



Developer and Solution Partner Program Inter-Working Report

Partner: Aurenz
Solution name: AlwinPro Hotel
Alcatel-Lucent Enterprise Platform:
OXO Connect



February 2020

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Document history

Revision	Date	Author	Details
1	February 2020	Karthik Padmarajan Durgadevi Subash	Creation

Tests Overview

Date	February 2020
ALE representative	Thierry CHEVERT
Partner representative	Ralf Kloth
ALE platform	OXO Connect
ALE release	V3.2 .030.001
Partner solution	AlwinPro Hotel
Partner release	12.0
Solution categories	Property Management System (PMS)

Tests results

Passed Passed with restriction Postponed Refused

Refer to the section 4 for a summary of the test results.

IWR validity extension

None

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1.1 Definition

This document is the result of the certification tests performed between the DSPP member's solution and Alcatel-Lucent Enterprise's platform.

It certifies proper inter-working with the DSPP member's solution.

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, ALE 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 on:

- the Technical Support page of the Enterprise Business Portal (<https://businessportal.alcatel-lucent.com>) in the Interworking Reports corner (access is restricted to Business Partners and DSPP members)

1.2 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 DSPP member issues a new major release of such product (incorporating new features or functionalities), or until ALE issues a new major release of such Alcatel-Lucent Enterprise 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 1: *The InterWorking report becomes automatically obsolete when the mentioned product releases are end of life.*

Note 2: The renewal of the interoperability test (certification) is under the responsibility of the partner

Note 3: ALE usually generate a major release every 18 or 24 months. Therefore the IWR is implicitly valid for two year after the publication.

1.3 Limit of the technical support

For certified DSPP solutions, Technical support will be provided within the scope of the features which have been certified in the InterWorking report. The scope is defined by the InterWorking report via the tests cases which have been performed, the conditions and the perimeter of the testing and identified limitations. All those details are documented in the IWR. The Business Partner must verify an InterWorking Report (see above “Validity of the InterWorking Report) is valid and that the deployment follows all recommendations and prerequisites described in the InterWorking Report.

The certification does not verify the functional achievement of the DSPP member’s solution as well as it does not cover load capacity checks, race conditions and generally speaking any real customer's site conditions.

Access to technical support by the ALE Business Partner requires a valid ALE maintenance contract

For details on all cases (3rd party application certified or not, request outside the scope of this IWR, etc.), please refer to Appendix “DSPP Escalation Process”.

1.3.1 Case of additional Third-party applications

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

SOLUTION INFORMATION

Solution name	AlwinPro Hotel
Solution version	12.0
Interface/API	OHL
Interface/API version if relevant	OLD version 2.4.1

Brief Solution description:

AlwinPro Hotel can be integrated into existing telecommunications systems and IT landscapes. AlwinPro Hotel acts as middleware between the PBX and the hotel management system. Services such as telephone connection, Internet and TV are easy and comfortable to calculate and bill. This reduces the administrative burden and saves resources. All data is guest-related and processed in accordance with data protection laws. In addition, AlwinPro Hotel offers the full scope of a modern call accounting solution. The integrated guest management also allows check-in and check-out directly which should be extra interesting for bed and breakfasts and small guesthouses.. Easy to calculate internal costs or UC services to third parties as a service provider.

AlwinPro Hotel is the reliable and cost-saving option for today's requirements when it comes to billing of entertainment services. Patients are becoming demanding customers who expect more than good medical treatment and care. Web access via WLAN, using a laptop, tablet or smartphone is a must for patients of today. Telephone and TV must also be at hand in order to make the hospital-stay as comfortable as possible.

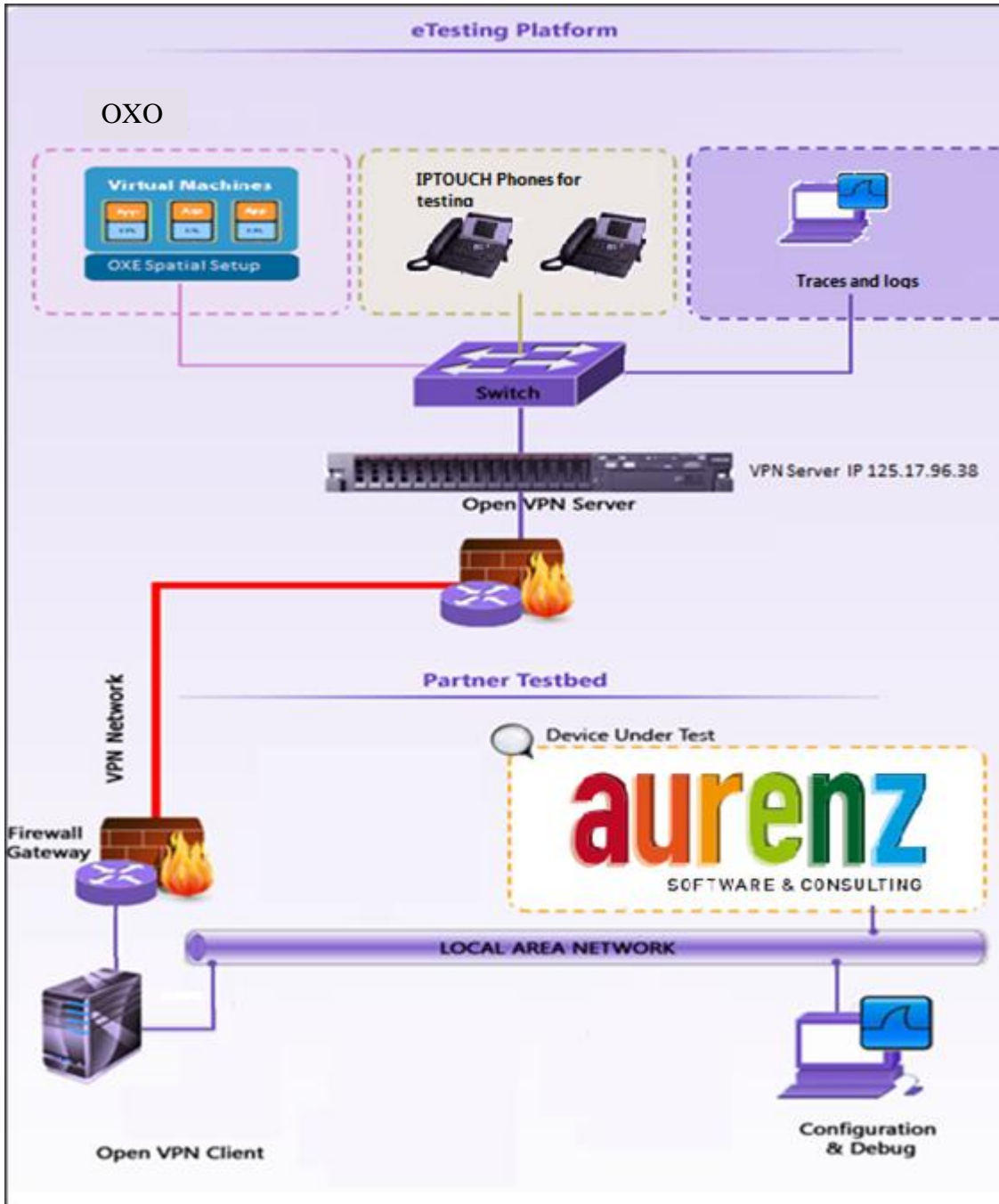


Figure 1 Test environment

3.1 Hardware configuration

- **Alcatel-Lucent Enterprise Communication Platform:** OXO Connect - ISDN T0, UA, digital and analogues sets.

Alcatel-Lucent Communication Platform:

- PowerCPU EE (for OXO connect)
- Power CPU-EE Rainbow ready



- Release: OXO Connect v3.2 .30.001
- OMC: 33.0.16.1a
- OLD version 2.4.1

3.2 Software configuration

- **Alcatel-Lucent Enterprise Communication Platform :** OXO Connect V.3.2/030.001
OLD version 2.4.1
- **Partner application Platform:** Aurenz Alwin proHotel

4.1 Summary of main functions supported

OK: Test passed, **NOK**: Test fail (add comment for reason), NA: Not Applicable (indicate reason: not tested, not supported on Partner side or Solution side and not mandatory).

Hospitality	
Connectivity PMS-Gateway-OXO	OK
TCP/IP connection and Keep-Alive	OK
Framing synchronization (Reply analysis)	OK
Link failure and recovery	OK
Subscriber password at 4 digits	
Check-in (Frame A)	OK
Check-out (Frame D)	OK
Modification (Name ,DND, Barring cat., wakeup time etc...) (Frame M)	OK
Phone allocation (DDI number allocation) (Frame H)	OK
Wake-Up events (Frame P)	OK
Call Metering Records (CDR or SMDR) (Frame J)	OK
Interrogation / Guest Telephone Account (Frames I / T)	N/A
Re-initialization Request / Answer (Frames Z / U)	OK Only re-init with room number is supported
Subscriber password at 6 digits	
Check-in (Frame B)	OK
Check-out (Frame D)	OK
Modification (Name ,DND, Barring cat., wakeup time etc...) (Frame N)	OK
Phone allocation (DDI number allocation) (Frame H)	OK
Wake-Up events (Frame P)	OK
Call Metering Records (CDR or SMDR) (Frame J)	OK

Interrogation / Guest Telephone Account (Frames I / T)	N/A
Re-initialization Request / Answer (Frames Z / V)	OK Only re-init with room number is supported

4.2 Summary of Problems

- None

4.3 Summary of limitations

Following features are not supported:

- Generate a check-in with a Deposit
- Generate a check-in and enable DND
- Modification of DND state
- Use of interrogation command

4.4 Notes, remarks

- Following features are not possible by Alwinpro Hotel applications due to the design:
Generate a check-in for an invalid guest room extension number
Generate a check-in with an already checked-in room extension number

5.1 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 <ul style="list-style-type: none"> Action Expected result 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	Test case 2 <ul style="list-style-type: none"> Action Expected result 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The application waits for PBX timer or phone set hangs up
3	Test case 3 <ul style="list-style-type: none"> Action Expected result 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Relevant only if the CTI interface is a direct CSTA link
4	Test case 4 <ul style="list-style-type: none"> Action Expected result 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No indication, no error message
...	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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 ALE side or on 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.

