

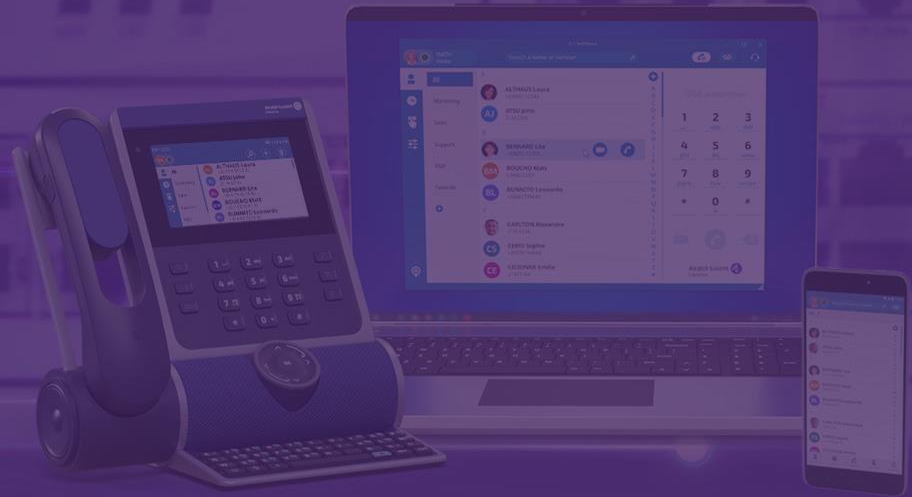
OXE PURPLE R100.1 (UP TO MD6) PRODUCT PRESENTATION

ENT_MLE_039220

ED 3

PRODUCT LINE MANAGEMENT

OCT 28TH 2022 ENT_MLE_039220, UPDT APRIL 28TH 2023 AND
UPDT OCT 23TH 2023



IMPORTANT NOTICE

This presentation is focused on OXE evolutions and does not cover all ALE MLE offer. Refer to other Product Presentations (e.g. ALES, Terminals) for additional info.

This presentation addresses all the evolutions brought by R100.1 up to the last MD (MD6)
Features are grouped per Area and MD, except when successive evolutions on a same subject

MyPortal links for OXE R100.1 Product Presentation

- <https://myportal.al-enterprise.com/a4F5I000000UPZVUA4>
- <https://al-enterprise.lightning.force.com/a4F5I000000UPZVUA4> (ALE employees)

MyPortal links for ALE Softphone Product Presentation

- <https://myportal.al-enterprise.com/a4F5I000000YQDoUAO>
- <https://al-enterprise.lightning.force.com/a4F5I000000YQDoUAO> (ALE employees)

WHAT IS OMNIPCX ENTERPRISE R.100 PURPLE?

A major evolution of
the ALE Hybrid Cloud strategy

For a new era of
Digital Age Communications

The **Digital Age**, also known as the **Fourth Industrial Revolution**, refers to the advancement of technology from analogue electronic devices to the digital technologies available today.

One of the main areas where these technology breakthroughs have had the most impact is enterprise communications amid an increasing demand for **mobility, flexibility**, and the need for **accessible information anywhere, anytime**. We call it **Digital Age Communications**.

PEOPLE



TECHNOLOGY



MODELS



Alcatel-Lucent
Enterprise



TWO OFFERS

OpenTouch Suite for MLE offer has been renamed in Communications Suite for MLE



Business as usual

- CAPEX
- Quotation via ACTIS

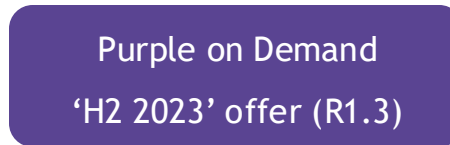


- OXE R100.1 MD6,
- OV8770 R5.1 MD3,
- VAA R4.5,
- etc. ...

For new offers or add-



Possibility to migrate an existing CAPEX system to PoD (pilot phase)



Simplified and flexible 'quote to cash' chain

- OPEX (except hardware items)
- Quotation via MyPortal B2B eCommerce section



For more details on this new offer, refer to [Purple on Demand offer: pre-sales overview](#)

OXE PURPLE R100.1 in 2023

H2 2022

R100.1
TR and MD1

H1 2023

R100.1 MD3

H2 2023

R100.1 MD6



OXE R100.1 MD6 IN A NUTSHELL

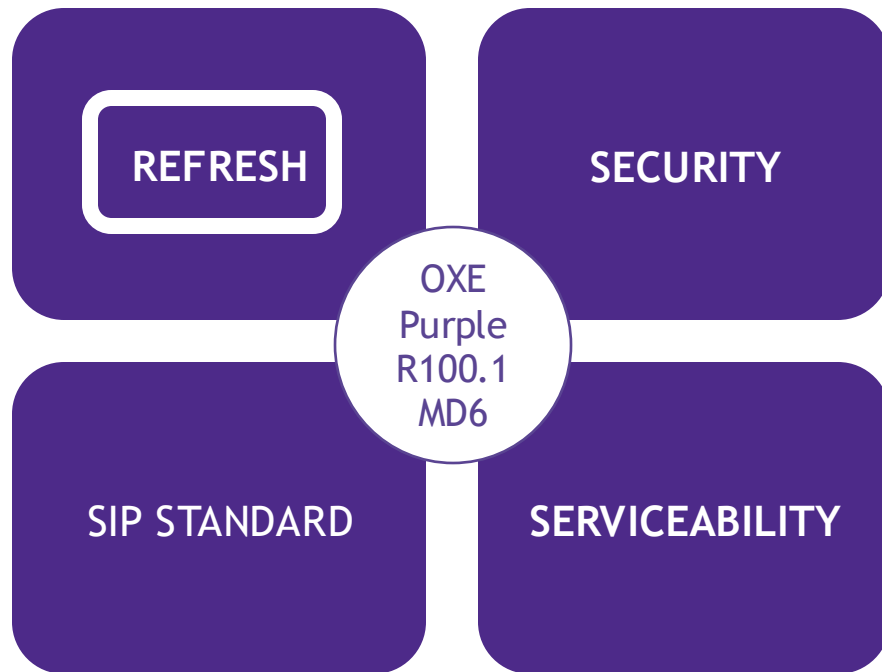
OXE R100.1 MD6 has following objectives

- Refresh/Business continuity: renew components for an up to date offer
 - SMTP for A4645 (email notification)
- Security, availability enhancements
 - Rainbow Hybrid: overflow to Cellular when Rainbow client not accessible
 - SBCs in active active mode for ALES
- Bring evolutions for end users (ALES and Enterprise SIP DeskPhones)
 - ALES on IOS (Refer to ALES presentation)
 - ALES multi device compatibility with Noé installed base
 - Complete Enterprise DeskPhone range is SIP (ALE-300/400/500)
 - Evolutions for SIP Supervision and Hunting Group
- Serviceability/management

OMNIPCX ENTERPRISE R100.1 MD6

PURPLE

- SMTP ON A4645 VMS
- 8214 DECT HANDSET
- ALE-120 EVOLUTIONS
(CASCADING)



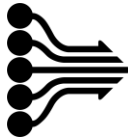
SMTP NOTIFICATION - VALUE PROPOSITION

EFFICIENCY, DOCUMENTATION, SECURITY

Effective communication is essential for professional interactions. Email remains one of the most widely used communication tools.

▶ Streamlined Communication

- ▶ Voicemail consultation within email clients streamlines communication by centralizing messages in one place. Users no longer need to switch between different apps or platforms to check voicemails. Voicemails can be easily shared with other users by forwarding them. This integration simplifies the user experience and saves valuable time.



▶ Documented Communication

- ▶ Email clients provide a convenient way to store and archive messages for future reference. By incorporating voicemail, users can maintain a comprehensive record of both written and audio-based communications in a single platform, simplifying information retrieval and legal documentation.

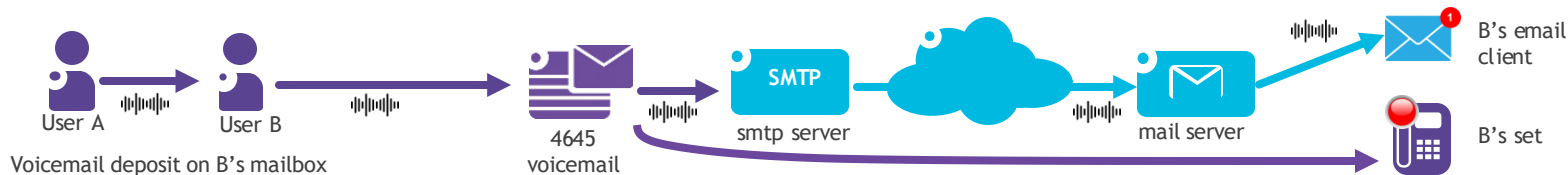


▶ Security and Privacy

- ▶ Email clients typically have robust security features in place, such as encryption and authentication protocols. By delivering voicemail messages as email attachments, the security and privacy of sensitive information can be ensured at the same level as for e-mails.



4645 SMTP NOTIFICATION BASIC PRINCIPLES



► Provide e-mail notification to the user

► On new voicemail deposit (basic notification)

```
From : A4645 Voicemail
To : john.doe@al-enterprise.com
Reply-to : linda.smith@al-enterprise.com
Subject: Urgent voice message from Linda Smith
Body:
You have received an urgent message from Linda Smith (55667) on 14/08/2023 at 9:00 (GMT +01:00).
You can consult your messages by calling +33390687654.
```

► On mailbox almost full

- Sent when the mailbox is full to a percentage (%) defined by the administrator.
- *Quota Size Limit Notification*
 - Between 50% and 100%, default value: 90%

► On new voicemail deposit (advanced notification)

- same format as the basic email notification, but the voicemail is attached to the email (G.711 format only)
- Attachment size to be managed consistently with SMTP server email size limit
 - *Email Attachment Size limit*: up to 10 MB
 - Above the message is not attached and a warning is added

► On mailbox full

- Sent when voicemail is full

4645 SMTP NOTIFICATION BASIC PRINCIPLES

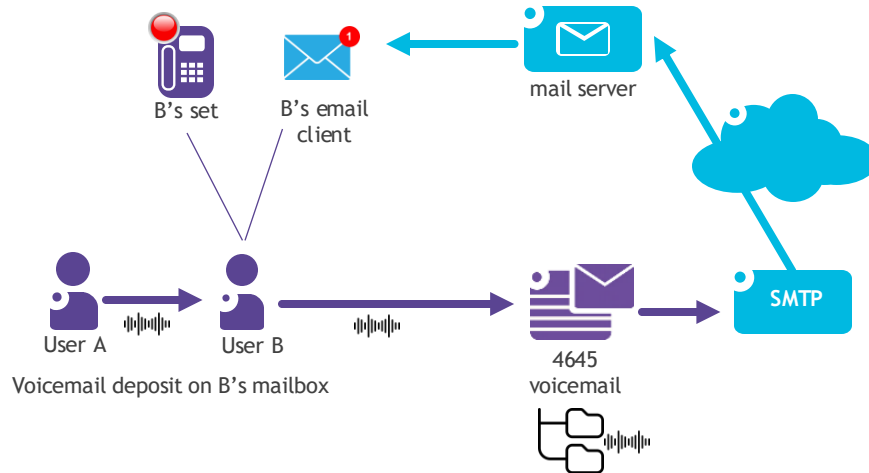
- ▶ Applicable to both 4645 embedded in call server or 4645 on dedicated platform
- ▶ **Management**
 - ▶ Activate the feature via *E-mail Notification* (within 4645 VM COS)
 - ▶ *Basic (1)* or *Advanced (2)* ... instead of the default *None (0)*
 - ▶ Manage the company SMTP server
 - ▶ Add the email address of the OXE users so that the 4645 knows where to send the email
 - ▶ Regarding the existing MWI mechanism
 - ▶ *Treat msg as read if email sent* (within 4645 VM COS) allows to not switch on the MWI
- ▶ **Email templates**
 - ▶ For “new voice message”, “new urgent voice message”, “mailbox almost full”, “mailbox full” use cases
 - ▶ 23 language template files, including one default language template file (located in /DHS3ext/client/vmnotif)
 - ▶ The template file contains Unicode values for non-ascii characters
 - ▶ The administrator may modify the text contents, except important elements (prefixed by % symbol)

USE CASES

SCENARIO 1 - CONSULTATION ON TELECOM DEVICES

- Users consult voice messages exclusively via telecom devices

| Make sure that! | How to? |
|---|---|
| Voice message is not attached to email notification | Activate basic email notification [Basic Notification = Yes] |



Main points

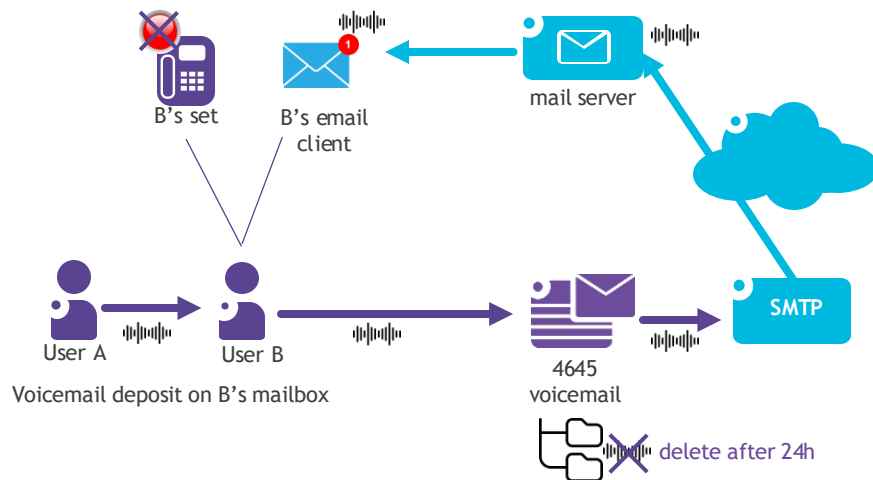
- Voice messages do not leave the telecommunication infrastructure
- Users can be notified anywhere via e-mail

