## CERTIFICATION STATEMENT

**ILEXIA , independent tests laboratory, certifies the interoperability, using SIP protocol, of :**

- ✓ **Alcatel-Lucent OmniPCX** equipped with IP Phones

- ✓ **AXIALYS**- Public SIP Trunking Service

## CERTIFICATION AUTHORITY

**ILEXIA, independent tests laboratory specialized in IP Telephony interoperability certification**

## CERTIFICATION DATE

**August 2014**

## CERTIFICATION SCOPE

**This certificate is valid in both the functional scope and the firmware/software release mentioned in this document**

## VENDOR CERTIFIED

Alcatel·Lucent

**Alcatel-Lucent Omni-PCX Enterprise (OXE)** in **AXIALYS** service provider's environment

## PRODUCT CERTIFIED

Alcatel·Lucent

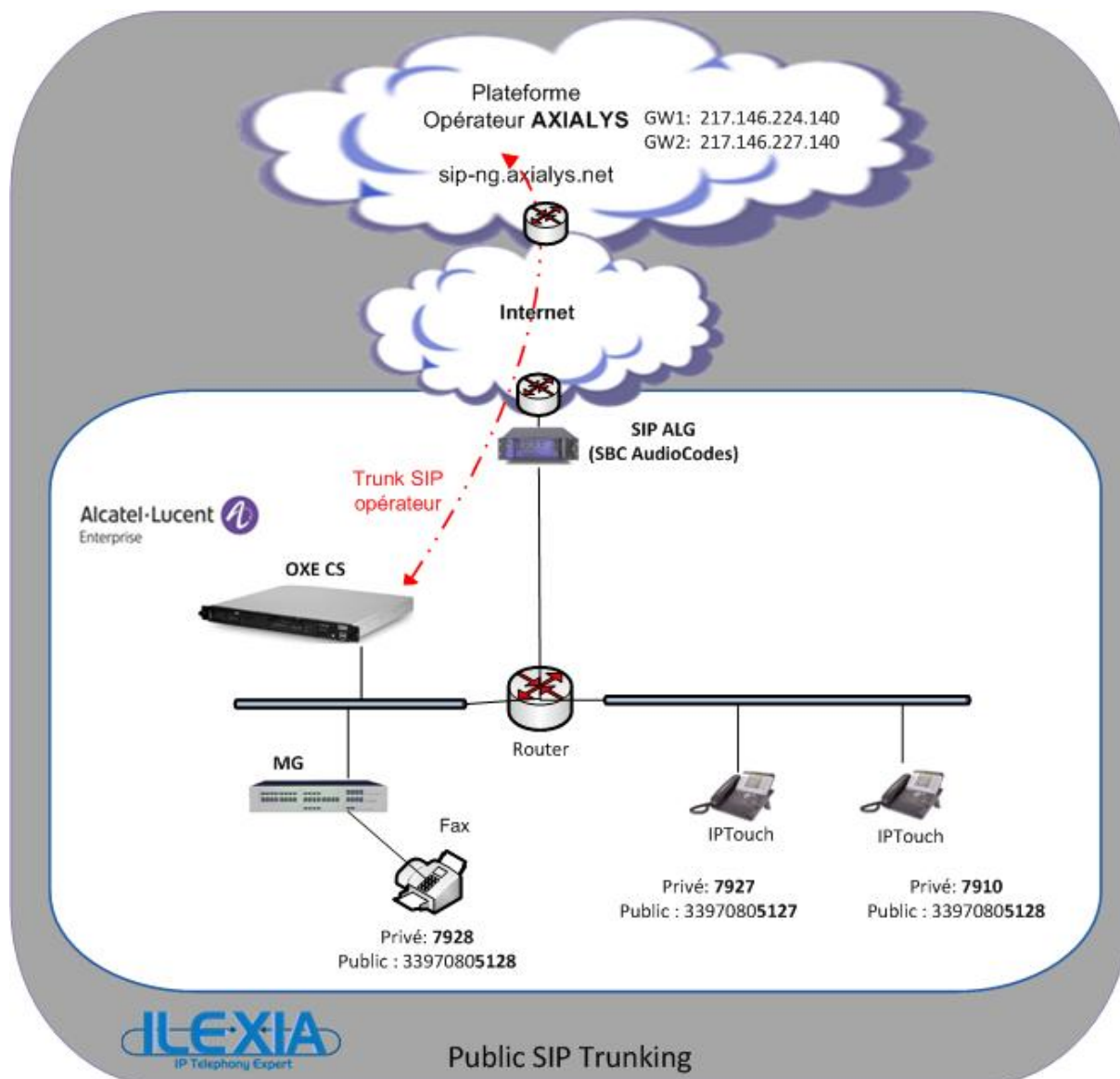**Alcatel-Lucent Omni-PCX Enterprise OXE R11.0.1 ( k1.520.29e)**

