



Alcatel-Lucent Application Partner Program Inter-Working Report

Partner: VIERLING
Application type: SIP/ISDN GSM Gateway
Application name: ECOTEL

The logo for VIERLING, featuring the word 'VIERLING' in white, bold, uppercase letters on a dark blue rectangular background.

The product and version listed have been tested with the Alcatel-Lucent Communication Server and the version specified hereinafter. The tests concern only the inter-working between the Application Partner product and the Alcatel-Lucent Communication platforms. The inter-working report is valid until the Application Partner issues a new version of such product (incorporating new features or functionality), or until Alcatel-Lucent issues a new version of such Alcatel-Lucent product (incorporating new features or functionality), whichever first occurs.

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Tests identification

Date of the tests	18 – 20 February 2008 29 – 30 April 2008
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Partner's representative	Bernhard Emmert
Alcatel-Lucent Communication Platform (OmniPCX 4400/Enterprise, OmniTouch, OmniPCX Office, ...)	OmniPCX/Enterprise
Alcatel-Lucent compatibility release	Release 8.0 G1.302.8
Partner's application version	ISDN: ECO_VOIP.IMG V4.7.18 FS_006.TGZ APP_016F.TGZ SIP: ECO_VOIP.IMG V4.7.20 FS_006.TGZ APP_016G.TGZ (APP_016I.TGZ)
Environment (if it has a sense)	<input type="checkbox"/> ACD <input type="checkbox"/> Business

Author(s):
Reviewer(s):

Historic

Edition 1: creation of the document – 04 -08-2008

Test results

Passed

Refused

Postponed

Passed with restrictions

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

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1 Introduction

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

The scope of the tests is the interoperability of the application with the Alcatel-Lucent Communication Platform. It covers a basic or complex inter-working to ensure that services requested by the application and provided by the Communication Platform (and/or conversely) are properly completed.

These tests do not verify the functional achievement of the application as well as they do not cover load capacity checks, race conditions and generally speaking any real customer's site conditions.

2 Application information

Application type: SIP/ISDN GSM Gateway

Application commercial name: ECOTEL ISDN/VoIP

Application version: ISDN:
ECO_VOIP.IMG V4.7.18
FS_006.TGZ
APP_016F.TGZ

SIP:
ECO_VOIP.IMG V4.7.20
FS_006.TGZ
APP_016G.TGZ/ APP_016I.TGZ

Interface type: SIP/ISDN

Interface version (if relevant):

Brief application description:

ECOTEL[®] GSM gateways enable cost-efficient calls “mobile-mobile” instead of expensive calls “fixed-mobile”.

The model ECOTEL[®] ISDN provides reliable, cost-effective connections between GSM and ISDN networks.

The model ECOTEL[®] VoIP provides reliable, cost-effective connections between IP, GSM and ISDN networks.

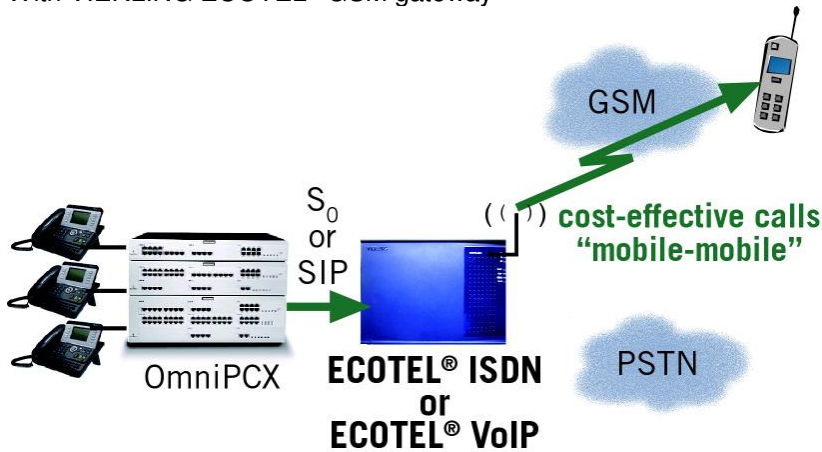
The number of GSM channels is scalable in steps of two up to a total of eight, and the GSM modules are compatible with all types of GSM networks (GSM 850/900/1800/1900/R).

ECOTEL[®] ISDN/VoIP offers a built-in antenna splitter which ensures easy installation with a maximum of two antennas.

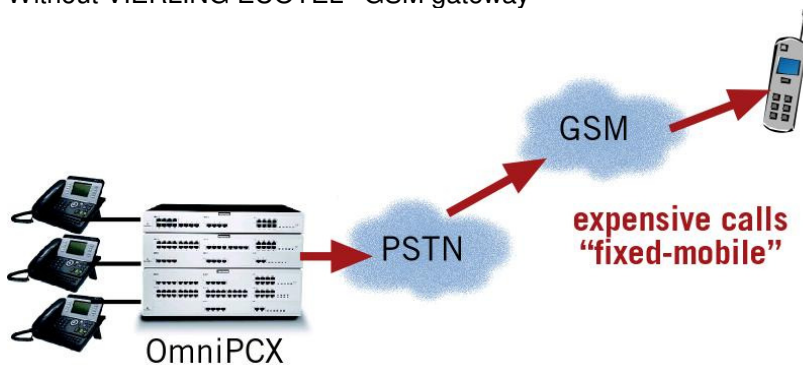
Potential applications range from integration into an existing VoIP infrastructure and connecting of mobile offices all the way to distributed installations with multiple gateways and common configuration software.

Figure 1 Global architectures with and without VIERLING ECOTEL[®] GSM gateway

With VIERLING ECOTEL[®] GSM gateway



Without VIERLING ECOTEL[®] GSM gateway



- Connectivity via S0 or IP (SIP)
- 1, 2, 4 or 8 GSM channels in each ECOTEL[®] GSM gateway
- ECOTEL[®] VoIP additionally with 8 SIP channels (for registration with SIP proxies or providers)

3 Tests environment

3.1 Test Strategy

Issue	Description	
Test Goal	The main goal of this testing is to test: <ul style="list-style-type: none"> - the external interfaces - the system failure/recovery behaviour - the main functionality of this component within the system as a whole 	
Test intensity	Scope of the tests are: <ul style="list-style-type: none"> - Verification of the correct behaviour - Restart behaviour - Reaction in critical situations 	

4 Summary of test results

4.1 Test Results Summary (18 – 20 February 2008)

Device	Description	
	ECOTEL@ISDN is ready for link to OmniPCX ECOTEL@VoIP is ready for link to OmniPCX	ISDN: ready for link SIP: not passed
Problems	<p>Connection via ISDN: None</p> <p>Connection via SIP:</p> <ol style="list-style-type: none"> BYE incorrect The bug occurs when Ecotel is operating as SIP-Server connected towards an external SIP-Server. When a call is established by Ecotel and afterwards released by Ecotel a incorrect Request-URI is used. This bug is not seen in APP_016C.TGZ, but has been introduced with APP_016F.TGZ and has to be fixed. REINVITE When a call is established and a REINVIT is send towards Ecotel, Ecotel reboots. The REINVITE mechanisms have to be implemented at Ecotel side. REINVIT is always used by a PABX when call forwarding is requested. 	<p>Mandatory to be fixed in Ecotel firmware</p> <p>Mandatory to be fixed in Ecotel firmware</p>
Restrictions	None	