USE CASES

SCENARIO 2 - EMAIL CLIENT MESSAGE CONSULTATION

- Users consult voice messages exclusively via an e-mail client

| Make sure that! | How to? |
|---|---|
| Voice message attached to email notification | Activate advanced email notification [Advanced Notification = Yes] |
| MWI on users' sets will not flash continuously | Disable MWI when email notification is sent [Treat msg as read if email sent = Yes] |
| 4645 storage does not become full and prevents receiving new messages | Manage the 4645-message storage time to an appropriate value, typically 1 day [Days Unheard Messages Kept = 1] |



Main points

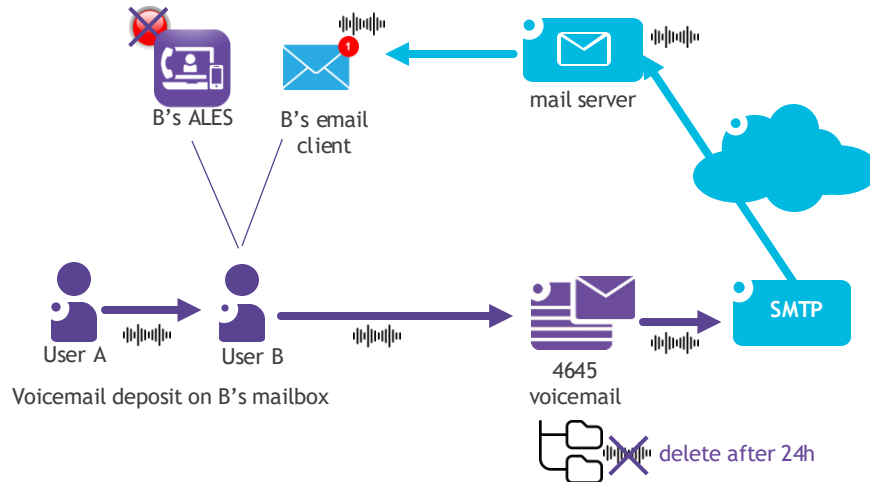
- Voice messages are handled as any email
- Message consultation relies completely on the email infrastructure

USE CASES

SCENARIO 3 - MESSAGE CONSULTATION & ALES

► Users consult voice messages via an e-mail client

| Make sure that! | How to? |
|---|--|
| Voice message attached to email notification | Activate advanced email notification [Advanced Notification = Yes] |
| MWI on users' sets will not flash continuously | Disable MWI when email notification is sent [Treat msg as read if email sent = Yes] |
| 4645 storage does not become full and prevents receiving new messages | Manage the 4645 message retention time to an appropriate value, typically 1 day. [Days Unheard Messages Kept = 1] |



Main points

- ALES and the Email client are running on the same device(s)
- One could therefore choose scenario 1 or 2
- Scenario 1 is recommended as users do not have to leave the notification application (email client) to listen to the voice message and benefit from centralized message retrieval.

NOTIFICATION TEMPLATES

- ▶ Ability to send notifications to end users through customizable templates that can be easily modified by the company's system administrator
- ▶ Value Proposition
 - ▶ Empowers administrators to create tailored messages that resonate with their end users
 - ▶ Consistency in branding is crucial for building and maintaining brand identity. Customizable templates ensure that every notification aligns with the company's branding guidelines
 - ▶ Engaging with users through personalized, well-designed notifications enhances the overall user experience.
- ▶ Localization
 - ▶ Default templates are delivered in 23 languages
- ▶ Template Example - New Voice message from a known caller
 - ▶ Subject: Voice message from %SENDER
 - ▶ Mail Body: You have received a voice message from %FULL_SENDER on %MSG_DATE at %MSG_TIME. You can consult your messages by calling %VOICEMAIL_NUMBER
 - ▶ "%" are system variables which have a fixed content. All other text can be easily modified.
- ▶ Specific Example

From : A4645 Voicemail Server<donotreply@oxe.fr>
To : john.matthew@al-enterprise.com
Reply-to : linda.doors@al-enterprise.com
- Subject: Voice message from Linda Doors
- Body:
"Alcatel-Lucent Enterprise - Where everything connects"

You have received a voice message from Linda Doors (78945) on 21/09/2023 at 9:00 (GMT +01:00).
You can consult your messages by dialing +33390687459.

Please consult your messages in a timely manner and keep sensitive information within the company!



MOBILITY

8214 DECT handset

► 8212 Replacement

- Entry-level handset
- Compact and robust design
- Based on the design & GUI of the 82x4 range
 - Improved user experience compared to 8212

► OXE Support

- GAP mode
 - Supported on IPxBS, RBS, IBS (not on 8318 or IP-DECT)
 - R100.1 MD6 only (not R12.4 or R100.0)
 - Centralized upgrade via SUOTA
- SIP mode
 - On new 8328 Single Cell Base Station
 - Manual upgrade via jack connector (UST)

8214 DECT HANDSET WITH DESKTOP CHARGER (3BN67392AA)



ALE DESKPHONES ENTERPRISE AND ESSENTIAL R200 (MD6)

▶ KEY EXPANSION MODULES

▶ Support of ALE-120 24 Keys Expansion Module for ALE Enterprise DeskPhones (ALE-300/400/500)

- ▶ Up to 3 KEMs per set (no multi-pages)
- ▶ Multi-pages support (up to 3 per KEM, no multi KEMs)
- ▶ Functional level coherent with Enterprise deskphones
 - ▶ Proximity detection, Key led management (on, off, fast blink, slow blink)
- ▶ Upgrade of app from OXE (from Cloud for Android firmware)
- ▶ Supported on R100.0 and 12.4 with restrictions*

OXE
R100.1 MD6



2 x 2.8" LCD color display

2 x 12 keys w/ led
per AOM page

▶ EM-200 evolutions

- ▶ Serviceability: upgrade from OXE
- ▶ Multi -pages support (up to 3 per AOM and per set)
- ▶ Support on 12.4 with restrictions*

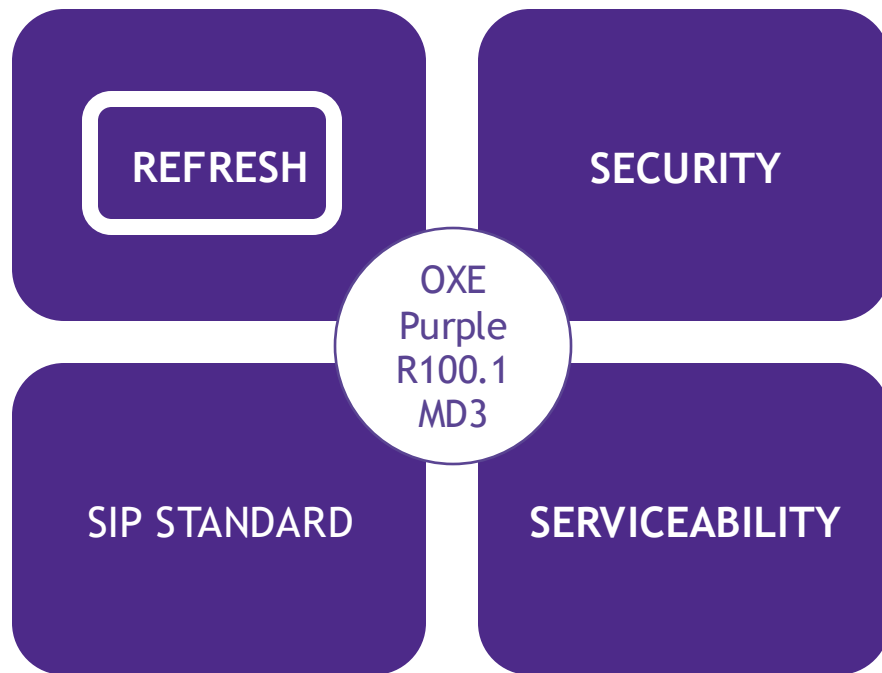


* Refer to Feature List for
compatibility Features/OXE release

OMNIPCX ENTERPRISE R100.1 MD3

PURPLE

- XL CHASSIS



XL-RACK AT A GLANCE

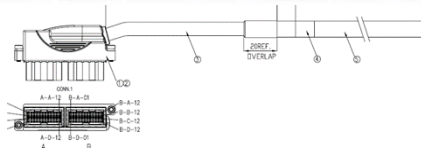
- ▶ Targets the high-density analogue subscriber lines segment
 - ▶ Which was previously addressed by the OmniPCX Enterprise crystal hardware
 - ▶ That resists well the global “hardware to software”/“cloud transformation” trend
 - ▶ That is difficult to address with common hardware due to its cabling limitations
- ▶ Provides up to 384 analogue extensions
- ▶ Technically based on the OXE common hardware architecture
 - ▶ Can be connected to an existing crystal hardware configuration as add-on
 - ▶ Can be integrated into a common hardware customer configuration (new or add-on)
- ▶ Is equipped with 2 kinds of boards
 - ▶ FXS32-XL (up to 12)
 - ▶ Provides 32 analogue extensions
 - ▶ GD/GA-XL (up to 4)
 - ▶ Plays either the role of the gateway (=rack) driver board or
 - ▶ Provides additional computing resources (VoIP DSPs, conferencing, voice guides, recording)



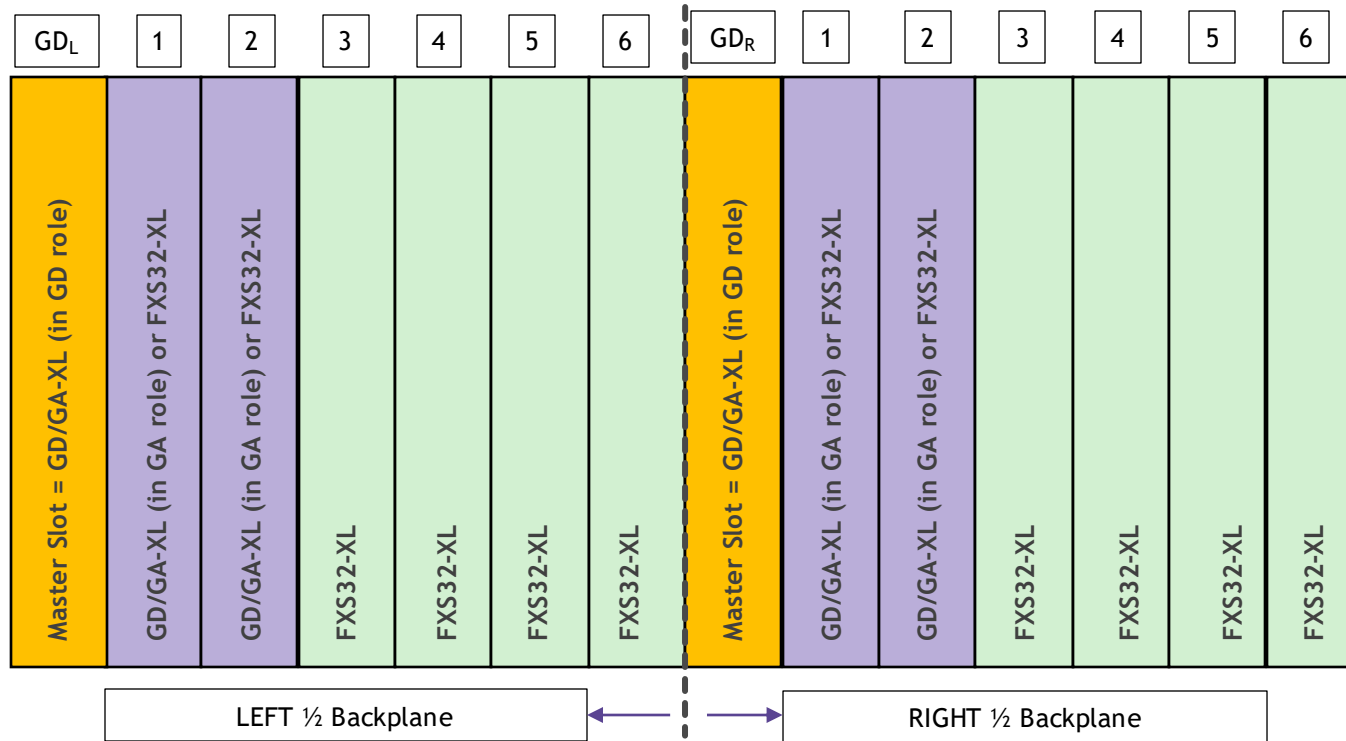
XL-RACK AT A GLANCE



- ▶ A standard 19" inch (width) and 6U (height) mechanic with all cabling at the front
 - ▶ Each GD-XL provides two front RJ-45 (Ethernet) connectors (one for back-up)
 - ▶ Each FXS32-XL board provides a single 64 pin front connector to attach the 32 pair cable, thus allowing a high-density subscriber line cabling
 - ▶ Power (-48VDC) is connected at the rear side of the rack, an external -48VDC rectifier is needed
 - ▶ The role of the GD/ GA-XL board depends on the position in which it is plugged into