5.2 TCP/IP connection and Keep-alive mechanism (Mandatory)

5.2.1 Test objectives

These tests shall verify that the different components are properly connected and can communicate together (the external application and the Alcatel Communication Platform are connected and the interface link is operational).

5.2.2 Test results

Test Case Id	Test Case	N/A	OK	NOK	Comment
CNX101	PMS connects to PBX over TCP/IP <ul style="list-style-type: none"> ➤ PMS send TCP packet containing @FFFF ➤ PBX send back ACK 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CNX102	PMS sends keep-alive to PBX <ul style="list-style-type: none"> ➤ PMS sends frame \$FFFF every 30 seconds ➤ PBX do not answer with Ack 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Keep alive is programmed or 20 seconds
CNX103	PBX send keep-alive to PMS <ul style="list-style-type: none"> ➤ PBX sends frame \$xxxx to PMS, with xxx equal to node number, every 30 seconds ➤ PMS do not answer with Ack 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	We had Initial keep alive problems but it was fixed dynamically by the silverbyte team. The keep alive is working fine now.
Result	Connection and Supervision of TCP/IP link.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

To check the correct connection and supervision of link, you have to trace it on the OLD side using the log.txt file created by driver according to configuration of Log level.

Into logs, you'll find the following "sentences" to show the connection from PMS and the keep-alive from both sides:

- Connection from PMS (acked by Pbx)
 - > **MASTER : read from EXT APP "(STX)@FFFF(ETX)"** // Pbx read from computer link the connection frame.
 - > **MASTER write to node FFFFFFFF "(ACK)"** // Pbx write to computer link the Ack frame to send to PMS.
- Keep-alive from Pbx to PMS (not to be acked)
 - > **MASTER write to node FFFFFFFF "(STX)\$0001(ETX)"** // Pbx write to computer link the frame for keep-alive, here this PBX is node 0001.
- Keep-alive from PMS to PBX (not to be acked)
 - > **MASTER : read from EXT APP "(STX)\$FFFF(ETX)"** // PBX read the keep-alive of PMS.

5.3 Test Results – Subscriber with 4 digits password

5.3.1 PBX ↔ PMS - CHECK-IN from PMS Guest Room Number allocation by PMS

5.3.1.1 Test objectives

These tests shall verify that the check-in is performed as expected depending on the status of rooms and information to setup.

5.3.1.2 Test results

All check-in request are done with frame A unless you use the 6 digit password configuration where we use the frame B.

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
CIC101	Generate a check-in for a valid guest room extension number with guest name	A.....134.Mouse.Mick.....2.....139701.....5.1445.206 R 1341397I 21	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CIC102	Generate a check-in for an invalid guest room extension number	Reply = INV JG	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Application pops an error message when the PMS sends a reply
CIC103	Generate a check-in with an already checked-in room extension number	Reply = INV JA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Application pops an error message when the PMS sends a reply
CIC104	Generate a check-in with language parameter	Reply = I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CIC105	Generate a check-in with a wrong value in the language field	Reply = INV JG	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Language is always forced to be 1
CIC106	Generate a check-in with wake-up call time	Reply = I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wakeup done in modify frame
CIC107	Generate a check-in with wrong wake-up call time (e. g. 99:99)	Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC108	Generate a check-in with Dialling Restrictions (i.e. Barring)	Reply = I	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CIC109	Generate a check-in with a Deposit	Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC110	Generate a check-in with a bad Deposit value (e. g. 10.00)	Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC111	Generate a check-in and enable DND	Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CIC112	Generate a check-in with password	A.....134.Mouse.Mick.....2.....139701.....5.1445.206 R 1341397I 21	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CIC213	Auto Allocate a DDI (Direct Dial Inwards) number to a checked -in GUEST ROOM		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
CIC214	Auto Allocate a DDI (Direct Dial Inwards) number to a checked -in GUEST ROOM when there are no free DDI numbers available		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC115	Generate a check-in with bad DND parameter	Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC116	Generate a check-in with room extension forwarded to voicemail	Reply = I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC117	Generate a check-in with bad Password parameter (e. g. illegal characters)	Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC118	Generate a check-in for a room set which is out of service (check-in should still work!)	Reply = I	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Result	CHECK-IN from PMS with GUEST NUMBER allocation by PMS		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.3.2 PBX ↔ PMS - MODIFICATION of GUEST configuration

5.3.2.1 Test objectives

Check the ability of the application to change GUEST configuration data.

5.3.2.2 Test procedure

All requests for this test are done with frame M or frame N in case of 6 digits password.

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
MOC101	Modification of GUEST with new password		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC102	Modification with deposit		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC103	Modification of language parameter	M 105 2 R 105ppppppM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MOC104	Modification on Dialling Restrictions (i.e. Guest room outward dialling Barring)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC105	Modification of the name		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC106	Programming of the Wake-up call	M 134 Goofy 1 01 5 1455 23 R 1341397M 25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
MOC106	Cancellation of the Wake-up call	M 106 00000000 0 00000 R 1066533M	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC107	Modification of DND state		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MOC108	Modification of DDI number (eg. Allocate new DDI to a room)	OHL: ← H 105D OHL → R 1051515A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Result	MODIFICATION of GUEST configuration		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.3.3 PBX ↔ PMS - ROOM STATUS change

5.3.3.1 Test objectives

Check the ability of the application to change the room status.

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
STAT 101	Room status change message with maid room problem identification code from a room phone	Dial 88 + 0 (room has been cleaned) C 1051000 RE RN105 RS1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maid ID code is not considered.
STAT 102	Room status change message without maid problem identification code from a room phone		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
STAT 103	Room status change message with maid 'Clean' Status and 'no problem' code (000 or nothing) from a room phone	Dial 88 + 0 (room has been cleaned) C 1061000 RE RN106 RS1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maid ID or problem ID code is not considered and application takes into account only the status
STAT 104	Room status change message with maid room 'Unclean' and 'problem' identification code from a room phone	Dial 88 + 1 + 123 (room not cleaned and problem code 123) C 1062123 RE RN106 RS2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maid ID or problem ID code is not considered and application takes into account only the status
Result	ROOM STATUS change		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.3.4 PBX ↔ PMS - WAKE- UP events

5.3.4.1 Test objectives

Check the ability of the application to manage wake-up events

5.3.4.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
WUP101	Wake-up message with normal answer		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP102	Wake-up message with no answer		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP103	Wake-up message with busy line		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP104	Wake-up message with out of order line		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP105	Wake-up cancellation message from Operator		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP106	Wake-up message generated by programming on guest phone		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP107	Wake-up message generated by modification on guest		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP108	Wake-up cancellation generated by guest		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Result	WAKE- UP events		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.3.5 PBX ↔ PMS - Management of CALL TICKETS (Station Message Detail Recording)

5.3.5.1 Test objectives

Check the ability of the application to manage call tickets

5.3.5.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
CAT101	SMDR message of a charged outgoing call with pulses or cost. Call done on room extension.	Request = Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT102	SMDR message of a charged outgoing call with pulses or cost. Call done on booth extension	Request = Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT104	SMDR message of a transferred outgoing call from GUEST to GUEST with pulses or cost	Request = Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT105	SMDR message of a transferred outgoing call from an ADMIN extension to a GUEST with pulses or cost	Request = Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT106	SMDR message of a non-charged outgoing call (Free call destination e. g. 0800)	Request = Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT107	SMDR message of an incoming call	Request = Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT108	SMDR message of a transferred incoming call	Request = Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT109	SMDR message of a transferred outgoing call from ROOM1 to ROOM2 which is forwarded on mail box	Request = Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT110	SMDR message of a charged outgoing call with pulses or cost. Call done on booth phone using MTR and the charge assigned to a guest room	Request = Reply =	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Result	Management of CALL TICKETS: Station Message Detail Recording.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.3.6 PBX←→PMS-Interrogation management followed by Guest Telephone Account

5.3.6.1 Test objectives

To check the ability of the application to get information from PBX using the Interrogation command.

5.3.6.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
INT101	Asks for the Guest room extension telephone accounts.	Request = I.....15558 Reply = T.....1550000.....0.00...0.....6B	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not supported by application
INT102	Asks for the Guest room extension telephone accounts using a Guest room number which is out of the range.	Request = Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not supported by application
INT103	Asks for the Guest room extension telephone accounts using a Guest room number which is not checked in.	Request = Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not supported by application
INT104	Asks for the Guest room extension telephone accounts Verify the management of Cost, Total Deposit and Guest balance.	Request = Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not supported by application
Result	INTERROGATION management followed by Guest Telephone Account.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not supported by application

5.3.7 PBX ↔ Hotel Application – CHECK-OUT of Guest

5.3.7.1 Test objectives

These tests shall verify that the check-out performed as expected depending on the status of rooms.

5.3.7.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
COC101	Check Out of a guest room number		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC102	Check Out of a guest which room line is busy in an external call.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC103	Check Out of a guest with not consulted messages in the associated voice mail box	Request = D Reply = O	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC104	Check Out of an invalid guest room number	D 200 S 200 PG	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Application pops an error message when the PMS sends a reply. So check out with invalid guest is not by design of the application
COC105	Check Out of a none checked in guest room number	Request = D Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Application pops an error message when the PMS sends a reply.
COC106	Verify metering bills by checking-out a guest room number		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC107	Verify metering bills by checking out a guest room number which was transferred from one room to another room and called from each of them		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC108	Verify metering bills by checking-out a guest room number which call from a booth extension (i.e. MTR call assignment to a room by operator)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Result	CHECK OUT GUEST NUMBER		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.3.8 PBX ↔ PMS - Database Re-initialization Request (Mandatory)

5.3.8.1 Test objectives

These tests shall verify that the Initialization requests are performed as required.

5.3.8.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
REI101	Generate a re-initialization request for a specific GUEST room number - Full guest re-initialization		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
REI102	Generate a re-initialization request for a specific GUEST room number - Partial guest re-initialization	Z.....155P1B U.....155.....176743	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
REI103	Generate a re-initialization request for a GUEST room number out of range		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
REI104	Generate a re-initialization request for a specific GUEST room number not checked in.	Request = Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
REI105	Generate a re-initialization request for all GUESTS checked-in: - Full guest re-initialization.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
REI106	Generate a re-initialization request for all GUESTS checked-in: - Partial guest re-initialization.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Result	Re-initialization Request		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Only full re-initization with room number is supported.

