 PCIS Alliance-Com	Inter-Working certificate		
	Date :	02 July 2019	Reference :

This document is the result of the certification tests performed by PCIS-Alliance-com between Patton Electronics Co. ("Patton") and Alcatel-Lucent Enterprise ("ALE")'s platforms as per appendix attached.





It certifies proper inter-working between the two platforms.

Alcatel-Lucent Enterprise Communication Platform release	OXO Connect Evolution
Patton Platform release	SmartNode Trinity version 3.15.2
Application Category	SBC Gateway

Test results

- Passed
 Refused
 Postponed
 Passed with restrictions

Approvals

Representative	Name	Signature
ALE representative	Laurane Specht	
Patton representative	Brice Imbault	
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Attachment: ALE Application Partner Program - Patton Inter-Working Report



ALE Application Partner Program Inter-Working Report

Partner: Patton

Application type: eSBC and analogue Gateway

Application name: SmartNode Trinity

*Alcatel-Lucent Enterprise Platform: OXO Connect &
OXO Connect Evolution*



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

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Certification overview

Date of the certification	27th May 2019
ALE representative	Laurane Specht
AAPP member representative	Brice Imbault
Alcatel-Lucent Enterprise Communication Platform	OXO Connect Evolution OmniPCX Office
Alcatel-Lucent Enterprise Communication Platform release	
AAPP member application release	Trinity version 3.15.2
Application Category	SBC Gateway

Author(s):
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Revision History

Edition 1: 27-May- 2019 – First edition – Initial signed version
Edition 2: 02-July-2019 – Second edition. Added configurations used during the tests in sections 6, 11 and AAPP partner escalation procedure in section 12.

Test results

- Passed
 Refused
 Postponed
 Passed with restrictions

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

IWR validity extension

The tests have been done using Patton SmartNode's Trinity software suite 3.15.2 running on all SmartNode product line for eSBC, Gateway and IAD applications. So all SIP to SIP and FXS analogue gateway to SIP tests are valid for the entire product range.
A description of the SmartNode models is available online at: www.patton.com/products/voip-comparison.asp

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TABLE OF CONTENTS

1	INTRODUCTION	6
2	VALIDITY OF THE INTERWORKING REPORT	7
3	LIMITS OF THE TECHNICAL SUPPORT	8
3.1	CASE OF ADDITIONAL THIRD PARTY APPLICATIONS	8
4	APPLICATION INFORMATION	9
5	TEST ENVIRONMENT	10
5.1	HARDWARE CONFIGURATION	10
5.2	SOFTWARE CONFIGURATION	10
6	SUMMARY OF TEST RESULTS	11
6.1	SUMMARY OF MAIN FUNCTIONS SUPPORTED	11
6.2	SUMMARY OF PROBLEMS	12
6.3	SUMMARY OF LIMITATIONS.....	12
6.4	NOTES, REMARKS.....	12
7	TEST RESULT TEMPLATE	13
8	SMARTNODE TEST RESULTS	14
8.1	eSBC TESTS.....	14
8.1.1	<i>Test Objectives</i>	14
8.1.2	<i>Test Results</i>	14
8.2	OUTGOING CALL	15
8.2.1	<i>Test Objectives</i>	15
8.2.2	<i>Test Results</i>	15
8.3	INCOMING CALL	17
8.3.1	<i>Test Objectives</i>	17
8.3.2	<i>Test Results</i>	17
8.4	FEATURES DURING CALL.....	18
8.4.1	<i>Test Objectives</i>	18
8.4.2	<i>Test Results</i>	18
8.5	CALL TRANSFER	19
8.5.1	<i>Test Objectives</i>	19
8.5.2	<i>Test Result</i>	19
9	ANALOGUE VOIP-GATEWAY TEST RESULTS.....	21
9.1	ANALOGUE VOIP GATEWAY TESTS	21
9.1.1	<i>Test Objectives</i>	21
9.1.2	<i>Test Results</i>	21
9.2	CODEC NEGOTIATION.....	22
9.2.1	<i>Test Objectives</i>	22
9.2.2	<i>Test Results</i>	22
9.3	OUTGOING CALL	23
9.3.1	<i>Test Objectives</i>	23
9.3.2	<i>Test Results</i>	23
9.4	INCOMING CALL	24
9.4.1	<i>Test Objectives</i>	24
9.4.2	<i>Test Results</i>	24
9.5	FEATURES DURING CALL.....	28
9.5.1	<i>Test Objectives</i>	28
9.5.2	<i>Test Results</i>	28
9.6	CALL TRANSFERT	29

9.6.1	Test Objectives	29
9.6.2	Test Result	30
9.7	ATTENDANT	30
9.7.1	Test Objectives	30
9.7.2	Test Result	30
9.8	VOICE MAIL	31
9.8.1	Test Objectives	31
9.8.2	Test Result	31
9.9	DEFENSE	32
9.9.1	Test Objectives	32
9.9.2	Test Result	32
9.10	FAX TEST	33
9.10.1	Test Objectives	33
9.10.2	Test Result	33
10	APPENDIX A : AAPP MEMBER’S APPLICATION DESCRIPTION	35
11	APPENDIX B: CONFIGURATION REQUIREMENTS OF THE AAPP MEMBER’S APPLICATION.....	36
11.1	PATTON eSBC CONFIGURATION:	36
11.2	PATTON FXS ANALOG GATEWAY CONFIGURATION:	43
12	APPENDIX C: ALCATEL-LUCENT ENTERPRISE COMMUNICATION PLATFORM: OXO CONNECT EVOLUTION CONFIGURATION REQUIREMENTS	49
13	APPENDIX D: AAPP MEMBER’S ESCALATION PROCESS	53
14	APPENDIX E: AAPP PROGRAM.....	56
14.1	ALCATEL-LUCENT APPLICATION PARTNER PROGRAM (AAPP).....	56
14.2	ENTERPRISE.ALCATEL-LUCENT.COM.....	57
15	APPENDIX F: AAPP ESCALATION PROCESS	58
15.1	INTRODUCTION	58
15.2	ESCALATION IN CASE OF A VALID INTER-WORKING REPORT	59
15.3	ESCALATION IN ALL OTHER CASES	60
15.4	TECHNICAL SUPPORT ACCESS	61

1 Introduction

This document is the result of the certification tests performed between the AAPP member's application and Alcatel-Lucent Enterprise'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, 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 Application Partner Interworking Reports corner (restricted to Business Partners)
- The Application Partner portal (<https://www.al-enterprise.com/en/partners/aapp>) with free access.

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 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 except if the certification fee is included in the program fee (e.g. “Application Partner” membership level) in this case ALE will schedule a new certification every two year*

3 Limits of the Technical support

For certified AAPP applications, 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 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 ALE. Access to technical support by the 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 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 ALE is included in the solution between the certified Alcatel-Lucent Enterprise and AAPP 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 F “AAPP Escalation Process”).

4 Application information

Application commercial name: Patton Session Border Controller and Analogue gateway

Application version: Smartnode Trinity FW 3.15.X

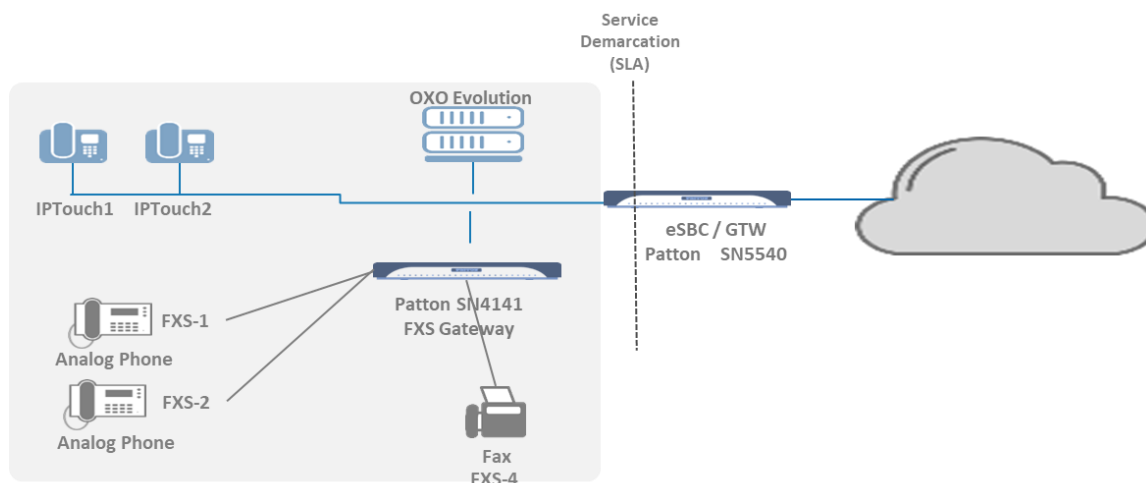
Interface type: SIP and Analogue FXS voice

Brief application description:

The SMARTNODE combines a VOIP Analog adapter and an Enterprise Session Border Controller (eSBC), to control VoIP Media and secures network and access.

5 Test environment

Figure 1 Test environment



Note : For the purpose of these tests, the SIP trunk is provided by Synelyans.

5.1 Hardware configuration

List main hardware equipments used for testing

- **OmniPCX Office Evolution:**
Iptouch: 8068,8058s,8028s
Fax: MFP sagemcom
- **AHL interface:**
 - TCP/IP

5.2 Software configuration

List main softwares used for testing

- **Alcatel-Lucent Office Evolution: R300_075_001**
- **Partner Application :** SmartNode Trinity version 3.15.x

6 Summary of test results

6.1 Summary of main functions supported

Oxo connect Evolution with SBC

Features	Results	Remarks
Initialisation and network configuration	OK	
Sip registration	OK	
Sip Authentication	OK	
VoIP and RTP support	OK	
Outgoing call	OK	
Incoming call	OK	
Features during conversations	OK	

Oxo connect Evolution with Analogue Gateway

Features	Results	Remarks
Initialisation and network configuration	OK	
Sip registration	OK	
Sip Authentication	OK	
VoIP and RTP support	OK	
Outgoing call	OK	
Incoming call	OK	
Features during conversations	OK	

6.2 Summary of problems

None

6.3 Summary of limitations

None

6.4 Notes, remarks

- Analogues phones are registered in the OXO connect as "Open SIP Phones"
- We only tested with One fax

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 <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 AAPP member 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 SmartNode TEST Results

There are two main test objectives, one for a VoIP Gateway and the other for an eSBC. The tests are to validate that the SmartNode can handle the configured audio parameters as defined. Such as codecs, Framing, Voice Activation Detection, ...

8.1 eSBC Tests

8.1.1 Test Objectives

The eSBC Configuration:

eSBC is configured to use specific codec
G.722, G.711 A-law, G.711 mu-law, G.729, G.723 in this order

Phone configuration:

Configure IP Touch with codec G.722, G.711 A-law, G.711 mu-law, G.729, G.723 in this order and to NOT use VAD (unless otherwise stated).