4.2 Test Results Summary (29 – 30 April 2008)

Device	Description	
	ECOTEL@VoIP is ready for link to OmniPCX	SIP: ready for link
Open issues	<p>Testcase: Call between a PABX user (A) and a GSM user (B) via Ecotel is established; Enquiry towards GSM user (C) via Ecotel.</p> <p>Condition: When user A releases the call; RTP streaming is not longer done via media gateway 10.62.15.10, but directly between allocated SIP channels at Ecotel. Ecotel actually does not rearrange the RTP streaming correctly.</p> <p>The misbehaviour is independent from any PABX; the RTP streaming has to be looped in Ecotel.</p> <p>As the call will be released from party B or C anyway the problem is a minor issue. It will be fixed in Ecotels firmware; retesting at OmniPCX is not assumed to be necessary.</p> <p>No more open issue left.</p>	<p>Has to be fixed in Ecotel firmware</p> <p>RTP streaming is not switched; Protocol is ok; from signalling perspective everything still works fine; calls may be released by any party being involved in the call; BYEs are still done via PABX proxy.</p> <p>Retesting has been done with ECO_VOIP.IMG V4.7.20 FS_006.TGZ APP_017I.TGZ RTP streaming is switched now; the open issue is solved.</p>
Restrictions	PABX has to be in public connection mode	

5 Testing

5.1 Test Results in Detail

5.1.1 Ecotel connected to external S0 trunk

Test Procedure	Description	Test Result
	<p>PABX setup as user L1/L2/L3:TE/TE/TE-PtP Ecotel setup as network L1/L2/L3:NT/NT/NT-PtP</p> <p>PABX may work in 'Overlap Sending' mode or in 'en-block dialing' mode; this has to be configured by PABX user.</p>	NT- Connector has to be used at Ecotel side; 1 : 1 cabling towards PABX is recommended
Pull the connection cable and put it back again	The whole system returns to normal operating mode without manual interferences	Passed
Soft restart of Ecotel	The whole system returns to normal operating mode without manual interferences	Passed
Hard restart of Ecotel	The whole system returns to normal operating mode without manual interferences	Passed
Soft restart of PABX	The whole system returns to normal operating mode without manual interferences	Passed
Hard restart of PABX	The whole system returns to normal operating mode without manual interferences	Passed
System phone outgoing call	PABX subscriber towards external user via Ecotel-GSM	Overlap Sending: Passed Block Dialing: Passed
Analog phone outgoing call	PABX subscriber towards external user via Ecotel-GSM	Passed
ISDN phone outgoing call	PABX subscriber towards external user via Ecotel-GSM	n.a.
VoIP phone outgoing call	PABX subscriber towards external user via Ecotel-GSM	Passed
CLIR	Calling party number may be suppressed by PABX	Passed OXE always gets the cgn; user may configure 'presentation restricted'
PABX subscriber redirected	Call between a PABX user and a GSM callee via Ecotel is established	Passed PABX may send real cgn or redirected number as CLI (configurable at PABX)
PABX subscriber makes an enquiry towards a PABX subscriber	Call between a PABX user and a GSM callee via Ecotel is established; using PABX features the GSM callee via Ecotel is receiving hold information	Passed User hears a beep from PABX when 'in hold', connection is still in connected state; call switching is successful; call transfer is successful;
PABX subscriber makes an enquiry towards an external callee	Call between a PABX user and a GSM callee via Ecotel is established; using PABX features the GSM callee via Ecotel is receiving hold information	Passed User hears a beep from PABX when 'in hold', connection is still in connected state;

		call transfer is successful;
DTMF detection at Ecotel	Call between a PABX user and Ecotel is established; post-dialing is used	Passed
Release timeout without DTMF-suffix dialing	Call between a PABX user and Ecotel is established but without post-dialing	n.a.
3 party conference (2 internal PBX; 1 external Ecotel)	Using conferencing facility of PABX	Passed
3 party conference (1 internal PBX; 2 external Ecotel)	Using conferencing facility of PABX	Passed
PABX clock from public network	Connections have to be free from any distortions; Ecotel L1/L2/L3:NT/NT/NT	Passed
PABX clock from public network	Connections have to be free from any distortions; Ecotel is synchronized to PABX Ecotel L1/L2/L3:TE/NT/NT	No need to synchronize Ecotel; PABX is robust against frame slipping
System phone incoming call	GSM caller via Ecotel towards PABX subscriber	Passed
Analog phone incoming call	GSM caller via Ecotel towards PABX subscriber	Passed
ISDN phone incoming call	GSM caller via Ecotel towards PABX subscriber	n.a.
VoIP phone incoming call	GSM caller via Ecotel towards PABX subscriber	Passed
CLIP	Calling party number available	Passed
DTMF sending of Ecotel	DTMF signalling transparent towards PABX; DTMF signalling transparent towards Ecotel	Passed
External caller makes an enquiry using PABX feature set	using PABX features the GSM caller via Ecotel is able to call a second PABX subscriber	Passed
External caller makes an enquiry using Ecotel feature set	Ecotel is sending hold information towards PBX	n.a.

5.1.2 Ecotel connected to internal S0-Bus

Test Procedure	Description	Test Result
	PABX setup as network L1/L2/L3: NT/NT/NT-PtMP Ecotel setup as user L1/L2/L3:TE/TE/TE-PtMP	Specific GSM user is assigned to internal user 33049; PABX may assign up to 8 extensions to a S0-bus.
Pull the connection cable and put it back again	The whole system returns to normal operating mode without manual interferences	Passed
Soft restart of Ecotel	The whole system returns to normal operating mode without manual interferences	Passed
Hard restart of Ecotel	The whole system returns to normal operating mode without manual interferences	Passed
Soft restart of PABX	The whole system returns to normal operating mode without manual interferences	Passed
Hard restart of PABX	The whole system returns to normal operating mode without manual interferences	Passed
System phone outgoing call	PABX subscriber towards GSM callee via Ecotel	Passed
Analog phone outgoing call	PABX subscriber towards GSM callee via Ecotel	Passed
ISDN phone outgoing call	PABX subscriber towards GSM callee via Ecotel	n.a.
VoIP phone outgoing call	PABX subscriber towards GSM callee via Ecotel	Passed
CLIR	Calling party number may be suppressed	Passed cgn may be removed in SETUP (configurable at PABX)
PABX subscriber redirected	Call between a PABX user and a GSM callee via Ecotel is established	Passed real cgn available as CLI
PABX subscriber makes an enquiry towards a PABX subscriber	Call between a PABX user and a GSM callee via Ecotel is established; using PABX features the GSM callee via Ecotel is receiving hold information	Passed
PABX subscriber makes an enquiry towards an external callee	Call between a PABX user and a GSM callee via Ecotel is established; using PABX features the GSM callee via Ecotel is receiving hold information	Passed
DTMF detection at Ecotel	Call between a PABX user and Ecotel is established; post-dialing is used	n.a.
Release timeout without DTMF-suffix dialing	Call between a PABX user and Ecotel is established but without post-dialing	n.a.
3 party conference (2 internal PBX; 1 external Ecotel)	Using conferencing facility of PABX	Passed
3 party conference (1 internal PBX; 2 external Ecotel)	Using conferencing facility of PABX	Passed
CLIP	Calling party number available	Passed
System phone incoming call	GSM caller via Ecotel towards PABX subscriber	Passed
Analog phone incoming call	GSM caller via Ecotel towards PABX subscriber	Passed
ISDN phone incoming call	GSM caller via Ecotel towards PABX subscriber	n.a.
VoIP phone incoming call	GSM caller via Ecotel towards PABX subscriber	Passed

DTMF sending of Ecotel	DTMF signalling transparent towards PABX; DTMF signalling transparent towards Ecotel	Passed
External caller makes an enquiry using PABX feature set	using PABX features the GSM caller via Ecotel is able to call a second PABX subscriber	Passed
External caller makes an enquiry using Ecotel feature set	Ecotel is sending hold information towards PBX	n.a.

