system variety

Mobicall is a completely modular system that can be assembled to your needs. Mobicall may grow with your demand. It allows you to start with a basic set-up and add more functionality to your system for the future, without losing the investments already made.
If an interface is not yet available, our customer support group is at your disposal to develop an interface according to your needs or specifications.
Mobicall is available in six languages: German, French, Italian, English, Spanish and Chinese.

Mobicall – typical applications

Mobicall stands for: simple and clear solutions with a guaranteed inexpensive integration in the existing workflow and infrastructure.

Mobicall – in the security environment

Fire alarm, technical alarms

Bomb alert, evacuation

Heart alarm, nurse call

Dead men supervision, Guard Protection

Voice recording in sales sector

Mobicall – in the office environment

Voice over IP, gateway gatekeeper

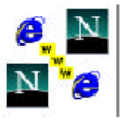
ACD-concepts, time controlled OGM

CRM, CC, UM Voice, Fax eMail to Fax

Wake-up Server Hotel solutions Evacuation

Conference calls, broadcast information

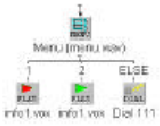
Mobicall – in system administration and special solutions



Web-Access Web-based configuration

Outlook Pop-up, Voicemail, Fax server

LCR test system, Prepaid calling cards

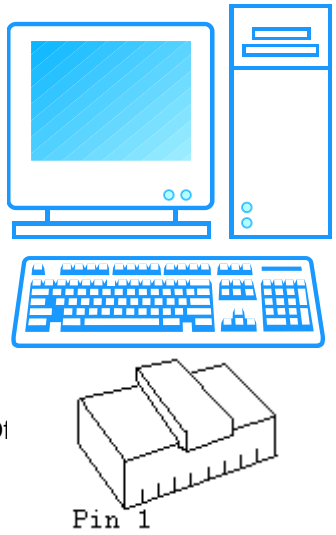


Special solutions custom design CRM, IVR, UM

Interfaces to all kinds of devices

11 Appendix B: Configuration requirements of the AAPP member's application

11.1 Hardware equipment configuration



- Mobicall is a PC-based alarming system, which can be installed on any table or in a rack, protected against dust, vibrations and humidity.
  One 17" screen with keyboard and mouse placed in front of a chair is perfect.
- Mobicall should be connected to an uninterrupted power supply with 6 plugs for PC, screen, modem for remote access, IP-boxes…
- Mobicall has one E1 trunk with Q-SIG GF protocol.
- There is one RJ45 plug reserved for the E1 interface from Mobicall-Alarm server to the Alcatel-Lucent OmniPCX Of Mobicall: 1+2 (RCV-Ring+ Tip) and 4+5 (XMIT_RING+Tip).

11.2 Software Configuration

➔ See document NV_Alcatel_DECT_EN.pdf

12 Appendix C: Alcatel-Lucent Communication Platform: configuration requirements

12.1 Site survey

The site survey is an important step to provide a reliable geolocation service. This step is needed to gather the information about the power level received by the DECT on different places of the site where the solution is deployed.

The Alarm server should not only be able to treat the information received by the DECT handsets but also to locate precisely where the alarm has been sent from. The main problem without site survey could be a building having antennas on more than one floor. Without this study it is nearly impossible to locate a DECT handset by pure theoretical calculation. For example if the emergency team is searching someone having a heart attack on the wrong floor, the loss of time is important.

The DECT handsets have the possibility to send information by a long press of different button. One way to do a site survey would be to interpret that information and compute it in a system containing the plan of the rooms and floors.

There could be many ways to do a site survey but it is a mandatory step to sell a reliable alarm server.

12.2 Equipment configuration

12.2.1 Handsets

12.2.1.1 General configuration

To configure the basic telephonic functions of the 500 DECT please read the following document:

- For OmniPCXEnterprise systems :*"Alcatel-Lucent 500 DECT Handset Alcatel-Lucent OmniPCX Enterprise User manual"* In the Technical Knowledge Base accessible via the Business Portal at https://businessportal.alcatel-lucent.com/ (the Technical Knowledge link is on the right of the window)

- For OmniPCX Office systems : *"Alcatel-Lucent 500 DECT Handset, Alcatel-Lucent OmniPCX Office User manual"*. In the Technical Knowledge Base accessible via the Business Portal https://businessportal.alcatel-lucent.com/ (the Technical Knowledge link is on the right of the window)