# FUNCTIONAL SCOPE

## FEATURES CERTIFIED

| | |
|---|---|
| Registration/Peering | National/GSM calls |
| Authentication | CLIP/CLIR |
| Basic call with IPBX proprietary IP Phone | Messaging |
| Caller id display | DTMFs handling |
| Caller id restriction | 3 way conferencing |
| Codecs G.729/G.711 | Hold/retrieve |
| Music on hold | Fax |
| Transfer (blind and supervised) | Call Forward |

# LAB COMPONENTS AND SOFTWARE LEVEL

| Manufacturer | System | Release | Protocol tested |
|---|---|---|---|
| Alcatel-Lucent<br>Alcatel·Lucent | OmniPCX Enterprise IPBX | R11.0.1 (K1.520.29e) | SIP |
| Alcatel-Lucent<br>Alcatel·Lucent | Open Touch SBC | OT-SBC R1.0<br>(6.40AZ.033.005) | SIP |
| AXIALYS<br>AXIALYS<br>TELECOM BUSINESS SERVICES | Plateforme | n.c | SIP |

## CERTIFICATION TEST ENVIRONMENT

## DETAILED SIP INTEROPERABILITY TESTS RESULTS TABLE

| N° | TEST TITLE | DETAILS | RESULT | RESTRICTIONS or COMMENTS |
|----|-----------|---------|--------|--------------------------|
| | **Basic call setup** | **Off-net calls Outgoing/Incoming** | | |
| 1 | Basic outgoing call to PSTN/national user | Proper calling number display G.729 or G.711 20 ms as negotiated codec | PASS | - |
| 2 | Basic outgoing call to GSM | Proper calling number display G.729 or G.711 20 ms as negotiated codec | PASS | - |
| 3 | Basic incoming call from PSTN/national user | Proper calling number display G.729 or G.711 20 ms as negotiated codec | PASS | - |
| 4 | Basic incoming call from GSM | Proper calling number display G.729 or G.711 20 ms as negotiated codec | PASS | - |
| 5 | Basic outgoing call to PSTN | CLIP/CLIR | PASS | - |
| 6 | Basic incoming call to PSTN | CLIP/CLIR | PASS | - |
| 7 | Basic with hold/retrieve (MOH) | | PASS | - |
| | **Call transfer** | **Off-net/On-net and Off-net/Off-net** | | |
| 8 | Blind transfer initiated by Alcatel-Lucent IP Phone | Off-net / On-net | PASS | - |
| 9 | Blind transfer initiated by Alcatel-Lucent IP Phone | Off-net / Off-net | PASS | - |
| 10 | Monitored transfer initiated by Alcatel-Lucent IP-Phone | Off-net / On-net | PASS | - |
| 11 | Monitored transfer initiated by Alcatel-Lucent IP-Phone | Off-net / Off-net | PASS | - |
| | **Call forwarding** | **Off-net/On-net and Off-net/Off-net** | | |
| 12 | Call forwarding by Alcatel-Lucent IP-Phone | Off-net / On-net | PASS | - |
| 13 | Call forwarding by Alcatel-Lucent IP-Phone | Off-net / Off-net | PASS | - |
| 14 | Call forwarding to integrated Voice Mail (Embedded 4645 VM) | - | PASS | - |
| | **Conferencing** | **3 way conferencing** | | |
| 15 | Conference initiated by Alcatel-Lucent IP-Phone | Off-net / On-net | PASS | - |
| 16 | Conference initiated by Alcatel-Lucent IP-Phone | Off-net / Off-net | PASS | - |

