



Alcatel-Lucent Enterprise, a leader in communication and collaboration solutions for healthcare

Alcatel-Lucent Enterprise is a recognized partner of healthcare facilities and emergency services in France, and around the world. We are present in many hospitals and university hospitals but also in fire, rescue and emergency services. This success is a result of the reliability, wide-ranging features and security of our systems, as well as our technological know-how.

Our goal is to contribute to the digital transformation of healthcare facilities by offering proven communication and network infrastructure technologies. We connect

patients, healthcare professionals and stakeholders within their ecosystem in order to optimize the care pathway.

To succeed with this digital transformation, we have developed an ecosystem of partnerships (e.g.: Developer and Solution Partners Program, Major Benefactor of the largest French hospital cluster, among others) and innovated through participation in technology and solution events (such as: Hacking Health Camp, and Call for Expression of Interest for the hospital of the future).

What is digital transformation?

Digital transformation uses technology to improve the patient experience, make life easier for healthcare staff, facilitate the secure exchange of data, and speed up decision-making processes.

Alcatel-Lucent OmniPCX® Enterprise (OXE), the heart of your efficient and robust real-time communications system

OXE is a proven communication server based on a software-only platform that handles multimedia calls from Alcatel-Lucent and third-party vendor phones, including TDM, IP, and SIP.

OXE provides the building blocks for any IP and/or TDM communication solution by integrating the very latest Linux, XML, SIP and VXML technologies, and QSIG, CSTA and SIP open standards. Superior scalability allows OXE to support 10 to 100,000 users spread over several geographic sites.

It also offers extremely reliable, real-time, carrier-grade performances with unrivaled 99.999% availability.

In addition it supports a wide variety of apps and telephones:

- Access your messages from an internal or external telephone using a centralized voice messaging solution, such as **Alcatel-Lucent OpenTouch® Message Center** or **Alcatel-Lucent 4645 Voice Messaging Services**
- Benefit from a **contact center** that manages incoming voice interactions with advanced supervision and agent phone functions
- Eliminate costs associated with Fax machines, analog lines, and consumables with the 100% Fax over IP (FoIP) software solution, **Alcatel-Lucent OpenTouch Fax Center**
- Monitor, record and evaluate all interactions between employees and customers or patients with **Alcatel-Lucent OmniPCX RECORD**, which allows you to record calls and screen captures and listen to conversations in real-time
- Enable your teams to define their notification and alert strategies with the **Alcatel-Lucent Visual Notification Assistant** "no-code" interface: notification by email, SMS, chat, using **Rainbow™ by Alcatel-Lucent Enterprise**, mass merging and audio diffusion on Alcatel-Lucent and third-party phones
- Equip your PC/MAC with all the functions of a desktop phone with the **IP Desktop Softphone** app
- Use a **digital desktop phone and IP phone** adapted to your needs from our large range of ergonomic phones with high quality sound:

IP range



TDM range



Economical and reliable intersite mobility solutions

- Discover our **new VoWLAN 8158s/8168s** handsets, compatible with 802.11 a/b/g/n radio networks and 802.11r quality of service and roaming standards
- Discover our **complete DECT offer** featuring:
 - Standard DECT (**IBS/RBS**) and IP DECT (**8378 DECT IP-xBS**) bases for indoor and outdoor use, adaptable to any connection (TDM or IP) and any size of building and site
 - A large range of DECT handsets. Discover the models best suited to the healthcare sector:
 - The **new** compact, robust and antibacterial **DECT 8254** handset
 - The **DECT 8242** handset with red emergency button
 - The **DECT 8262** hardened handset with IWP* function and precise localization using Bluetooth technology



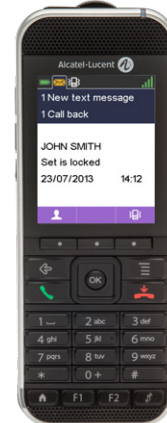
8158s/8168s

The + of 8378 DECT IP-xBS terminal

- High-density base station (12 channels) with dedicated channels for displaying alarms
- Superior scalability for campuses, such as university hospitals
- Transparent air update service of DECT handsets binary code
- Possibility to be combined with standard DECT terminal including the roaming service



