



Communications sales handbook for hospitals

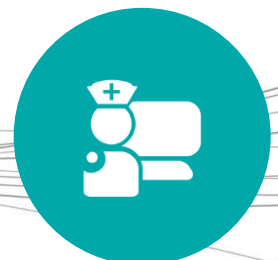
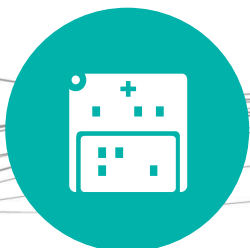
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Purpose of this document

The purpose of this document is to highlight a set of value propositions which can be considered as investment opportunities in Healthcare and especially for hospitals, based on Alcatel-Lucent Enterprise (ALE) Communications solutions.

Healthcare trends

- Rapid urbanization, sedentary lifestyles, changing diets, and rising obesity levels are fueling an **increase in chronic diseases**—most prominently, cancer, heart disease, and diabetes—even in developing markets ([“2018 Global health care outlook - Deloitte 2018”](#))
- Every three seconds someone develops dementia. In 2017, an estimated 50 million people worldwide live with dementia— a number that is predicted to double every 20 years. In **2018, dementia is expected to become a trillion-dollar disease** ([“2018 Global health care outlook - Deloitte 2018”](#))
- Global health care spending is projected to increase at an **annual rate of 4.1%** in 2017-2021, up from just **1.3% in 2012-2016** ([“2018 Global health care outlook - Deloitte 2018”](#))
- 4 major digital challenges exist in hospitals: IoT, Mobility, Digital Health and Security
 - ✓ 69% of patients say that the use of wearables has a positive effect on patient/physician communications ([Accenture 2016 Consumer survey on Patient Engagement](#))
 - ✓ IoT Healthcare market growth: from \$41 billion in 2017 to \$158 billion in 2022 ([Marketsandmarkets.com: IoT Healthcare Market](#))
 - ✓ 65% of all interactions with healthcare facilities will happen over mobile devices in 2018 ([Advancedav.com: digital trends in digital healthcare](#))
 - ✓ 80% of doctors already use smartphones and medical apps ([Greatcall.com: Is mobile healthcare the future?](#))
 - ✓ 52% of hospitals currently use 3 or more connected health technologies ([Himss.org: How hospitals currently use connected health technology](#))
 - ✓ Healthcare organizations experience 340% more security incidents than the average industry ([“2018 Global health care outlook - Deloitte 2018”](#))
- Alarm fatigue identified as a critical safety issue:
 - ✓ Alarms per patient in intensive care have risen from 6 to 40 in the last 3 decades ([the BMJ 2018](#))
 - ✓ Percentage of insignificant or non-actionable alarms is between 80 to 99% ([the BMJ 2018](#))



ALE value proposition for the hospital industry

Among the numerous challenges, the main focus is on optimizing the care pathway as well as patient safety and comfort, and quality care delivery while reducing operational costs in an uncertain and changing health economy and responding to health policy and complex regulation. ALE's answer is summed up into three pillars:

- **User experience**

- **Better engagement with patients**

- Facilitate the greeting and the appointment reminder
- Enable a superior patient & visitor experience during the hospital stay
- Maintain a link from the hospital to the patient at home



- **Optimize the care team's efficiency and time**

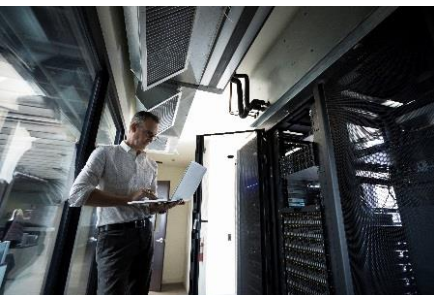
- Enable 24/7 efficient & quality care delivery for clinical staff
- Support complex interventions & workflow requiring real-time collaboration for nurses and physicians, to deliver quality care
- Enable doctors to provide optimum care, research and teaching mission curricula (University Hospital Center)
- Enable nurses to focus on care delivery versus time consuming, administrative or logistics tasks



- **Safety & Security** - Patient and care team security is one of the top priorities in a hospital. Solutions and technology that proactively detect, react and protect individuals are key to increasing safety and access, reducing costs and improving care.



- **Operational efficiency** - It's all about improving the decision-making process, optimizing maintenance procedures, sticking to schedules as planned, ensuring coordination and collaboration between stakeholders and fast recovery when operations are interrupted -- without breaking the budget.



ALE is here to enable

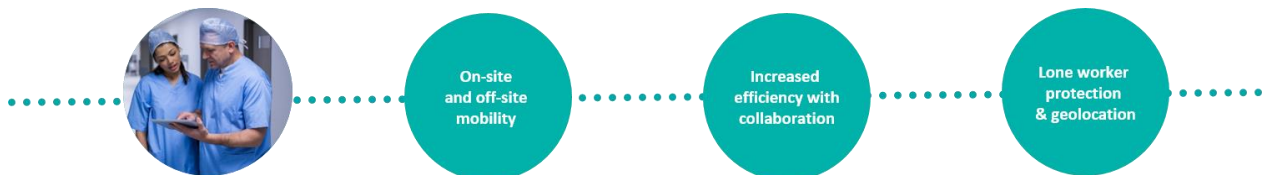
We provide the building blocks that enable a secure solution and provide innovative services and applications. Those building blocks are composed of data network solutions, voice communication solutions and professional services, on premise, hybrid and in the cloud.

