



Digital Age Communications for a smarter Operations Control Centre

Alcatel-Lucent Enterprise delivers flexible, secure and resilient [Digital Age Communications](#) to Operations Control Centres in smart cities, public safety, energy and utilities, and transportation sectors.

The Operations Control Centre (OCC) is the brain that manages the day-to-day monitoring, directing and coordinating of operational activities to ensure quality of services. It includes remote maintenance support as well as identifying and responding to unexpected situations that demand specific, immediate and efficient attention, coordination and action.

These actions are required to avoid unacceptable delays and recover from operational interruptions, in order to minimise any negative impacts to customer service, cost and security.

A smart Operations Control Centre relies on connectivity, digitalisation, and real-time communications and collaboration. Tackling the main OCC challenges requires three key areas of consideration, including:

- Providing an efficient digital workplace for OCC agents in the field or in the back office, to facilitate their day-to-day work, from anywhere, with any device or application, using any media
- Enabling end-to-end personnel and asset protection
- Creating innovative and efficient services by connecting everything; people, objects and applications, to pave the way to the next generation OCC



The main functions of the OCC:

- Monitor operations
- Anticipate problems
- Manage the operations schedule
- Minimise service disruption

The main challenges of the OCC:

- Coordination and collaboration
- Situational awareness
- Integration and interoperability
- Agility and reactivity
- Alarm fatigue and stress

Alcatel-Lucent Enterprise is here to help

ALE is a recognised OCC partner **for secure network and real-time communications and collaboration.** Our success is the result of the reliability, security, wide-ranging features and openness of our systems, essential for a smarter OCC.

We provide OCCs with a mission-critical IT network infrastructure to easily onboard Internet of Things (IoTs) and support new video usages such as CCTV and high-definition IP cameras used in video surveillance.

How adapted communications solutions accelerate the decision-making process by enabling contextual information exchange and collaboration.

An efficient digital workplace

Communications services are the cornerstone of an efficient OCC. These vital services enable the collaborative coordination of various stakeholders in the OCC. They improve information awareness which accelerates responsiveness. And they reduce recovery time and minimise impact on end users during irregular operations.

ALE is helping OCC employees work from anywhere, in a digital workplace, where efficient communications, collaboration and support solutions are available anytime, from any device, in any context required.

Enable communications at the desktop or on the go

ALE offers a broad communications portfolio including telephony services based on [Alcatel-Lucent OmniPCX® Enterprise Purple](#), DeskPhones and DECT handsets or softphones, adapted to the user profile.

Integrate communications and collaboration within business processes and applications

The [Alcatel-Lucent OmniPCX® Open Gateway](#) provides APIs to access OmniPCX Enterprise Purple capabilities such as call control, management and analytics.

The [Rainbow™ by Alcatel-Lucent Enterprise Communication Platform as a Service \(CPaaS\)](#) provides chat, file sharing, voice and video, on any device, as well it leverages chatbots, automatic translation, natural language processing and emotion analysis.

Set up automatic welcome or contact centres

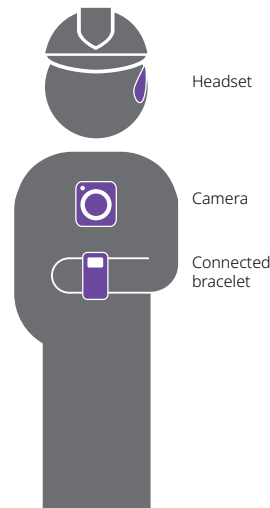
ALE offers a portfolio of welcome and routing services, including a [dispatch console](#) particularly suited to control centres, and [voice recording](#) to keep track of all voice and online interactions between operators and consumers.



When field agents require expert support: Remote Visual Assistance

To coordinate operational tasks such as maintenance interventions, ALE has developed the Remote Visual Assistance solution using Rainbow CPaaS. The solution enables the OCC expert to see what the technician is seeing. This solution helps leverage the experts' knowledge and improve guidance for efficient and secure operation, ultimately optimising the time-to-resolution.

Use case: A field worker needs confirmation from an expert on how to proceed for a particular issue in a rail-side cabinet. The worker easily initiates a video call to the OCC using a smartphone, by pressing the button of their connected bracelet twice. Handsfree mode made available using a headset, a harness for the smartphone and connected bracelet allows the field technician to perform the on-site intervention while being remotely guided by the OCC expert.