Sip provider:

Configure Sip Provider to use G.722, G.711 A-law, G.711 mu-law, G.729, G.723 in this order

8.1.2 Test Results

Test Case Id	Test Case	N/A	OK	NOK	Comment
8-1-1	<p>Codec G711 / G722</p> <p>Select G711 as first codec on Provider</p> <p>Select G711 as first codec on SBC</p> <p>Select G722 as first codec on IPtouch And G.711 A-law, G.711 mu-law, G.729 as other priority</p> <p>Call from external phone (PSTN) to Ip touch phone Check that call is correctly established</p> <p><i>In all Case check audio quality</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8-1-2	<p>Codec G729 / G711</p> <p>Select G729 as first codec on Provider</p> <p>Select G729 as first codec on SBC</p> <p>Select G711 as first codec on IPtouch And G.729 as other priority</p> <p>Call from external phone to Ip touch phone Check that call is correctly established</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

	<i>In all Case check audio quality</i>				
8-1-3	Codec G723 / G711 Select G723 as first codec on Provider Select G723 as first codec on SBC Select G711 as first codec on IPtouch Call from external phone to Ip touch phone Check that call is correctly established <i>In all Case check audio quality</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8-1-4	Codec G723 / G711 Select G723 as first codec on Provider Select G723 as first codec on SBC Select G711 as first codec on IPtouch Call from external phone to Ip touch phone Check that call is correctly established <i>In all Case check audio quality</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.2 Outgoing call

8.2.1 Test Objectives

Generate calls to External PSTN line to check SBC integrity
 The outgoing call is generate on an external PSTN phone number

8.2.2 Test Results

Test Case Id	Test Case	N/A	OK	NOK	Comment
8-2-1	Outgoing call with DTMF RFC 2833 Call to external attendant using DTMF RFC 2833 Test DTMF return. Call an IVR and navigate to the corresponding menu and verify that DTMF is working Hang-up the call	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8-2-2	Outgoing call with DTMF Sip Info	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not support in OXO

	<p>Call to external attendant using DTMF Sip Info Test DTMF return. Call an IVR and navigate to the corresponding menu and verify that DTMF is working</p> <p>Hang-up the call Then Hang-up</p>				
8-2-3	<p>Outgoing call with DTMF Inband</p> <p>Call to external attendant using DTMF Inband Test DTMF return. Call an IVR and navigate to the corresponding menu and verify that DTMF is working</p> <p>Hang-up the call Then Hang-up</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Inband to Sip info not supported. Inband to RFC 2833 is support with DSP processing
8-2-4	<p>Call to External number from VPN connected ip touch</p> <p>Call external number from VPN ip Touch Check audio, then hang-up</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8-2-5	<p>Outgoing call with DTMF RFC 2833 with VPNipTouch</p> <p>Call to external attendant using DTMF RFC 2833 Test DTMF return. Call an IVR and navigate to the corresponding menu and verify that DTMF is working</p> <p>Hang-up the call</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8-2-6	<p>Outgoing call with DTMF Sip Info with VPNipTouch</p> <p>Call to external attendant using DTMF Sip Info Test DTMF return. Call an IVR and navigate to the corresponding menu and verify that DTMF is working</p> <p>Hang-up the call Then Hang-up</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8-2-7	<p>Outgoing call with DTMF Inband with VPNipTouch</p> <p>Call to external attendant using DTMF Inband Test DTMF return. Call an IVR and navigate to the corresponding menu and verify that DTMF is working</p> <p>Hang-up the call Then Hang-up</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.3 Incoming call

8.3.1 Test Objectives

Generate calls from External PSTN line to check SBC integrity
Called party can be in different states: Free, Busy, Out of services, DND, etc...

8.3.2 Test Results

Test Case Id	Test Case	N/A	OK	NOK	Comment
8-3-1	ExtCall to Iptouch Timeout Call from Ext-PSTN to the DID configure on Iptouch1 Answer the call and check audio. Stay online for 5 minutes Then Hang-up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8-3-2	ExtCall to Iptouch Display Call from Ext-PSTN to the DID configure on Iptouch1 Check display Answer the call and check audio. Then Hang-up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8-3-3	ExtCall to Iptouch Display multiline Call from Ext-PSTN to the DID configure on Iptouch1 Check display Answer the call and check audio. Keep the call Call from Ext-PSTN to the DID configure on Iptouch1 Check display Answer the 2d call and check audio. Then Hang-up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8-3-4	Call from External number to VPN connected ip touch Make a call to External number Answer the call on VPN ip Phone Check audio then hang-up	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8-3-5	Call from VPN Ip touch to Iptouch1 Make a call to internal number allocated to Iptouch1 Answer the call on Iptouch1 Check audio then hang-up	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8-3-6	Ext call to Unplug VPNPhone If Applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Unplug VPNIPtouch With Ext PSTN phone call VPNIPtouch Check the ring back then hang-up				
8-3-7	Ext call to DND VPNPhone If Applicable Enable DND on VPNIPtouch With Ext PSTN phone call VPNIPtouch Check the ring back then hang-up Cancel the DND on VPNIPtouch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.4 Features during call

8.4.1 Test Objectives

The objective is to test Features between different users during conversation.
Before test we need to check that dtmf are generated correctly, and multiple sip line is available on devices.

8.4.2 Test Results

Test Case Id	Test Case	N/A	OK	NOK	Comment
8-4-1	Hold and resume a current call From Ext PSTN call IPtouch1 Answer the call and check audio. On IPtouch1 press hold. Check tones and display on both parts Resume the call <i>Keep the call for next test</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8-4-2	Switch between calls With FXS-1 call IPtouch1 With IPtouch1 switch between FXS-1 and Ext PSTN Check tones and display <i>Keep the calls for next test</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8-4-3	Three party conferences initiated from OXO set With Ext PSTN call IPtouch1 Answer and keep the call	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

	<p>With IPtouch1 call IPtouch2 Answer and keep the call</p> <p>With IPtouch1 start a conference</p> <p>Check audio, Display, then hang-up.</p>				
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8.5 Call Transfer

8.5.1 Test Objectives

Many sorts of transfer can be requested, the objective is to test several transfer services.

- Unattended transfer
- Semi-attended transfer
- Attended transfer

For each we need to test:

- Audio
- Tone
- Display

Actors:

- A- Transferee
- B- Transferor
- C- Transfer target

Unattended transfer or Blind transfer:

The Transferor provides the Transfer Target's contact to the Transferee. The Transferee attempts to establish a session using that contact and reports the results of that attempt to the Transferor

Semi-Attended Transfer or Transfer on ringing:

1. The transferee call the Transferor
2. The transferor call the transfer target. The transferee is on Hold. The transfer target is ringing.
3. The transferor execute the transfer. The transferor drops the call. The transfer target is already in ringing state, The transfer target answer the call. The Transferee and the Transfer target are now in communication.

Attended Transfer or Transfer on ringing:

1. The transferee call the Transferor
2. The transferor call the transfer target. The transferee is on Hold. Transfer target pick up the call and call is established with the transferor
3. The transferor execute the transfer. The transferor drops the call. The transferee is now on line with the Transfer target.

8.5.2 Test Result

Test Case Id	Sort of transfer	Transfer ee	Transfero r	Transf er Target	N/A	OK	NOK	Comment
8-5-1	Unattended	IPtouch2	IPtouch1	ExtNum	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Shown

								number is the IPtouch1
8-5-2	Semi-attended	IPtouch2	IPtouch1	ExtNum	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8-5-3	Attended	IPtouch2	IPtouch1	ExtNum	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

9 Analogue VoIP-Gateway TEST Results

9.1 Analogue VoIP Gateway tests

9.1.1 Test Objectives

The calls are generated to several users belonging to the same network.

Called party can be in different states: free, busy, out of service, do not disturb, etc.

Calls to data devices are refused.

Points to be checked: ring-back tones, busy tones, voice during the conversation, display (on caller and called party), hang-up phase.

Note: dialing will be based on direct dialing number but also using programming numbers on the SIP phone.

9.1.2 Test Results

Test Case Id	Test Case	N/A	OK	NOK	Comment
9-1-1	<p>Analogue phone sets – Without authentication</p> <p>Configure SIP sets MCDU number on the OXO as FXS-1, FXS-2 & FXS-3 to register with the OXO IP address. Authentication is disable for this users Check registration of sets</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-1-2	<p>Analogue phone sets – With authentication</p> <p>Configure SIP sets MCDU number on the OXO as FXS-1, FXS-2 & FXS-3 to register with the OXO IP address. Authentication is enable for this users Test with a wrong password and check the phone is rejected</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-1-3	<p>Signalling in UDP and TCP</p> <p>If applicable configure your SIP FXS-2 to use the protocol SIP over UDP and over TCP</p> <p>In the two cases, check the registration and basic calls.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

9.2 Codec negotiation

9.2.1 Test Objectives

These tests check that phones are using the configured audio parameters as defined.
Codecs, Framing, Voice Activation Detection, ...
Phone configuration: configure the analog gateway to use
G.722, G.711 A-law, G.711 mu-law, G.729, G.723 in this order
Configure IP Touch with codec G.711 and to NOT use VAD (unless otherwise stated).

9.2.2 Test Results

Test Case Id	Test Case	N/A	OK	NOK	Comment
9-2-1	<p>Codec G711</p> <p>Select G711 as first codec</p> <p>Call from FXS-1 to Ip touch phone Check that call is correctly established in G711</p> <p>Call from Ip touch to FXS-1 phone Check that call is correctly established in G711</p> <p><i>In all Case check audio quality</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-2-2	<p>Codec G729</p> <p>Select G729 as first codec</p> <p>Call from FXS-1 to Ip touch phone Check that call is correctly established in G729</p> <p>Call from Ip touch to FXS-1 phone Check that call is correctly established in G729</p> <p><i>In all Case check audio quality</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-2-3	<p>Codec G723</p> <p>Select G723 as first codec</p> <p>Call from FXS-1 to Ip touch phone Check that call is correctly established in G723</p> <p>Call from Ip touch to FXS-1 phone Check that call is correctly established in G723</p> <p><i>In all Case check audio quality</i></p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9-2-4	<p>VAD Test</p> <p>Configure FXS-1 to use VAD</p> <p>Configure IP touch Not using VAD</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

	<p>Call from Ip touch to FXS-1 in G711 and check audio quality</p> <p>Configure IP touch using VAD</p> <p>Call from Ip touch to FXS-1 in G711 and check audio quality</p>				
9-2-5	<p>Codec Passthrough</p> <p>In OXO enable codec pass through for SIP Phones.</p> <p>Call from FXS-1 to FXS-2</p> <p>Check that the call is established using G.722</p> <p>Check audio quality</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

9.3 Outgoing call

9.3.1 Test Objectives

Generate calls from and to several users/devices.

Called party can be in different states: Free, Busy, Out of services, DND, etc...

9.3.2 Test Results

Test Case Id	Test Case	N/A	OK	NOK	Comment
9-3-1	<p>Call to User in DND mode</p> <p>Dial 793 on Ip touch (DND mode)</p> <p>Call from FXS-1 to the Ip touch</p> <p>Check for a ring back tone and display</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-3-2	<p>Call to User in CFU mode</p> <p>Turn CFU in Ip touch phone 1 (791 ip touch phone 2)</p> <p>Call from FXS-1 to the IPtouch1</p> <p>Check the IPtouch2 is ringing</p> <p>Answer the call and check audio, then hung up.</p> <p>Cancel the CFU mode (790)</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-3-3	<p>Call to User in CFNR mode</p> <p>Turn CFNR in Ip touch phone 1 (CFNR already configure to ip touch phone 2)</p> <p>Call from FXS-1 to the IPtouch1</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Check the IPtouch1 is ringing after time out check IPtouch2 is ringing Answer the call and check audio, then hung up.				
9-3-4	Call to User in CFB mode Setup the CFB on IPtouch1 to IPtouch2 (*62+IPtouch2) Call from FXS-2 to the IPtouch1 and answer to make it buzzy Call from FXS-1 to the IPtouch1 Check IPtouch2 is ringing Answer the call and check audio, then hung up.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-3-5	Call to External number from FXS Call external number from FXS-1 Check audio, then hang-up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-3-6	Call from External number to FXS Make a call to External number allocated to FXS-1 Answer the call on FXS-1 Check audio then hang-up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-3-7	Call from VPN Ip touch to FXS-1 Make a call to internal number allocated to FXS-1 Answer the call on FXS-1 Check audio then hang-up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-3-8	Call from FXS-1 to VPN Ip touch Make a call to internal number allocated to VPN ip touch Answer the call on VPN IP touch Check audio then hang-up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

9.4 Incoming call

9.4.1 Test Objectives

Generate calls from and to several users/devices.
Called party can be in different states: Free, Busy, Out of services, DND, etc...
Network calls are made using SIP private trunk established between two OXO's.