5.3.9 Disruption of OHL Link (Mandatory)

5.3.9.1 Test objectives

These tests shall verify that the application does not hang or loose data in case of link disruptions..

5.3.9.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
DIS101	Cut the ethernet link between PMS interface and the OmniPCX Office: Generate some events like check-in, Phone allocations from the PMS . Establish the link and verify that the events are sent to the OmniPCX.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DIS102	Power off the PMS interface and generate some events from the OXO side. Restart the interface and verify that the events are sent and taken in consideration on the PMS side		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DIS103	If the PMS is composed with several devices, the same tests have to be done by powering off and restarting separately the different devices.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DIS104	Generate an XOFF on the . Generate some events on PMS. Send an XON on the OXO side.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Result	DISRUPTION OF OHL LINK		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.4 Test Results – Subscribers with 6 digits password

5.4.1 PBX ↔ PMS - CHECK-IN from PMS Guest Room Number allocation by PMS

5.4.1.1 Test objectives

These tests shall verify that the check-in is performed as expected depending on the status of rooms and information to setup.

5.4.1.2 Test results

All check-in request are done with frame A unless you use the 6 digit password configuration where we use the frame B.

Test Case Id	Test Case	Messages	N/A	OK	NOK	Comment
CIC201	Generate a check-in for a valid guest room extension number with guest name	STX GI RN105 GNLami nette GLFR GV0 ETX B 155 Alström Ha 1 03 8B	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CIC202	Generate a check-in for an invalid guest room extension number	B 134 S 200 JG Reply = INV JG	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Application pops an error message when the PMS sends a reply
CIC203	Generate a check-in with an already checked-in room extension number	Reply = INV JA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Application pops an error message when the PMS sends a reply
CIC204	Generate a check-in with language parameter	B 134 Hoffa Jimm 3 01 03 S 1341515151 28	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CIC205	Generate a check-in with an wrong value in the language field	S 106 JK Action J – Check-in Refused Reason K – Wrong Message	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Language is always forced to be 1
CIC206	Generate a check-in with wake-up call time	Reply = I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wakeup done in modify frame
CIC207	Generate a check-in with wrong wake-up call time (e. g. 99:99)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC208	Generate a check-in with Dialling Restrictions (i.e. Barring)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CIC209	Generate a check-in with a Deposit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC210	Generate a check-in with a bad Deposit value (e. g.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the

Test Case Id	Test Case	Messages	N/A	OK	NOK	Comment
	10.00)					application
CIC211	Generate a check-in and enable DND		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CIC212	Generate a check-in with password		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CIC213	Auto Allocate a DDI (Direct Dial Inwards) number to a checked -in GUEST ROOM		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CIC214	Auto Allocate a DDI (Direct Dial Inwards) number to a checked -in GUEST ROOM when there are no free DDI numbers available		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC215	Generate a check-in with bad DND parameter		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC216	Generate a check-in with room extension forwarded to voicemail		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC217	Generate a check-in with bad Password parameter (e. g. illegal characters)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
CIC218	Generate a check-in for a room set which is out of service (check-in should still work!)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Result	Check-In of Guest		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.4.2 PBX ↔ PMS - MODIFICATION of GUEST configuration

5.4.2.1 Test objectives

Check the ability of the application to change GUEST configuration data

5.4.2.2 Test procedure

All requests for this test are done with frame M or frame N in case of 6 digits password.

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
MOC201	Modification of GUEST with new password		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC202	Modification with deposit		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC203	Modification of language parameter	N 105 2 S 105ppppppppM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
MOC204	Modification on Dialling Restrictions (i.e. Guest room outward dialling Barring)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC205	Modification of the name		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC206	Programming of the Wake-up call	WR RN106 DA180613 TI 192000 N 106 00000000 0 1920 S 106653365M	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC207	Cancellation of the Wake-up call	WC RN106 DA180613 TI 192000 N 106 00000000 0 00000 S 106653365M	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MOC208	Modification of DND state		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not possible by design of the application
MOC209	Modification of DDI number (eg. Allocate new DDI to a room)	OHL: ← H 105D OHL → S 105151515A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Result	MODIFICATION of GUEST configuration		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.4.3 PBX ↔ PMS - ROOM STATUS change

5.4.3.1 Test objectives

Check the ability of the application to change the room status.

5.4.3.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
STAT201	Room status change message with maid room problem identification code from a room phone	Dial 88 + 0 (room has been cleaned) C 1051000 RE RN105 RS1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maid ID code is not considered.
STAT202	Room status change message without maid problem identification code from a room phone		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
STAT203	Room status change message with maid 'Clean' Status and 'no problem' code (000 or nothing) from a room phone	Dial 88 + 0 (room has been cleaned) C 1061000 RE RN106 RS1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maid ID or problem ID code is not considered and application takes into account only the status
STAT204	Room status change message with maid room 'Unclean' and 'problem' identification code from a room phone	Dial 88 + 1 + 123 (room not cleaned and problem code 123) C 1062123 RE RN106 RS2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maid ID or problem ID code is not considered and application takes into account only the status
Result	ROOM STATUS change		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.4.4 PBX ↔ PMS - WAKE- UP events

5.4.4.1 Test objectives

Check the ability of the application to manage wake-up events

5.4.4.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
WUP201	Wake-up message with normal answer		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP202	Wake-up message with no answer		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP203	Wake-up message with busy line		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP204	Wake-up message with out of order line		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP205	Wake-up cancellation message from Operator		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP206	Wake-up message generated by programming on guest phone		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP207	Wake-up message generated by modification on guest		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WUP208	Wake-up cancellation generated by guest	Dial 60 and hang up P 105W C 1306181921 WC RN105 DA1806 13 TI	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Result	WAKE- UP events		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.4.5 PBX ↔ PMS - Management of CALL TICKETS (Station Message Detail Recording)

5.4.5.1 Test objectives

Check the ability of the application to manage call tickets.

5.4.5.2 Test procedure

Test Case Id	Test Case	Messages	N/A	OK	NOK	Comment
CAT101	SMDR message of a charged outgoing call with pulses or cost. Call done on room extension.	J 105 10 130618181828 003422.00 N0010390677154 STX PSRN105 DA1806 13 DU000342 DD03906 77154 SO1 TA36 PTC ETX	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT102	SMDR message of a charged outgoing call with pulses or cost. Call done on Operator and transferred to booth extension	2 tickets	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT103	SMDR message of a transferred outgoing call from GUEST to GUEST with pulses or cost		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT104	SMDR message of a transferred outgoing call from an ADMIN extension to a GUEST with pulses or cost		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT105	SMDR message of not charged outgoing call (Free call destination e. g. 0800)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT106	SMDR message of an incoming call		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT107	SMDR message of a transferred incoming call		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT108	SMDR message of a transferred outgoing call from ROOM1 to ROOM2 which is forwarded on mail box		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CAT109	SMDR message of a charged outgoing call with pulses or cost. Call done on booth phone using MTR and the charge assigned to a guest room		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Test Case Id	Test Case	Messages	N/A	OK	NOK	Comment
Result	Management of metering call tickets		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.4.6 PBX↔PMS-Interrogation management followed by Guest Telephone Account

5.4.6.1 Test objectives

Check the ability of the application to get information from PBX using the Interrogation command

5.4.6.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
INT201	Asks for the Guest room extension telephone accounts.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
INT202	Asks for the Guest room extension telephone accounts using a Guest room number which is out of the range.	Request = Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
INT203	Asks for the Guest room extension telephone accounts using a Guest room number which is not checked in.	Request = Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
INT204	Asks for the Guest room extension telephone accounts Verify the management of Cost, Total Deposit and Guest balance.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Result	INTERROGATION management followed by Guest Telephone Account.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5.4.7 PBX ↔ Hotel Application - CHECK-OUT Guest

5.4.7.1 Test objectives

These tests shall verify that the check-out performed as expected depending on the status of rooms.

5.4.7.2 Test procedure

Test Case Id	Test Case	REPLY message expected from PBX	N/A	OK	NOK	Comment
COC101	Check Out of a guest room number		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC102	Check Out of a guest which room line is busy in an external call.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC103	Check Out of a guest with not consulted messages in the associated voice mail box	Request = D Reply = O	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC104	Check Out of an invalid guest room number	D 200 S 200 PG	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Application pops an error message when the PMS sends a reply. So check out with invalid guest is not by design of the application
COC105	Check Out of a none checked in guest room number	Request = D Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Application pops an error message when the PMS sends a reply.
COC106	Verify metering bills by checking-out a guest room number		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC107	Verify metering bills by checking out a guest room number which was transferred from one room to another room and called from each of them		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC108	Verify metering bills by checking-out a guest room number which call from a booth extension (i.e. MTR call assignment to a room by operator)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Result	CHECK OUT GUEST NUMBER		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5.4.8 PMS → PBX – Database Re-initialization Request and PBX → PMS - Re-initialization Reply

5.4.8.1 Test objectives

These tests shall verify that the Initialization requests are performed as required.

Request from PMS with Z frame with type F or P (Full or Partial).

Reply from PBX with V frames and sub-type F/P (Full on-going or Partial) and E (end)

5.4.8.2 Test procedure

Test Case Id	Test Case	Messages	N/A	OK	NOK	Comment
REI101	Generate a re-initialization request for a specific GUEST room number - Full guest re-initialization.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
REI102	Generate a re-initialization request for a specific GUEST room number - Partial guest re-initialization.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
REI103	Generate a re-initialization request for a GUEST room number out of range		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
REI104	Generate a re-initialization request for a specific GUEST room number not checked in.	Request = Reply =	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
REI105	Generate a re-initialization request for all GUESTS checked-in: - Full guest re-initialization.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
REI106	Generate a re-initialization request for all GUESTS checked-in: - Partial guest re-initialization.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Result	REINIT REQUEST		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Only full re-initization with room connection is supported.

5.4.9 Disruption of OHL Link (Mandatory)

5.4.9.1 Test objectives

These tests shall verify that the application does not hang or loose data in case of link disruptions.