Our vision

The connection to virtual reality and Artificial Intelligence (AI) can help train the agent before the intervention. And Rainbow can connect Augmented Reality glasses for even better agent support.

Solution sheet

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Enabling end-to-end personnel and asset protection in public buildings and across the city

In any crisis situation there can be many different types of alerts, notifications or triggers. These may include someone dialling an emergency number or calling from an emergency call point; an IoT alert for fire detection; a system emitting a notification because of a risk of cyberattack; the need for preventive maintenance; or an asset tracking alert that an object is going beyond permitted borders. Whatever the reason, you need to enable your teams to identify the right actions to notify people, make decisions and direct or monitor the activities with adapted solutions.

Emergency crisis management

The [Visual Notification Assistant](#) will route an emergency call to a security office or the nearest Public Safety Access Point, and with its “no-code” interface, you can also create notification scenarios to mass notify people by email, SMS, or chat, using Rainbow, to broadcast messages on Alcatel-Lucent Enterprise and third-party phones, as well as integrate and interconnect with the different functional blocks (such as radio, PA, PDI) through standard protocols and APIs.

Contextual awareness

The video surveillance camera flow (CCTV) can be synchronised with the emergency call from a SIP emergency end-point and even be integrated within a Rainbow conference bubble.

Secure alarm processes

When edge services such as an [alarm notification service](#) or the [IoT Hub](#) detect triggers from an IoT, preconfigured scenarios are run locally on the server to call first responders or organise crisis conference call. If needed, they can be escalated to the cloud, where Rainbow Workflow will run additional scenarios, making it possible to connect to AI or to a database, for example, to help with decision-making, or take and coordinate immediate action, with the ability to share the context among stakeholders.

Improve call processing dispatcher efficiency in high pressure control centers: [Dispatch Console](#)

This human intelligence solution enables call prioritisation and processing to accelerate emergency, security and safety management.

- Visual and intuitive interface for operators to route calls, manage queue(s) and set up a conference
- High volume of call management: Presentation and dispatch, by the operator, with priority rules
- Web interface accessible from the desktop PC, touchscreen workstation
- APIs for integration within a third-party control centre application (such as SCADA supervision platform)

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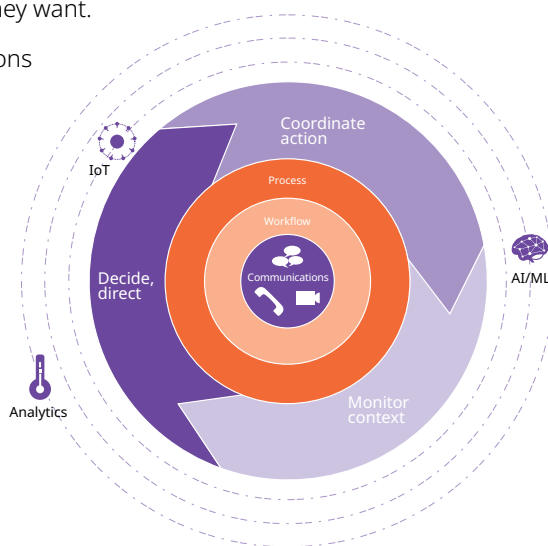
Create innovative and efficient services with analytics, AI and Machine Learning (ML)

With digitalisation and the expansion of IoT and AI, and technology and applications evolving rapidly, first responders, agents, and stakeholders expect simplified, assisted day-to-day operations. As well, citizens and consumers expect easy interaction with operational teams the way they want, where they want and when they want.

To enable simplified, efficient operations, a complex ecosystem of solutions must be integrated. APIs provide the key elements for enabling interconnection between subsystems.

ALE provides the technology building blocks to connect Operations Control Centres with their ecosystem. Our solutions connect everything to enhance and accelerate the decision-making process for OCC staff:

- Connect everything such as IoT sensors to get accurate information or alerts
- Connect everything such as AI to analyse the situation and make informed decisions
- Connect everything such as business applications to simplify the global process



Here are few examples of what ALE can do for you:

- Provide communications, integrate chatbots or automatic translation into a Web portal or mobile application to enable citizens to report an issue with audio, video, photo or video file transfer
- Add audio, video and chat to business applications to ease coordination and problem resolution follow-up
- Securely connect applications with a variety of IoTs, AI and ML technology for problem anticipation, identification, and to recommend actions for example, informing citizens about potential risk such as pollution, an industrial event or extreme weather conditions
- Automate action and process workflows to ensure problems are solved independent of personnel availability and the status of actions, processes or objects