9.4.2 Test Results

Test Case	Test Case	N/A	OK	NOK	Comment
-----------	-----------	-----	----	-----	---------

Id					
9-4-1	<p>Local/Network call to FXS</p> <p>Local: With IPtouch1 call FXS-2 Answer the call and check audio, then hung up.</p> <p>Network: With Network IP touch call FXS-2 Answer the call and check audio, then hung up.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-4-2	<p>Local/Network call to Busy FXS</p> <p>Local: With IPtouch2 call FXS-2 Answer the call, don't hang up With IPtouch1 call FXS-2</p> <p>Check the ring back then hang-up</p> <p>Network: With network IPtouch2 call FXS-2 Answer the call, don't hang up With IPtouch1 call FXS-2</p> <p>Check the ring back then hang-up</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-4-3	<p>Local/Network call to Unplug FXS</p> <p>Local: Unplug FXS-1 With IPtouch1 call FXS-1</p> <p>Check the ring back then hang-up</p> <p>Network: Unplug FXS-1 With network IPtouch1 call FXS-1</p> <p>Check the ring back then hang-up</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Back to the VM
9-4-4	<p>Local/Network call to DND FXS</p> <p>Local: enable DND on FXS-1 With IPtouch1 call FXS-1</p> <p>Check the ring back then hang-up Cancel the DND on FXS-1</p> <p>Network: enable DND on FXS-1 With Network IPtouch1 call FXS-1</p> <p>Check the ring back then hang-up Cancel the DND on FXS-1</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-4-5	<p>Local/Network call to DND FXS With System function</p> <p>Local: enable DND on FXS-1 (*63) With IPtouch1 call FXS-1</p> <p>Check the ring back then hang-up Cancel the DND on FXS-1(*63)</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

	<p>Network: enable DND on FXS-1(*63) With Network IPtouch1 call FXS-1</p> <p>Check the ring back then hang-up Cancel the DND on FXS-1(*63)</p>				
9-4-6	<p>Local/Network call to CFU FXS</p> <p>Local: enable CFU on FXS-1 to IPtouch2 With IPtouch1 call FXS-1</p> <p>Answer the call on IPtouch2 and check audio, then hung-up. Cancel the CFU on FXS-1</p> <p>Network: enable CFU on FXS-1 to IPtouch2 With Network IPtouch1 call FXS-1</p> <p>Answer the call on IPtouch2 and check audio, then hung-up. Cancel the CFU on FXS-1</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-4-7	<p>Local/Network call to CFU FXS With System Function</p> <p>Local: enable CFU on FXS-1 to IPtouch2 (791 + IPtouch2) With IPtouch1 call FXS-1</p> <p>Answer the call on IPtouch2 and check audio, then hung-up. Cancel the CFU on FXS-1 (*60)</p> <p>Network: enable CFU on FXS-1 to IPtouch2 (*61 + IPtouch2) With Network IPtouch1 call FXS-1</p> <p>Answer the call on IPtouch2 and check audio, then hung-up. Cancel the CFU on FXS-1(*60)</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-4-8	<p>Local/Network call to CFU FXS to external number</p> <p>Local: enable CFU on FXS-1 to external number (791 + ExtNum) With IPtouch1 call FXS-1</p> <p>Answer the call on external number and check audio, then hung-up. Cancel the CFU on FXS-1(790)</p> <p>Network: enable CFU on FXS-1 to external number (791 + ExtNum) With Network IPtouch1 call FXS-1</p> <p>Answer the call on external number and check audio, then hung-up.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

	Cancel the CFU on FXS-1(790)				
9-4-9	<p>Local/Network call to CFU FXS to external number with system feature</p> <p>Local: enable CFU on FXS-1 to external number With IPtouch1 call FXS-1</p> <p>Answer the call on external number and check audio, then hung-up. Cancel the CFU on FXS-1</p> <p>Network: enable CFU on FXS-1 to external number With Network IPtouch1 call FXS-1</p> <p>Answer the call on external number and check audio, then hung-up. Cancel the CFU on FXS-1</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-4-10	<p>Local/Network call to CFB FXS state By local feature if applicable (792+iptouch1) and (790)</p> <p>On FXS-2 enable CFB to IPtouch1 On FXS-2 call the voice mail With FXS-1 call FXS-2 Check that IPtouch1 is ringing</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-4-11	<p>Local call to SIP terminal in “forward on no reply” (CFNR) By local feature if applicable</p> <p>On FXS-3 enable CFNR to IPtouch1 With FXS-2 call FXS-3 Check FXS-3 is ringing and wait timeout</p> <p>After timeout IPtouch1 is ringing</p> <p>Answer the call and check audio, then hung-up.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9-4-12	<p>Local/Network call to Busy VPNPhone If Applicable</p> <p>With IPtouch2 call VPNIPtouch Answer the call, don't hang up With IPtouch1 call VPNIPtouch</p> <p>Check the ring back then hang-up</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9-4-13	<p>Local/Network call to Unplug VPNPhone If Applicable</p> <p>Unplug VPNIPtouch With IPtouch1 call VPNIPtouch</p> <p>Check the ring back then hang-up</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9-4-14	<p>Local/Network call to DND VPNPhone If Applicable</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<p>Enable DND on VPNIPtouch With IPtouch1 call VPNIPtouch</p> <p>Check the ring back then hang-up Cancel the DND on VPNIPtouch</p>				
--	--	--	--	--

9.5 Features during call

9.5.1 Test Objectives

The objective is to test Features between different users during conversation.
Before test we need to check that DTMF are generated correctly, and multiple sip line is available on devices.

Test Results

Test Case Id	Test Case	N/A	OK	NOK	Comment
9-5-1	<p>Hold and resume a current call</p> <p>With IPtouch1 call FXS-1 Answer the call and check audio.</p> <p>On FXS-1 press hold. Check tones and display on both parts Resume the call</p> <p><i>Keep the call for next test</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-5-2	<p>Enquiry call to another local user (if available)</p> <p>With FXS-1 call IPtouch2 IPtouch1 should be turn on Hold Put IPtouch2 on hold. Check tones and display</p> <p><i>Keep the calls for next test</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-5-3	<p>Switch between calls</p> <p>With FXS-1 switch between IPtouch1 and IPtouch2 Check tones and display</p> <p><i>Keep the calls for next test</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-5-4	<p>Release call</p> <p>Hang-up IPtouch1 Check that FXS-1 and IPtouch2 are still online Check audio, Display, then hang-up.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

<p>9-5-5</p>	<p>Three party conferences initiated from OXO set</p> <p>With IPtouch1 call FXS-1 Answer and keep the call</p> <p>With IPtouch1 call IPtouch2 Answer and keep the call</p> <p>With IPtouch1 start a conference</p> <p>Check audio, Display, then hang-up.</p>	<p><input type="checkbox"/></p>	<p><input checked="" type="checkbox"/></p>	<p><input type="checkbox"/></p>	
<p>9-5-6</p>	<p>Meet Me conference</p> <p>With FXS-3 call Meet me conference Bridge (68)</p> <p>With FXS-2 join the the conference bridge (709 + access code)</p> <p>With IPtouch1 join the the conference bridge (709 + access code)</p> <p>Check that all are in conference Check audio, Display, then hang-up.</p>	<p><input checked="" type="checkbox"/></p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	

9.6 Call transfert

9.6.1 Test Objectives

Many sorts of transfer can be requested, the objective is to test several transfer services.

- Unattended transfer
- Semi-attended transfer
- Attended transfer

For each we need to test:

- Audio
- Tone
- Display

Actors:

- D- Transferee
- E- Transferor
- F- Transfer target

Unattended transfer or Blind transfer:

The Transferor provides the Transfer Target's contact to the Transferee. The Transferee attempts to establish a session using that contact and reports the results of that attempt to the Transferor

Semi-Attended Transfer or Transfer on ringing:

4. The transferee call the Transferor
5. The transferor call the transfer target. The transferee is on Hold. The transfer target is ringing.

6. The transferor execute the transfer. The transferor drops the call. The transfer target is already in ringing state, The transfer target answer the call. The Transferee and the Transfer target are now in communication.

Attended Transfer or Transfer on ringing:

4. The transferee call the Transferor
5. The transferor call the transfer target. The transferee is on Hold. Transfer target pick up the call and call is established with the transferor
6. The transferor execute the transfer. The transferor drops the call. The transferee is now on line with the Transfer target.

9.6.2 Test Result

Test Case Id	Sort of transfer	Transfer ee	Transferor	Transf er Target	N/A	OK	NOK	Comment
9-6-1	Unattended	ExtCall	FXS-1	IPtouch1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9-6-2	Semi-attended	ExtCall	FXS-1	IPtouch1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-6-3	Attended	ExtCall	FXS-1	IPtouch1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-6-4	Unattended	FXS-1	IPtouch1	ExtCall	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9-6-5	Semi-attended	FXS-1	IPtouch1	ExtCall	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-6-6	Attended	FXS-1	IPtouch1	ExtCall	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-6-7	Unattended	IPtouch2	IPtouch1	FXS-1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9-6-8	Semi-attended	IPtouch2	IPtouch1	FXS-1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ALE fix will be available early Sept 2019
9-6-9	Attended	IPtouch2	IPtouch1	FXS-1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

9.7 Attendant

9.7.1 Test Objectives

An attendant console is defined on the system. Call going to and coming from the attendant console are tested.

9.7.2 Test Result

Test Case Id	Test Case	N/A	OK	NOK	Comment
9-7-1	Call to attendant From FXS-1 dial 9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Check audio and display <i>Keep the calls for next test</i>					
9-7-2	Incoming call During attendant call. From IPtouch1 call FXS-1 Answer the call Check audio and display	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-7-3	SIP set call to attendant, attendant transfers to OXO set From FXS-1 dial 9 Answer the call Attendant transfer to IPtouch2 Check audio and display	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-7-4	SIP set call to attendant, attendant transfers to FXS-1 From IpTouch dial 9 From Attendant transfer "attended" to FXS-1 Check audio and display*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ALE fix will be available early Sept 2019

9.8 Voice Mail

9.8.1 Test Objectives

Voice mail notification, menu consultation, password modification MWI must be checked
VMS must be enable on FXS-1, FXS-2, IPtouch1
DTMF function need to be enable

9.8.2 Test Result

Test Case Id	Test Case	N/A	OK	NOK	Comment
9-8-1	Password modification From FXS-1 dial the Voicemail Use the Voice guide to change password Hang-up Recall and test with the old password. Password need to be rejected Hang-up Recall and test with the new password. Password need to be accepted Hang-up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-8-2	MWI test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	From IPtouch1 call FXS-1 and leave a message on the Voicemail From FXS-1 call IPtouch1 and leave a message on the Voicemail Check you have MWI on both phones.				
9-8-3	Message consultation With FXS-1 all VM and listen previously leaved message 8-8-2 Delete the message With IPtouch1 all VM and listen previously leaved message 8-8-2 Delete the message Check That MWI is disable on both phones	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-8-4	Sip Call to a Phone forwarded to VoiceMail Forward IPtouch1 to voicemail (*61+VM number) With FXS-1 call IPtouch1 Call should be forwarded to VM Leave a message On IPtouch1 disable VM forward (*60) Then check that you Have MWI	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-8-5	VPNIPtouch Voicemail Replay Test from 8-8-1 to 8-8-4 with VPNIPtouch	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

9.9 Defense

9.9.1 Test Objectives

Test the situation where there is a loss of connection, Ethernet failure, OXO reboot....

9.9.2 Test Result

Test Case Id	Test Case	N/A	OK	NOK	Comment
9-9-1	Oxo Reboot From external number call FXS-1 Reboot the OXO After reboot re-establish the same call Check audio	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-9-2	Ethernet link failure From external number call IPtouch1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

	Disconnect ethernet cable of the IPtouch1 Then reconnect After re-establishing do the same call Check audio				
9-9-3	<p>Power failure on</p> <p>From external number call IPtouch1 Disconnect ethernet cable of the IPtouch1 From external number call IPtouch1 Check that incoming call go to attendant With IPtouch1 all VM and listen previously leaved message 8-8-2 Delete the message</p> <p>Check That MWI is disable on both phones</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

9.10 Fax Test

9.10.1 Test Objectives

Fax machine is connected to FXS port of the Smartnode.
FXS-4 port is configuration with g711 only passthrough method.
FXS-3 port is configure the same way.

9.10.2 Test Result

Test Case Id	Test Case	N/A	OK	NOK	Comment
9-10-1	<p>Fax sending between two fax devices</p> <p>Send a 4 pages fax from FAXset-1 to FAXset-2</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Only 1 internal Fax for test
9-10-2	<p>External Fax to fax device</p> <p>Send a 4 pages fax from External fax machine to FAXset-1</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-10-3	<p>Fax device to External Fax</p> <p>Send a 4 pages fax from FAXset-1 to External fax machine</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9-10-4	<p>Stop sending Fax after the first page</p> <p>Send a 4 pages fax from External Fax to FAXset-1 Stop the transmission after the 1 page. Check that transmission is correctly stopped</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9-10-5	<p>Stop receiving Fax after the first page</p> <p>Send a 4 pages fax from FAXset-1 to External Fax Stop the transmission after the 1 page.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Check that transmission is correctly stopped				
--	--	--	--	--	--

10 Appendix A : AAPP member's Application description

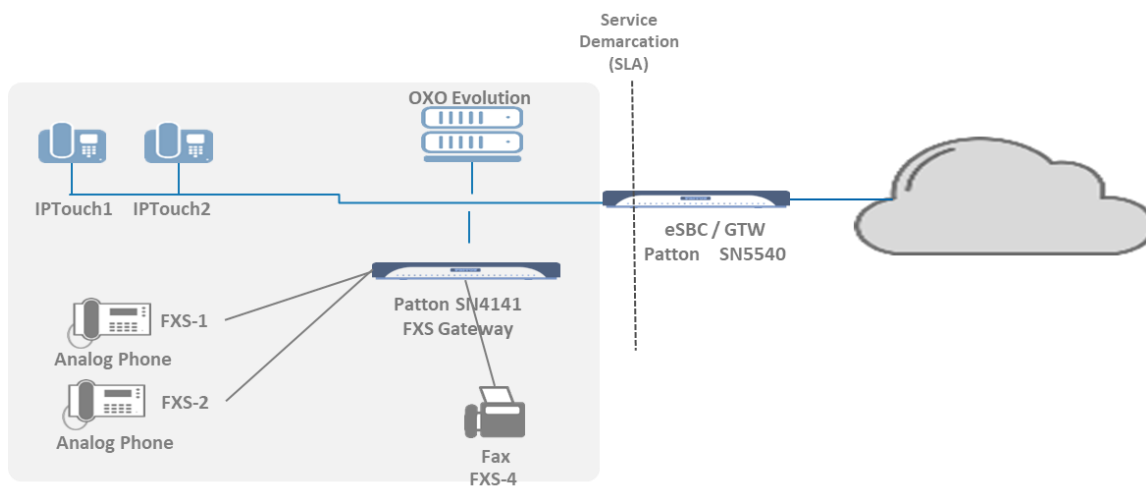
The SmartNode is a customer premise Enterprise Session Border Controller, delivering the features for advanced multiservice voice and data network applications. It combines highly flexible SIP routing and manipulation features with powerful quality of service IP routing functions to build professional and reliable VoIP and data networks.