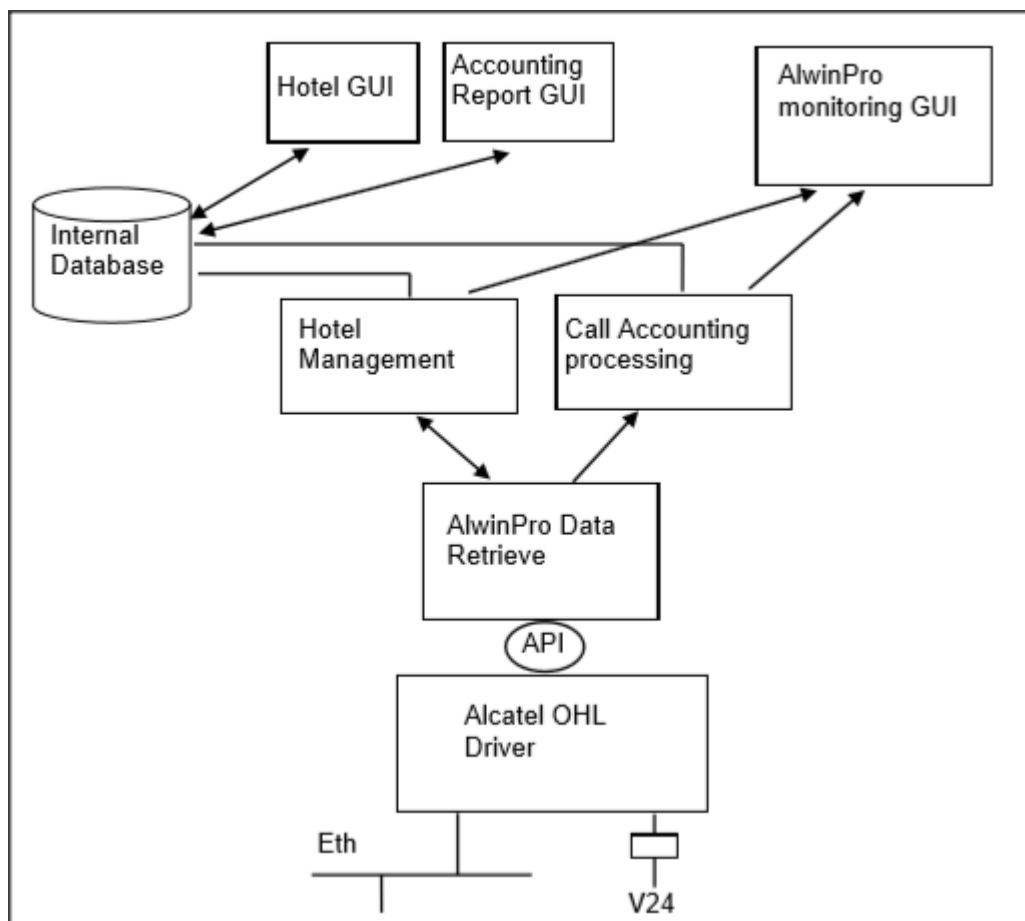
5.4.9.2 Test procedure

Test Case Id	Test Case	N/A	OK	NOK	Comment
DIS101	Cut the Ethernet link between PMS interface and the OmniPCX Office: Generate some events like check-in, Phone allocations from the PMS . Establish the link and verify that the events are sent to the OmniPCX.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DIS102	Power off the PMS interface and generate some events from the OXO side. Restart the interface and verify that the events are sent and taken in consideration on the PMS side	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DIS103	If the PMS is composed with several devices, the same tests has to be done by powering-off/Disable and restarting separately the different devices.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DIS104	Generate an XOFF on the OmniPCX Office. Generate some events on PMS. Send an XON on the OXO side.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Result	Dirsrption of link and recover	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

6.1 General Architecture

The AlwinPro Hotel Application is a 32-bit Windows application for recording and reporting data. The main functionalities are call accounting, Hotel guests management.

General Architecture



The Data retrieve module is storing all call information and supplies it to the different applications. AlwinPro Hotel/Care collects CDRs via the OLD driver.

Specific Details

Specify here any specific characteristics of the application (example: number of calls that can be recorded, programmed functions available, integrated functions).

The portfolio of Aurenz GmbH consists of the products - "AlwinPro", AlwinPro Hotel, AlwinPro Care and "Anna4". The AlwinPro Application is a 32-bit Windows application for recording and reporting call data. The main functionalities are call accounting. The applications AlwinPro and Anna4 can be purchased also as Package "Two in One". The data retrieve module of both applications are the same. The new application AlwinPro Hotel/Care uses specific features necessary for guest management but still uses the same data retrieval module. AlwinPro Hotel/Care uses the AHL/OHL protocol to allow additional features. An overview of the Products can be found on aurenz web site.

Application Features are:

Features of Alwin Pro

Controlling-Software Precise cost-calculation using detailed tariff-information from the provider/carrier Multi-faceted data-assessment platform, as well as incomparable security Completely automatic, unnoticed running in background Modular construction, flexible and individually configurable Connection to PABX using protocol-interfaces Networking Capability Multi-user New Features AlwinPro Implementation of mobile call data (EDIFACT) Send reports as pdf attachment Self configuring tool for new scripts Support of GPIN functionality

The Software Anna4 that can be combined with the AlwinPro Software is designed for call analyzing and quality statistics. In general the tool allows you to analyze the costs of telecommunications and the telephone usage and behaviour of the staff. The results are displayed in statistical diagrams, tables and ranking lists. The statistic tool Anna4 makes the telecommunication network transparent and allows optimizing the cost structure in a company.

The maximum number of calls to be processed by the application is mainly limited by the client Hardware.

Features of Anna4

This is a companion application which purpose is to offer statistics and performance analysis on the customer telephony system by deeply parsing the call tickets as collected by AlwinPro or AlwinPro Hotel. The details are:

1. Cost management

Total phone-costs phone-costs of wired network phone-costs of mobile network Comparison of different carrier Hitlists (Ranking of the most expensive calls, or long duration calls etc.)

2. Quality management

Phone-behaviour (how many calls are lost due to no answer or occupied) Ring-time assumed calls. Ring-time lost calls Time dependently comparison of phone-behaviour Monthly comparison (total and percentage) Annually comparison (total and percentage) Comparison of the ring-time Ranking of the Top 7 extensions Analysis of customer contacts Successful and lost customer contacts Successful contacts (number of calls to be successful) Lost calls (how many tries to get a contact) Geographic distribution of calls Customer contacts (time dependent comparison) Monthly comparison (total and percentage) Annually comparison (total and percentage) Daily comparison (total and percentage) Evaluation of groups Successful contacts Lost contacts

3. Traffic analysis

Total traffic (inbound and outbound) Traffic outbound/inbound Per day/week/month Traffic official/private Per day/week/month performance of telephone lines (daily/weekly/monthly) average and maximum number of used lines Time at the phone Daily/weekly/monthly

4. XML statistics

Telephone behaviour Development of Telephone behaviour cost development number of calls time at the phone

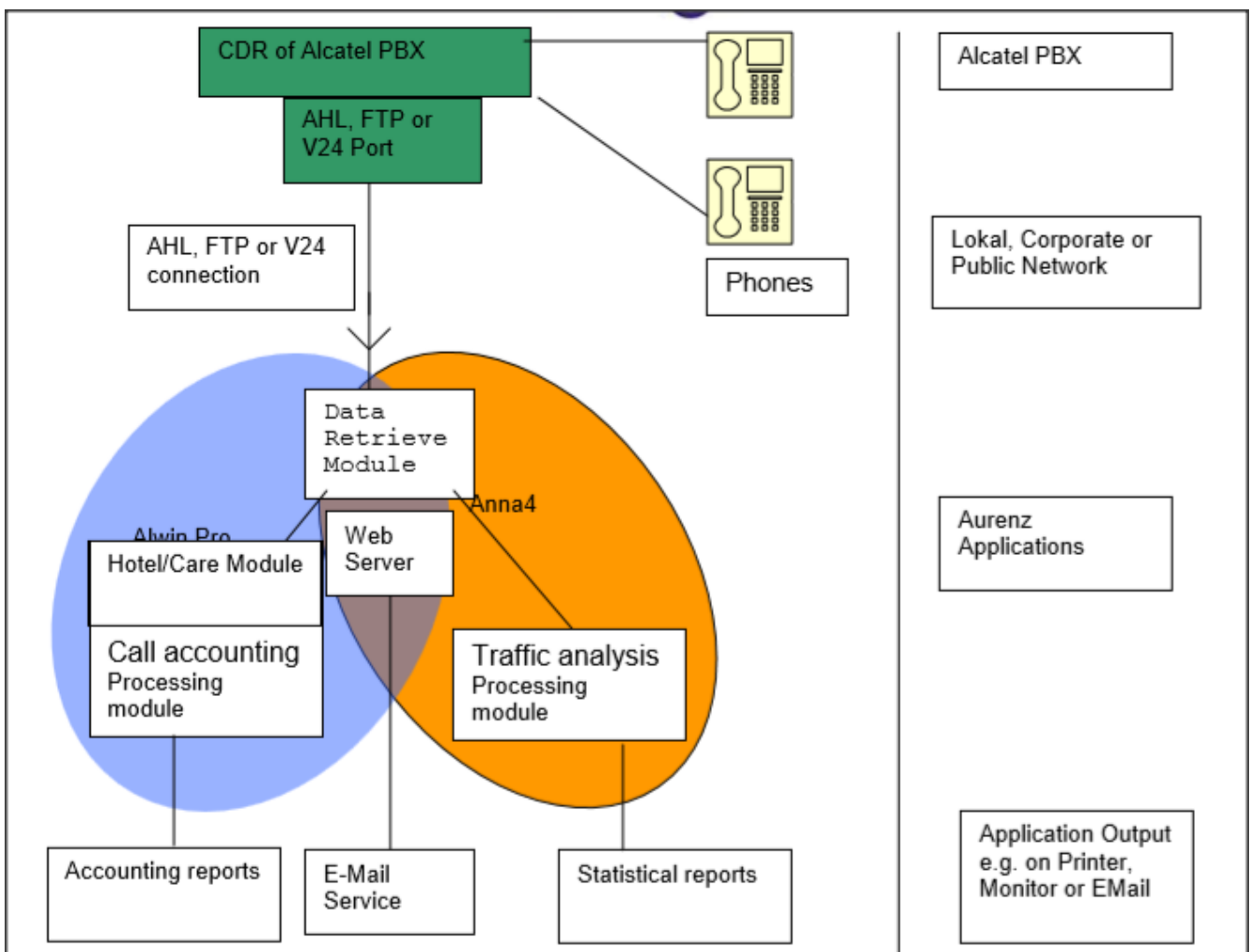
Features of AlwinPro Hotel

customer Check in check out group check in Room status for cleaning staff Wakeup call setting Guest Phone cost accounting and billing Change phone status (close lines if no allowance) Deposit amount Visual and audible alarm messages Account balancing

Additional Features of AlwinPro Care

Audio Deposit amount statement Room change feature (GPIN necessary) Guest identification with Health insurance Card

The maximum number of calls to be processed by the application is mainly limited by the client Hardware.