- Quick guide : *"Alcatel-Lucent 500 DECT Handset, User Guide"*. In the Technical Knowledge Base accessible via the Business Portal https://businessportal.alcatel-lucent.com/ (the Technical Knowledge link is on the right of the window)

To have more information about how to use the 400 DECT handset, please refer to the following document:

- *"Alcatel-Lucent 400 DECT Handset, Localisation and notification management, Configuration documentation"* In the Technical Knowledge Base accessible via the Business Portal https://businessportal.alcatel-lucent.com/ (the Technical Knowledge link is on the right of the window)

12.2.1.2 Geolocation and Notification configuration

Information about how to configure the geolocation specific parameters of the 500 DECT is contained in the documents:

- *"Alcatel-Lucent 500 DECT Handset User guide Localisation and notification management Configuration guide"* In the Technical Knowledge Base accessible via the Business Portal https://businessportal.alcatel-lucent.com/ (the Technical Knowledge link is on the right of the window)
- *"Alcatel-Lucent 500 DECT Handset User guide Localisation and notification management* User guide" In the Technical Knowledge Base accessible via the Business Portal https://businessportal.alcatel-lucent.com/ (the Technical Knowledge link is on the right of the window)

For the DECT 400 parameters please refer to the document:

- *"Alcatel-Lucent 400 DECT Handset, Localisation and notification management, User documentation"* In the Technical Knowledge Base accessible via the Business Portal https://businessportal.alcatel-lucent.com/ (the Technical Knowledge link is on the right of the window)

12.2.2 OmniPCX Office

12.2.2.1 Licences

In order to use the "Geolocation and Notification" server, only the standard licenses used on the OmniPCX Office to use DECT handsets and "Call handling for ISVPN service" (T2) or IP trunk (SIP) are needed.

12.2.2.2 Phone configuration

No specific configuration is needed for the 500 DECT. They are declared in the OmniPCX Office as 500 DECT phones as every "Geolocation and Notification" information is handled by the Alarm server.

12.2.2.3 Trunks configuration

In order to configure the trunks needed for the link between the Alarm server and the OmniPCX Office please refer to the document "Alcatel-Lucent OmniPCX Office Communication Server, Geolocation and Notification Management, Configuration procedure". This document can be found in the Technical Knowledge Base.

13 Appendix D: AAPP member's escalation process

13.1 Contact information

Address : ST Gallerstrasse 8 8856 Lachen
Main Phone : 0041 58 750 11 11
Main Fax : 0041 58 750 11 12
Main mail : info@newvoice.ch

13.2 3rd Party Support Detail

13.2.1 Contact

Address : ST Gallerstrasse 8 8856 Lachen
Main Phone : 0041 58 750 11 11
Main Fax : 0041 58 750 11 12
Main mail : support@newvoice.ch

13.2.2 General Information

The first level support is delegated to our resellers and installers. NewVoice, as a software editor only provides second level support.

The 2nd level support is mainly for configuration and installation problems. These are easy problems than can be solved pretty quickly.

There are two different support resolution methods :

- phone assistance : adapted for simple and recurrent questions
- on-line assistance with remote connexion : used as the highest level of support provided for incident resolution. Expert connect to the system to get more precise information (after a pre qualification) and to solve it

13.2.3 Severity Description and Response Times

Priority/Severity	Description	Response Time
Low	Trouble with installation, configuration	10min.
Blocking	Trouble with communication with other systems	30min to 24h

13.2.4 Support Level Definitions

Level	Description
1st	Qualification of an incident, a problem. Includes the collection of every configuration information, a detailed description of the problem occuring and the cinematic conducting to that problem.
2nd	Resolution of an incident. Problems of configuration, installation of the application, or uneffective functionnalities.
3rd	Hardware issues. Since no hardware is provided, there is no such support level

13.2.5 Call Flow Description

There are two ways of joining the support team :

- by e-mail
- by phone

For each way, the flow is as follows :
Information like :

- problem description
- test scenario
- associated log files

will be asked as a base input for problem identification. Then the support team will provide help in configuration or bug-fixing, asking R&D if needed.

Support can also be used for first businesses to help the partner configure the system. Ideally all person involved in an installation has been trained by NewVoice, but due to the large number of modules in the application, it can occur that some points have never been seen by the partner, thus requiring help, that NewVoice will provide.