SmartNode enables Universal SIP Trunking and provides a single Integrated Access Device with features like IP Routing, VoIP and IP Security and a SIP registrar for survivability. The SN5XXX product series connects to the **OXO system** in the Enterprise's LAN and to an Internet telephony service provider (ITSP), creating a single conduit for multimedia components including voice, video, and data. Whether it is a new installation or an existing deployment, this device will aid in deploying, troubleshooting, logging, and security while increasing the flexibility of the network.

Applications

SmartNode enables protocol conversion between two VoIP networks to solve interop problems for devices using SIP TCP signaling only. The SmartNode is able to convert SIP TCP or SIP TLS signaling into SIP UDP signaling.

Using the built-in QoS engine, the SmartNode ensures that voice traffic gets top priority resulting in good voice quality across the SIP Trunk over a public network.



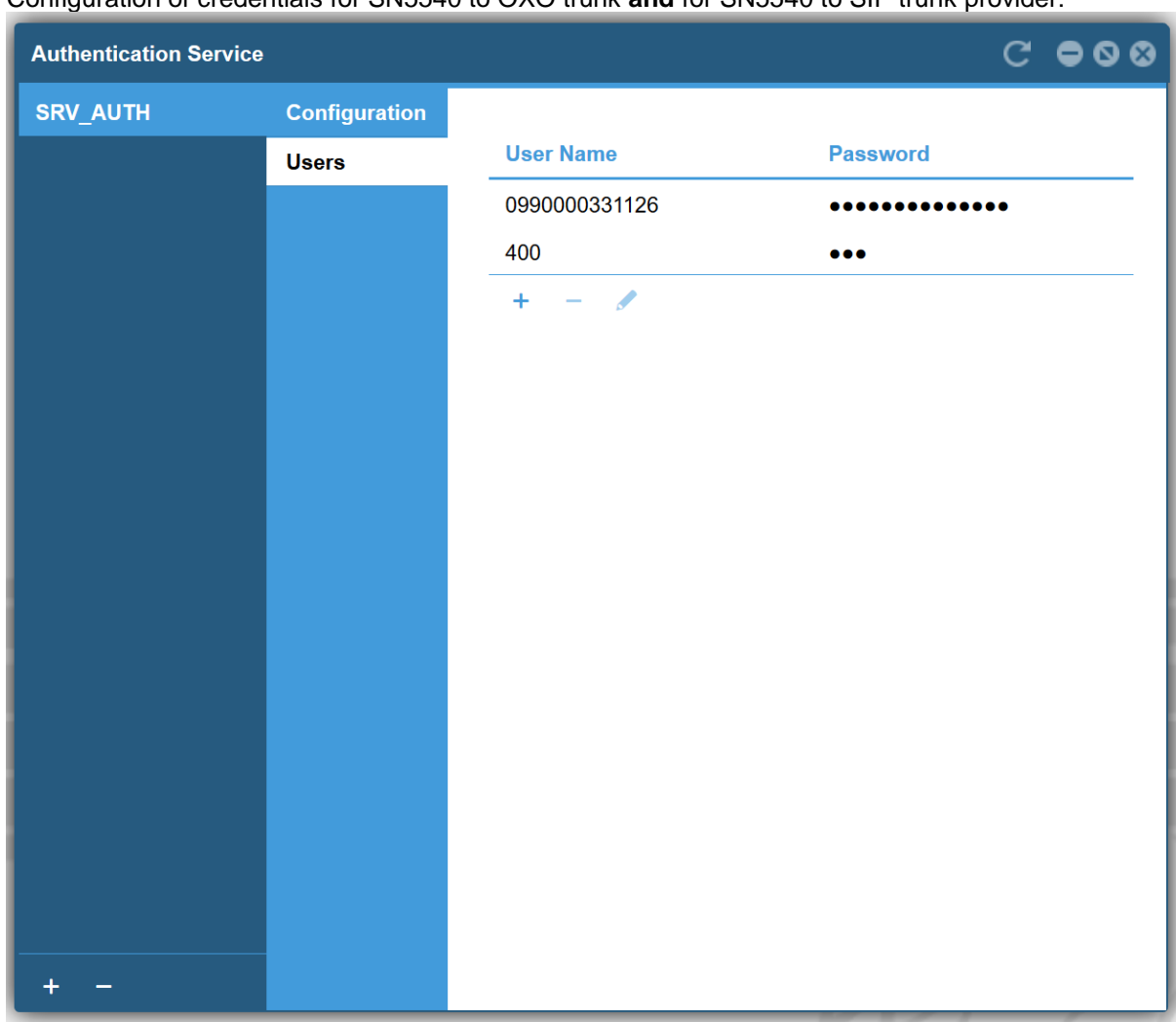
11 Appendix B: Configuration requirements of the AAPP member's application

11.1 PATTON eSBC configuration:

The following configuration has been applied to the SN5540 eSBC.

Authentication service:

Configuration of credentials for SN5540 to OXO trunk **and** for SN5540 to SIP trunk provider:



Location service:

Location Service For the SIP provider, and selection of the identity:

Location Services

LS Basic Settings

OXO Identities

Identity Groups

— Domains —

Match any domain ↻ i

Host	Port
217.15.95.97	0

+ - v ^

Location Services

LS Basic Settings

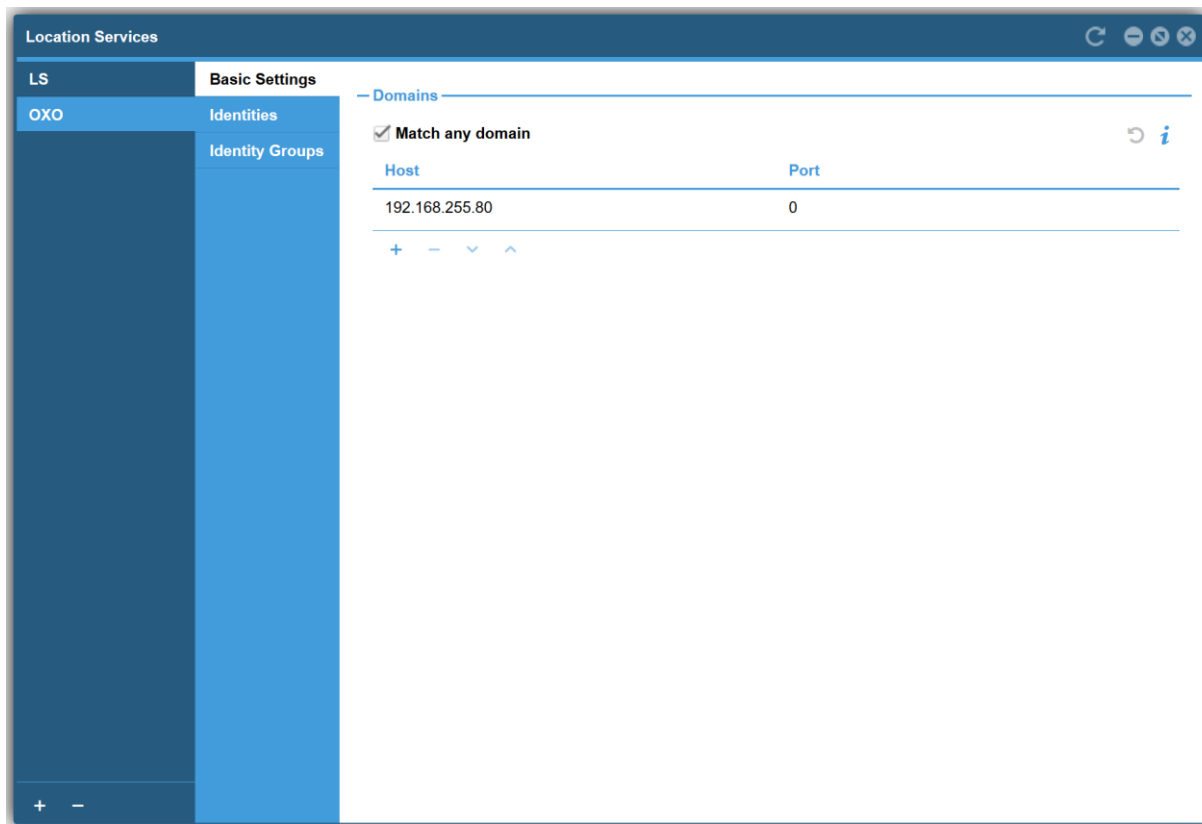
OXO Identities

Identity Groups

Name	Group	Display	Phone Context	User
0990000331126	none			

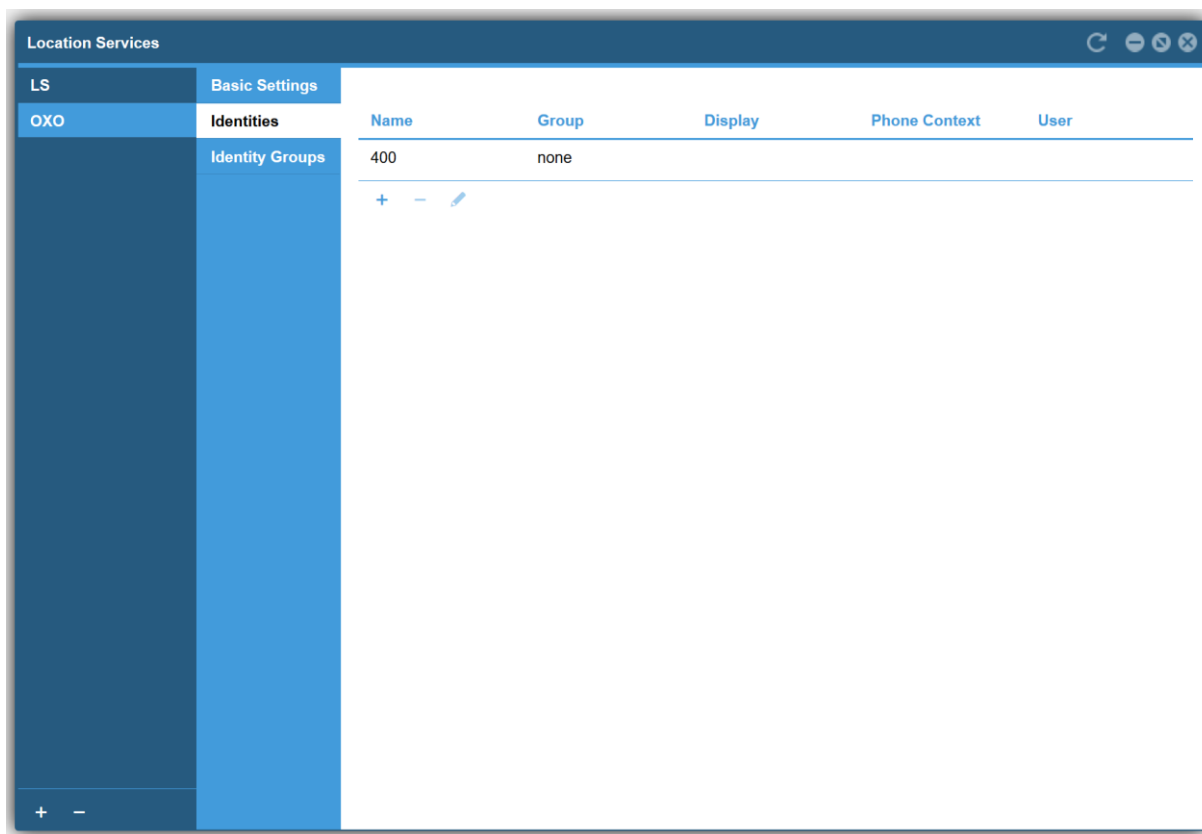
+ - ✎

Location Service For the OXO, and selection of the identity:



The screenshot shows the 'Location Services' configuration window for the 'OXO' service. The left sidebar has 'OXO' selected under 'LS'. The main area is divided into 'Basic Settings' and 'Identities'. The 'Identities' section is active, showing a table of domains.