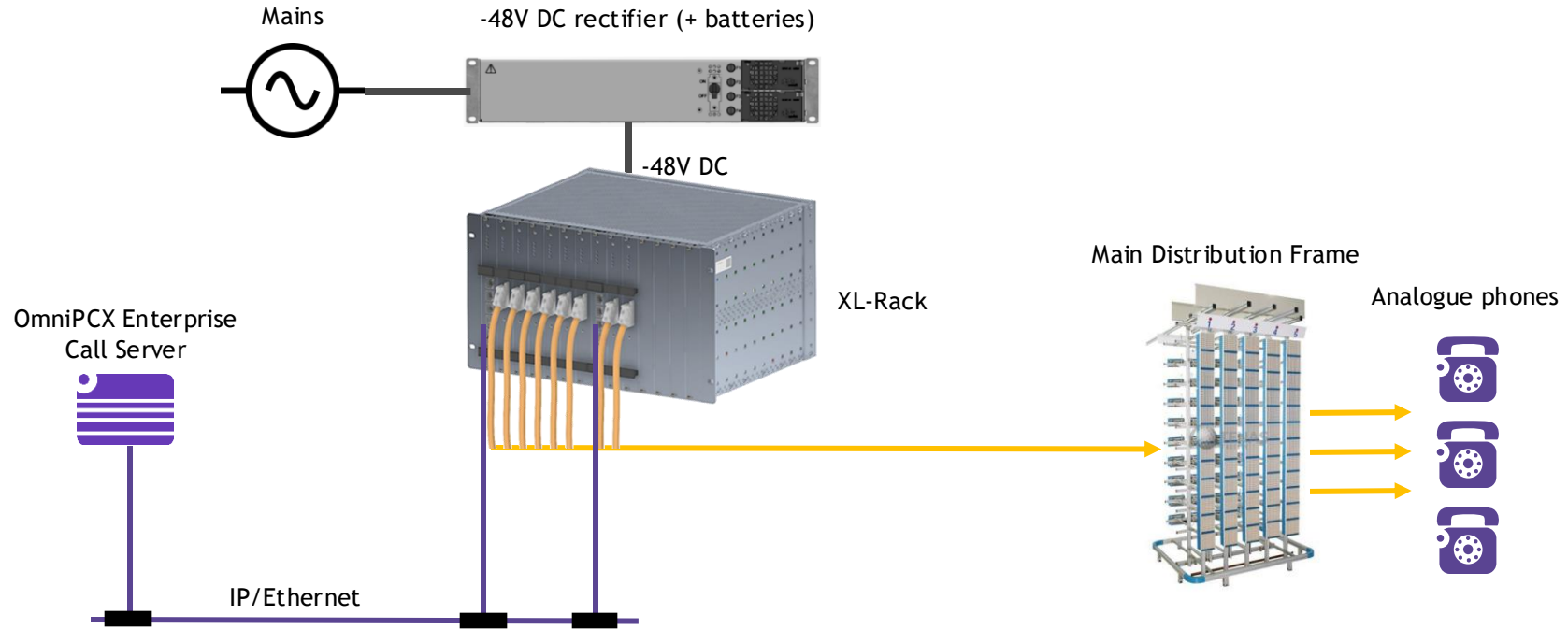


TECHNICAL ASPECTS POSITIONS IN THE RACK



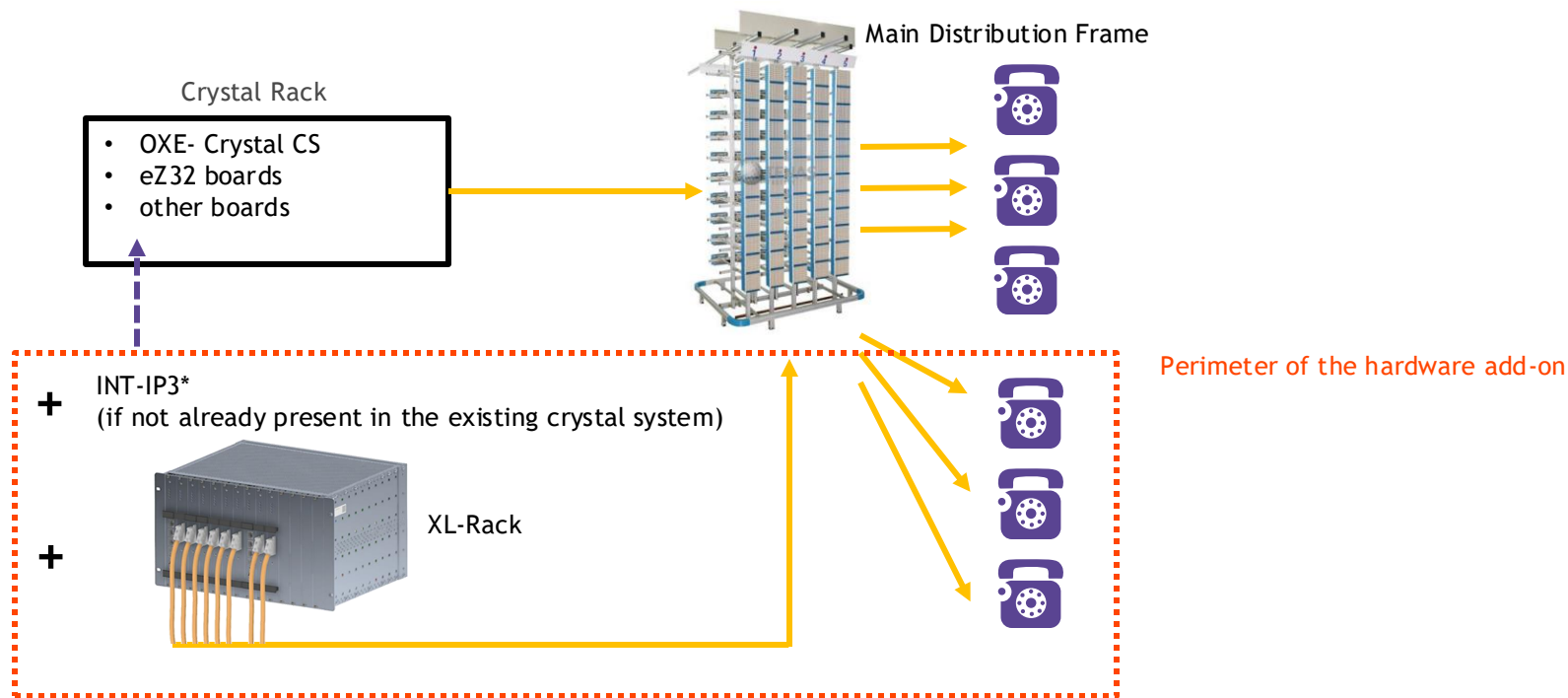
- ▶ ACTIS boards positioning rules
- ▶ FXS32-XL from slot 6, then 5, 4 ... (right to left) in each ½ chassis
- ▶ When reaching slots 2 and 1 it is the choice of the engineer to use them for an FXS32 or leave them empty for a later use by a GA-XL

TECHNICAL ASPECTS GLOBAL SCHEME



USE CASES

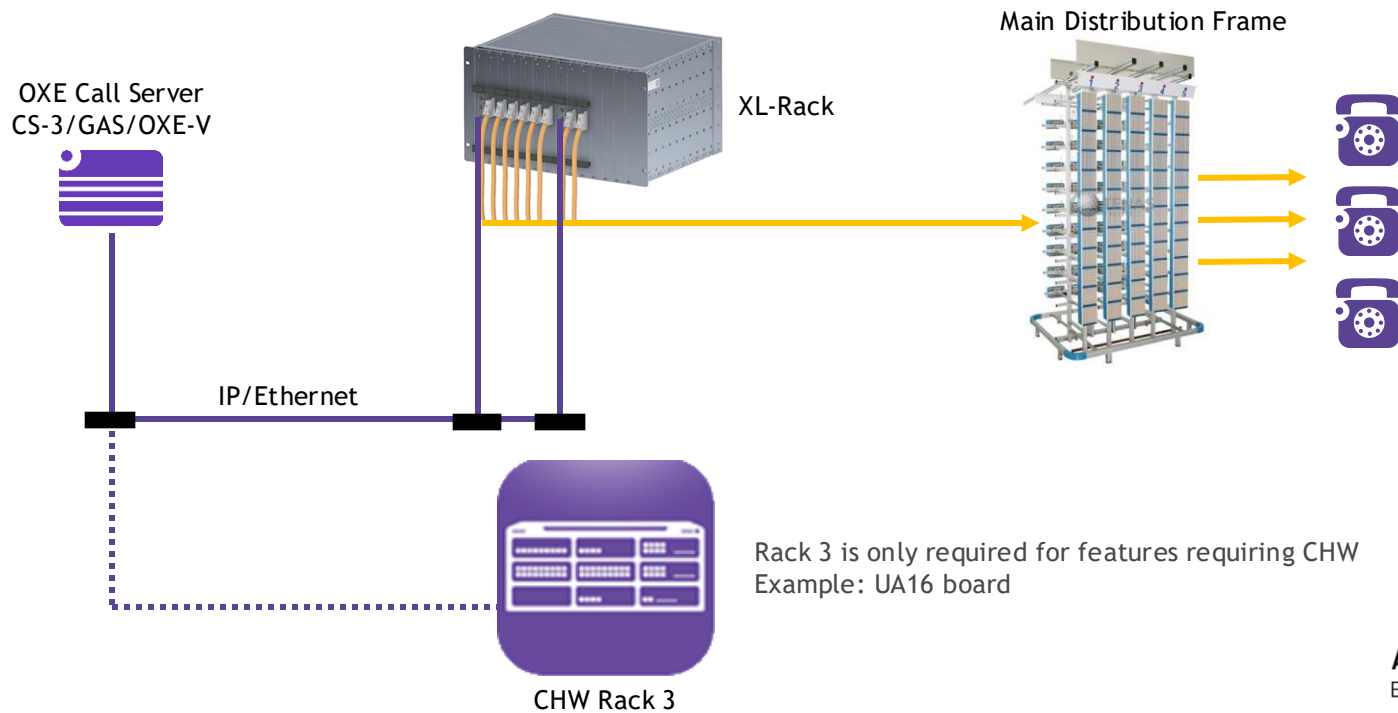
1 - ANALOGUE ADD-ON FOR CRYSTAL ARCHITECTURE



* Reminder: INT-IP3 is continued after H1/2023 stop of crystal new sales!

USE CASES

2 - NEW OFFER H-DENSITY ANALOGUE ARCHITECTURE



BATTERY AUTONOMY

- ▶ The XL-Rack is powered by an external -48V DC power supply
- ▶ When ordered from ALE, it's a "2 slots sub-rack" which includes :
 - ▶ 1 (or 2 for redundancy) 1 kW rectifier (-48Vdc output)
 - ▶ 8 * batteries of 12V / 7Ah
- ▶ Battery autonomy times:

| | Config. 1 | Config. 2 | Config. 3 | Config. 4 | Config. 5 | Config. 6 |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| #GD-XL (+ARMADA) | 1 | 1 | 1 | 2 | 2 | 2 |
| #FXS32-XL | 2 | 4 | 6 | 8 | 10 | 12 |
| #Analog Extensions | 64 | 128 | 192 | 256 | 320 | 384 |
| Power Consumption | 53,5 W | 79,6 W | 105,8 W | 143,2 W | 169,3 W | 195,5 W |
| Back-up time | 13h32min | 8h12min | 5h44min | 3h55min | 3h10min | 2h39min |

- ▶ Observations from our installed base
 - ▶ 70% of customers request ≤ 2 h of battery autonomy



MAIN CHARACTERISTICS

Capacity/Performance

120 XL-Racks per OXE system
240 half XL-Racks per OXE system

3 000 BHCC per XL-board

Non blocking switching architecture : 3xPCM buses for each slot

Up to 24 x 3-party conferences per XL-GD, up to 3 per XL-GA

Resources shared by meet-me / master / casual conference:
- 1*29 party, 2*14 party or 4*6 party per GD/A-XL
Casual conference:
- 4 per GD/A-XL

Guide duration per XL-GD & XL-GA:
static msg = 4x8 mn, dynamic msg = 8 mn, simultaneous accesses = 16
Note: can be completed with OMS resources.