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| N° | TEST TITLE | DETAILS | RESULT | RESTRICTIONS or COMMENTS |
|----|-----------|---------|--------|--------------------------|
| | **DTMFs handling** | | | |
| 17 | DTMF (RFC 4733/RFC 2833) | - | PASS | - |
| 18 | DTMF InBand | - | N.A | Not supported by ALE OXE for public SIP Trunking |
| | | | | |
| | **Fax services** | | | |
| 19 | Outgoing Fax | Fax (T.38) | N.A | Not supported by AXIALYS |
| 20 | Incoming Fax | Fax (T.38) | N.A | Not supported by AXIALYS |
| 21 | Outgoing Fax | Fax (G.711 Passthrough) | PASS | - |
| 22 | Incoming Fax | Fax (G.711 Passthrough) | PASS | - |
| | | | | |

| TABLE LEGEND | |
|---|---|
| **ALU** | Alcatel-Lucent |
| **DTMF** | Digital Tone Multi Frequency |
| **PASS** | Test passed successfully |
| **NOK** | Test passed successfully with restriction/clarification |
| **KO** | Tests failed |
| **N/A** | Not Applicable or not testable because not available or not supported on the system |
| **SIP** | Session Initiation Protocol |

**Since 2002, ILEXIA is an independent laboratory specialized in testing and validating IP Telephony** systems in numerous environments (enterprises, operators). Our goal is to validate the compatibility of enterprise and service provider IP telephony products.

**The tests & validations that we undertake rely heavily on our LABORATORY equipped with up to date** telecommunication systems used in both enterprise and Service Provider market.
**Our engineers have been trained and certified on the** different IP Telephony products available, and have acquired a complete and detailed understanding of the protocols used for IP Telephony such as : **H.323, SIP, MGCP, H.248, MEGACO, RTP, SDP, SIP/CSTA, 802.1X,LLDP,LDAP,…**
**In this way, we provide different testing sessions for various customers (Manufacturers, Operators, Distributors, as well as for Businesses and Local governing entities).**

The advantages of ILEXIA Interoperability certification
- ✓ **Field Expertise on** implementation of business trunking offer
- ✓ **An "all inclusive" offer (equipment, services and resources)**
- ✓ **The constant update of our IP telephony solutions (including IPBX, application server, gateways, IP Phones, ….) and a guarantee of performance with the latest software releases**
- ✓ **Adaptability to different customers situations (WAN, MAN and LAN multi-sites architecture, IPBX specific software version, interaction with external applications, ...)**
- ✓ **Very competitive prices including the provisioning of equipment to be tested**
- ✓ **A recognized know-how**
- ✓ **A rapid response to requests for certification**
- ✓ **Consulting support to product development from design phase to production**

## Equipments available in ILEXIA LABORATORY for interoperability certification

| |
|---|
| Aastra 800 - Aastra 5000 |
| Aastra Unified Communication Platform (UCP) |
| Alcatel OmniPCX Enterprise & Office |
| Avaya / Nortel Communication Server 1000 / S8500 |
| Asterisk |
| Acme Packet SBC |
| Audiocodes gateways and E-SBC |
| Cisco Unified Communication Manager |
| Cisco Unified Presence Server |
| Cisco Unity Messaging System |
| Cisco Unified Communication Manager Express / UC500 |
| Comverse NeoXBC |
| Comverse IMS softswitch |
| Cycos MRS |
| IBM Sametime and Sametime Unified Telephony |
| Ingate SIParator |
| Microsoft Lync |
| NET VX Voice Exchange gateway |
| OneAccess Gateway |
| SIP Express Router |
| Siemens HiPath 8000 / Open Scape (Voice, Video,…) |

## Testing equipment in ILEXIA LABORATORY for interoperability certification

| |
|---|
| Spirent Abacus 5000 |
| Tektronix Spectra 2 |

## Functionality usually certified

| |
|---|
| Registration process |
| Basic call (incoming and outgoing) |
| OnHold/Resume |
| Speed Call List |
| Missed, received and placed call list |
| Multi-line |
| Multiple lines appearance |
| Music on Hold |
| Management DTMF (access to voice servers) |
| Name Display |
| Call Transfer with and without consultation |
| Forwarding (all types) |
| Voicemail  (storage, consultation, notification) |
| Message Waiting indication |
| Conference |
| Fax handling (T38, T30) |
| Distinctive ringing (internal and external call) |
| Call admission control |
| Audio codec selection (G.729, G.711 and G.722) |
| Video codec selection (H.261 - H.263 - H.264) |
| Hot Desking |
| Call park |
| Campon |
| Click to call |
| Management of potential situations of failure (failure to VPN access, network and service platform) |

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