- Domains	
<input checked="" type="checkbox"/> Match any domain	
Host	Port
192.168.255.80	0



The screenshot shows the 'Location Services' configuration window for the 'OXO' service. The left sidebar has 'OXO' selected under 'LS'. The main area is divided into 'Basic Settings' and 'Identities'. The 'Identities' section is active, showing a table of identities.

Name	Group	Display	Phone Context	User
400	none			

SIP Gateways:

Configuration of Gateways and link to “the transport interfaces”

SIP Gateways

GW_OXO

GW_SIP

Gateway State

- Enable

SIP

- TLS Profile: DEFAULT
- Accept NOTIFY check-sync
- Enable 'Service Unavailable' response for untrusted hosts
- Enable TCP connection reuse
 - As called party force TCP connection reuse
 - Reuse TLS unauthenticated connections
- Quality of protection: None
- Traffic class: local-default
- [Create traffic class](#)

babyTEL

- Proprietary babyTEL encryption

Transport Interfaces

IF_SIP_OXO

Bound Location Service **Registration Outbound**

OXO Enable

Failover

Up-Server interval	10	seconds [6..]
Down-Server interval	10	seconds [6..]
Success count	5	[1..]
Failure count	5	[1..]
<input checked="" type="checkbox"/> DNS Supervision	60	seconds [10..]

Observed Domains

SIP Gateways

GW_OXO

- Gateway State -

Enable ↻ i

- SIP -

TLS Profile DEFAULT ▾ >

Accept NOTIFY check-sync i

Enable 'Service Unavailable' response for untrusted hosts i

Enable TCP connection reuse i

As called party force TCP connection reuse i

Reuse TLS unauthenticated connections i

Quality of protection None ▾ i

Traffic class local-default ▾

Create traffic class

- babyTEL -

Proprietary babyTEL encryption i

Transport Interfaces

IF_SIP

+ - ✎

Bound Location Service

LS

+ - ✎

Registration Outbound

Enable

- Failover -

Up-Server interval	10	↕	seconds [6..]	i
Down-Server interval	10	↕	seconds [6..]	i
Success count	5	↕	[1..]	i
Failure count	5	↕	[1..]	i
<input checked="" type="checkbox"/> DNS Supervision	60	↕	seconds [10..]	i

Observed Domains

SIP Interfaces:

SIP Interfaces - Context SWITCH

IF_SIP	Basic Settings	
IF_SIP_OXO	Supplementary Services	– Binding –
	Call Setup/Release	SIP Gateway: GW_SIP
	Advice of Charge	– Call Destination –
	Tones	Type: dest-interface
	SIP Features	Name: IF_SIP_OXO
	Trusted Hosts	– Profiles –
	Mapping Tables	VoIP: DEFAULT
	Addr Translation In	– Remote –
	Addr Translation Out	Host: 217.15.95.97
		Port: [0..]
		Tls Port: [0..]
		– Local –
		Host:
		Port: [0..]

SWITCH

SIP Interfaces - Context SWITCH

IF_SIP	Basic Settings	
IF_SIP_OXO	Supplementary Services	– Binding –
	Call Setup/Release	SIP Gateway: GW_OXO
	Advice of Charge	– Call Destination –
	Tones	Type: dest-table
	SIP Features	Name: RT_to_SIP
	Trusted Hosts	– Profiles –
	Mapping Tables	VoIP: DEFAULT
	Addr Translation In	– Remote –
	Addr Translation Out	Host: 192.168.255.80
		Port: [0..]
		Tls Port: [0..]
		– Local –
		Host:
		Port: [0..]

SWITCH

Routing tables :

Routing Tables - Context SWITCH

RT_to_OXO	Match called-e164	Call Destination Type	Call Destination Name	Function Name
RT_to_SIP	.T	dest-interface	IF_SIP_OXO	
	default	dest-interface	IF_SIP_OXO	
+ - ✎				

+ -
SWITCH >

Routing Tables - Context SWITCH

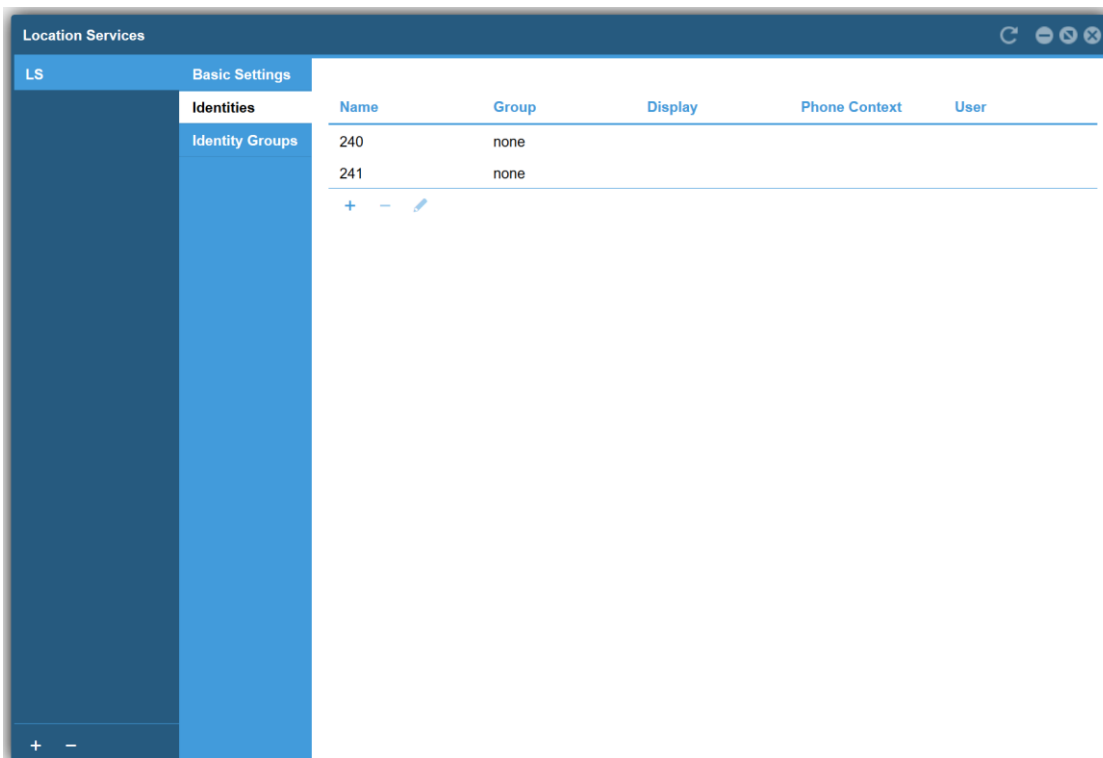
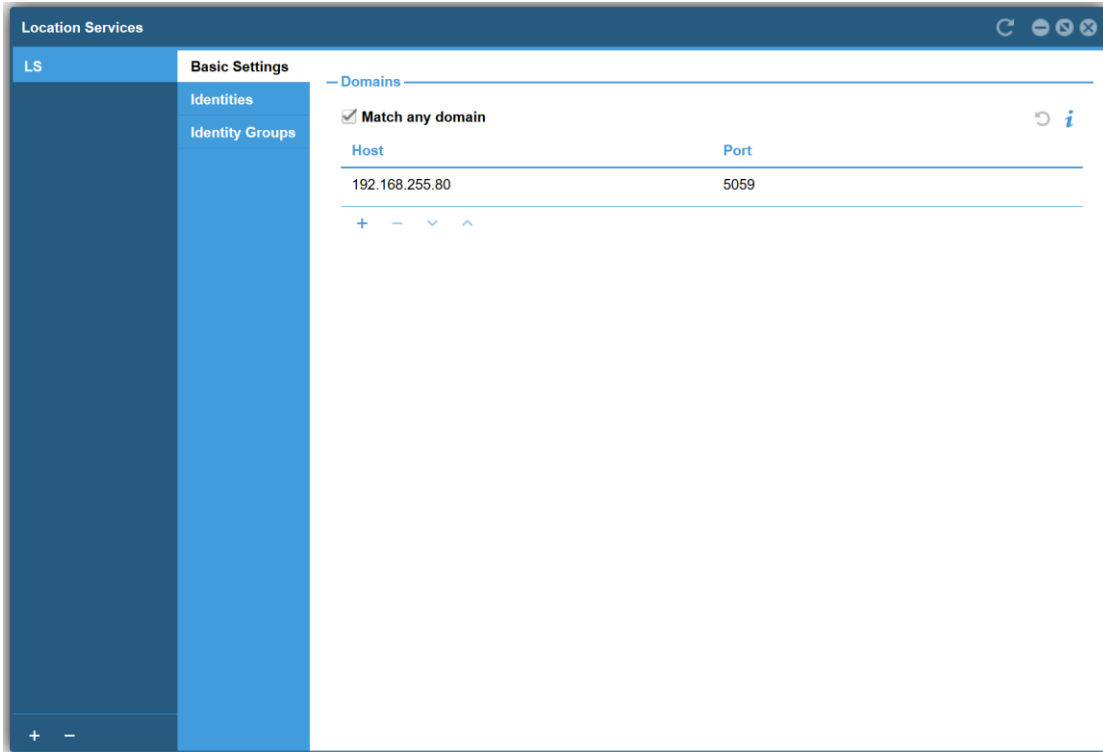
RT_to_OXO	Match called-e164	Call Destination Type	Call Destination Name	Function Name
RT_to_SIP	.T	dest-interface	IF_SIP	
+ - ✎				

+ -
SWITCH >

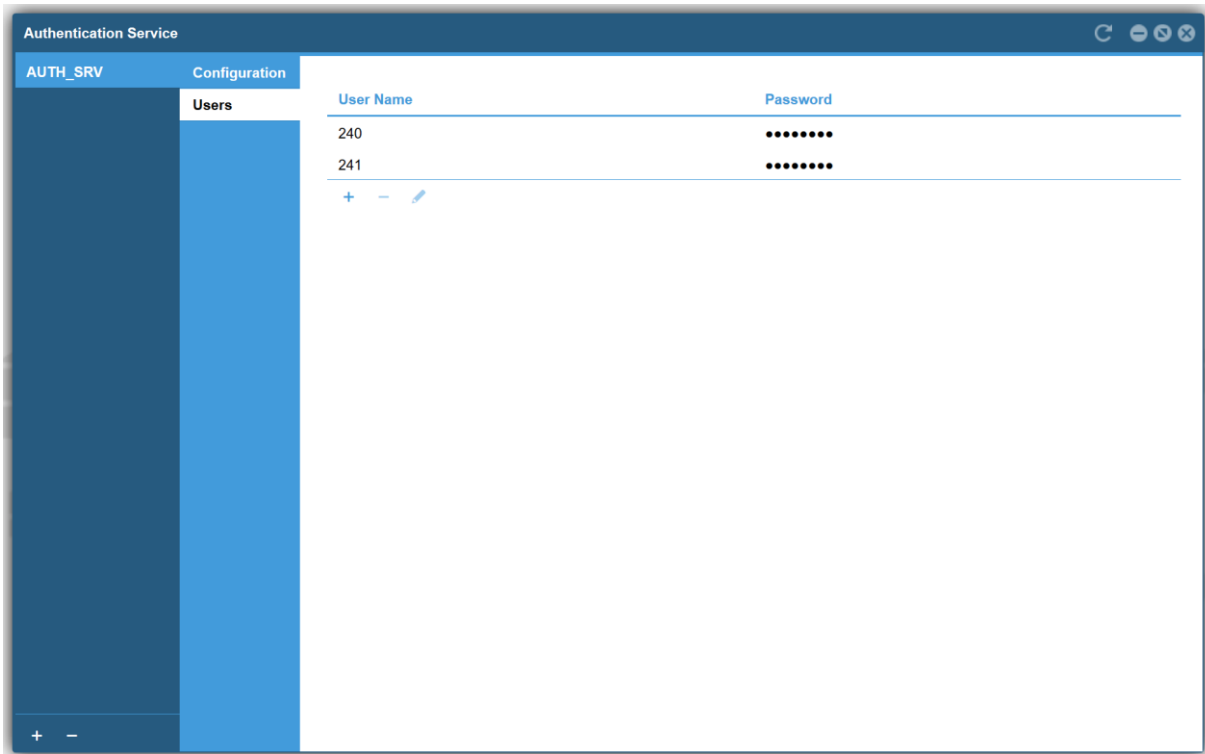
11.2 PATTON FXS analog gateway configuration:

The following configuration has been applied to the SN4141 gateway.