5.1.3 Ecotel connected to SIP-IF (Ecotel is server at external server)

Test Procedure	Description	Test Result
	Ecotel: 10.15.62.11 = Device 10.15.62.12 = SIP-Proxy PABX: 10.15.62.1 = SIP-Proxy	Proxy to Proxy
Pull the connection cable and put it back again	The whole system returns to normal operating mode without manual interferences	Passed
Soft restart of Ecotel	The whole system returns to normal operating mode without manual interferences	Passed
Hard restart of Ecotel	The whole system returns to normal operating mode without manual interferences	Passed
Soft restart of PABX	The whole system returns to normal operating mode without manual interferences	Passed
Hard restart of PABX	The whole system returns to normal operating mode without manual interferences	Passed
Registration at Ecotel	PABX registers with unique username (01556) at Ecotel to build up a 'keep-alive' mechanism	Passed Loosing connection with Ecotel is recognized by PABX and rerouting is applied. The registration cycle time is configurable at PABX; If Ecotel is available again it is be recognized by PABX and routing towards Ecotel is working again. (OXE_REG_AT_ECO)
Registration at PABX	Ecotel registers with unique username (987654) at PABX as Proxy to build up a 'keep-alive' mechanism	Passed Loosing connection with Ecotel is recognized by PABX and rerouting is applied. The registration cycle time is configurable at Ecotel; the registration expiry time is configurable at PABX; If Ecotel is available again it is be recognized by PABX and routing towards Ecotel is working again.
Registration + Authentication at PABX	Ecotel registers with unique username (987654) and password (12345678) at PABX as Proxy to build up a 'keep-alive' mechanism	Passed Loosing connection with Ecotel is recognized by PABX and rerouting is applied. The registration cycle time is configurable at Ecotel; the registration expiry time is configurable at PABX; If Ecotel is available again it is be recognized by PABX and routing towards Ecotel is working again. (ECO_REGS_WITH_AUTH_AND_PWD)
Supported Codecs G.711μ G.711a G.723 G.726 G.729a		Passed Passed Passed not available at PABX Passed

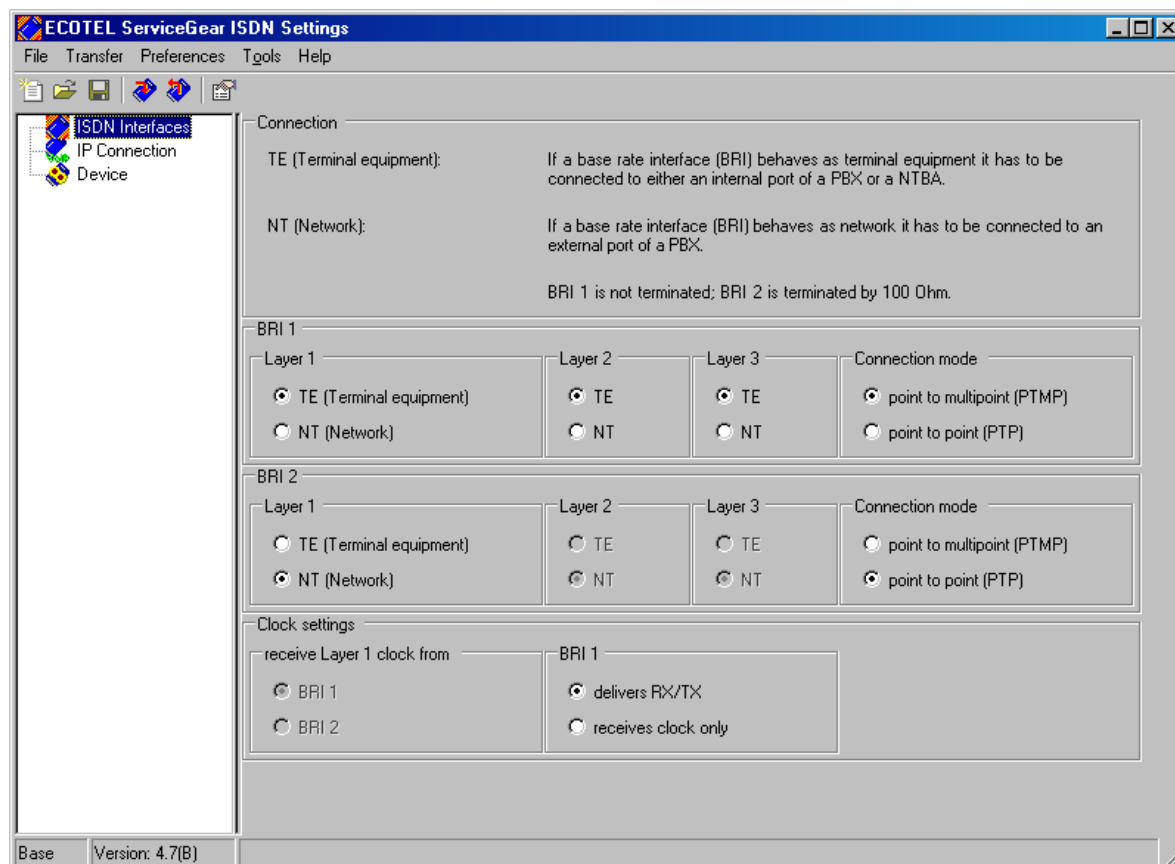
System phone outgoing call	PABX subscriber towards GSM user via Ecotel	Passed Cgn: 0155633001 Cancel by PABX ok Release by PABX ok Release by Ecotel ok (OXE2ECO_CCL_BYE_2_SIDES_1) System phone might have an username ("ANY STRING")
System phone outgoing call	PABX subscriber towards internal user which is redirected towards GSM user via Ecotel. Calling party cancels the call Called party rejects the call Called party is busy	Passed ok ok ok (OXE2ECO_REDIRECTION)
Analog phone outgoing call	PABX subscriber towards GSM user via Ecotel	Passed Cgn: 0155633010 Cancel by PABX ok Release by PABX ok Release by Ecotel ok (OXE2ECO_CCL_BYE_2_SIDES_2) Analog phone might have an username ("ANY STRING")
ISDN phone outgoing call	PABX subscriber towards GSM user via Ecotel	not tested
SIP phone outgoing call	PABX subscriber towards GSM user via Ecotel	Passed Cgn: 0155633008 Cancel by PABX ok Release by PABX ok Release by Ecotel ok (OXE2ECO_CCL_BYE_2_SIDES_3) SIP phone might have an username ("ANY STRING")
CLIR	Calling party number may be suppressed	n.a.
PABX subscriber makes an enquiry towards a PABX subscriber	Call between a PABX user (A) and a GSM user (B) via Ecotel is established; Enquiry from user A towards any PABX user (C). Using PABX features the GSM user via Ecotel is receiving hold information	Passed PABX in public connection mode (supplementary services in private connection mode not implemented at Ecotel) Users hear a beep from PABX when 'in hold', connection is still in connected state;
Initial call PABX -> ECO	All calls are accepted User A releases the call User C does not accept the call; User B in active call state releases the call User B in passive call state releases the call User C in active call state releases the call User C in passive call state releases the call	Passed Passed; B and C connected (OXE2ECO_ENQUIRY_1) Passed; A and B connected Passed; A and C connected Passed; A and C connected (OXE2ECO_ENQUIRY_11) Passed; A and B connected Passed; A and B connected
Initial call ECO -> PABX	All calls are accepted User A releases the call User C does not accept the call; User B in active call state releases the call User B in passive call state releases the call	Passed Passed; A and C connected (OXE2ECO_ENQUIRY_3) Passed Passed; A and C connected Passed; A and C connected