Escalation procedure is detailed with each partner to define the perimeter of responsibility.

14 Appendix E: AAPP program

14.1 Alcatel-Lucent Application Partner Program (AAPP)

The Application Partner Program is designed to support companies that develop communication applications for the enterprise market, based on Alcatel-Lucent's product family. The program provides tools and support for developing, verifying and promoting compliant third-party applications that complement Alcatel-Lucent's product family. Alcatel-Lucent facilitates market access for compliant applications.

The Alcatel-Lucent Application Partner Program (AAPP) has two main objectives:

- **Provide easy interfacing for Alcatel-Lucent communication products**: Alcatel-Lucent's communication products for the enterprise market include infrastructure elements, platforms and software suites. To ensure easy integration, the AAPP provides a full array of standards-based application programming interfaces and fully-documented proprietary interfaces. Together, these enable third-party applications to benefit fully from the potential of Alcatel-Lucent products.

- **Test and verify a comprehensive range of third-party applications**: to ensure proper inter-working, Alcatel-Lucent tests and verifies selected third-party applications that complement its portfolio. Successful candidates, which are labelled Alcatel-Lucent Compliant Application, come from every area of voice and data communications.

The Alcatel-Lucent Application Partner Program covers a wide array of third-party applications/products designed for voice-centric and data-centric networks in the enterprise market, including terminals, communication applications, mobility, management, security, etc.

Web site

The Application Partner Portal is a website dedicated to the AAPP members and potential candidates. It can be accessed at this URL:
http://applicationpartner.alcatel-lucent.com

14.2 Alcatel-Lucent.com

You can access the Alcatel-Lucent website at this URL: http://www.Alcatel-Lucent.com/

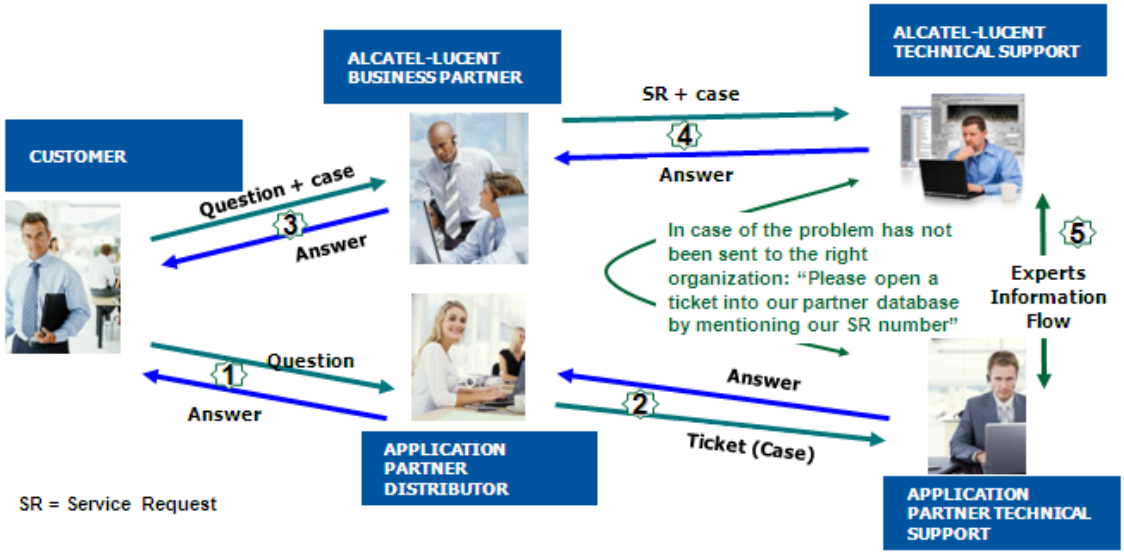
15 Appendix F: AAPP Escalation process

15.1 Introduction

The purpose of this appendix is to define the escalation process to be applied by the Alcatel-Lucent Business Partners when facing a problem with the solution certified in this document.

The principle is that Alcatel-Lucent Technical Support will be subject to the existence of a valid InterWorking Report within the limits defined in the chapter “Limits of the Technical support”.

In case technical support is granted, Alcatel-Lucent and the Application Partner are engaged as following:



(*) The Application Partner Business Partner can be a Third-Party company or the Alcatel-Lucent Business Partner itself

15.2 Escalation in case of a valid Inter-Working Report

The InterWorking Report describes the test cases which have been performed, the conditions of the testing and the observed limitations.