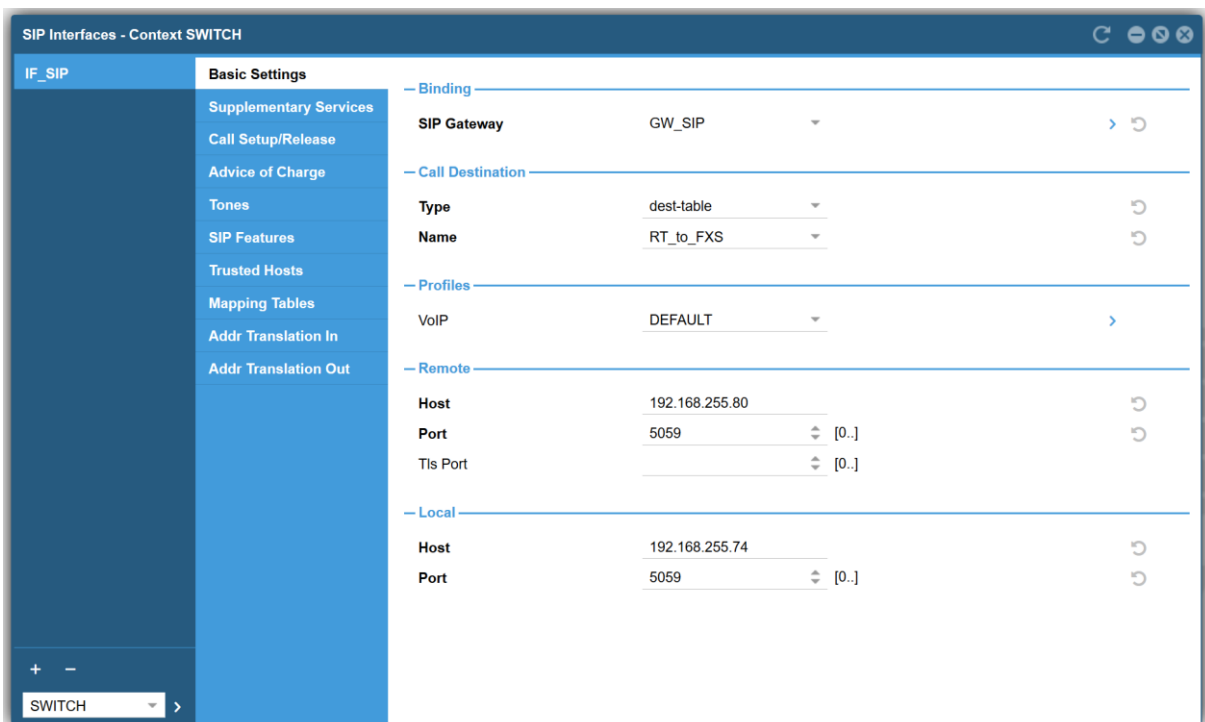
Location Services:



Authentication service:



SIP Interfaces:



In Sip Features, Hold method select “direction-attribute-sendonly”

SIP Interfaces - Context SWITCH

IF_SIP

- Basic Settings
- Supplementary Services
- Call Setup/Release
- Advice of Charge
- Tones
- SIP Features
- Trusted Hosts
- Mapping Tables
- Addr Translation In
- Addr Translation Out

SWITCH

— SIP Signaling —

- Enable Privacy and Asserted-Identity headers
- New session on redirect
- Check "To" tag
- Session timer: 1800 seconds [90..]
- Hold method: ction-attribute-sendonly
- NAT traversal:

— Penalty Box —

- Enable Penalty Box
- SIP Option trigger
- Interval: 20 [20..360]
- Timeout: 20 [20..360]
- Forced: udp
- Preferred: Preferred
- First: udp
- Second: tcp

— PRACK —

- Accept: disabled
- Emit: disabled

SIP Gateways

GW_SIP

— Gateway State —

- Enable

— SIP —

- TLS Profile: DEFAULT
- Accept NOTIFY check-sync
- Enable 'Service Unavailable' response for untrusted hosts
- Quality of protection: None
- Traffic class: local-default
- Create traffic class

— babyTEL —

- Proprietary babyTEL encryption

Transport Interfaces

IF_SIP

+ -

Bound Location Service

Registration Outbound

LS: Enable

+ -

Routing tables :

Routing Tables - Context SWITCH

RT_to_FXS	Match called-e164	Call Destination Type	Call Destination Name	Function Name
RT_to_SIP	00.%	dest-interface	IF_SIP	
	240	dest-interface	IF_FXS_00	
	241	dest-interface	IF_FXS_01	
	default	dest-interface	IF_SIP	

+ -

SWITCH >

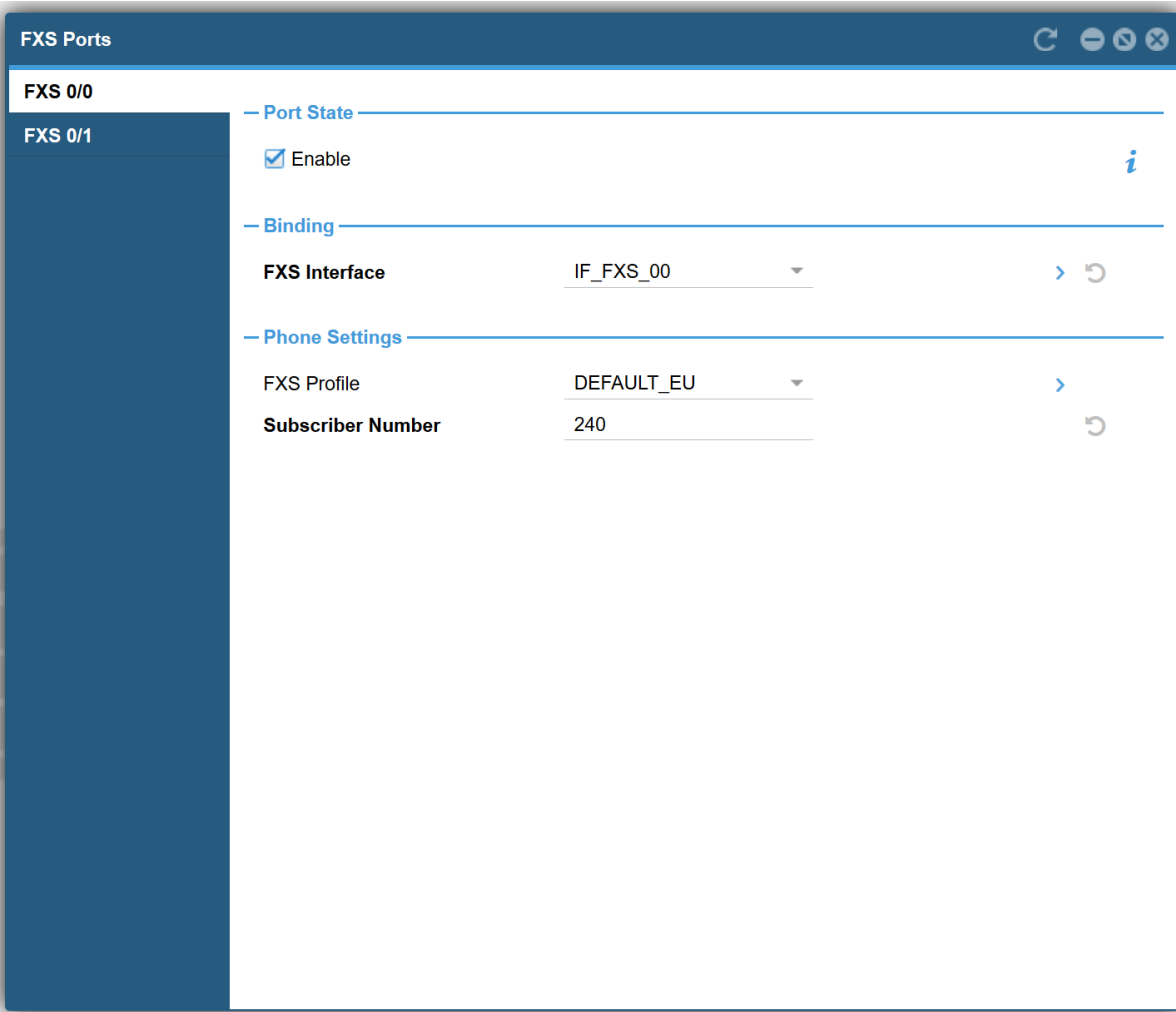
Routing Tables - Context SWITCH

RT_to_FXS	Match called-e164	Call Destination Type	Call Destination Name	Function Name
RT_to_SIP	.T	dest-interface	IF_SIP	

+ -

SWITCH >

FXS Ports:



FXS Ports

FXS 0/0

FXS 0/1

Port State

Enable i

Binding

FXS Interface IF_FXS_00 > ↻

Phone Settings

FXS Profile DEFAULT_EU >

Subscriber Number 240 ↻

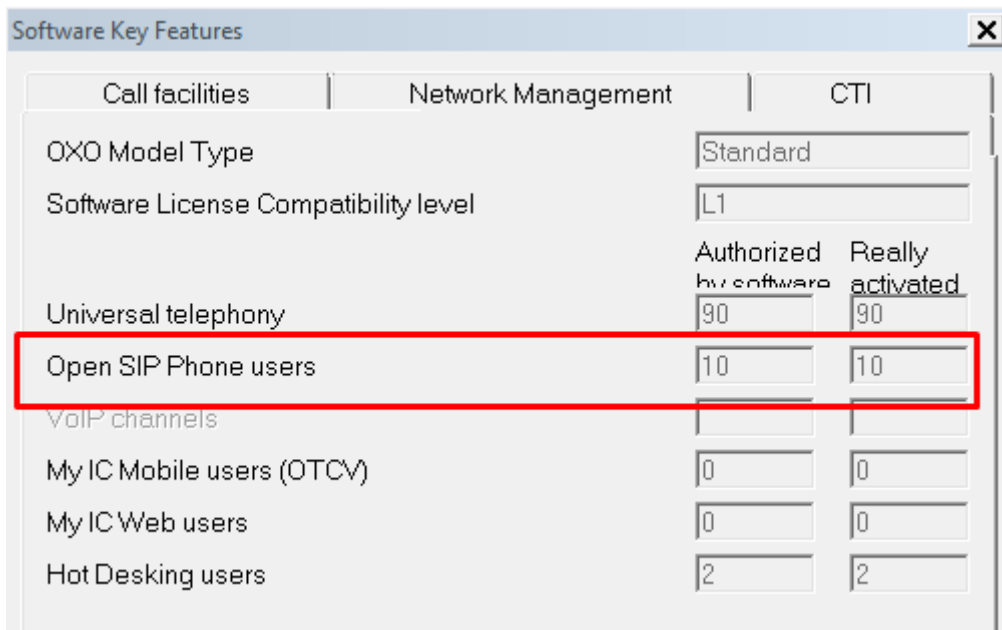
FXS Interfaces:

The screenshot displays the configuration page for FXS Interfaces on a Context SWITCH. The page title is "FXS Interfaces - Context SWITCH". On the left, there is a list of interfaces: IF_FXS_00 and IF_FXS_01. The selected interface, IF_FXS_01, has a configuration panel open for "Call Destination". This panel includes a "Type" dropdown menu set to "dest-table" and a "Name" dropdown menu set to "RT_to_SIP". Below the interface list, there are navigation controls including a "+" and "-" sign, and a "SWITCH" dropdown menu with a right-pointing arrow.