	<p>User C in active call state releases the call User C in passive call state releases the call</p>	<p>(OXE2ECO_ENQUIRY_11) Passed; A and B connected Passed; A and B connected</p>
<p>PABX subscriber makes an enquiry towards an external user</p>	<p>Call between a PABX user (A) and a GSM user (B) via Ecotel is established; Enquiry from user A towards GSM user (C) via Ecotel. Using PABX features the GSM user via Ecotel is receiving hold information</p>	<p>Passed with restriction PABX in public connection mode (supplementary services in private connection mode not implemented at Ecotel) User hears a beep from PABX when 'in hold', connection is still in connected state;</p>
<p>Initial call PABX -> ECO</p>	<p>All calls are accepted User A releases the call; RTP streaming is not longer done via media gateway 10.62.15.10, but directly between allocated SIP channels at Ecotel. Ecotel actually does not rearrange the RTP streaming correctly.</p>	<p>Passed Not passed completely; (OXE2ECO_ENQUIRY_2) RTP streaming is not switched; Protocol is ok; from signalling perspective everything still works fine; calls may be released by any party being involved in the call; BYEs are still done via PABX proxy. Retesting has been done with ECO_VOIP.IMG V4.7.20 FS_006.TGZ APP_0171.TGZ RTP streaming is switched now; the open issue is solved. Passed</p>
	<p>User C does not accept the call;</p>	<p>Passed</p>
	<p>User B in active call state releases the call User B in passive call state releases the call</p>	<p>Passed; A and C connected Passed A and C connected</p>
	<p>User C in active call state releases the call User C in passive call state releases the call</p>	<p>Passed; A and B connected Passed; A and B connected</p>
<p>Initial call ECO -> PABX</p>	<p>All calls are accepted User A releases the call; RTP streaming is not longer done via media gateway 10.62.15.10, but directly between allocated SIP channels at Ecotel. Ecotel actually does not rearrange the RTP streaming correctly.</p>	<p>Passed Not passed; (OXE2ECO_ENQUIRY_4) RTP streaming is not switched; Protocol is ok; from signalling perspective everything still works fine; calls may be released by any party being involved in the call; BYEs are still done via PABX proxy. Retesting has been done with ECO_VOIP.IMG V4.7.20 FS_006.TGZ APP_0171.TGZ RTP streaming is switched now; the open issue is solved. Passed</p>
	<p>User C does not accept the call;</p>	<p>Passed</p>
	<p>User B in active call state releases the call User B in passive call state releases the call</p>	<p>Passed; A and C connected Passed; A and C connected</p>
	<p>User C in active call state releases the call User C in passive call state releases the call</p>	<p>Passed; A and B connected Passed; A and B connected</p>
<p>3 party conference (2 internal PBX;</p>	<p>Using conferencing facility of PABX; PABX in public connection mode</p>	<p>Passed</p>

1 external Ecotel) Initial call PABX -> ECO Initial call ECO -> PABX		Passed Passed
3 party conference (1 internal PBX; 2 external Ecotel) Initial call PABX -> ECO Initial call ECO -> PABX	Using conferencing facility of PABX; PABX in public connection mode Internal user leaves the conference; External users have to stay within the conference.	Passed Passed Retesting has been done with ECO_VOIP.IMG V4.7.20 FS_006.TGZ APP_0171.TGZ RTP streaming is switched now; the open issue is solved. Passed; B and C connected
System phone incoming call	GSM caller via Ecotel towards PABX subscriber	Passed Cgn: correct GSM number Release by PABX ok Release by Ecotel ok (ECO2OXE_CCL_BYE_2_SIDES_1)
Analog phone incoming call	GSM caller via Ecotel towards PABX subscriber	Passed Cgn: correct GSM number Release by PABX ok Release by Ecotel ok (ECO2OXE_CCL_BYE_2_SIDES_2)
ISDN phone incoming call	GSM caller via Ecotel towards PABX subscriber	not tested
SIP phone incoming call	GSM caller via Ecotel towards PABX subscriber	Passed Cgn: correct GSM number Release by PABX ok Release by Ecotel ok (ECO2OXE_CCL_BYE_2_SIDES_3)
CLIP	Calling party number available	Passed
DTMF transparency SIP INFO RFC 2833 Inband	DTMF signalling transparent from Ecotel towards PABX; DTMF signalling transparent from PABX towards Ecotel	Passed SIP_INFO Passed RFC2833 (payload type 97)
External caller makes an enquiry using PABX feature set	using PABX features the GSM caller via Ecotel is able to call a second PABX subscriber	will work; completely done by PABX
External caller makes an enquiry using Ecotel feature set	Ecotel is sending 'hold information' towards PABX	n.a.

Appendix A : Application description

Basic Configuration - ISDN



Basic Configuration - IP

ECOTEL Konfigurationssoftware

Datei Übertragung Einstellungen Extras Hilfe

ISDN Interfaces
IP Connection
 Device

Device
 The 'Device IP address' is used for configuring and monitoring the device.
 It is always accessible.

IP address: 10 . 15 . 62 . 11
 Subnetmask: 255 . 255 . 0 . 0
 Standard gateway: 10 . 15 . 62 . 1

SIP
 The 'SIP IP address' is used for the internal SIP server functionality.
 It has to be within the same subnet as the 'Device IP address' and is not accessible during boot.

IP address: 10 . 15 . 62 . 12

DNS
 Fill in the first (preferred) and the second (alternative) 'DNS server IP address'.