Up to 25 DTMF Receiver per XL-GD & XL-GA boards

30 compressors per XL-GD & XL-GA board
+ 30 compressors on an Armada daughter board

analog line characteristics same as Crystal HW: Line voltage, current limits, long line distances

Simultaneous ringing capacity: 90 sets per half XL-Rack of which a maximum of 15 sets per FXS-32

Security/Reliability

Ethernet redundancy on GD/A-XL

Power Supply redundancy:
- External -48Vdc rectifier redundancy
- Embedded battery in rectifier (for autonomy cf to dedicated slide)

PCS & CS redundancy support (local and spatial)

Native encryption support

MTBF GD-XL = 68 years (@50% electrical stress) vs 21,5 years for INT-IP3

Compliance/Support

From OXE Release R100.1 MD3

Compliant with existing analog licenses

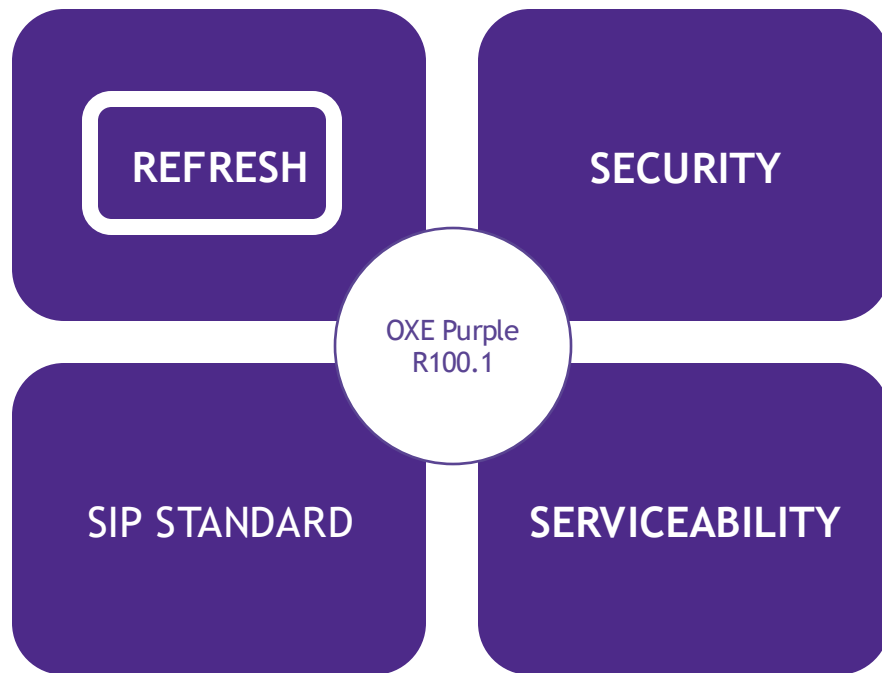
Compatible with all type of OXE call servers

One year warranty

Five years extended hardware support

PURPLE

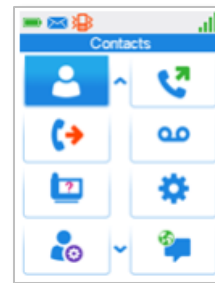
- ALE-120 KEY EXP. MOD.*
- KEM FUNCTIONAL EVOLUTIONS*
- DECT DISPLAY EVOL.
- HYPER-V 2022



* See MD6 Refresh chapter

Display of internal DECT phonebook name on incoming call

- ▶ Remove restriction on DECT user experience
 - ▶ User has programmed a external user in the DECT Repertory: name and public number.
 - ▶ When external number is calling DECT set, name in the repertory is now displayed .
On previous OXE releases, only number was displayed, except when name/number was configured on primary of a tandem with DECT.



ECO-SYSTEM

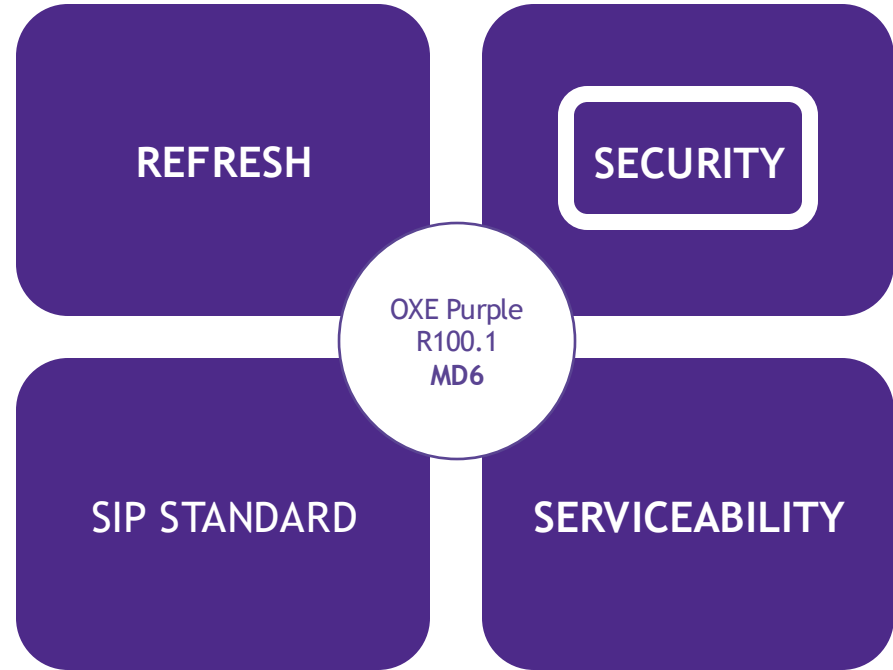
► Compatibility with Hyper-V 2022

- OmniPCX Enterprise R100.1 (OXE-V, PCS-V, A4645-V, OXE-MS, EEGW, OST64)
 - Current limits: 10,000 users, maximum traffic of 80,000 calls per hour
- OmniVista 8770 R5.1, OT-SBC R7.4, OTFC R9.0, O2G R2.5

OMNIPCX ENTERPRISE R.100.1 MD6

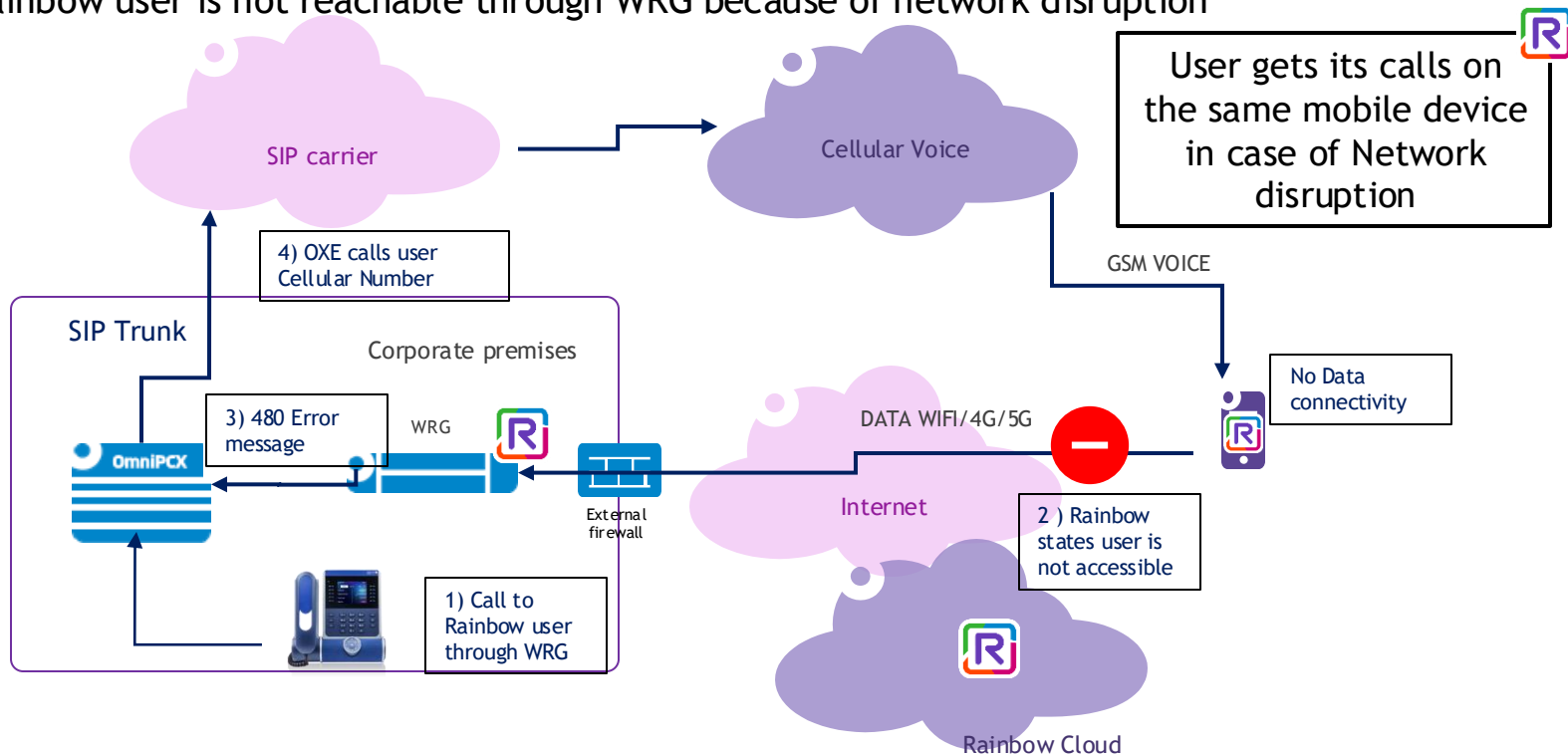
PURPLE

- OVERFLOW WHEN RAINBOW CLIENT NOT AVAILABLE
- ALES: SBC LOAD SHARING



HYBRID CLOUD: IMMEDIATE OVERFLOW WHEN RAINBOW USER NO REACHABLE

Ensure a call from OXE to Rainbow user is rerouted through an external route (e.g. GSM) when Rainbow user is not reachable through WRG because of network disruption



Note: when overflow is to an internal number (eg DECT) or Rainbow PC, use other OXE mechanisms (multi-device, associate, etc...)

Hybrid Cloud: Immediate overflow when Rainbow user not reachable

- Typical use case: Nurse in Hospital with mobile device, call from OXE must be delivered to Nurse on same Terminal even if call cannot be routed to Rainbow App.(through WRG), because of data connectivity issues (WIFI, 4G/5G).

In that case GSM number of mobile is used by OXE through OXE trunks.

- Rainbow has knowledge of reachability of User.

In case user not reachable; it sends 480 or 500 Error to OXE following incoming call to user.

- When “REX secondary line forward “parameter is configured by Rainbow with GSM or other external number, OXE will reroute to configured number immediately.
- Exact uses cases and User experience is defined by Rainbow App (refer to Rainbow doc)
 - New “Forward on Cloud Connection Issue ” parameter at user level
- Additional scenarios
 - Forward also when WRG not reachable from OXE (WRG trunk is OOS), eg case of OXE user on PCS calling Rainbow users
 - When Rainbow user is “away” (eg in holidays), other routing scenarios defined at Rainbow level

- Restrictions: Only external number. No direct RTP for overflow calls (standard REX call)

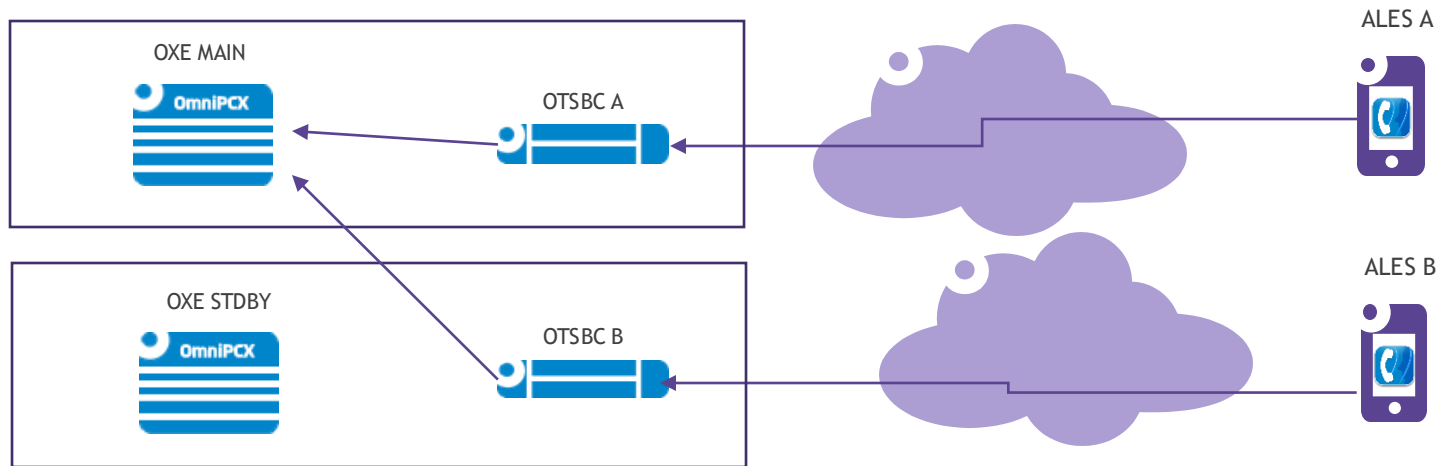


ALES: 2* SBC LOAD SHARING/REDUNDANCY

Today only 1 SBC for remote access (with/without redundancy) for SIP clients

New: Possibility to manage 2 SBCs per OXE for ALES in Active/Active mode

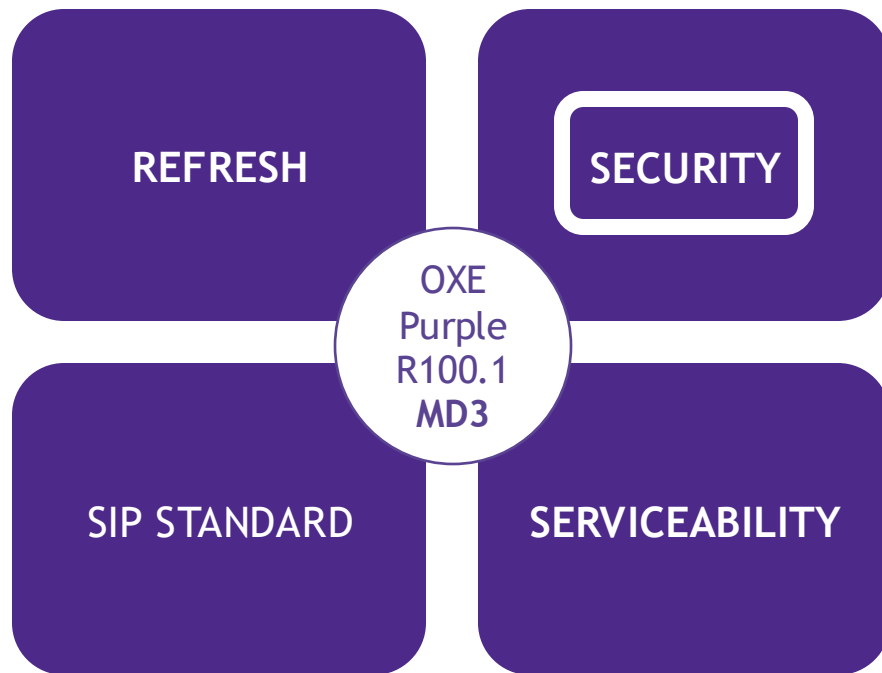
- Topology: Load Sharing by Region for ALES clients (OXE profile) .
Each ALES has one “Home” SBC
- Availability: Overflow to “Backup SBC” when “Home” SBC is Out of Service
 - ALES stays connected on backup till next connection (IOS, Android & PC?)