12 Appendix C: Alcatel-Lucent Enterprise Communication Platform: OXO Connect Evolution configuration requirements

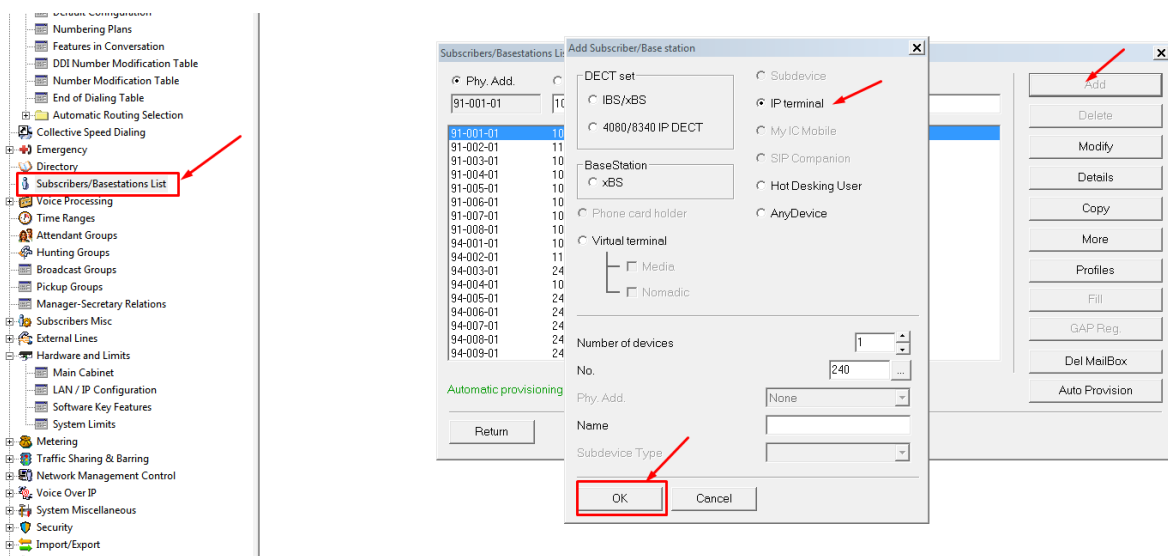
Licences:

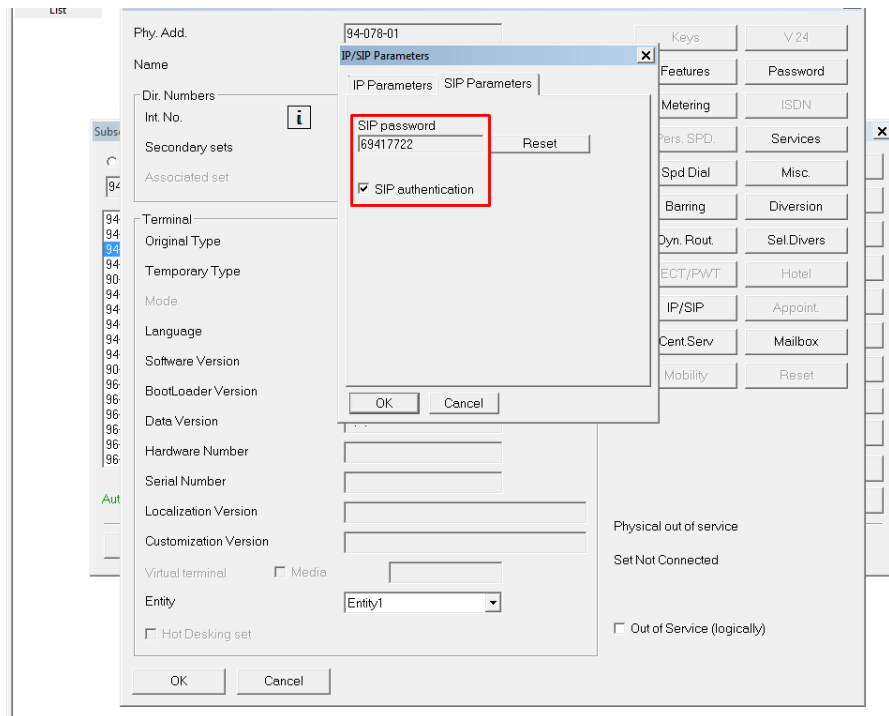
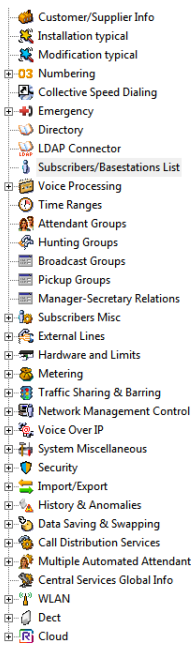
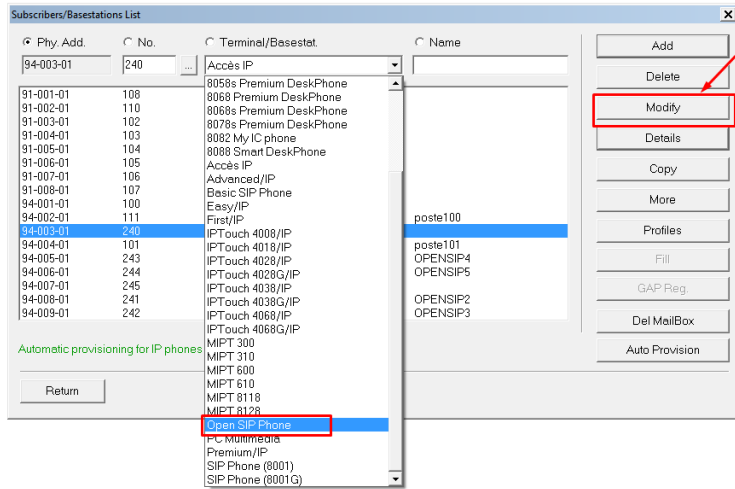
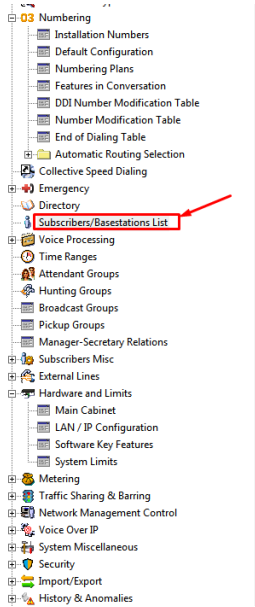
- Open SIP licence is required for Pattaon smartnode analogue interface integration



Sip set configuration

1- Configure Sip user as Open SIP phone





2- Check the VoIP channel availability

VoIP: Parameters

General | Gateway | SIP Trunk | SIP Phone

Number of Trunk Channels for trunks without rese: 2

VoIP Channels

VoIP Channels mode: Multi-codecs

Number of VoIP Channels: 128

VoIP Channels for trunks with reservation: 0

VoIP Channels for IP phones and trunks without reservati: 128

'SIP Trunk channels' licence

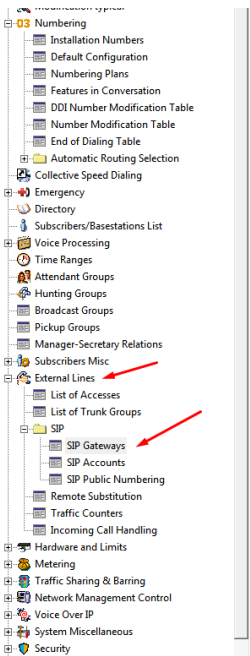
Number of 'SIP Trunk channels' licences: 30

'SIP Trunk channels' licences for trunks with reservation: 9

'SIP Trunk channels' licences for trunks without reservation: 21

IP Quality of Service: 10111000 DIFFSERV_PHB

OK Cancel Advanced...



SIP Gateways

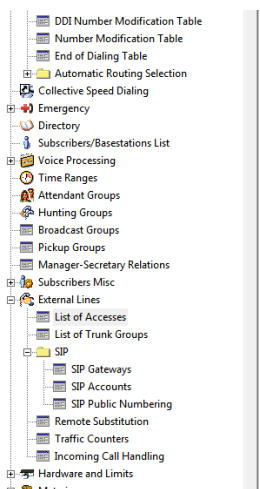
SIP Gateways List

Ind.	Index Label	IP Type	IP Address	Hostname	Domain Na...
1	EsBC Patton PUB	Static	192.168.255.195		
2	Flex	Static	185.57.220.181		sbcr1-csrfl...
3	EsBC Patton PRIV	Static	192.168.255.194		

Create
Details
Delete
Copy
Paste

OK Cancel

3- Add the VOIP channel to the list of external lines



Phy. Add.	Acc. Type	Identifier	No of Chan.
95-001-01	VoIP	V001	5
95-002-01	VoIP	V002	4
95-003-01	VoIP	V003	2

4- Select the gateway in the list of access

VoIP-Trunk

Phy. Add.	Type	Identifier	Trunk Channels
95-001-01	VoIP	V001	5

Speed Dial
Call-Dist.
Link-Cat.

Metering Counters

Meter part: 0 [Reset]
Meter total: 0

Reserved mode
 Reserve 'SIP Trunk Channels' licences

Out of Service (logical)
 Public trunk

SIP Gateway

Gateway Index: 1 - EsBC Patton PUB
Gateway Alive Status: Down

Alternative CLIP/COLP Number: []