This defines the scope of what has been certified.

If the issue is in the scope of the IWR, both parties, Alcatel-Lucent and the Application Partner, are engaged:

Case 1: the responsibility can be established 100% on Alcatel-Lucent side.
In that case, the problem must be escalated by the ALU Business Partner to the Alcatel-Lucent Support Center using the standard process: open a ticket (eService Request –eSR)

Case 2: the responsibility can be established 100% on Application Partner side.
In that case, the problem must be escalated directly to the Application Partner by opening a ticket through the Partner Hotline. In general, the process to be applied for the Application Partner is described in the IWR.

Case 3: the responsibility can not be established.
In that case the following process applies:

- The Application Partner shall be contacted first by the Business Partner (responsible for the application, see figure in previous page) for an analysis of the problem.

- The Alcatel-Lucent Business Partner will escalate the problem to the Alcatel-Lucent Support Center only if the Application Partner has demonstrated with traces a problem on the Alcatel-Lucent side or if the Application Partner (not the Business Partner) needs the involvement of Alcatel-Lucent.

In that case**,** the Alcatel-Lucent Business Partner must provide the reference of the Case Number on the Application Partner side. The Application Partner must provide to Alcatel-Lucent the results of its investigations, traces, etc, related to this Case Number.

Alcatel-Lucent reserves the right to close the case opened on his side if the investigations made on the Application Partner side are insufficient or do no exist.

Note: Known problems or remarks mentioned in the IWR will not be taken into account.

For any issue reported by a Business Partner outside the scope of the IWR, Alcatel-Lucent offers the "On Demand Diagnostic" service where Alcatel-Lucent will provide 8 hours assistance against payment.

IMPORTANT NOTE 1: The possibility to configure the Alcatel-Lucent PBX with ACTIS quotation tool in order to interwork with an external application is not
the guarantee of the availability and the support of the solution. The reference remains the existence of a valid InterWorking Report.

Please check the availability of the Inter-Working Report on the AAPP (URL: https://private.applicationpartner.alcatel-lucent.com) or Enterprise Business Portal (Url: Enterprise Business Portal) web sites.

IMPORTANT NOTE 2: Involvement of the Alcatel-Lucent Business Partner is mandatory, the access to the Alcatel-Lucent platform (remote access, login/password) being the Business Partner responsibility.

15.3 Escalation in all other cases

These cases can cover following situations:

1. An InterWorking Report exist but is not valid (see Chap 2 "Validity of an Interworking Report")

2. The 3rd party company is referenced as AAPP participant but there is no official InterWorking Report (no IWR published on the Enterprise Business Portal for Business Partners or on the Alcatel-Lucent Application Partner web site) ,

3. The 3rd party company is NOT referenced as AAPP participant

In all these cases, Alcatel-Lucent offers the "On Demand Diagnostic" service where Alcatel-Lucent will provide 8 hours assistance against payment.

15.4 Technical support access

The Alcatel-Lucent **Support Center** is open 24 hours a day; 7 days a week:

- e-Support from the Application Partner Web site (if registered Alcatel-Lucent Application Partner): http://applicationpartner.alcatel-lucent.com
- e-Support from the Alcatel-Lucent Business Partners Web site (if registered Alcatel-Lucent Business Partners): https://businessportal.alcatel-lucent.com click under "Let us help you" the *eService Request* link
- e-mail: Ebg_Global_Supportcenter@alcatel-lucent.com
- Fax number: +33(0)3 69 20 85 85
- Telephone numbers:

Alcatel-Lucent Business Partners Support Center for countries:

Country	**Supported language**	**Toll free number**
France	French	+800-00200100
Belgium		
Luxembourg		
Germany	German	
Austria		
Switzerland		
United Kingdom	English	
Italy		
Australia		
Denmark		
Ireland		
Netherlands		
South Africa		
Norway		
Poland		
Sweden		
Czech Republic		
Estonia		
Finland		
Greece		
Slovakia		
Portugal		
Spain	Spanish	

For other countries:

English answer: + 1 650 385 2193
French answer: + 1 650 385 2196
German answer: + 1 650 385 2197
Spanish answer: + 1 650 385 2198

END OF DOCUMENT