The Data retrieval module is storing all call information and supplies it to the different applications.

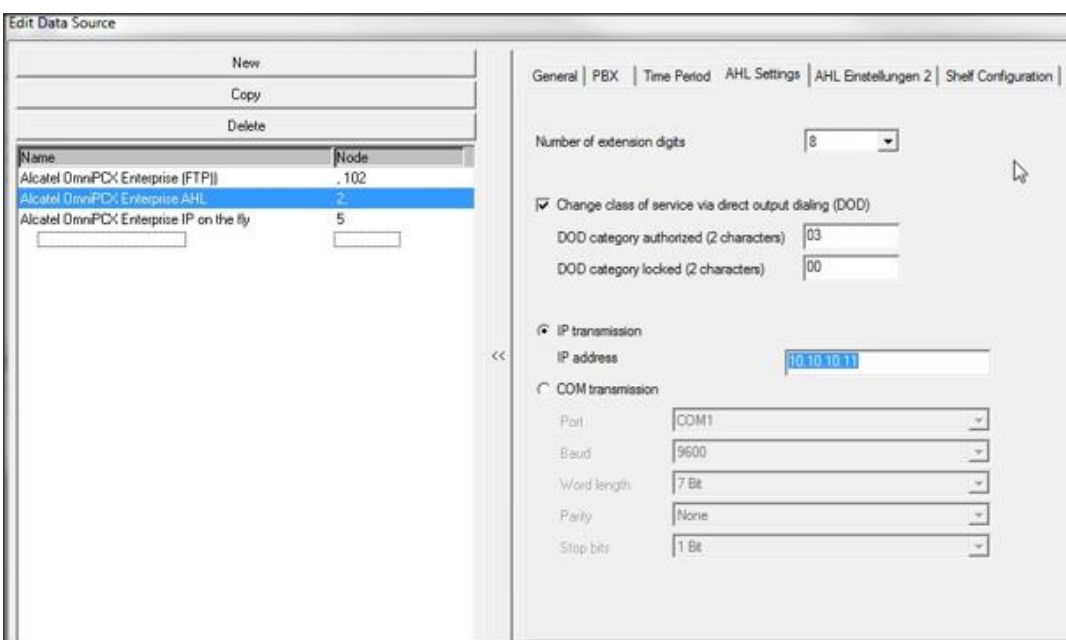
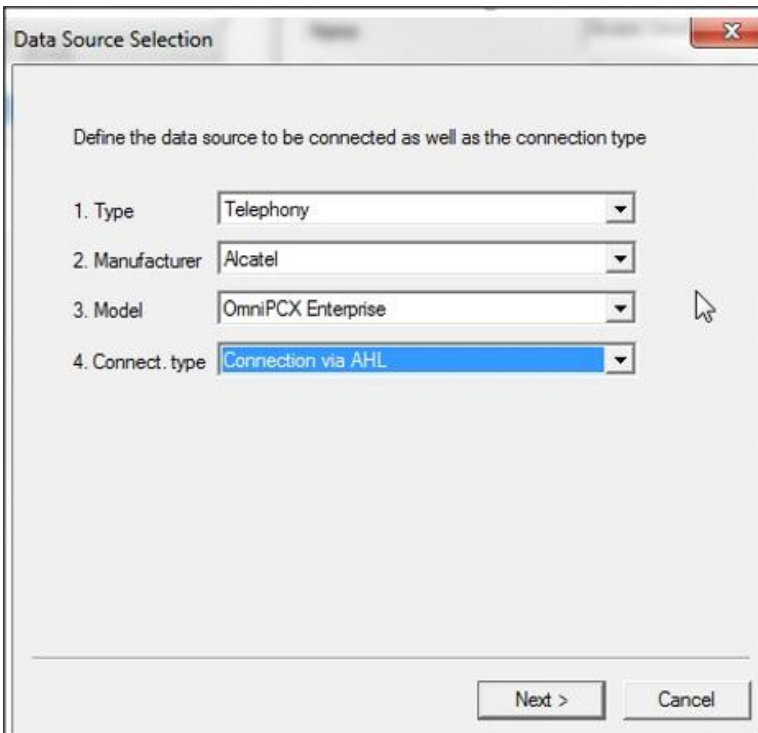
The only External Device used is a buffer for up to 8.000 call data records, called "SafetyBox". The connection is established via simple RS 232 similar to the connection to the PBX. The SafetyBox also can be connected to a modem. This allows to collect the records from a distant site.

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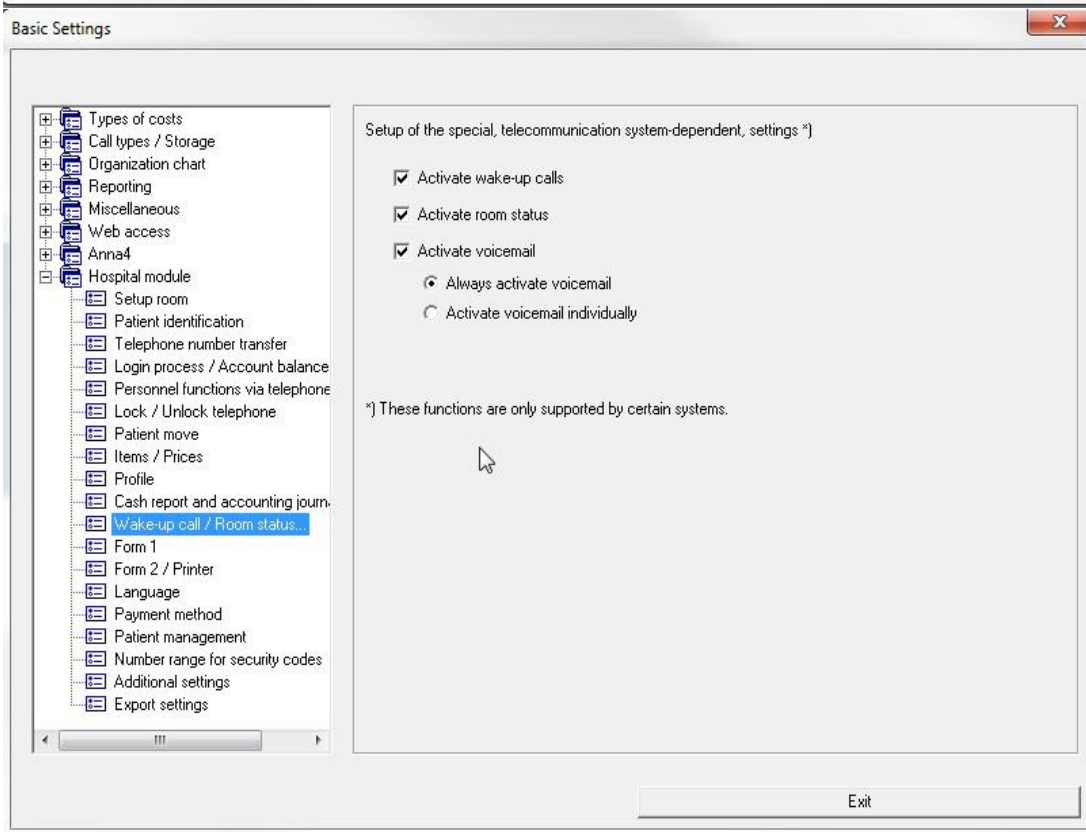
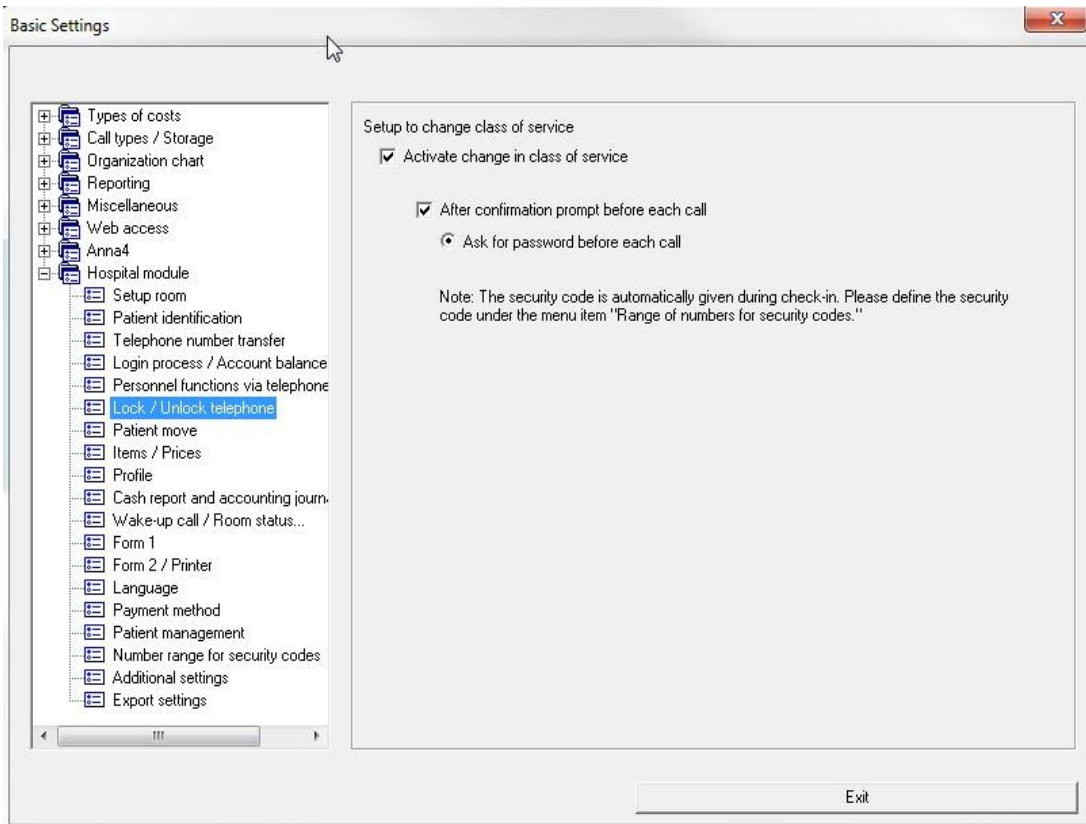
Appendix B: PARTNER side CONFIGURATION

Application setup – Link and general settings configuration.