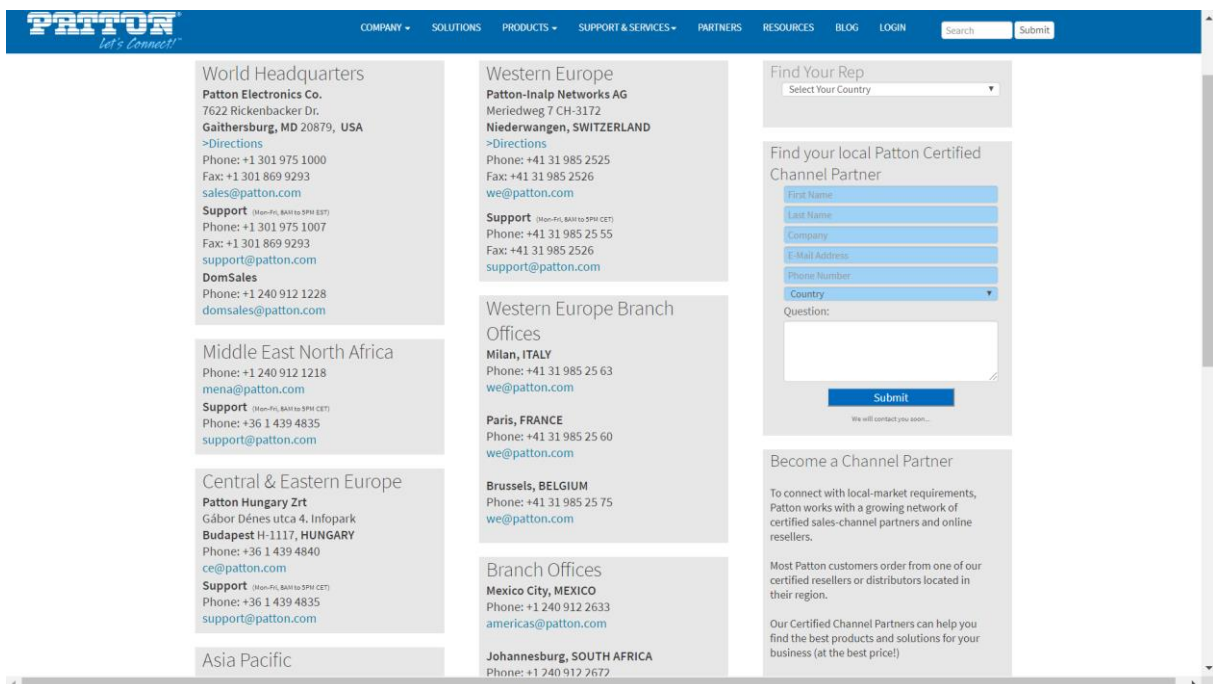
OK Cancel

13 Appendix D: AAPP member's escalation process

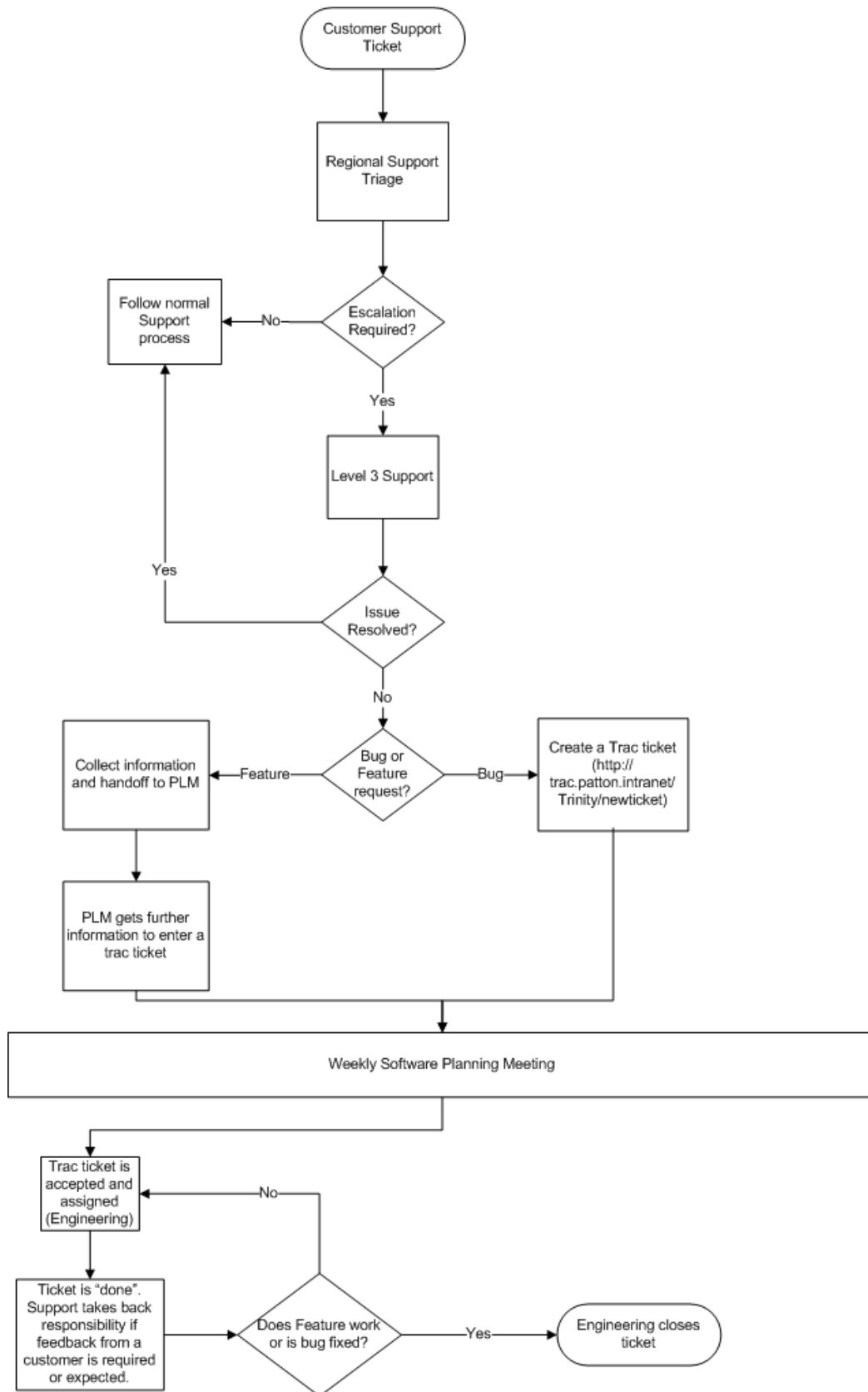
PATTON customers open tickets through Patton's web portal at: www.patton.com/support/#portal.



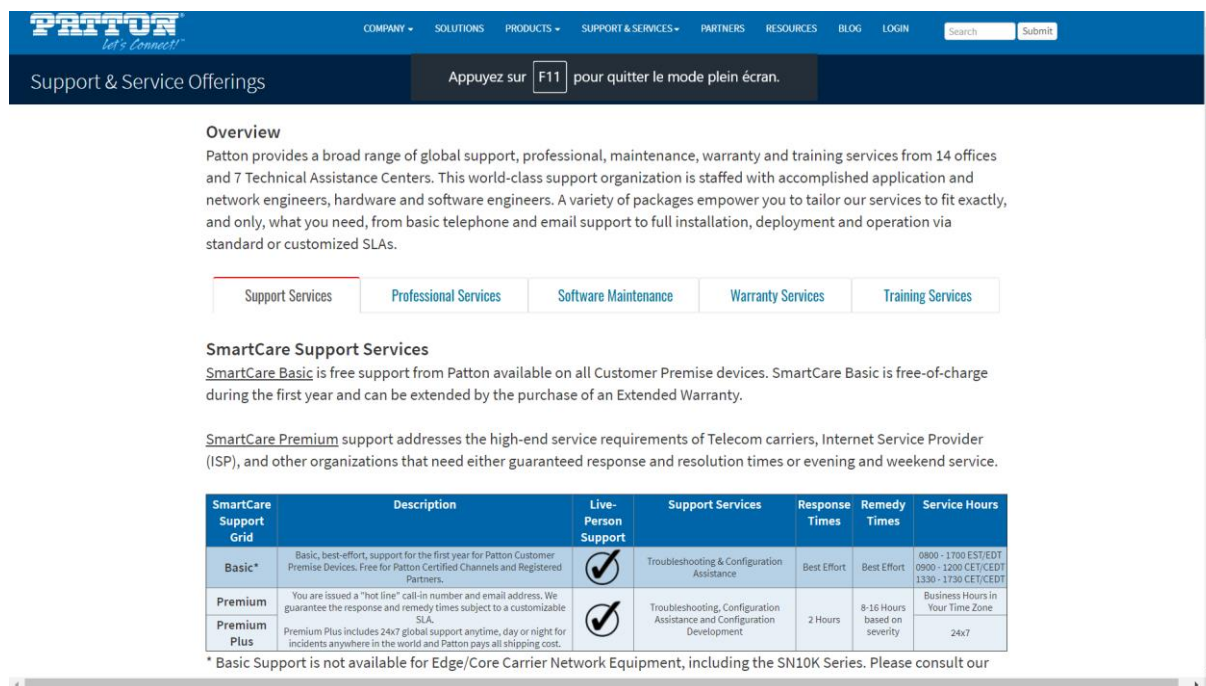
Or by sending an email to support@patton.com or by contacting their assigned support centre available at www.patton.com/company/contact-us.asp.



Escalation process:



The following escalation levels are applied to customer calls in line with Patton published support level agreements available at www.patton.com/support/support.asp.



Support & Service Offerings

Appuyez sur **F11** pour quitter le mode plein écran.

Overview
Patton provides a broad range of global support, professional, maintenance, warranty and training services from 14 offices and 7 Technical Assistance Centers. This world-class support organization is staffed with accomplished application and network engineers, hardware and software engineers. A variety of packages empower you to tailor our services to fit exactly, and only, what you need, from basic telephone and email support to full installation, deployment and operation via standard or customized SLAs.

Support Services | Professional Services | Software Maintenance | Warranty Services | Training Services

SmartCare Support Services
SmartCare Basic is free support from Patton available on all Customer Premise devices. SmartCare Basic is free-of-charge during the first year and can be extended by the purchase of an Extended Warranty.
SmartCare Premium support addresses the high-end service requirements of Telecom carriers, Internet Service Provider (ISP), and other organizations that need either guaranteed response and resolution times or evening and weekend service.

SmartCare Support Grid	Description	Live-Person Support	Support Services	Response Times	Remedy Times	Service Hours
Basic*	Basic, best-effort, support for the first year for Patton Customer Premise Devices. Free for Patton Certified Channels and Registered Partners.	<input checked="" type="checkbox"/>	Troubleshooting & Configuration Assistance	Best Effort	Best Effort	0800 - 1700 EST/EDT 0900 - 1200 CET/CEDT 1330 - 1730 CET/CEDT
Premium	You are issued a "hot line" call-in number and email address. We guarantee the response and remedy times subject to a customizable SLA.	<input checked="" type="checkbox"/>	Troubleshooting, Configuration Assistance and Configuration Development	2 Hours	8-16 Hours based on severity	Business Hours in Your Time Zone
Premium Plus	Premium Plus includes 24x7 global support anytime, day or night for incidents anywhere in the world and Patton pays all shipping cost.	<input checked="" type="checkbox"/>				24x7

* Basic Support is not available for Edge/Core Carrier Network Equipment, including the SN10K Series. Please consult our

Patton Contacts

1	TAC Email: support@patton.com Europe TAC Phone: +41 31 985 25 55
2	Technical Support for Alcatel-Lucent Enterprise account: Brice Imbault Email: Brice.imbault@patton-inalp.com Phone: +41 31 985 25 24
3	Customer Support Manager Europe: Miklos Szabo Email: mszabo@patton.com Phone: +36 1 439 4831
4	VP EMEA: Marjan Torkar Email: Marjan.Torkar@patton-inalp.com Phone: +41 31 985 2525

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 Enterprise's product family. The program provides tools and support for developing, verifying and promoting compliant third-party applications that complement Alcatel-Lucent Enterprise's product family. ALE facilitates market access for compliant applications.

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

- **Provide easy interfacing for Alcatel-Lucent Enterprise communication products:** Alcatel-Lucent Enterprise'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 Enterprise products.
- **Test and verify a comprehensive range of third-party applications:** to ensure proper inter-working, ALE tests and verifies selected third-party applications that complement its portfolio. Successful candidates, which are labelled Alcatel-Lucent Enterprise 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 program and where the InterWorking Reports can be consulted. Its access is free at <https://www.al-enterprise.com/en/partners/aapp>

The screenshot shows the Alcatel-Lucent Enterprise Portal website. The header includes the Alcatel-Lucent logo, the text "Enterprise Portal for certified applications", and navigation links for "About Us" and "Contact Us". A search bar is located in the top right corner. Below the header is a navigation menu with links for "Home", "About the program", "Join the program", "Partnerships", and "APIs". The main content area features a "Latest news" section with a headline "TAPI 4.0.6 is now compatible with Windows 2008 64bits". Below this is a large banner for "AAPP Interworking Reports" with the text "The IWRs are now available in public access" and a "Visit the list" button. The "Browse" section is divided into two columns: "Discover our partnerships with key players in the application market" with links for "All applications" and "Find an application"; and "Benefit from the Program services" with the text "Use our technology and business services to develop, deploy, certify and sell applications" and a link for "Learn more about program services". On the right side, there are several promotional boxes: "Discover Alcatel-Lucent enterprise products", "Welcome to the AAPP Factory", "Join now", and "Discover communication solutions for disabled workers". A "Quick Access" section at the bottom right highlights "Interworking Reports (public access)".

14.2 Enterprise.Alcatel-Lucent.com

You can access the Alcatel-Lucent Enterprise website at this URL: <https://www.al-enterprise.com>

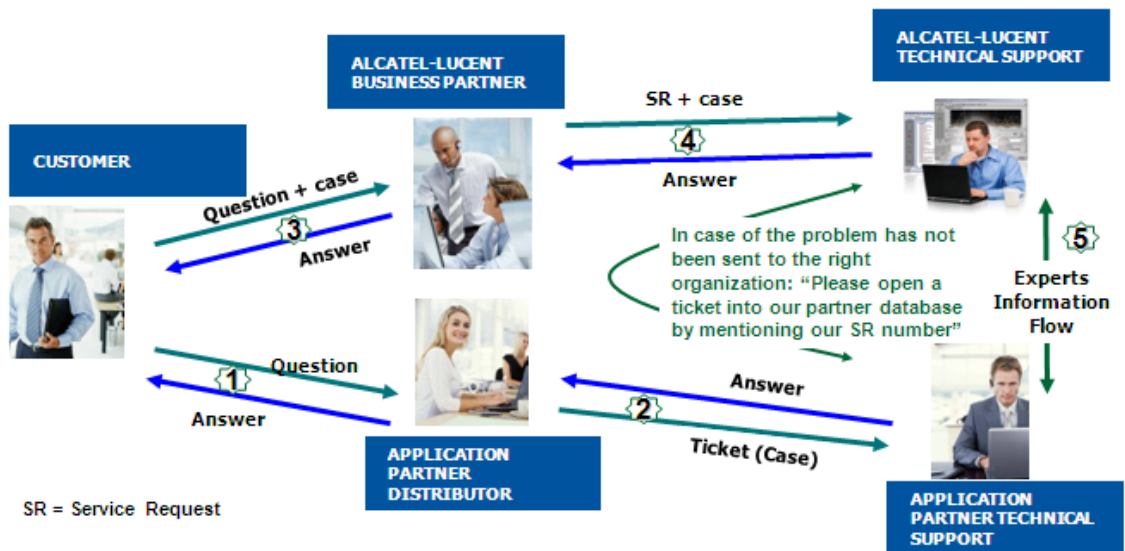
15 Appendix F: AAPP Escalation process

15.1 Introduction

The purpose of this appendix is to define the escalation process to be applied by the 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 Application Partner Business Partner can be a Third-Party company or the ALE 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, ALE and the Application 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 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 ALE Business Partner will escalate the problem to the ALE Support Center only if the Application Partner has demonstrated with traces a problem on the ALE side or if the Application 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 Application Partner side. The Application 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 Application 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 the AAPP (URL: <https://www.al-enterprise.com/en/partners/aapp>) 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.

15.3 Escalation in all other cases

For non-certified AAPP applications, 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 analyze.

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-AAPP 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 AAPP applications 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.

15.4 Technical support access

The ALE **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): <https://www.al-enterprise.com/en/partners/aapp>
- 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