IP address (preferred): 10 . 15 . 62 . 1
 IP address (alternative): 10 . 15 . 62 . 1

STUN
 Activate
 Use fix IP address

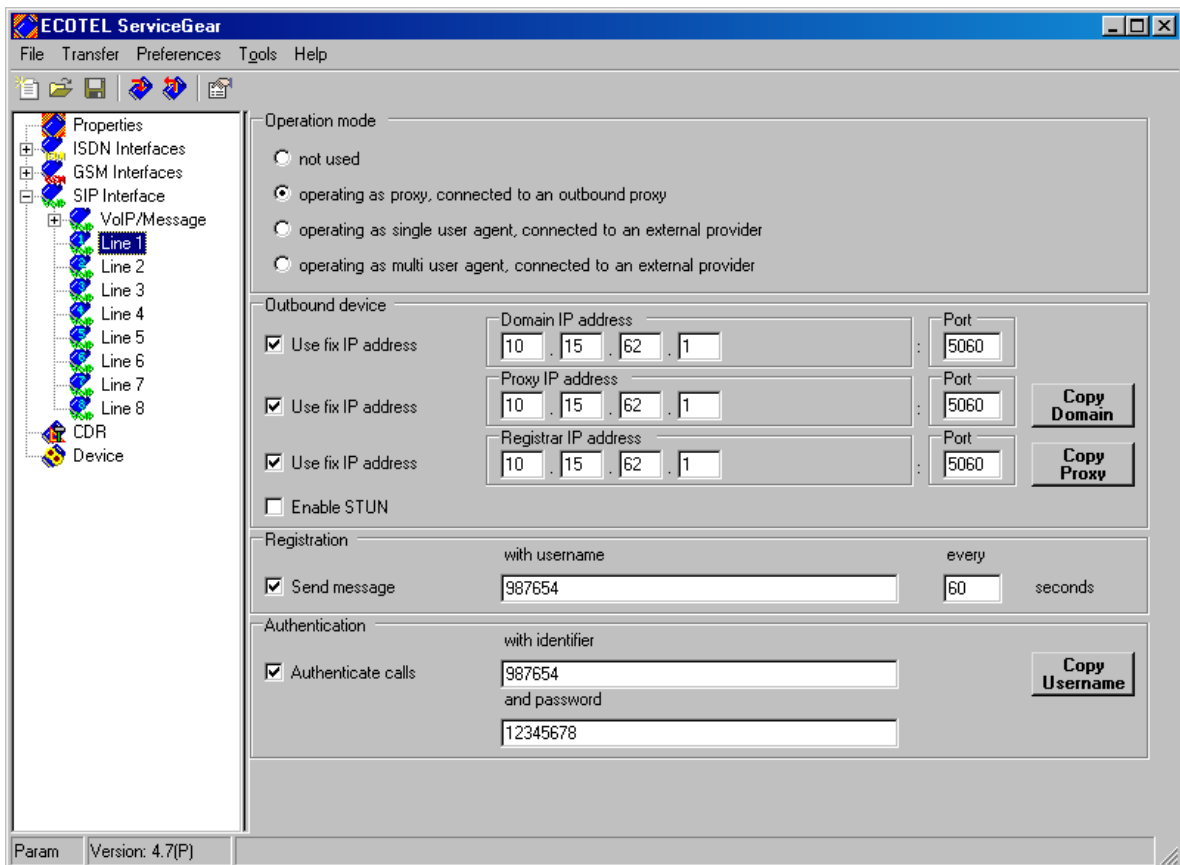
Fill in the first (preferred) and second (alternative) 'STUN server IP address'.

IP address (preferred): 192 . 168 . 10 . 1 : Port: 3478
 IP address (alternative): 192 . 168 . 10 . 1 : Port: 3478

Send NAT 'keep alive' every 120 seconds

Base Version: 4.7(B)

Gateway Configuration -SIP



The screenshot shows the ECOTEL ServiceGear configuration window for SIP. The interface includes a menu bar (File, Transfer, Preferences, Tools, Help), a toolbar, and a tree view on the left with the following structure:

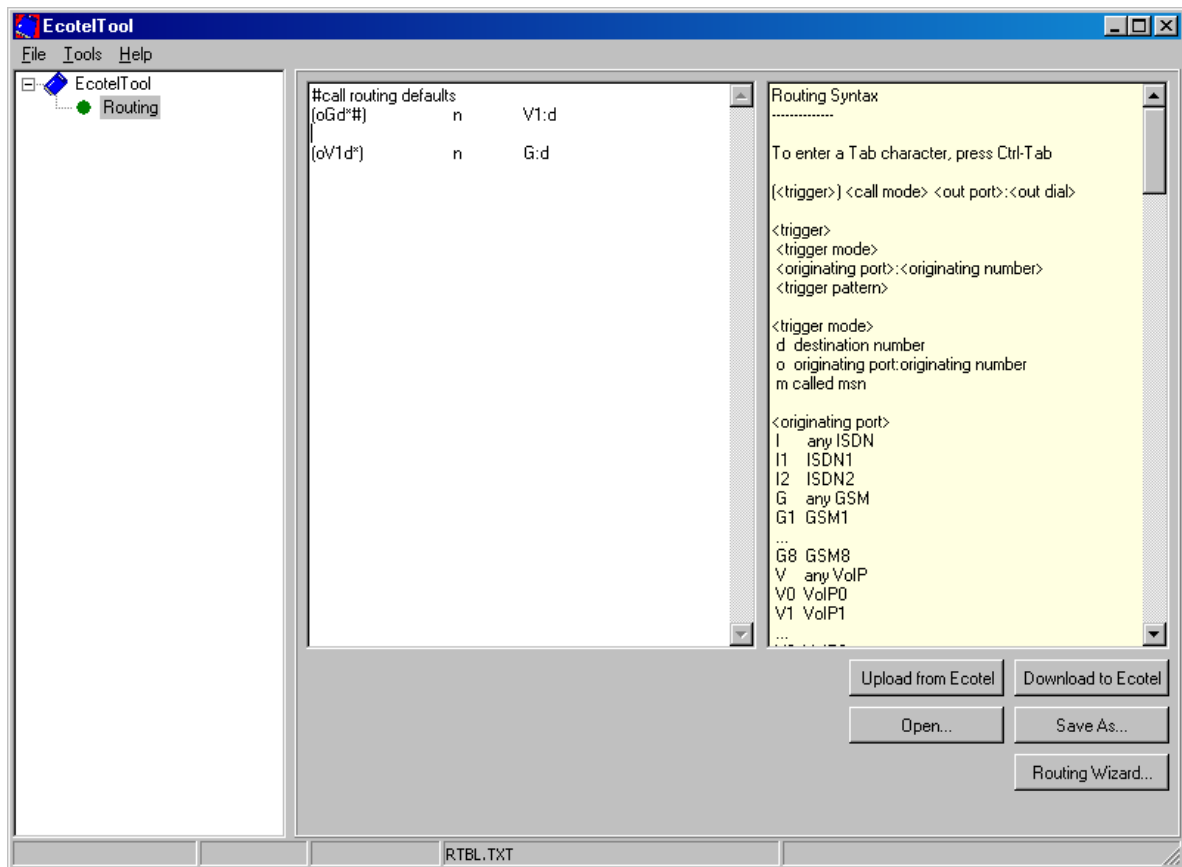
- Properties
 - ISDN Interfaces
 - GSM Interfaces
 - SIP Interface
 - VoIP/Message
 - Line 1 (selected)
 - Line 2
 - Line 3
 - Line 4
 - Line 5
 - Line 6
 - Line 7
 - Line 8
 - CDR
 - Device

The main configuration area is divided into several sections:

- Operation mode:**
 - not used
 - operating as proxy, connected to an outbound proxy
 - operating as single user agent, connected to an external provider
 - operating as multi user agent, connected to an external provider
- Outbound device:**
 - Use fix IP address: Domain IP address: 10 . 15 . 62 . 1, Port: 5060
 - Use fix IP address: Proxy IP address: 10 . 15 . 62 . 1, Port: 5060, **Copy Domain**
 - Use fix IP address: Registrar IP address: 10 . 15 . 62 . 1, Port: 5060, **Copy Proxy**
 - Enable STUN
- Registration:**
 - Send message: with username 987654, every 60 seconds
- Authentication:**
 - Authenticate calls: with identifier 987654 and password 12345678, **Copy Username**

At the bottom left, there is a status bar showing "Param" and "Version: 4.7(P)".