Here is the selection to perform for AHL operation

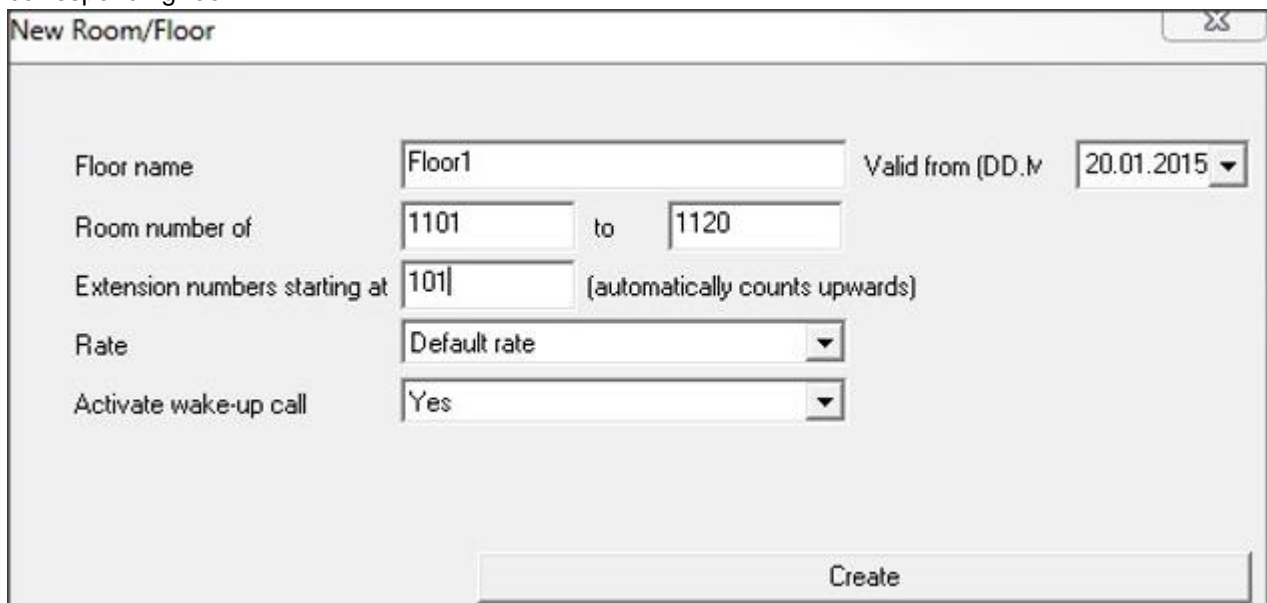


How to setup barring parameters



Application usage – Room settings

A room directory entry is built automatically as soon as a new extension number is found in call data records. It is up to the operator to classify the entry into the hotel organization and bring additional information for the corresponding room.

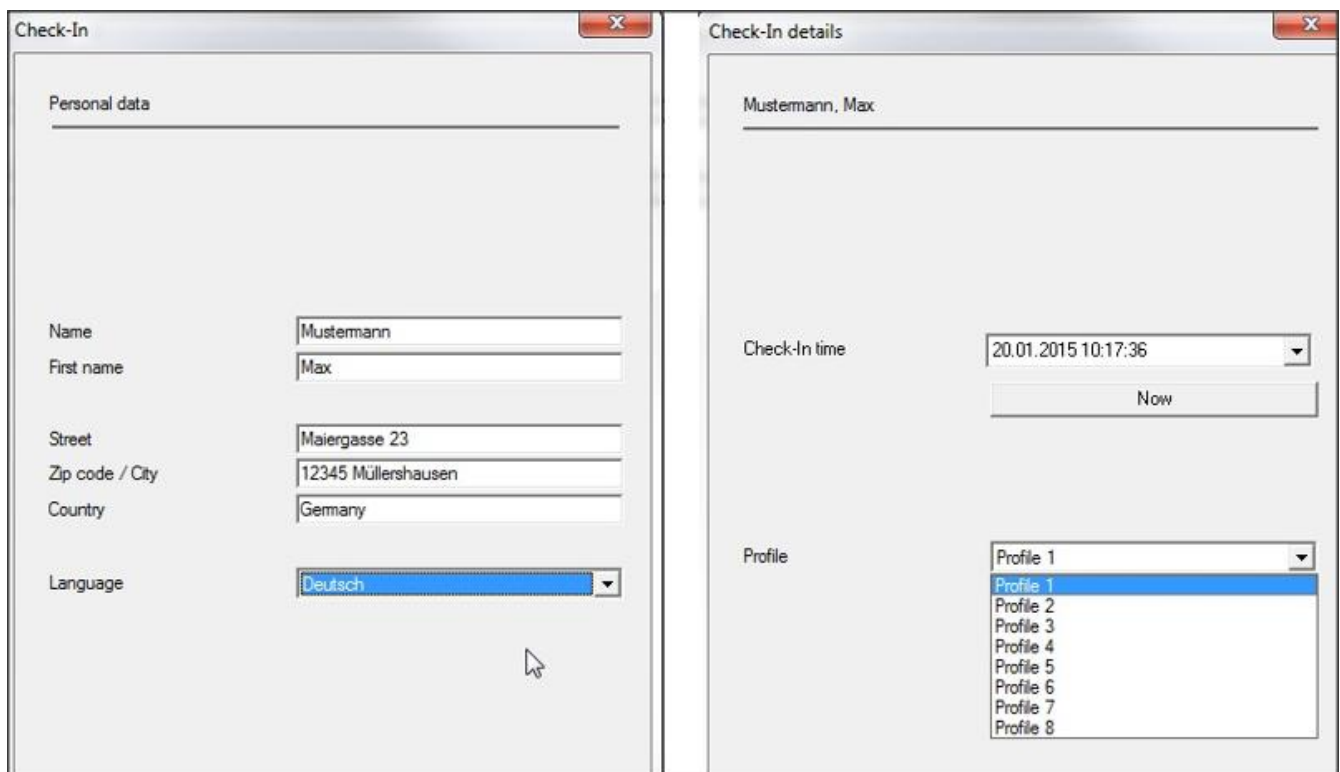


The screenshot shows a window titled "New Room/Floor" with a close button in the top right corner. The window contains several input fields and dropdown menus:

- Floor name:** A text input field containing "Floor1".
- Valid from (DD.MM):** A date dropdown menu showing "20.01.2015".
- Room number of:** Two text input fields, the first containing "1101" and the second containing "1120", with the word "to" between them.
- Extension numbers starting at:** A text input field containing "101", followed by the text "(automatically counts upwards)".
- Rate:** A dropdown menu showing "Default rate".
- Activate wake-up call:** A dropdown menu showing "Yes".

At the bottom center of the window is a large "Create" button.

Application usage – Check-in



The screenshot shows two side-by-side windows. The left window is titled "Check-In" and contains a "Personal data" section with the following fields:

- Name:** "Mustermann"
- First name:** "Max"
- Street:** "Maiergasse 23"
- Zip code / City:** "12345 Müllershausen"
- Country:** "Germany"
- Language:** "Deutsch" (selected in a dropdown menu)

The right window is titled "Check-In details" and shows the name "Mustermann, Max" at the top. Below it are:

- Check-In time:** A dropdown menu showing "20.01.2015 10:17:36" and a "Now" button below it.
- Profile:** A dropdown menu showing "Profile 1" selected, with a list of options: Profile 1, Profile 2, Profile 3, Profile 4, Profile 5, Profile 6, Profile 7, and Profile 8.

Application usage – Guest call status report

AlwinPro - [Bildschirmvorschau [Einzelverbindungsachweise]]

100% Seite 6 1 2 3 4 5 6 7 8 9 10 11 12

Dienstliche Auswertungen
Private Auswertungen
Projekt Auswertungen
Erweiterte Auswertungen
Bildschirmauswertung
Einzelverbindungsachweise
Gesamtübersicht Kostenstellen
Gesamtübersicht Abteilungen
Gesamtübersicht Teilnehmer
Pro Abteilung Teilnehmersummen
Pro Kostenstelle Abteilungssummen
Pro Kostenstelle Teilnehmersummen
Rechnungsstellung
Netzanbieterkontrolle
Organigrammausdruck
Datenexport
Datenlöschung

Einzelnachweis der Verbindungen Projekt <1065> AlwinPro
Auswertungszeitraum 01.01.1980 00:00:00 - 31.12.2035 23:59:59 26.10.2004

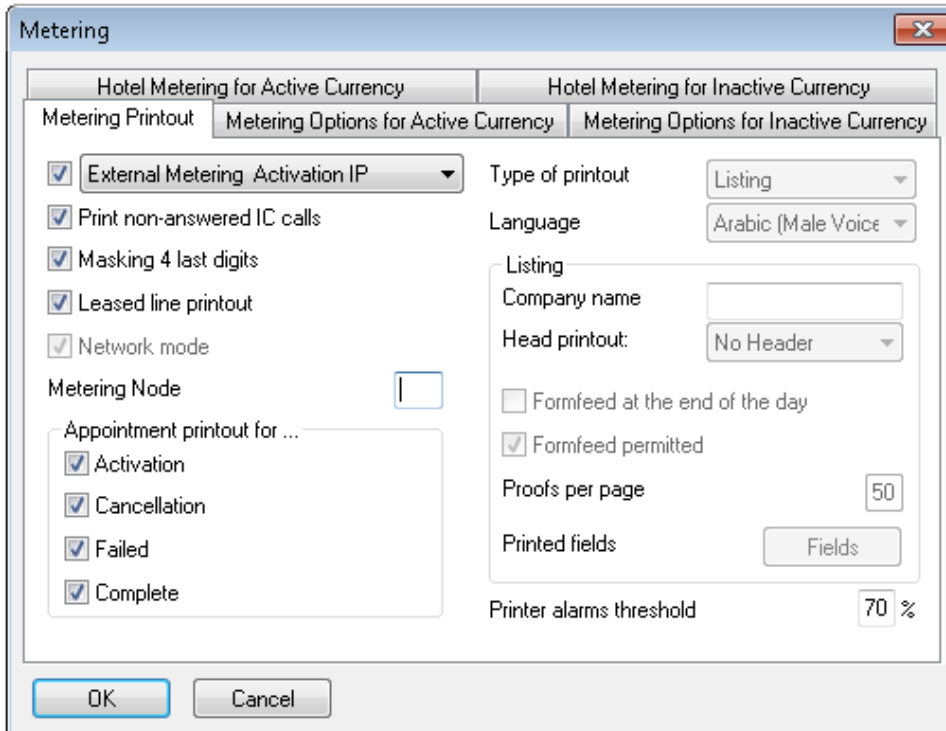
Datum/Uhrzeit	NSL	Art	R	Zielnummer	Ortsname	Dauer	Geb.	Betrag	K
26.10.2004 15:25:39	101	Pro	G	0156052913	Mobilcom	00:00:10	1	0,27	O
26.10.2004 15:34:18	101	Pro	G	0156052913	Mobilcom	00:00:10	0	0,27	O
26.10.2004 15:34:28	103	Pro	G	0156052913	Mobilcom	00:00:54	2	0,27	U
Summe						00:01:14	3	0,81	