OXE DM Provides connection parameters to ALES clients. Only ALES client supports this scenario.

PURPLE

- NATIVE ENCRYPTION:
TFTP REPLACEMENT
- BLOCK MENU (LOBBY
PHONES)
- WIFI ACTIV./DEACTIV.



TFTP REPLACED BY HTTPS FOR NOE IP PHONES BOOT

Native Encryption enhancements and facilitation of migration of IPTouch Security solution

- ▶ Removal of tftp for security reasons
- ▶ Tftp protocol replaced by https
 - ▶ no confidential information in tftp OXE implementation
 - ▶ but recommendation to remove unsecure protocols
- ▶ Concerns Noé protocol (available for SIP)
 - ▶ Binary download
 - ▶ LANPBX config file download
 - ▶ Start Noé message
- ▶ Native Encryption mandatory , compatible partial encryption
 - ▶ New Enterprise and Essential IP DeskPhones
 - ▶ IPDSP (13.3.0)
 - ▶ Binary is not downloaded from OXE
 - ▶ LAN PBX and Start Noé message in https (* StartNoé in DTLS)
 - ▶ Choice tftp/https through DHCP configuration
- ▶ Previous 80x8 range still using tftp with Noé

| OXE with Native Encryption. OXE device configuration (partial encryption) | Enterprise and Essential IP Deskphones | IPDSP |
|---|--|---------------|
| Device with Encryption | TFTP REMOVED* | TFTP REMOVED* |
| Device without Encryption | TFTP REMOVED | TFTP REMOVED |

ESSENTIAL AND ENTERPRISE DESKPHONES : BLOCK ACCESS TO MMI MENU

- ▶ DeskPhones can be deployed in
« Lobbies » accessible to public.
- ▶ Block access to MMI menu to non authorised people
for protection of confidential information, eg IP
addresses
- ▶ Applicable to the whole Essential and Enterprise
DeskPhones range
- ▶ New OXE parameter:
default mode : info menu not locked



WI-FI + BLUETOOTH: OXE CONTROL

▶ Cartridge Wi-Fi Bluetooth ALE-108

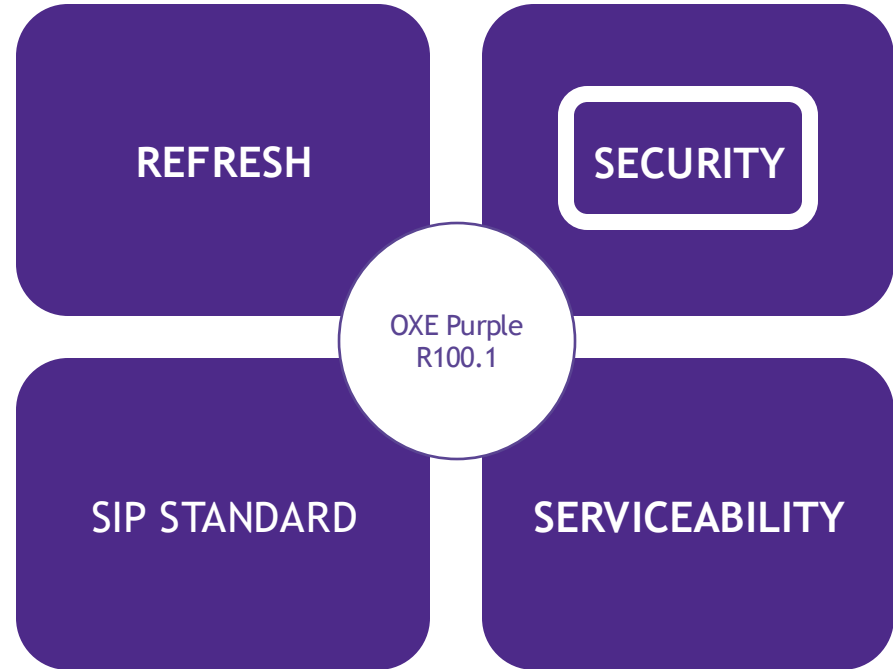
- Wi-Fi deployment using installation wizard
 - 802.1X WPA-2 PSK (Mode Personal)
- Enterprise Zero Touch Wifi Deployment (Dec 2023)
 - 802.1X EAP-TLS
 - Using Cloud (EDS) or local https server

- ▶ Security can be enforced at OXE level for control at system level
 - ▶ OXE WLAN right to use per device
 - ▶ In forbidden case, device can not connect to OXE through WIFI.
 - ▶ Default value: authorized
 - ▶ Already existing for USB and BT peripherals connectivity



PURPLE

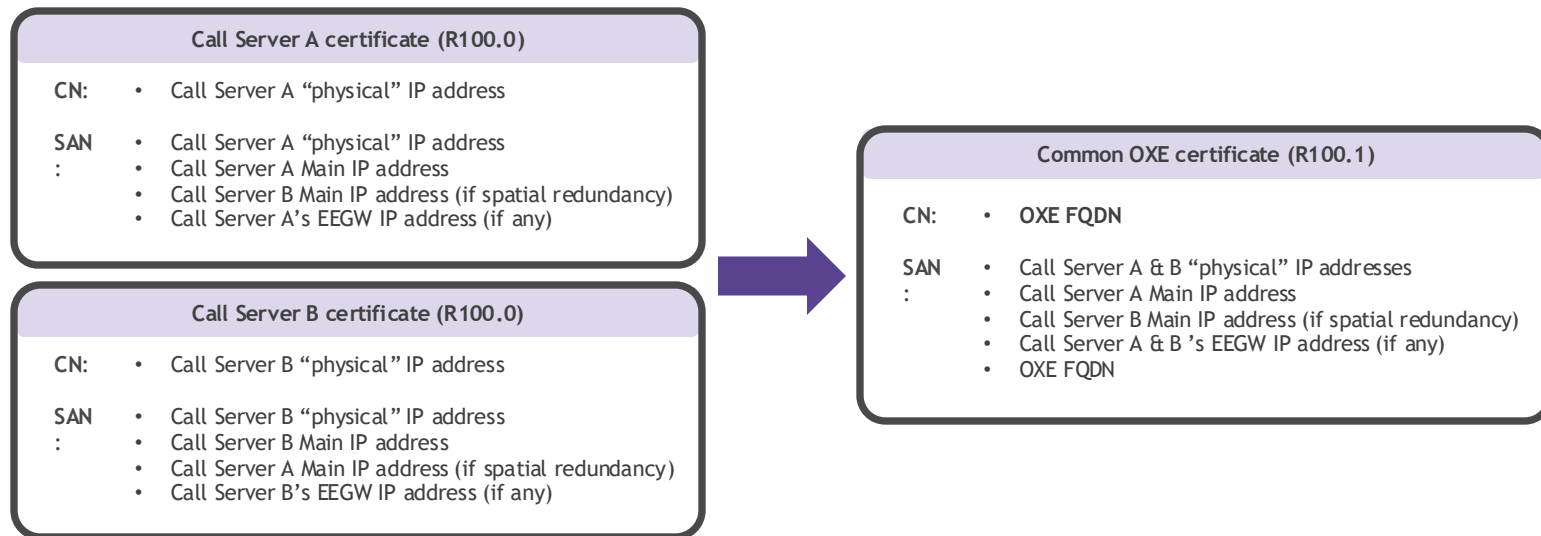
- OXE CERTIFICATE EVOL.
- LAST LOGIN INFO
- IPDSP ENCRYPTION EVOL.



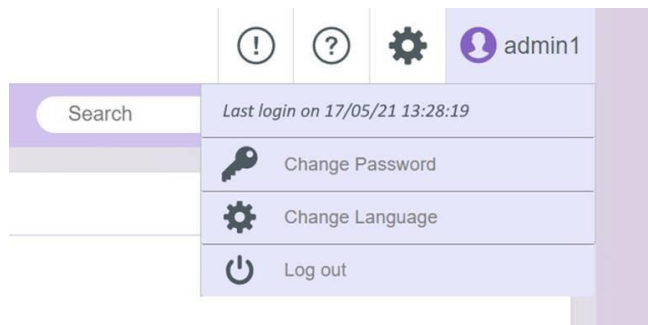
OXE FQDN IN CN FIELD OF OXE CERTIFICATE

► OXE Certificate evolutions

- Growing deployment of components that use FQDNs instead of IP addresses
- As of R100.1, OXE FQDN becomes mandatory, even if SIP is not used
- Certification management has been simplified, using only Netadmin tool
- Security Best practice: no IP@ in 'Common Name' (PEROXE-406) on CS and PCS
- Evolution transparent to Ecosystem



Inform the user of the last access with his identity in WBM OXE



OXE Web
management display

SSH display

```
<<Connection is allowed only for authorized persons>>  
Last login: Wed Jun 16 08:40:06 2021 from 10.10.16.188
```

• Security best practice

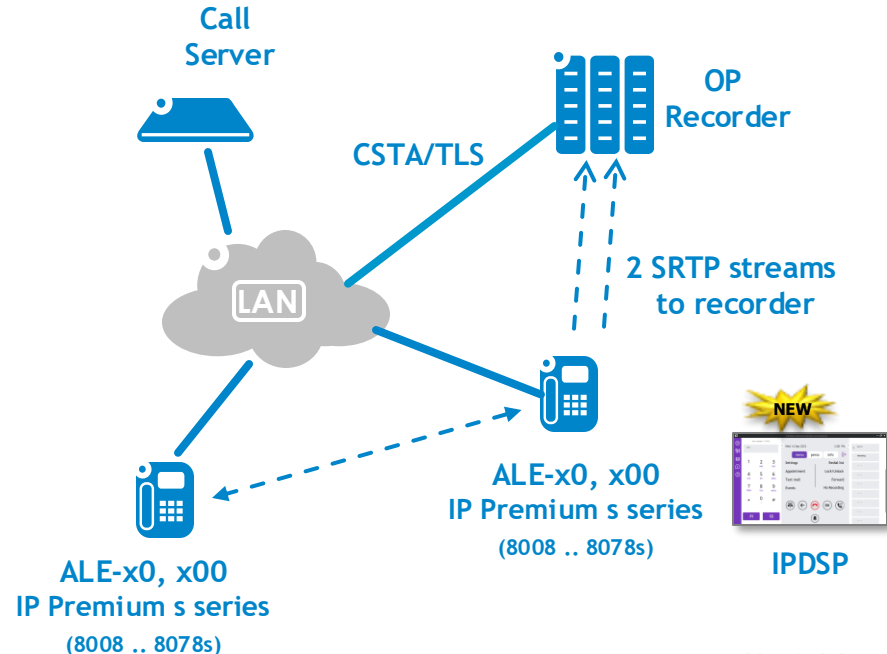
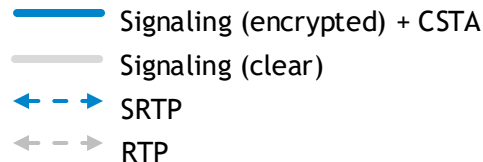
- For admin to verify at each login that account has not been hacked (after successful authentication)
 - Also displays host (in case of CS redundancy)
- Was already available for SSH, is extended to OXE Web Management and 8770.
- Mandatory for certification of product in some markets (Spain Government - PEROXE-426)

NATIVE ENCRYPTION: IP DRLINK ENCRYPTION

R100.1 MD1 IPDSP Compatibility

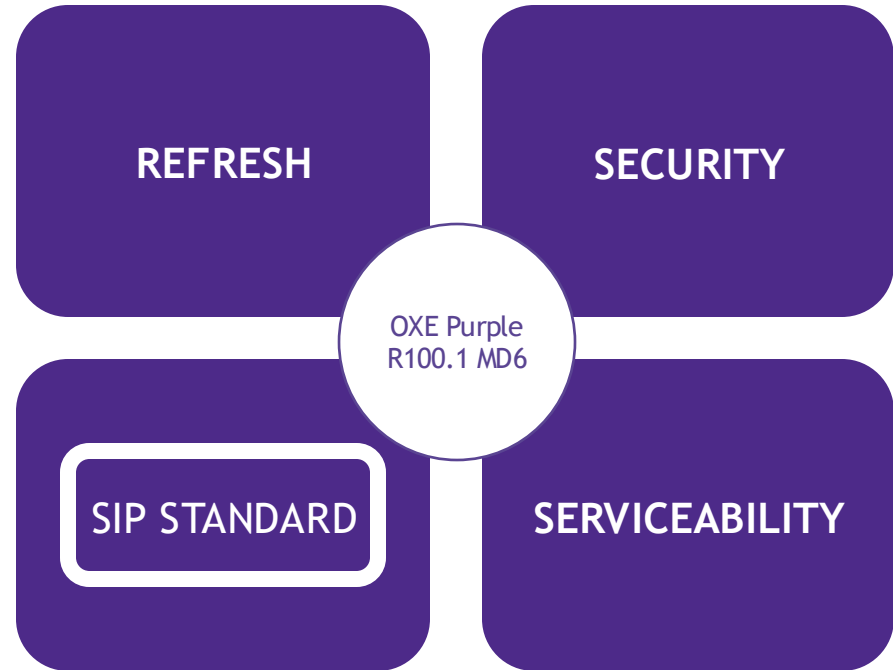
Native Encryption enrichment and facilitation of migration of IPTouch Security Systems