Routing -SIP



Appendix B: Alcatel-Lucent Communication Platform: configuration requirements

CONFIGURATION OXE RELEASE R8.0 G1.302.8

“ TRUNK GROUP T0 ” TO ECOTEL (point to point)

1rst) Trunkgroup T0 management (example Trunkgroup 114)

Consult/Modify: Trunk Groups

Node Number (reserved) : 3

Trunk Group Id : 114

Trunk Group Type + T0

Trunk Group Name : T0ECOTEL

UTF-8 Trunk Group Name : -----

Number Compatible With : 0

Remote Network : 249

Shared Trunk Group + False

Special Services + Nothing

Node number : 3

Transcom Trunk Group + False

Auto.reserv.by Attendant + False

Overflow trunk group No. : -1

Tone on seizure + True

Private Trunk Group + False

Security Patrol + False

Q931 signal variant + ISDN all countries

auto.DTMF dialing on outgoing call + NO

Public Network Category : 0

DDI transcoding + False

Can support UUS in SETUP + True

Implicit Priority

Activation mode : 0

Priority Level : 0

Preempter + NO

Incoming calls Restriction categ. : 10

Outgoing calls Restriction categ. : 10

mpt1343 callee number + NO

Overlap dialing + YES

Call diversion in ISDN + NO

Node Number (reserved) : 3

Trunk Group Id : 114

Instance (reserved) : 1

Trunk Group Type + T0

Public Network Ref. : -----
 VG for non-existent No. + YES
 Entity Number : 0
 Supervised by Routing + NO
 VPN Cost Limit for Incom.Calls : 0
 Immediat Trk Listening For VPNCall + YES
 VPN TS % : 50
 Csta Monitored + NO
 Max.% of trunks out CCD : 0
 Ratio analog.to ISDN tax : -----
 TS Distribution on Accesses + YES
 Quality Profile for Voice on IP + Profile # 1
 IP compression type + Default
 Use of volume in system + YES
 Announcement for Dialtone + NO
 Announcement for Ringtone + NO
 Private to Public Overflow + YES
 Dialling end to end + NO
 DTMF end to end signal. + NO
 Trunk group used in DISA + NO
 DISA Secret Code : ----
 Routing To Executive + NO
 Trunk Category Id : 19
 Sending of Progress message + YES
 Nb of digits unused (ISDN) : 0
 B Channel Choice + NO
 Channels Reserved By Attend. : 0
 Dissuasion For ACD + NO
 DTO joining + NO
 Enquiry Call On B Channel + NO
 Automated Attendant + NO
 Calling party Rights category : 0
 TS Overflow + YES
 Number To Be Added : -----
 Charge Calling And ADN Creation + NO
 Use Split Acces + NO
 Heterogeneous Remote Network + NO
 Barring mode + Not barred
 ARS class of service : 31
 External Access Server + NO
 McdU Trk MonitCsta : -----

Consult/Modify: T2/T1/T0 Access (example acces 10-6-0)

Node Number (reserved) : 3

Trunk Group Id : 114

Instance (reserved) : 1

Physical Address : 10-6-0

Access Type + T0

Access Cluster Id : -1

Time Slots T0 : 011

2nd) digital access T0 management

Consult/Modify: Digital Access

Node Number (reserved) : 3

Shelf Address : 10

Board Address : 6

T0/T2 Access No. : 0

Access Type + T0

Board type + MG-BRA 8

Synchronisation Priority : 255

Network Mode + NO

Max Nb Of Used B Channels : 2

Max_Nb_Of_Compressed_B_Channels : 0

TieLine Mode + NO

Access Type S0 + NO

Reserved1 + YES

Reserved2 + NO

Network Date Time Update + NO

“ S0 BUS ” TO ECOTEL (point to multi-point)

1st) S0 Bus management (example 0-8-3)

Consult/Modify: S0

Node Number (reserved) : 3

Shelf Address : 0

Board Address : 8

Equipment Address : 3

Protocol Type + ETSI

Long Passive Bus + False

Permanent Layer 1 + NO

S0_FV + False

S0 Timers

Timer 302 : 150

Timer 303 : 40

Timer 305 : 300

Timer 307 : 600

Timer 308 : 40

Timer 309 : 600

Timer 310 : 300

Timer 312 : 60

Tel.Facility Category Id : 0

Default No. : 33049

S0 Users List

(Next) (Previous)

S0 Users List : 33049

2nd) S0 user management (example 33049)

Consult/Modify: Users

Node Number (reserved) : 3

Directory Number : 33049

Directory name : Alcatel

Directory First Name : Lucent

UTF-8 Directory Name : -----

UTF-8 Directory First Name : -----

Location Node : 3

Shelf Address : 0

Board Address : 8

Equipment Address : 3

Set Type + S0 Set

Entity Number : 1

Set Function + Default

Profile Name : -----

Key Profile + None
Identifier of Domain : 0
Language Id. : 1

Secret Code : ****
Confirm : ****

Associated Set No. : 33049
Cost Center Id : 1
Cost Center Name : N4C1
Charging Category + Justified
Public Network Category : 2
External Forwarding Category : 255
Tel.Facility Category Id : 0
Connection Category Id : 0
Hunting Group Dir No. : -----
ACD Group Directory No. : -----
Pick up Group Name : -----
Reserved Time Slot + False
Voice Mail Dir.No. : -----
Voice Mail Type + No Voice Mail
Paging Trunk Group : 255
Paging Beeper : ----
Tele-Marketing Agent + False

ISDN Subscr.

External + True
Internal + False
Display ext. calling number + True

Management for SIP Trunk Groups.

"28" is the prefix to seize the SIP trunk groups number "2".
 ARS table number "5" is used.
 NPD number "33" is used to build the "FROM" header.
 External gateway number "1" is used.

Translator/Prefix

Number : 28
 Prefix Meaning + ARS Prof.Trig Grp Seizure
 Discriminator Nr. : 0

Entity/Discriminator Selector/

Entity Number : 1
 Discriminator 00 : 0
 Discriminator 01 : 1

Translator/External Numbering Plan/Numbering Plan Description (NPD)

Description identifier : 33
 Name : sip
 Calling Numbering plan ident. + Unknown
 Called numbering plan ident. + Unknown
 Authorize personal calling num use + False
 Install. number source + NPD source
 Default number source + NPD source
 Called DID identifier : -1
 Calling/Connected DID identifier : -1
 Installation number : 01556
 Default number(num. inst. sup.) : -----

Translator/External Numbering Plan/Numbering Discriminator/Discriminator Rule

Discriminator Nr. : 0
 Call Number : 00
 Area Number : 1
 ARS Route List Number : 5
 Schedule Number : -1
 Number of Digits : 255