8254



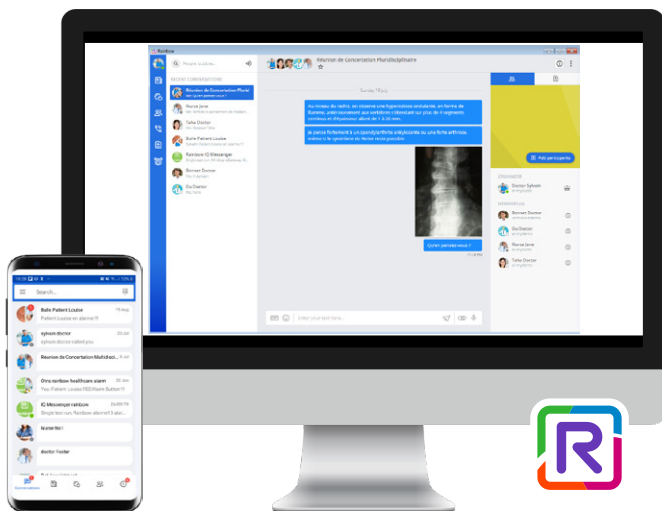
8242



8262

Meet mobility and collaboration needs

- Adapt your working environment to meet current requirements for remote working, mobile telephony, and the needs of multi-site teams
- Use communication and collaboration services to work as a team: For example, easily make a “one-click” call with your desktop phone while sharing your PC screen to improve understanding and help with decision-making
- Arrange instant video-conferences using the Web or a smartphone and set up multi-disciplinary consultative meetings with fellow clinicians
- Identify quickly with presence functions who is available to answer your questions (for example, who is not on the phone or in a meeting)
- Share files: The cloud provides access to all types of documents such as a care sheet, a simple prescription, or large DICOM format images
- Maintain social links by chatting with your colleagues on your smartphone, wherever they are



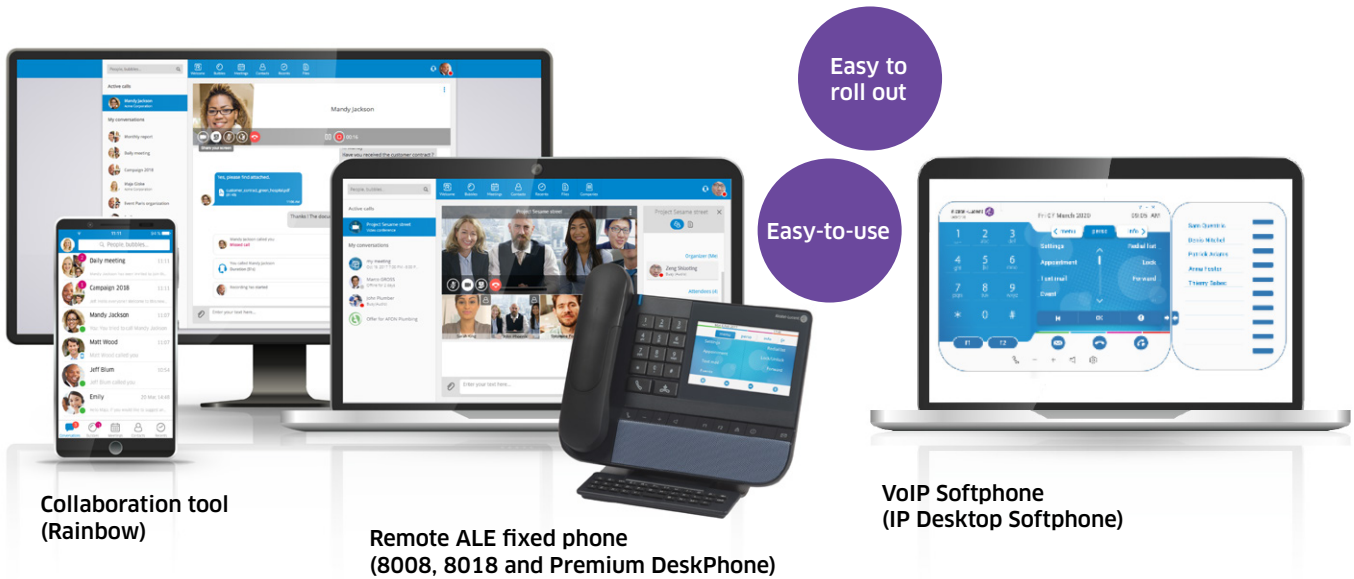
The + of Rainbow

- Customizable cloud collaboration solution including a free subscription
- Protected data: GDPR**, ISO 27001 and French HDS*** certification
- Hybrid model: Connect OXE to the cloud service to control your office terminal and/or call any OXE user or external user from your Rainbow client
- API for integrating connectivity into business application

*IWP: Isolated Worker Protection detects fall, shock, immobility, among others.
 **GDPR: General Data Protection Regulation
 ***HDS: Health Data Hosting

Make remote working easier for administrative staff

The global COVID-19 health crisis has highlighted the importance of innovative telecommunication strategies for remotely coordinating activities to ensure continuity of the healthcare facility, all while safeguarding individual's health security. Three solutions have proven to be effective and relevant:



IQ Messenger: A certified medical device alarm and notification solution

- Connect and monitor your clinical assets (such as patient monitor, or infusion pump) and smart objects. Reduce fatigue among healthcare staff due to the increase in the number of alarms
- Generate alarms from ALE DECT and VoWLAN handsets
- Send secure and reliable notifications on the DECT/VoWLAN handsets and smartphones (iOS/Android OS) from the SmartApp or Rainbow app

The + of IQ Messenger

- Certified solution: ISO/IEC 27001, ISO 13485 and European MDR class IIb regulation on medical devices
- Extended clinical ecosystem: Integrated with more than 140 third-party provider systems
- Web and intuitive events flow manager

Cybersecurity

OmniPCX Enterprise

- Built-in security with hardened operating system
- Security policy for voicemail users to avoid PBX fraud
- Confidentiality and integrity of voice media against wiretapping and IP Phone signatures, and media-gateways against denial-of-service attacks (IPSec)
- Mutual authentication against spoofing attacks
- Regular software update policy in order to benefit from the latest patches and upgrades

Rainbow

- Secure by design, reinforced by ALE conformity with the GDPR regulation, ISO 27001 and HDS, as well as audits by independent players (Nmap, Nessus Cloud, Qualys SSL Labs)
- Confidentiality and integrity of sensitive data with encrypted media flows in transport and in storage

Innovation and integration

Integrate connectivity into business applications, clinical and operational procedures, and the ecosystem with our OXE (O2G) and Rainbow API, as well as our technological components (such as IoT Hub, Rainbow Workflow):

- Provide communication from the web portal: click-to-call, video, and presence
- Add audio, video, and chat, to business applications (PC/mobile), such as shared and computerized medical records
- Connect your application in a secure manner with a variety of IoTs, chatbots and Artificial Intelligence through Machine Learning technology
- Perform administrative operations: Synchronization of a HR directory to create, modify or delete the hospital's employee accounts

Communication services for patients

Optimize the hospital welcome and offload the healthcare units

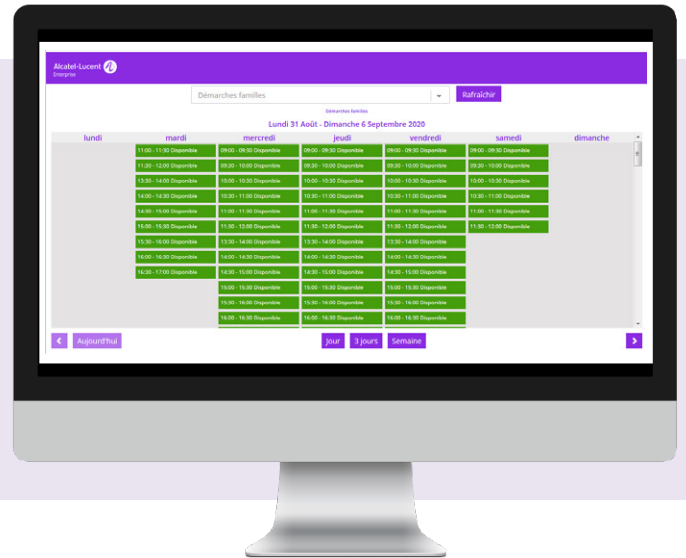
- Automate the most repetitive and resource-intensive tasks with an intuitive and economical interactive voice server, integrating voice synthesis and automatic speech recognition services

The + of Visual Automated Attendant

- Easy creation and modification of routing scripts and voice guides by non-specialist users
- Professional image and response of the welcome service
- Standardized and differentiated welcome between healthcare units

Welcome 2.0 with “Digital First Skill Routing”

- No longer drop patients’ calls: A simple Web-based appointment solution provides automatic call back
- Optimize the facility's reception by offering intelligent routing to an agent, based on competence criteria (such as choice of pathology, or language) with multimedia management (chat/audio/video)
- Remove any doubt by activating video on the patient's smartphone without having to download an app



Make it easier for patients to communicate while they are hospitalized

- VIP patients and their relatives require high-end hotel style rooms and services, such as monitoring of their in-room comfort features (temperature, light, ventilation, shutters) and access to hospital services (such as hairdresser, or laundry). ALE provides the 8088 tactile handset running on Android, allowing partner apps to integrate their solutions into a high-end bedside handset.
- We also meet your specific needs such as the provisioning of analog or SIP handsets with antibacterial plastic adapted to the healthcare environment. Do not hesitate to contact us for further details.



Maintain contact with patients at their homes

- Complete remote consultations, perioperative, or chronic illness monitoring with audio, video, or chat connectivity
- Optimize your resources by connecting the patient to a chatbot
- Monitor your patients' health conditions using IoT
- Connect your patients to an enriched virtual assistant with “Machine Learning” (chatbot/Artificial Intelligence) enabling the analysis of patient data. With improved patient knowledge, the virtual agent can refine recommendations and, if necessary, make quick decisions such as triggering an alarm.