Zusammenfassung	Anzahl	Gesamtbetrag (EUR)
Projektgespräch	3	0,81
Summe	3	0,81

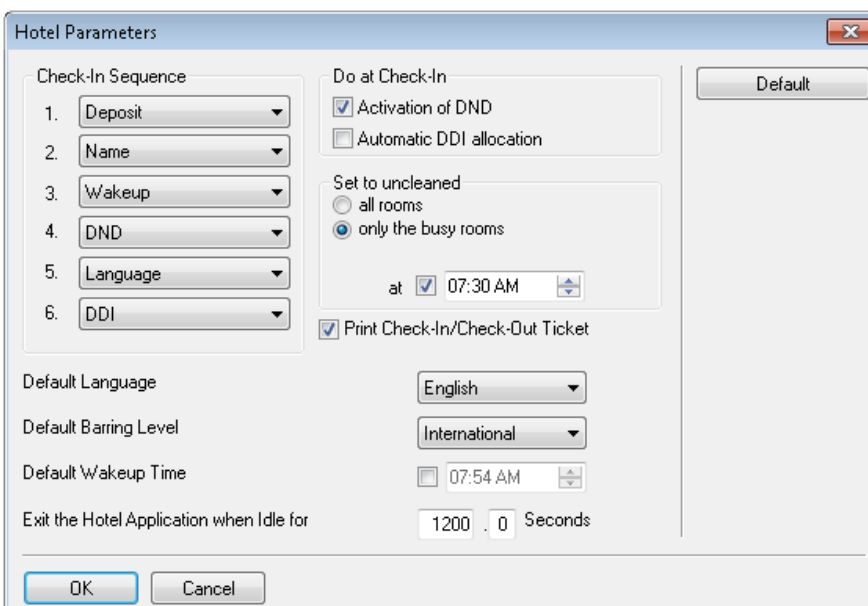
Nettobetrag 0,81 EUR
Umsatzsteuer 16,00 % 0,13 EUR
Bruttobetrag 0,94 EUR

Taste F1: Hilfe Berechnung abgeschlossen NUM

- OXO have to be configured in hotel mode.
- In Counting the accounting through IP should be activated



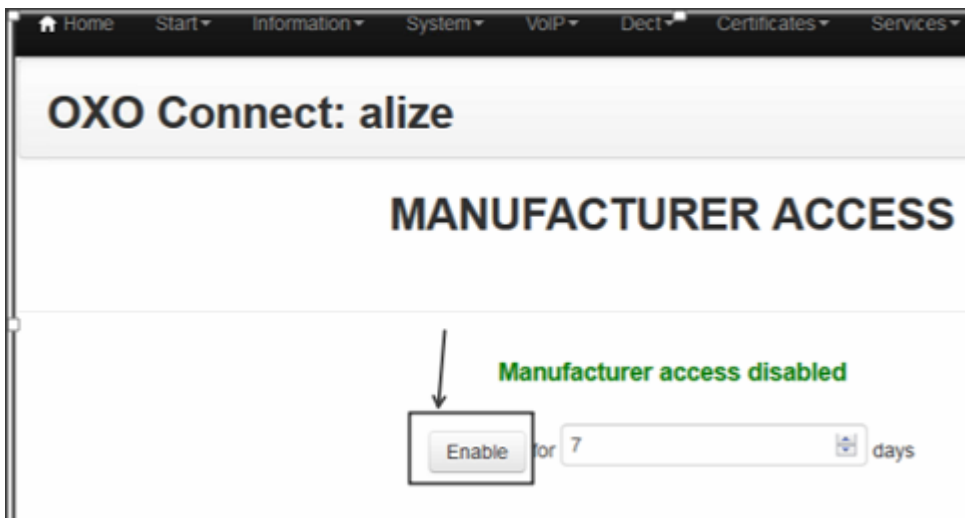
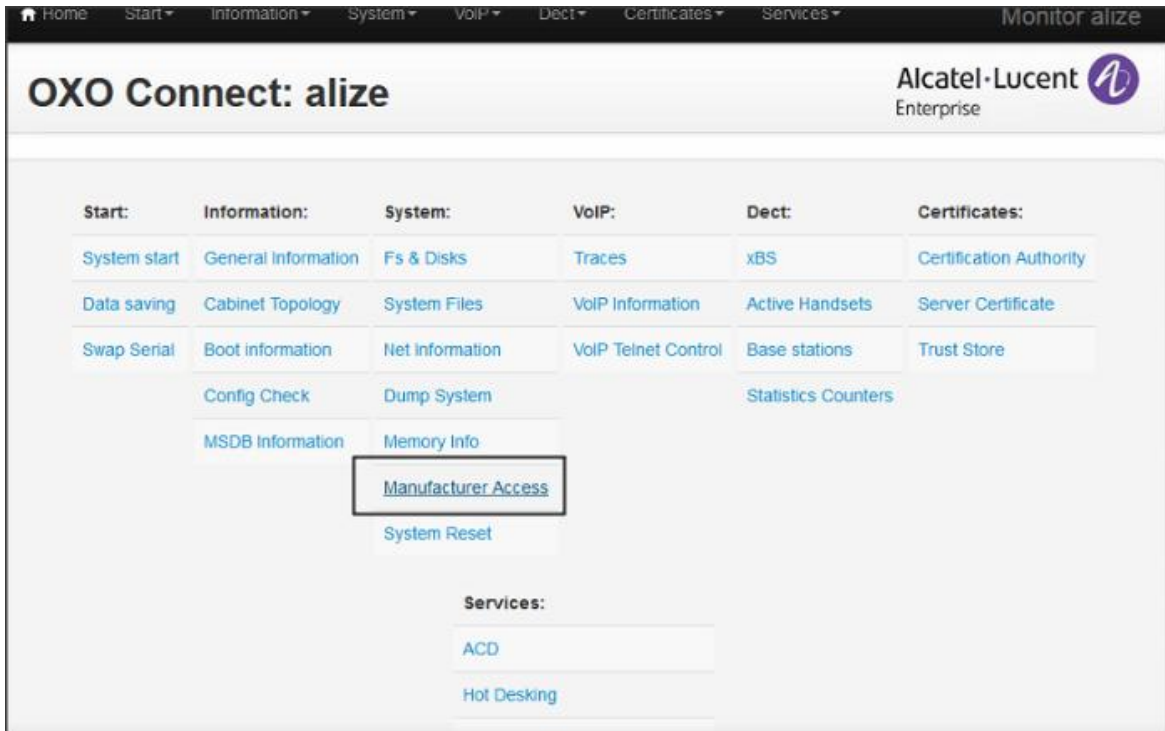
- We need to configure the check-in sequence in System miscellaneous > Hotel parameters



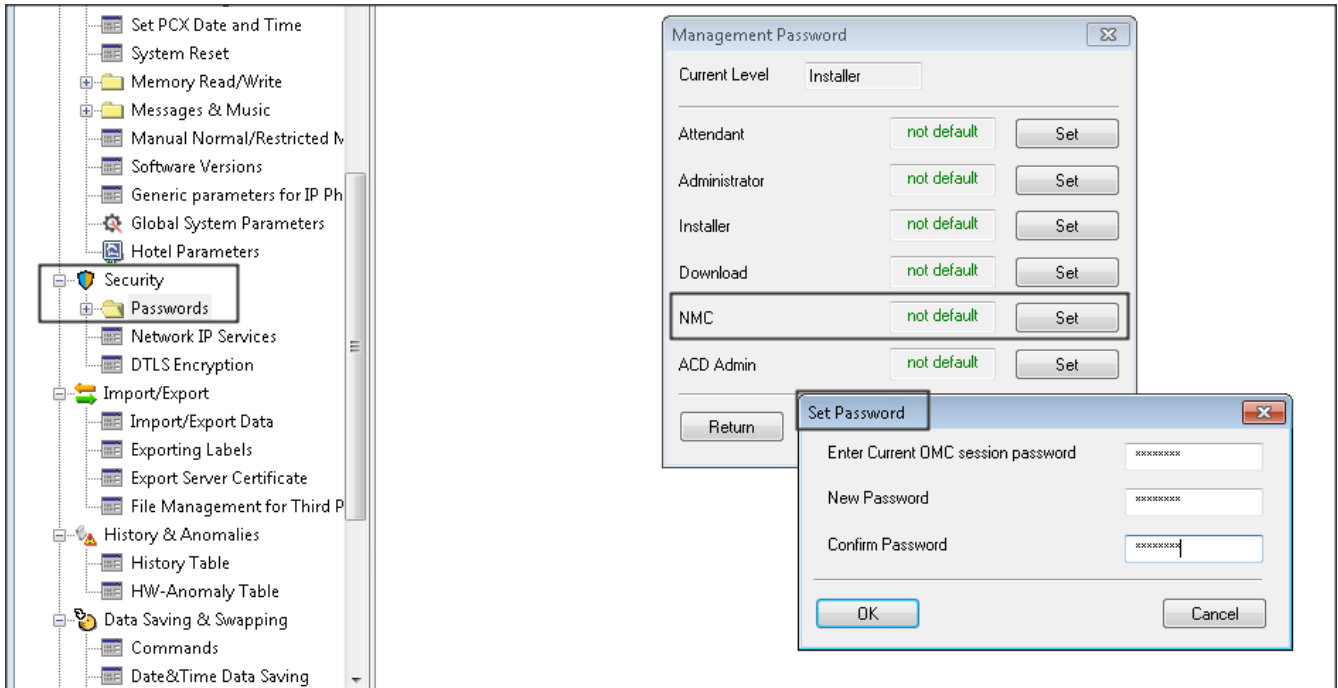
- The user extension has to be declared as a hotel set as displayed below.