Automatic Route Selection/ARS Route list/ARS Route

ARS Route list : 5
 Route : 1
 Name : SIP ARS
 Trunk Group Source + Route
 Trunk Group : 2
 Nb.Digits To Be Removed : 0
 Digits To Add : -----
 Numbering Command Tabl.Id : 1
 VPN Cost Limit : 0
 Protocol Type + Dependant on Bundle Type
 NPD identifier : 33
 Route Type + Public
 ATM Address Id : -1
 Preempter + False
 Quality + Speech

Automatic Route Selection/ARS Route list/Time Based Route List

ARS Route list : 5
Time Based Route List Id : 1
Time Based Route
(Add) (Remove) (Next) (Previous)
Time Based Route
Route Number : 1
Waiting Cost Limit : -1
Stopping Cost Limit : -1

Automatic Route Selection/ARS Route list/Numbering Command Table

Table Id : 1
Carrier Reference : 0
Command : W04I
Associated SIP gateway : 1

SIP/External Gateway

Instance : 1
Remote domain : 10.15.62.12
Port number : 5060
Transport type + UDP
RFC3262 forced use + False
Authentication domain : -----
Registration Id : 01556
SIP_Res2 + False
Registration timer : 50
Outbound Proxy : -----
Supervision timer : 0
Trunk group number : 2
Pool Number : -1
Outgoing realm : -----
Outgoing username : -----
Outgoing Password : *****
Confirm : *****
Incoming username : -----
Incoming Password : *****
Confirm : *****
RFC 3325 supported by the distant + True
SDP IN 180 + True
Minimal authentication method + None
INFO method for remote extension + False
Send only trunk group algo + False
Dynamic Payload type for dtmf : 97

SIP/SIP Gateway

Subnetwork number : 1
Trunk Group : 1
IP Address : 10.15.62.1
Machin name : node000062
Proxy Port Number : 5060
SIP Subscribe Min Duration : 1800
SIP Subscribe Max Duration : 86400
Session Timer : 1800
DNS local domain name : -----
First DNS IP Address : -----
Second DNS IP Address : -----

SDP IN 180 + True
 Cac SIP-SIP + False
 INFO method for remote extension + False
 Dynamic Payload type for dtmf : 97

Trunk Groups

Trunk Group Id : 2
 Trunk Group Type + T2
 Trunk Group Name : SIP PUBLIC
 UTF-8 Trunk Group Name : -----
 Number Compatible With : 0
 Remote Network : 15
 Q931 signal variant + ISDN all countries
all parameters by default
 T2 Specificity + SIP
all parameters by default

Trunk Groups/Trunk Group

....all parameters by default

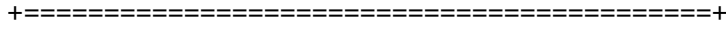
Other system parameters :

(3)xa015062> compvisu sys

Wed Feb 20 15:41:44 CET 2008

```

=====+
|                C O M P V I S U                |
=====+
| Inter-node protocol H323..... yes
| RTP Direct..... yes
| RTP Direct for H323 terminals.. no
| Fast Start..... yes
| VAD (Voice Activity Detection):
|   - G723/G729..... no
|   - G711..... no
| ECE (Echo Canceller)..... yes
|   - LIO/LIOE..... 16 ms
|   - INTIP/GA/GD..... 128 ms
| PFE (Post Filter)..... yes
| Volume ..... 8
| Volume for IP Phone ..... 0dB
| Volume for other device. .... 0dB
| VRE ..... no
| Law (Except Media Gateway)..... mu law
| Global compression type ..... G723
| Multi-algorithm (for H323) .... no
| Compression for INTIP/GD ..... with
| Compression for IPP ..... with
| Transit on IP Boards .....yes
| ticket Stat IP..... no
| IP version..... IPv4
| Transit compatibility..... no
| Voip Framing G711 ..... 20 ms
| Voip Framing G723 ..... 30 ms
| Voip Framing G729 ..... 20 ms
| No RBT For Direct RTP H323..... no
  
```



Appendix C: Partner escalation process

Sales and Marketing

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Appendix D: AAPP program, documentation and technical assistance

Alcatel-Lucent Application Partner Program (AAPP)

Complete e-business solutions at your disposal

The Alcatel-Lucent Application Partner Program is designed to support companies that develop communication applications for the enterprise market, based on Alcatel-Lucent's Omni product family.

The program provides tools and support for developing, verifying and promoting compliant third-party applications that complement Alcatel-Lucent's Omni-based products. Alcatel-Lucent facilitates market access for compliant applications.

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

- **Provide easy interfacing for Alcatel-Lucent communication products:**
Alcatel-Lucent's communication products for the enterprise market include infrastructure elements, platforms and software suites. To ensure easy integration, the AAPP provides a full array of standards-based application programming interfaces and fully-documented proprietary interfaces. Together, these enable third-party applications to benefit fully from the potential of Alcatel-Lucent products.
- **Test and verify a comprehensive range of third-party applications:**
to ensure proper inter-working, Alcatel-Lucent tests and verifies selected third-party applications that complement its portfolio. Successful candidates, which are labelled Alcatel-Lucent Compliant Application, come from every area of voice and data communications.

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

Web site

If registered Alcatel-Lucent Application Partner, you can access the AAPP website at this URL:

<http://www.applicationpartner.alcatel-lucent.com>

Alcatel-Lucent.com

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

Alcatel-Lucent documentation

Alcatel-Lucent Application Partner Program (AAPP)

If registered Alcatel-Lucent Application Partner, you can access the current AAPP documentation at this URL:

<http://www.applicationpartner.alcatel-lucent.com> and then click the *Partner Center* link.

Alcatel-Lucent Business Partner Program (ABPP)

The Alcatel-Lucent Business Partner Program is designed to empower and maximize the business of the Partners. In addition, it enables them to help their customers successfully maximize their telecom investment through optimum deployment and proper configuration of Alcatel-Lucent's solutions. Alcatel-Lucent Partners also receive the added benefit of rapid, highly qualified service and support as well as world class training. Alcatel-Lucent will work closely with Business Partners to provide top quality design, delivery, and support of the very best solutions for your customers. The Business Partner Program is designed around a flexible and scalable framework so each Partner can identify the exact support they need. So, depending on your specific requirements you can quickly become a 'Certified', 'Expert' or 'Premium' Business Partner with one of the world leaders in the communications industry.

If registered Alcatel-Lucent Business Partners, you can access to an exciting on-line resource centre with a wealth of information on all product lines at this URL:

<http://www.businesspartner.Alcatel-Lucent.com>

Technical assistance

In order to guide you in your purchasing decisions and provide you with assistance for updating our Communication Server and Networking Infrastructure products and for commercial development, Alcatel-Lucent has created the **SUPPORT CENTER**. The **SUPPORT CENTER** is responsible for the management and routing of all your requests. It includes **e-Support** and a **Contact Centre** reserved for registered Alcatel-Lucent Application Partner and Alcatel-Lucent Business Partners.

The **Contact Centre** is open 24 hours a day; 7 days a week and is available in 5 languages. This Call Centre has a team of 15 people and handles 10; 000 requests per month.