ALE communications solutions range from telephony solutions to automated and customized patient **welcome greetings**, to **digital engagement** solutions that provide real-time interaction over any type of media (IM, voice to video), anytime and anywhere.



We provide a comprehensive set of solutions for a **better mobile and collaborative workplace** to simplify day to day life of the hospital staff (wired sets, DECT, VoWLAN, UC&C, Rainbow), but also APIs to easily integrate with other business applications.

We can also provide orchestration solutions that enhance security such as **any to any message broker** server for **alarm notification**, crisis management system, integrated **recording system**, along with a complete set of **APIs** that can be integrated in the **hospital ecosystem including medical equipment**.



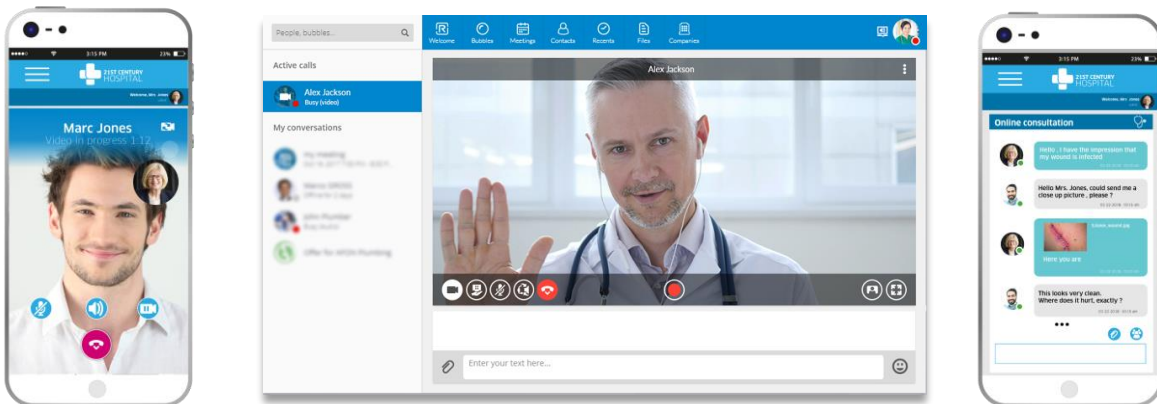
We enable **IoT adoption** through solutions that allow bidirectional communication between devices and people, improving processes, reinforcing security and enhancing the patient experience.

Voice communication is mission-critical in a hospital, that's why we provide a **highly available, future-proof and resilient architecture** that is cost-effective and ensures simplified operations and improved business efficiency.

Alcatel-Lucent Rainbow™: How to enable real-time collaboration, interactions and business process integration?

Today, we are in the second phase of the global digitization of healthcare. After the drive to digitize patient records, a number of **innovative applications** has flourished, with the aim to **improve the patient experience**, help clinical and administrative staff **optimize care delivery** and to **improve hospital and care provider workflows and efficiency**.

These innovative applications, such as hospital portals, teleconsultation, peri-operative care, ambulatory care and real-time chronic diseases monitoring, allow the patient to better plan his care journey and to keep the link with hospitals, everywhere. In this context, **Rainbow APIs** are a powerful solution to bring **connectivity** with key technology elements: digital communication, chat bot, Artificial Intelligence, location and asset tracking services, Big Data, etc.



To optimize operations, **collaboration** between different stakeholders is vital to enhance the decision-making process. To this end, **seamlessly integrating the Rainbow API solution with business processes** (Electronic Medical Record, Customer Relationship Management, etc.), to provide communication and collaboration services, is a necessity.

ALE enables a unique non-disruptive approach based on a **hybrid cloud model**. This model leverages the hospital's investments in existing communication systems by easily connecting them to Rainbow to provide unified presence, click-to-call from a desk-phone, full softphone and multimedia conference.

Rainbow offers a concrete and efficient solution that takes the global ecosystem into account, leveraging interactions with Artificial Intelligence and chatbot services, as well as data from IoT devices and business systems, for a more informed and faster decision-making process.

Find out more on how we can help you optimize the care pathway

WEBSITE: Healthcare Page

<http://enterprise.alcatel-lucent.com/?solution=Healthcare&page=overview>

[HOSPITAL COMMUNICATION GUIDE](#)

[HEALTHCARE INDUSTRY CHALLENGES \(infographic\)](#)

[OPTIMIZING THE CARE PATHWAY \(infographic\)](#)

[HEALTHCARE SUCCESS STORIES \(eBook\)](#)

BLOGS

<http://blog-enterprise.alcatel-lucent.com/>

BUSINESS PORTAL: Healthcare Page

<https://businessportal2.alcatel-lucent.com/solutions/industry/healthcare>

[COMMUNICATIONS VALUE PROPOSITION](#)

[COMMUNICATIONS VALUE PROPOSITION \(light version\)](#)

[RAINBOW USE CASES FOR HEALTHCARE](#)



Alcatel-Lucent Enterprise

- We are Alcatel-Lucent Enterprise
- We help you Connect your patients, staff and healthcare ecosystem, delivering technology that works across and beyond your facilities and where patients Connect for a superior healing experience
- We help administrative & clinical staff Connect to deliver timely, safe, efficient care
- We enable facilities to Connect securely to ubiquitous, reliable information for an optimized care pathway
- With global reach and local focus, we deliver specialist networking and communications for healthcare providers, to optimize the care pathway and enhance patient outcomes