The screenshot shows a 'Subscriber' configuration window with a 'Hotel Details' dialog box overlaid. The 'Subscriber' window has fields for 'Phy. Add.' (94-001-01), 'Name' (Room no. 132), 'Dir. Numbers' (132), 'Int. No.' (132), 'Secondary sets', 'Associated set', 'Terminal' (Original Type: IPTouch 4038/IP, Temporary Type, Mode, Language, Software Version, BootLoader Version, Data Version, Hardware Number, Serial Number, Localization Version, Customization Version), 'Virtual terminal' (Media checkbox), and 'Entity' (Entity1). The 'Hotel Details' dialog box has fields for 'Phy. Add.' (94-001-01), 'No.' (132), 'Terminal' (IPTouch 4038/IP), 'Terminal Class' (Guest), 'Name' (Guest), 'Room State Information' (Guest Status: Checked Out, Room Status: Uncleaned, Room Problem: 8, Guest Information available: No), and 'Out of Service' (Physical and logical checkboxes). Buttons for 'OK' and 'Cancel' are present in both windows.

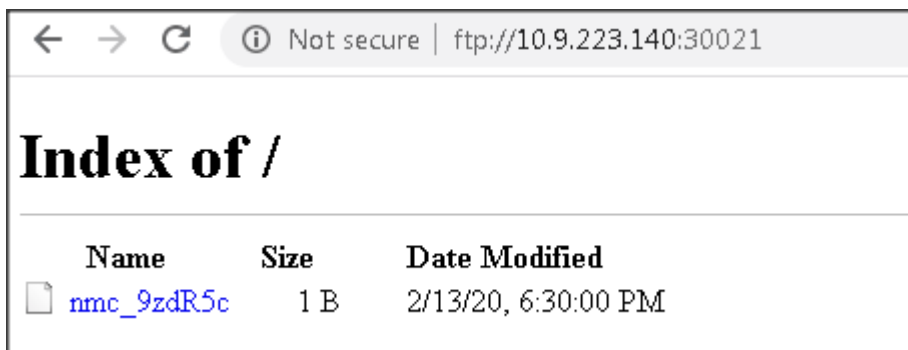
- To access the 8770 server using the parter solution. These configuration should be enabled in OXO.



Reset the NMC Password and reboot the OXO



Try to access the url in web browser ftp://ftp_nmc:password@IPaddress:30021



Appendix D: PARTNER SUPPORT PROCESS

9.1 Aurenz GmbH General Contacts

Aurenz GmbH
Hans Boeckler Str. 29
73230 Kirchheim u. Teck
Germany

Phone: +49 7021 73888-0
Fax: +49 7021 73888-30

Name	Role	Phone	Email
Mrs Petra Weikamp	Sales Assistant	+49 (0)7021 73888-0	info@arenz.de
Mr Stephan reber	Support	+49 (0)7021 73888-33	support@arenz.de

9.2 Aurenz GmbH Support Contact Information

Team	Main Location
Phone	+49 (0)7021 73888-33
Fax	+49 (0) 7021 73888-30
E-mail	support@arenz.de
Hours	5x9 support

Service and Support Levels

Support Level	Description
1 st	Only available at Aurenz with additional service contract. Otherwise responsibility of our business partners
2 nd	Any technical problems of end users and business partners that can not be resolved by the business partner themselves
3 rd	Anything not resolved by 2 nd level

There is no 1st level support but on request of our business partners or end users a additional software update and/or maintenance contract can be agreed.

In most cases the 2nd level support is contacted by e-mail. In general a reply can be expected the following day. If a support request arrives before noon (12:00 CET) there is a high possibility that the reply is send out the same day. Additionally Aurenz GmbH provides phone support (hotline) between 8:00am and 5:00pm from Monday to Friday. The hotline gives only support for technical problems that obviously are not part of the product documentation. Services that are not part of the support contract need to be ordered with the regular conditions and according to our latest price lists.

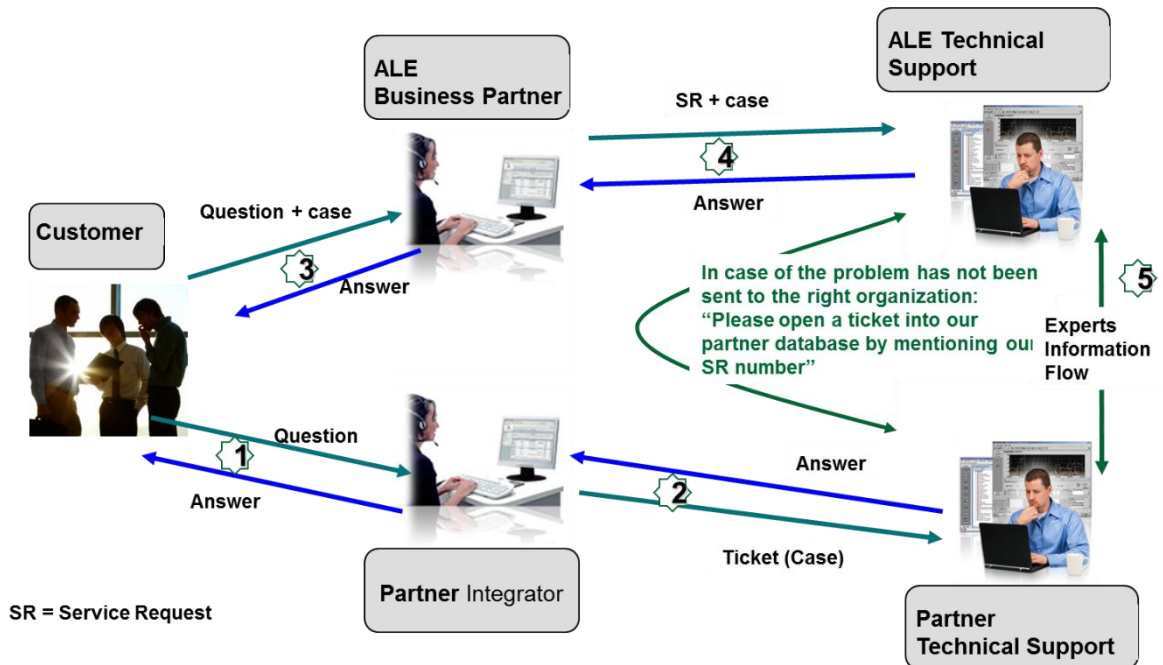
Problems that can not be resolved by second level support are submitted to technical group (internal escalation to development department) of Aurenz GmbH.

10.1 Introduction

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

The principle is that ALE 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, ALE and the Application Partner, are engaged as following:



(*) The Partner Integrator can be a Third-Party company or the ALE Business Partner itself

10.2 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, ALE and the Solution or Developer Partner, are engaged:

Case 1: the responsibility can be established 100% on ALE side.

In that case, the problem must be escalated by the ALE Business Partner to the ALE Support Center using the standard process: open a ticket (eService Request –eSR)

Case 2: the responsibility can be established 100% on Solution or Developer Partner side.

In that case, the problem must be escalated directly to the Solution or Developer Partner by opening a ticket through the Partner Hotline. In general, the process to be applied for the Solution Partner is described in the IWR.

Case 3: the responsibility cannot be established.

In that case the following process applies:

- The Solution or Developer Partner shall be contacted first by the ALE Business Partner (responsible for the application, see figure in previous page) for an analysis of the problem.
- The ALE Business Partner will escalate the problem to the ALE Support Center only if the Solution or Developer Partner has demonstrated with traces a problem on the ALE side or if the Solution or Developer Partner (not the Business Partner) needs the involvement of ALE

In that case, the ALE Business Partner must provide the reference of the Case Number on the Solution or Developer Partner side. The Solution or Developer Partner must provide to ALE the results of its investigations, traces, etc, related to this Case Number.

ALE reserves the right to close the case opened on his side if the investigations made on the Solution or Developer Partner side are insufficient or do not 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, ALE offers the “On Demand Diagnostic” service where ALE will provide 8 hours assistance against payment.

IMPORTANT NOTE 1: The possibility to configure the Alcatel-Lucent Enterprise 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 DSPP (URL: <https://www.al-enterprise.com/en/partners/dspp>) or Enterprise Business Portal (Url: [Enterprise Business Portal](#)) web sites.

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

10.3 Escalation in all other cases

For non-certified solutions, no valid InterWorking Report is available and the integrator is expected to troubleshoot the issue. If the ALE Business Partner finds out the reported issue is maybe due to one of the Alcatel-Lucent Enterprise solutions, the ALE Business Partner opens a ticket with ALE Support and shares all trouble shooting information and conclusions that shows a need for ALE to analyse.

Access to technical support requires a valid ALE maintenance contract and the most recent maintenance software revision deployed on site. The resolution of those non-DSPP solutions cases is based on best effort and there is no commitment to fix or enhance the licensed Alcatel-Lucent Enterprise software.

For information, for non-certified solution and if the ALE Business Partner is not able to find out the issues, ALE offers an "On Demand Diagnostic" service where assistance will be provided for a fee.

10.4 Technical support access

The ALE **Support Center** is open 24 hours a day; 7 days a week:

- e-Support from the DSPP Web site (if registered as Solution or Developer Partner): <https://www.al-enterprise.com/en/partners/dspp>
- e-Support from the ALE Business Partners Web site (if registered Alcatel-Lucent Enterprise Business Partners): <https://businessportal2.alcatel-lucent.com> click under "Contact us" the eService Request link
- e-mail: Ebg_Global_Supportcenter@al-enterprise.com
- Fax number: +33(0)3 69 20 85 85
- Telephone numbers:

ALE 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