- e-Support from the Alcatel-Lucent Application Partner Web site (if registered Alcatel-Lucent Application Partner): <http://www.applicationpartner.alcatel-lucent.com> click the *Partner Center* link and then *Support*
- e-Support from the Alcatel-Lucent Business Partners Web site (if registered Alcatel-Lucent Business Partners): <http://www.businesspartner.Alcatel-Lucent.com> click the *e-Support* link and then *e-Service Request*
- e-mail: Support.Center@Alcatel-Lucent.fr
- Fax number: +33 (0) 3 90 67 73 45
- Telephone numbers:

Alcatel-Lucent Business Partner Contact Center:

France :	0 811 900 110	French agent
Austria :	0 810 810 012	German agent
Denmark :	70 11 21 09	English agent
Germany :	0 1 803 000 680	German agent
Ireland :	1 890 925 039	English agent
Italy :	848 800 389	Italian agent
UK :	0 845 601 4101	English agent
Spain :	901 120 085	Spanish agent
Switzerland :	0 844 850 588	German agent

For other countries:

English answer :	+ 33 (0)3 88 55 69 04
French answer :	+ 33 (0)3 88 55 69 02

Alcatel-Lucent training

Technological innovative cycles are quickening and your customers are more and more demanding regarding the quality of services. In order to meet these requirements, you have to invest in skills: a key success factor for services.

If registered Alcatel-Lucent Business Partners, you can access to the training part at this URL: <http://www.businesspartner.Alcatel-Lucent.com> and then click the *Training* link.

Our vision of learning services is described in the **Services Portfolio section**. The **Certification section** gives you some statistics and details on how training curricula are designed to match certification levels.

All updated training curricula and assessment tools are available in the **Curricula & Catalogues section**.

The **Schedule section** is regularly updated to show forthcoming training sessions over the world. The **How to Enrol section** provides you with the registration procedure and the Alcatel-Lucent University Customer Service list of contacts world wide.

Last but not least, find statistics and reports of what you think about our training services in the **Customer Satisfaction section**.

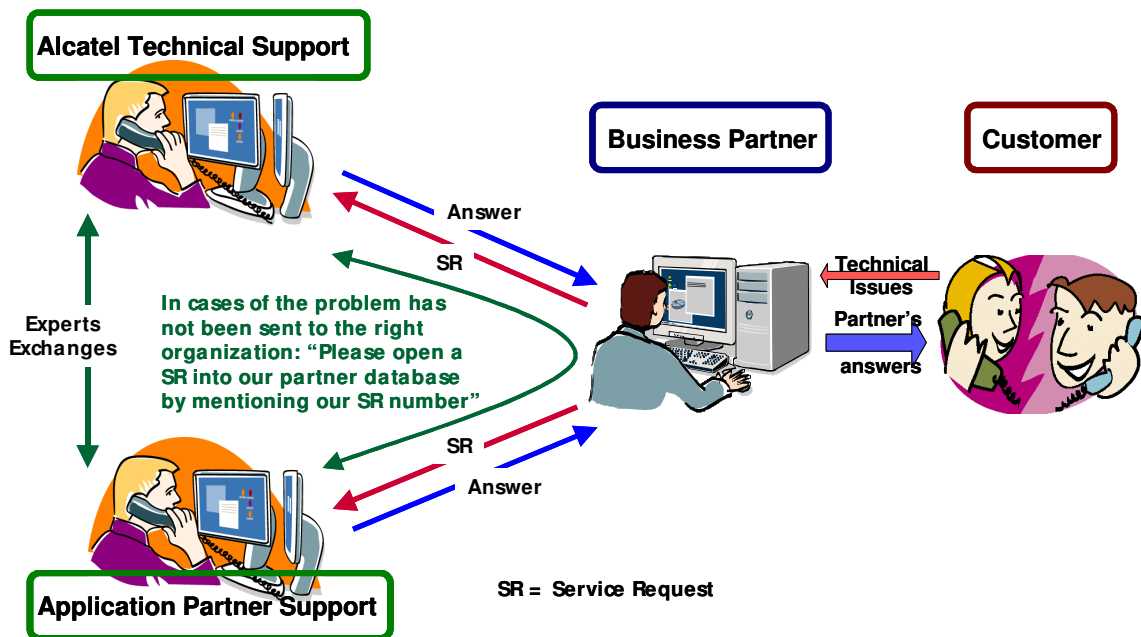
The Alcatel-Lucent commitment : enabling you to optimise your training investments.

Appendix E: Alcatel-Lucent escalation process in case of problem with a certified external application (referenced in the AAPP)

Introduction

The purpose of this document is to define the split of responsibilities and the escalation process to be applied by the Business Partners when facing a problem with a solution involving an Alcatel-Lucent platform and an external application **with a valid Alcatel-Lucent Inter-working report**.

As for other Alcatel-Lucent equipment, the Alcatel-Lucent business partner is the only one facing the end-customer for support or maintenance. The Business partner will open cases (service request) either on Alcatel-Lucent side or on Application Partner side depending on the nature of the issue. Expert from both companies will collaborate to provide the best and quickest correction.



General Rules

The following general rules are applied:

- **Only certified AAPP applications are officially supported by Alcatel-Lucent**
- **The certification is based on tests suite passed by Alcatel-Lucent and the Application Partner and the result is consigned into an Inter-Working Report (IWR) validated by the two parties.**
- The IWR is available on the AAPP Web site.
- Only the major releases of both parties are certified. Certification tests are usually not performed for intermediate versions. Only the existence of the IWR in the AAPP Web site **for the right Alcatel-Lucent release** is the guarantee that the application has been certified with this Alcatel-Lucent release.
- If the IWR for the Alcatel-Lucent release is not available, Alcatel-Lucent doesn't engage any responsibility. In that case, please contact the central Pre-Sales team.
- The existence of the IWR engages Alcatel-Lucent **and the Application Partner**. Both parties are engaged, not exclusively Alcatel-Lucent (see the section escalation process).

Warning:

The possibility to configure the Alcatel-Lucent PBX with ACTIS quotation tool in order to interwork with an external application, is not a guarantee of the availability of the solution. Please check the availability of the Inter-Working Report on AAPP web site.

The escalation process

As stated above, the Alcatel-Lucent support will be limited to applications with a valid inter-working report. Known problems or remarks mentioned in the IWR will not be taken into account.

In case of problem, the two parties, Alcatel-Lucent and the Application Partner, are engaged:

☞ **Case 1 : the responsibility can be established 100% on Alcatel-Lucent side**

In that case, the problem must be escalated by the Business Partner to the Alcatel-Lucent Hot-line via the standard process: open a ticket (Service Request –SR)

☞ **Case 2 : the responsibility can be established 100% on Application Partner side**

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

☞ **Case 3 : the responsibility can not be established**

In that case the following process applies:

1) **The Application Partner shall be contacted first by the Business Partner** or the party responsible for that Application for an analysis of the problem.

Alcatel-Lucent has to be involved solely if the application partner demonstrate, with traces, after reproduction of the problem, that the defect which has generated the end-user's demand of support is coming from the equipment provided by Alcatel-Lucent or if he needs support of Alcatel-Lucent.

2) The Business partner will escalate the problem to the Alcatel-Lucent Hot-line if the Application Partner has demonstrated a problem on Alcatel-Lucent side or if the Application Partner (not the Business Partner) needs the involvement of Alcatel-Lucent.

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

Alcatel-Lucent reserves the right to close the case opened on his side if the investigations made on Application Partner side are insufficient or do not exist.

Note:

Involvement of the Business Partner is mandatory because the access to the Alcatel-Lucent Platform (remote access, login/password) is under the Business Partner responsibility.