- SRTP streams direct to Recorder
- SRTP keys transmitted to OPR through CSTA on TLS
- Applicable to OPR only
 - Not available through TSAPI server for NICE/ASC/other 3rd party
 - New IPDRLink API through O2G
- Terminals supporting both IPDRLink and Encryption



PURPLE

- ALE-400/500 SIP
- SIP CALL HANDLING EVOLUTIONS
- MULTI DEVICES NOE AND ALES



DESKPHONES & SOFTPHONES PORTFOLIO (H2 2023)

- (1) NOE IP
- (2) NOE (IP or TDM)
- (3) SIP
- (4) SIP or NOE IP
- (5) SIP or analog

DESKPHONES

Basic



ALE-2 (3)



ALE-3 (3)



8008 (4)



ALE-20 (1) /20h
(2)



ALE-30h (2)

Essential



ALE-300 (4)



ALE-400 (4) **NEW**



ALE-500 (4) **NEW**



8088 v3 (4)

Enterprise

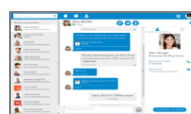
TDM SOFTPHONES



IPDSP (1)
(Windows, MAC, Android)



ALES (3) **NEW**
(Windows, Android, iOS)



Rainbow
(Windows, MAC, iOS, Android)

MISCELLANEOUS



Konftel
Ego



8135s



Konftel
800

DECT HANDSETS

BUSINESS



8212



8214 **NEW**



8234



8244

HEALTHCARE
INDUSTRIAL



8254



8262,
8262EX

VoWLAN HANDSETS



8158s



8168s

HOSPITALITY



Vtech phones (5)

New SIP Enterprise DeskPhones in SIP (R100.1 MD6)

- Enlarge range of SIP DeskPhones: ALE-400/500
 - ALE-300 SIP in December 22
 - Dual stack Noe/SIP DeskPhone for today and future PBX compatibility
 - Switch Noé to SIP
 - New ALES User eXperience (Business)
 - Basic feature set in R100.1 MD1
 - Supervision in R100.1 MD6
 - Topology restrictions
 - PCS and Remote Worker not yet available



SIP Services Enhancements

- SIP Supervision

- New state: “Out of Service” in addition to “idle”, “busy” and “ringing”

- Programmables keys

- Up to 120 programmables keys in OXE







- Hunting groups



- Login/logout at user level for multi device (Cyclic, Sequential)
 - Also for groups including Noé devices (ALES)

MULTI-DEVICE CONFIGURATION

Mixed multi-device configuration

- ▶ Mixed multi-device configuration with a NOE deskphone and DECT
 - ▶ Limited to 3 devices
 - ▶ Only one ALE SoftPhone for Windows and one ALE SoftPhone for Android/IOS
 - ▶ Virtual UA, REX, MIPT are not supported.

| Main | Secondary 1 | Secondary 2 |
|---|---|--|
|  Any NOE deskphones |    ALE SoftPhone for Windows ALE SoftPhone for Android/IOS DECT handset |   ALE SoftPhone for Android/IOS DECT handset |

| Main | Secondary 1 |
|--|---|
|  ALE SoftPhone for Windows |  DECT handset |

MULTI-DEVICE WITH A NOE DESKPHONE

Level of service (refer to Feature List)

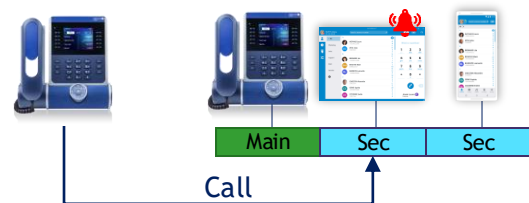
Incoming call on the main device

- ▶ The call is presented on all devices
- ▶ User can answer from any of his devices



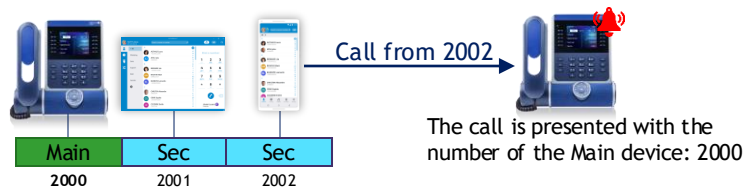
Incoming call on a secondary device

- ▶ The call is presented on the secondary device only



Outgoing call from a secondary device

- ▶ The call is made with the main device number
- ▶ "One Number" feature on outgoing calls.



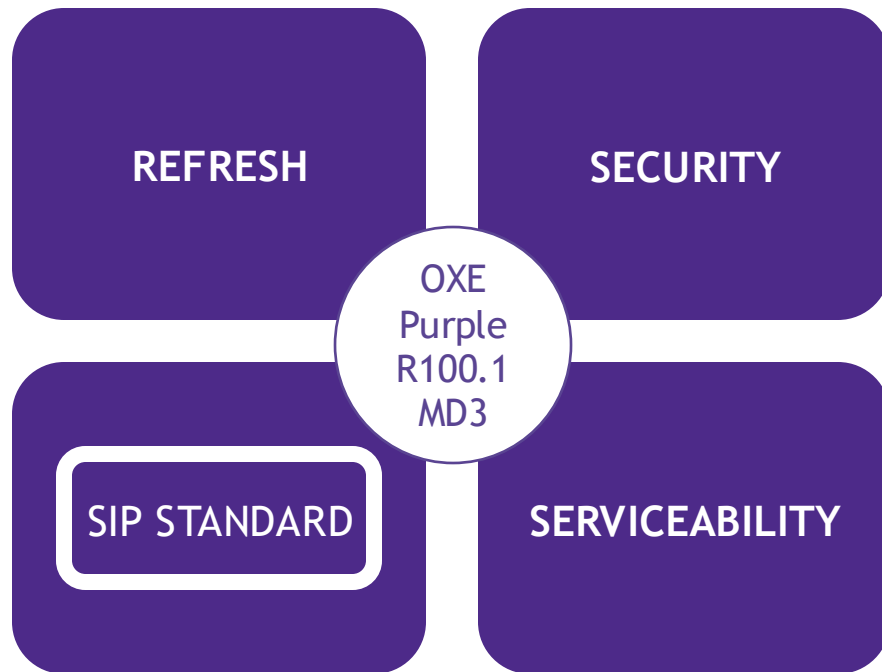
Unique voice mail box for all devices

- ▶ All devices share the same voice mail box, configured on the main device

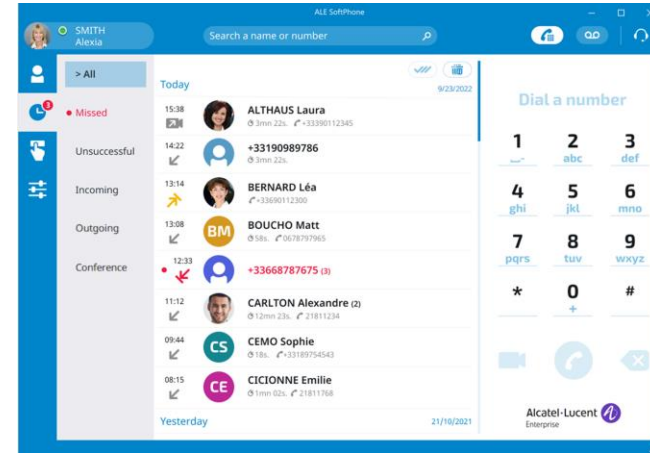
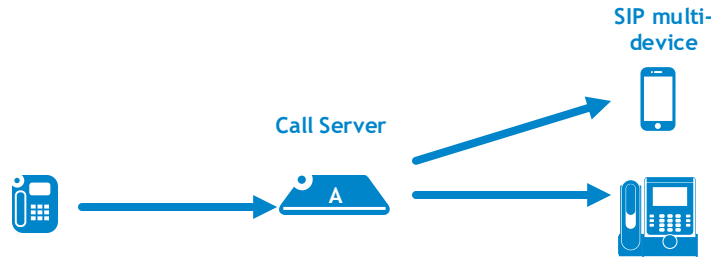


PURPLE

- CONSISTENCY CALL LOG
- ENHANCEMENTS HUNTING GROUPS
- SIP TRUNKING EVOLS.
 - STIR SHAKEN



Consistency of call log in case of SIP multi-device



- Already supported with SIP Parallel Hunting group
- When call answered by a device of the user, other devices stop ringing
 - Call now seen as “answered” in other SIP device call log.
 - From “Missed calls” to “Answered calls” category
- Details
 - CANCEL message with reason header
 - Reason: SIP;cause=200;text=”Call completed elsewhere”.

HUNTING GROUPS CYCLIC AND SEQUENTIAL OXE SIP EVOLUTIONS

► Logon-Logoff

- A dedicated icon is displayed on the user personal information when the device is member of a hunting group.



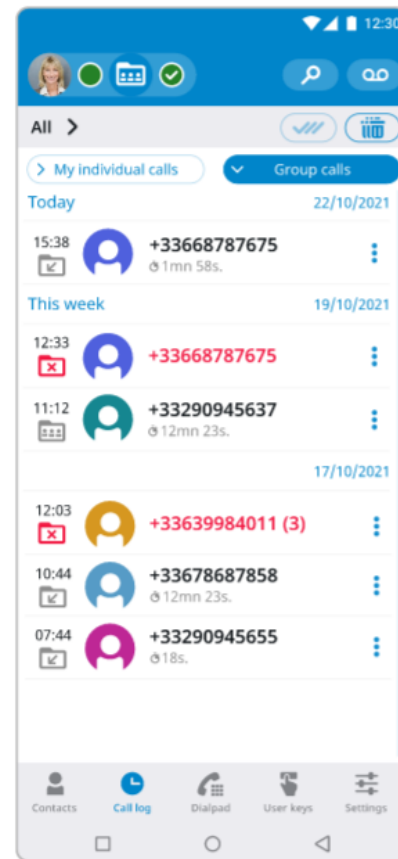
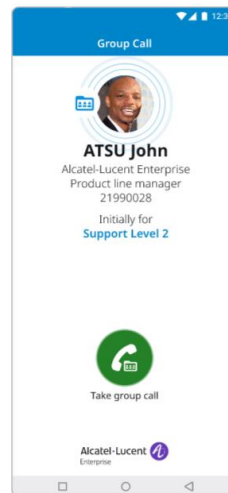
User is logged on



User is logged off

► Incoming group call

- Toast is displayed with following information
 - Caller identification
 - Group call identification (dedicated icon)
 - Group name
- Decline the call and transfer the call are not possible on a group call.



STIR/SHAKEN: PROTECTION AGAINST SUSPICIOUS CALLS

AUTHENTICATION OF CALLER-ID

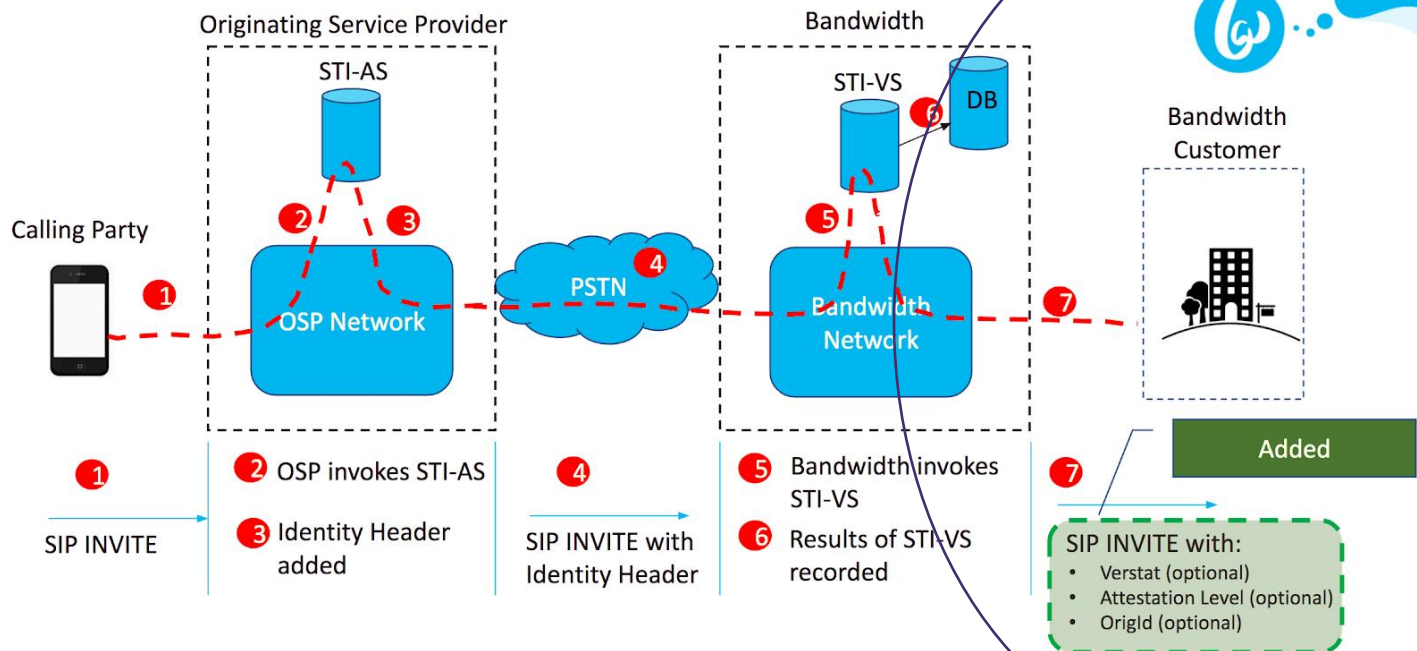
FRANCE:

- ▶ Request by law for Telecom Providers, applicable July 2023 (Mécanisme d'Authentification de Numéros)
- ▶ http://www.assemblee-nationale.fr/dyn/15/textes/l15t0461_texte-adopte-seance#

USA and Canada (FCC Traced Act and IC)

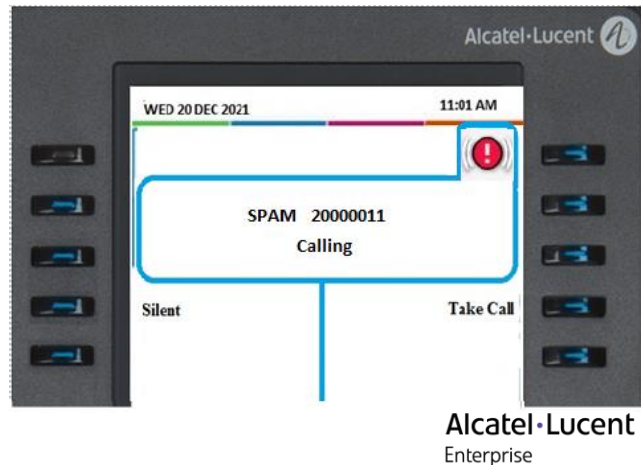
- ▶ *The Commission **directs** telecommunications service providers (TSPs) to implement STIR/SHAKEN to authenticate and verify caller identification (ID) information for Internet Protocol (IP)-based voice calls as a condition of offering and providing telecommunications services, effective 30 November 2021. In addition, the Commission **directs** TSPs to file STIR/SHAKEN implementation readiness assessment reports by **31 August 2021** and to add certain details to those reports.*
- ▶ <https://crtc.gc.ca/eng/archive/2021/2021-123.htm>

SIP TRUNK IMPLEMENTATION. EX. BANDWIDTH IN USA



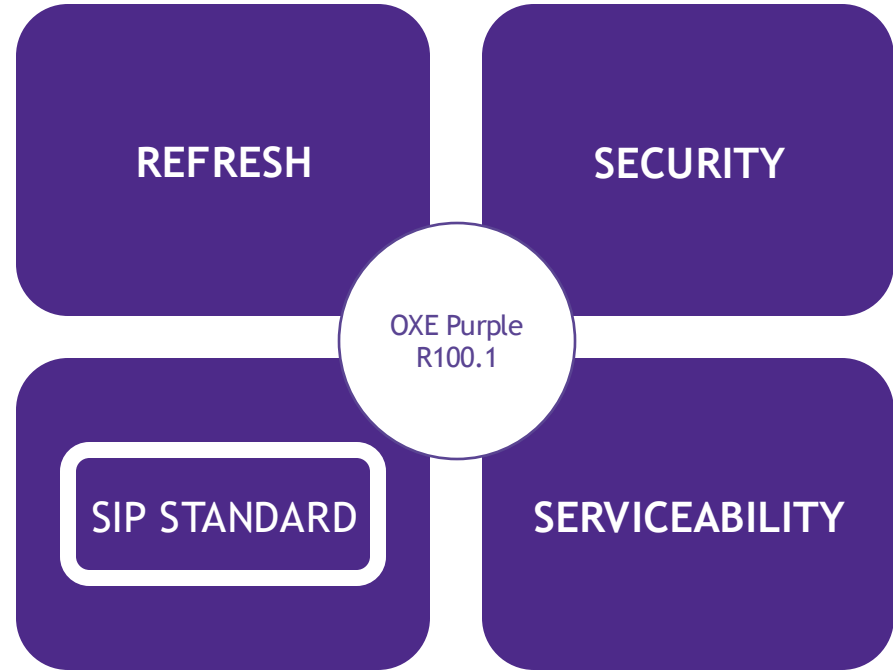
EVOLUTION ON OXE SIP TRUNK AND USERS: 1 ST STEP

- « Verstat » values
 - ▶ TN-Validation-Passed, TN-Validation-Failed, No-TN-Validation
- « Attestation level » values
 - Value A = Full Attestation; B= Partial Attestation or C= Gateway Attestation
- Management in OXE
 - When Verstat = Failed
 - Then « SPAM » appended to name/number
- Limitations
 - Incoming call only (w/o com evolution)
 - Attestation Level not handled
 - No evolution in terminals (no icon yet)
 - ABC Network case not handled yet



PURPLE

- ALE-3 SIP
- ALE-300 SIP
- ALES EVOLUTIONS
- SIP TRUNKING EVOLS.



New SIP DeskPhones (R100.1 MD1)

Enlarge range of SIP DeskPhones: ALE-2, ALE-3, ALE-300

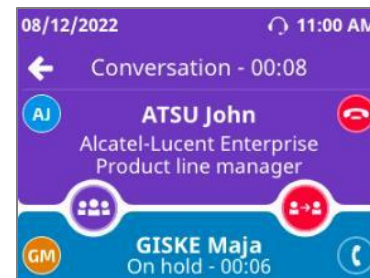
- Support of ALE-3 DeskPhone

- Based on Pegasus H6
- 2,8" Color screen, 4 line keys, 1 USB A
- Same OXE Business Feature set than ALE-2
- Topology restrictions
 - No Remote Worker yet (Zero Touch)

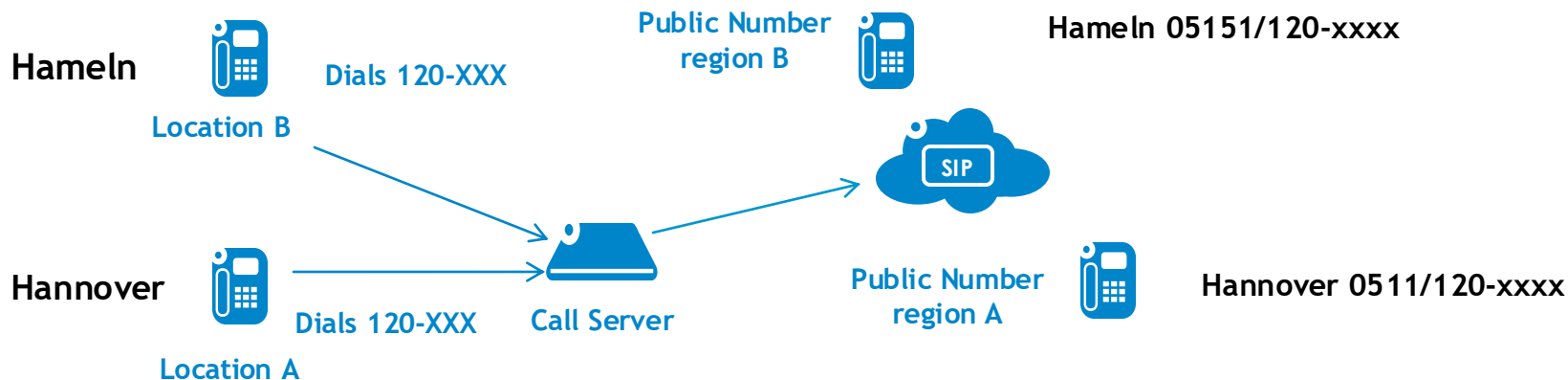


- Support of ALE-300 DeskPhone in SIP mode

- Dual stack Noe/SIP DeskPhone for today and future PBX compatibility
 - Switch Noe to SIP or reverse
- New ALES User eXperience (Business)
 - Basic feature set in R100.1 MD1
- ALE-400 and ALE-500 in a second step (H1 2023)
- Topology restrictions
 - PCS and Remote Worker not yet available

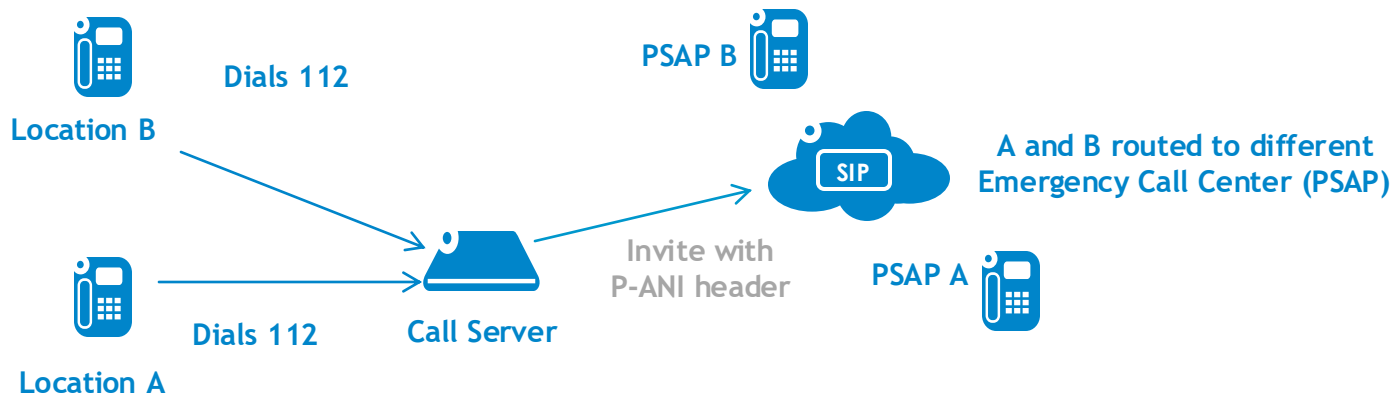


SIP - Trunking - Called number transformation on SIP trunk (O/G calls)



- When calling a local public number in Germany, OXE has to add regional prefix (local number) to SIP trunk
- This evolution simplifies drastically the day to day configuration of OXE network
- Possibility to delete/add digits in ARS route based on IP domain/entity/route
- As this can be based on IP domain, user roaming between sites can also be managed (DECT, FlexOffice)

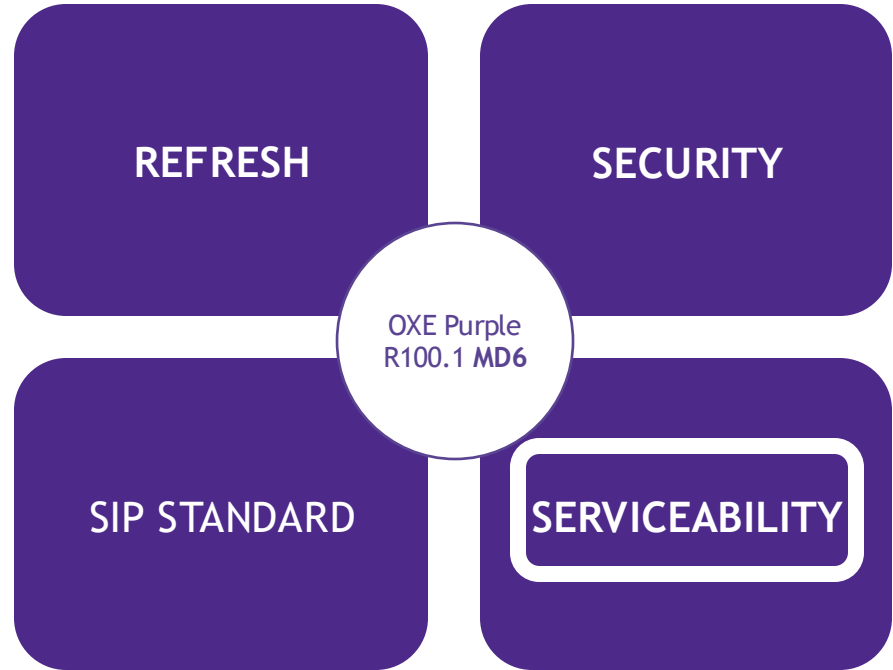
SIP - Trunking - Caller geolocation information on SIP trunk



- In case of centralized SIP trunk , OXE uses P-ANI header to provide geolocation of the caller when emergency call.
 - Workaround existing but too complex to manage.
- P-ANI (RFC 7315) field is filled with a configured information (location ID) in the IP domain of the caller
 - IP domain allows inter site mobility of users: same calling number but PANI is different
- P-ANI header can be manipulated by eSBC to adapt to local SIP carrier requirement
 - Eg: P-Asserted ID or XML body (PIDF-LO) - location by reference
- Can be used to simplify interoperability with Swisscom E112 Location ID service

PURPLE

- FLEET INVENTORY ENHANCEMENTS
- ENHANCEMENTS FOR VOIP TICKETS WITH SPATIAL REDUNDANCY.
- INCIDENTS ON OOS SIP SET.
- GDPR: MASKING NAME ON SOME MAINTENANCE TOOLS



CLOUD CONNECT OPERATIONS

► In Fleet Dashboard inventory, IPDSP and SIP terminals sub-types

- For connected OXE from R100.1 MD6
- Detailing the IPDSP (UA type) and all SIP devices managed by OXE (ALES, ALE-x00, ALE-2, ALE-3, ...) in terminals inventory
- Same features: number of registered and connected devices, export, terminals details (MAC@, ...)

58

TERMINALS

20 entries

Search:

Terminals details Tools Reset filters

| | CPU-ID | Interface | Type | Registered | Connected |
|--------------------------|-----------|-----------|--------------|------------|-----------|
| | All | SIP | All | From To | From To |
| <input type="checkbox"/> | K00002141 | SIP | ALE-2 | 2 | 0 |
| <input type="checkbox"/> | K00002141 | SIP | ALES-desktop | 2 | 0 |
| <input type="checkbox"/> | K00002141 | SIP | SIP | 16 | 0 |
| <input type="checkbox"/> | K00002141 | SIP | ALE-400 | 1 | 1 |
| <input type="checkbox"/> | K00002141 | SIP | ALE-300 | 2 | 0 |
| <input type="checkbox"/> | K00002141 | SIP | IPTouch 8028 | 1 | 0 |

FETCHING SIP VOIP TICKETS FROM OXE MAIN AND STAND BY

- ▶ OmniVista 8770 to fetch SIP VoIP tickets on OXE main and standby
 - ▶ To avoid losing SIP VoIP CDRs in case of OXE main/stand-by switchover, for OXE having two CPUs (local or spatial redundancy)
 - ▶ From OXE R100.1 MD6 and OmniVista 8770 MD3 (October 2023)
 - ▶ The first OXE CPU (cpu_a) has SIP files whose filename starts with prefix SIP1 (for example SIP1AAAAA.DAT) and the second one (named cpu_b) has SIP files whose filename starts with prefix SIP2
 - ▶ In the OXE configuration, there will be a new information: Last polled SIP file for 2nd CPU

| | |
|-----------------------------|-------------------------------------|
| PTP process | <input checked="" type="checkbox"/> |
| VoIP performance process | <input checked="" type="checkbox"/> |
| Last polled accounting file | TAXAWONT.DAT |
| Last polled PTP file | C21J0212.pmm |
| Last polled IP file | IPAUQNG.DAT |
| Last polled SIP file | SIPAAAAA.dat.Z |

NEW OXE INCIDENTS FOR OUT OF SERVICE SIP DEVICES

- Displayed in Fleet Dashboard Incident list

- For connected OXE from R100.1 MD6, with technical advanced privilege, same layout as for existing incidents:

INCIDENTS LIST ON OXE WITH CPUID K00014880

10 entries

Search:

| GMT Time | Originator | Crystal | Coupler | Terminal | Severity | Number | Description |
|----------|------------|---------|---------|----------|----------|--------|---|
| 23:28:48 | Main | 1 | 0 | 52 | Info | 6051 | Mise hors service IPDSP 3cd2:5a:f4:db:3f,2205 |
| 23:11:22 | Main | 1 | 0 | 52 | Clear | 6052 | Mise en service IPDSP 3cd2:5a:f4:db:3f,2205 |

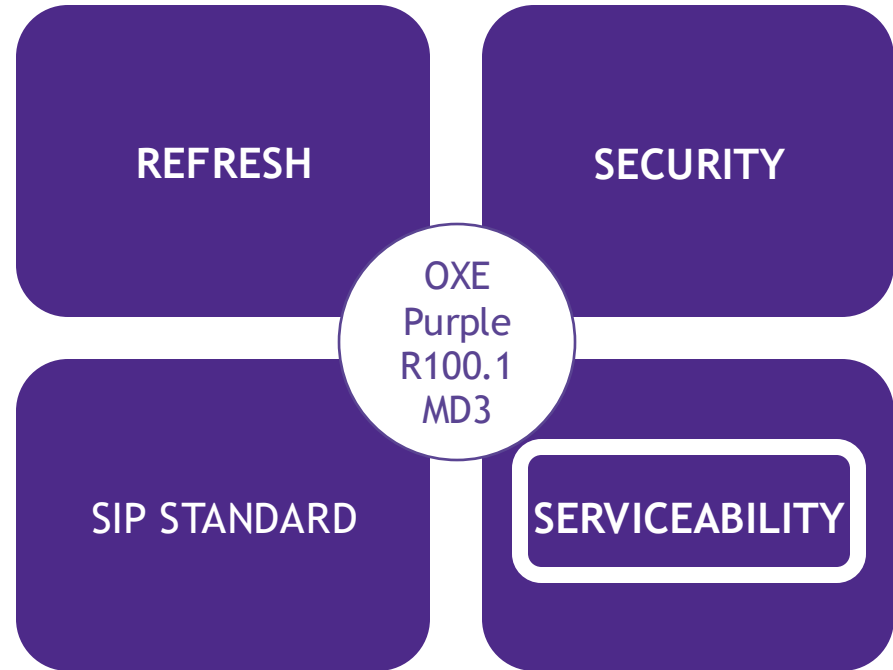
- Displayed in real time in OmniVista 8770 Alarms/Topology

- Same features as other alarms
 - Also available for external hypervisors and performance applications via the SNMP traps

OMNIPCX ENTERPRISE R100.1 MD3

PURPLE

- SWITCH NOE TO SIP
- REAL TIME DISPLAY OF VOIP TICKETS



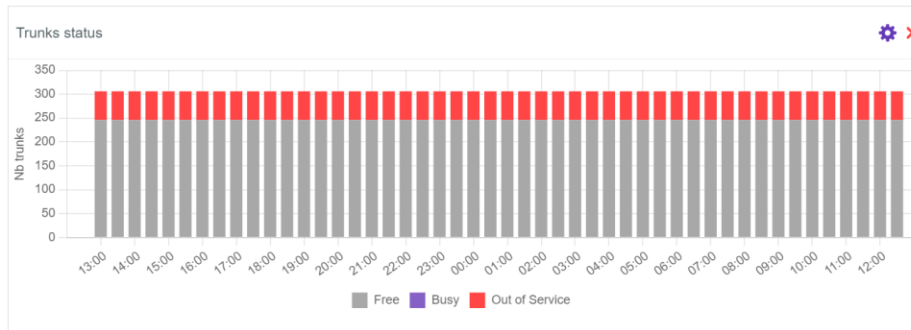
OXE Device Management: Switch Noé to SIP

- **Simplify switch from Noé to SIP for Enterprise Dual stack Noé/SIP DeskPhones**
 - Today mechanisms (with 80x85) are DHCP based and with limited granularity
- For first installation
 - Enterprise DeskPhone have only Noé binary from factory
 - Switching from Noé to SIP is the only way to install SIP binary from OXE and run in SIP mode
- When already running (with existing Noé configuration)
 - OXE Noé configuration can be reused for SIP (depending on existing Noé user feature set)
- New mechanism where OXE tells device per device to switch to SIP
- The reverse way, switch SIP to Noé is also possible



• Display detailed data

- By default, the widgets Trunk groups, Devices, IP domains and OXE health display aggregated data based on OXE counters SNMP polling **every 30 minutes**
- Restriction: Except the Quality widget displaying aggregated data based on VoIP tickets hourly polling since R5.0 MD1
- The new option “**Detail**” displays the data from all the polling **minimum 5 minutes** for 1 day period
- The SNMP polling period is defined in OmniVista 8770 tools

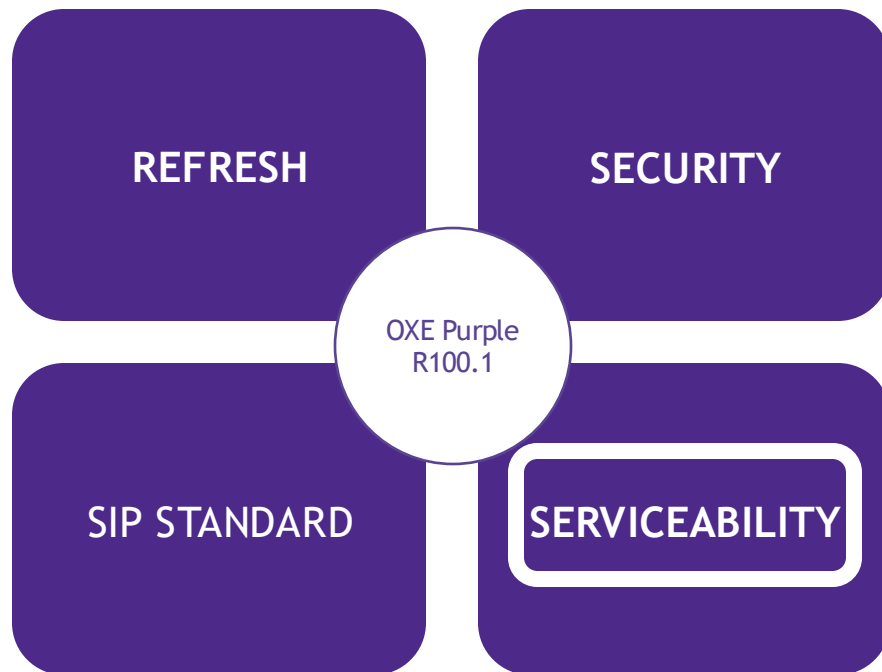


- Evolution in OXE allowing to 8770 get VoIP tickets every half an hour
 - Concerns VoIP tickets for Noé and SIP devices
 - VoIP ticket File generated every 1/2 H at xx:00 and xx:30
- ALES and ALE-300/400/500 SIP provide VoIP tickets (in addition to ALE-2/3 and 80x8S)

OMNIPCX ENTERPRISE R100.1 TR

PURPLE

- DECT MANAGEMENT EVOL.
- GAS MAINTENANCE EVOL.
- HYBRID CLOUD MAINTENANCE
- CCO OXE SW UPDATE

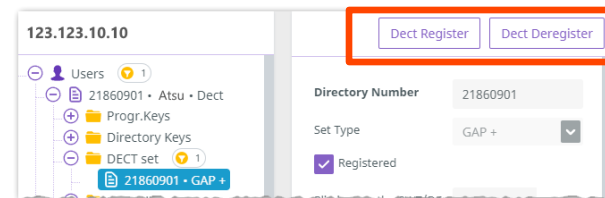


DECT DEVICES MANAGEMENT

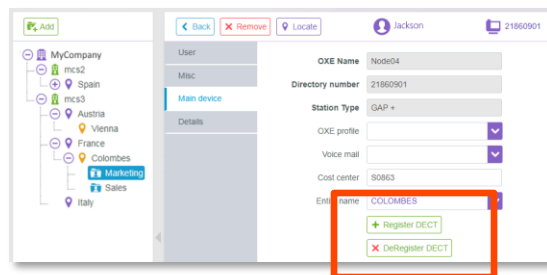
▶ DECT handset (GAP/GAP+) de/registration from OXE management

- ▶ Before, this operation was possible only via *dectinston* CLI command
- ▶ Allows to create and de/register the DECT handset from a common tool and thus ease the administration
 - ▶ Apply to OXE WBM, OV8770, O2G and mgr CLI tool in the Call Server

OXE WBM



OV8770 WBM (Users app)



INFRASTRUCTURE

- ▶ **Generic Appliance Server (GAS) serviceability**
 - ▶ Find easily the version of each software component
 - ▶ `gasversion` command to get version of GAS, OXE, OXE-MS, Rainbow WebRTC gateway and SLES operating system
 - ▶ Backup & Restore of the whole GAS via `gasbackup` command
 - ▶ This backup includes OXE database, network settings of all components, license files, ...
 - ▶ GAS package fresh installation + GAS backup : functional GAS system, without the need to perform the post-installation
 - ▶ Restoring a GAS backup can be performed either via a Graphical User Interface or in silent mode
- ▶ **Possibility to restore a customer database in lab, without Cloud services data**
 - ▶ Prevent the system, restored in lab, to connect to ALE cloud infrastructure with customer credentials
 - ▶ Concerns the different ALE cloud services (Cloud Connect, Rainbow, ...)

CLOUD CONNECT OPERATION

▶ User profile display in Fleet Dashboard

▶ Fleet Dashboard Performance improvement

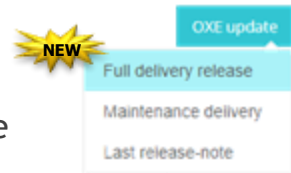
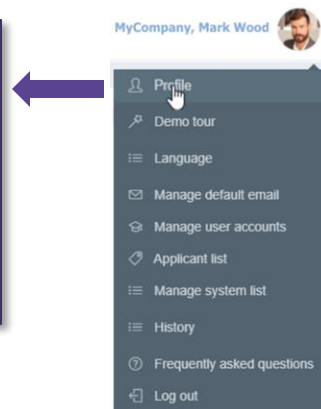
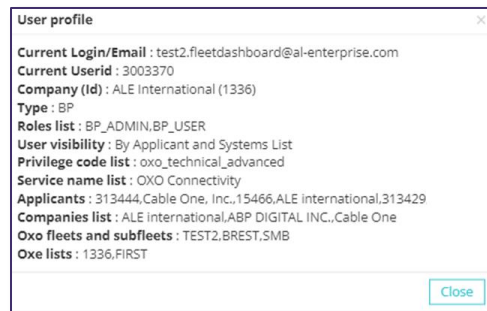
- ▶ Max systems of home page increase to 40K
- ▶ Home page construction in ~20s for 30K systems

▶ Fleet page enhancements

- ▶ Support status for OmniPCX Record and ALE Connect added
- ▶ New columns: System ID (internal ID of the OXE, used by eBay), CC-Product-ID and Rainbow PBX ID

▶ Software Update service

- ▶ Handle new OXE full release, in addition to patch and Maintenance Delivery, already available with R100.0
 - ▶ Cover only remote transfer of the software delivery: the update operation is performed via the standard procedures
 - ▶ In case of OXE full delivery release, specific T&Cs document, related to export control, has to be accepted
 - ▶ Reminder: active SPS contract and 'technical advanced' privilege are required
- ▶ License file update for the new release to be performed via Push Offer Files services
- ▶ Release note available when clicking on the version
- ▶ Recommended version in orange, consistency check between the release and the license
- ▶ Software update information pop-up



C O N T A C T U S



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