

Into the cloud... based on a true story

# Digitally transforming through the cloud, to deliver on-demand communication solutions





**100 years**  
in business



**3,000**  
employees



**40 million**  
users with landlines

## Executive summary

Alcatel-Lucent Enterprise (ALE) is a spin-off company of the former Alcatel-Lucent group. In 2014, the company subsidised the Alcatel-Lucent group to manage their digital transformation, become a major cloud telecom player, and offer its customers the ability to transition to online services. To do this, ALE used the cloud solutions from OVHcloud. Since then, the company has continued to work with an extensive network of distributors and business partners (such as Orange Business Services, Telefonica and Dimension Data) across the globe. It targets both small and very large companies, providing them with communication services and ways of networking. ALE also helps its distributors and partners make the same digital shift. In its hundredth year, ALE now has 3,000 employees. Every day, they work to help their 900,000 loyal customers around the world, whose telecoms fleet represents more than 40 million landlines.

# The challenge

## Connecting people, machines and processes

The goal of ALE is to give its 40 million users optimal flexibility, by offering modern multimedia communication services without geographical limits, and connecting them to people both inside and outside the company. In line with the group's motto, "Where Everything Connects", the Rainbow solution connects people, services and devices in the most transparent way possible.

*"We wanted Rainbow to be the place where everything is connected, so that businesses can save time — the only thing we can't afford to lose!"*

**Benjamin Zores, Director of Cloud Infrastructure and Operations**

To develop this comprehensive communication solution, ALE needed to build a bridge between all brands of existing SIP PBX systems (including competitor brands), the legacy PSTN (Public Switched Telephone Network), mobile phones, and any connected, compatible WebRTC (Web Real-Time Communication) devices.

The open platform would need to offer its users management and support through a comprehensive set of APIs and SDKs (Software Development Kits), so that customers could use the solution to its full potential and create their own value-added services. It would also need to provide systems equipped with artificial intelligence engines to meet a wide range of professional needs, and also give users the ability to create their own systems.

Finally, Rainbow would need to offer a service that guarantees security, confidentiality, integrity and availability for both user and company data worldwide, in a way that is fully compliant with all local regulations.



# The solution

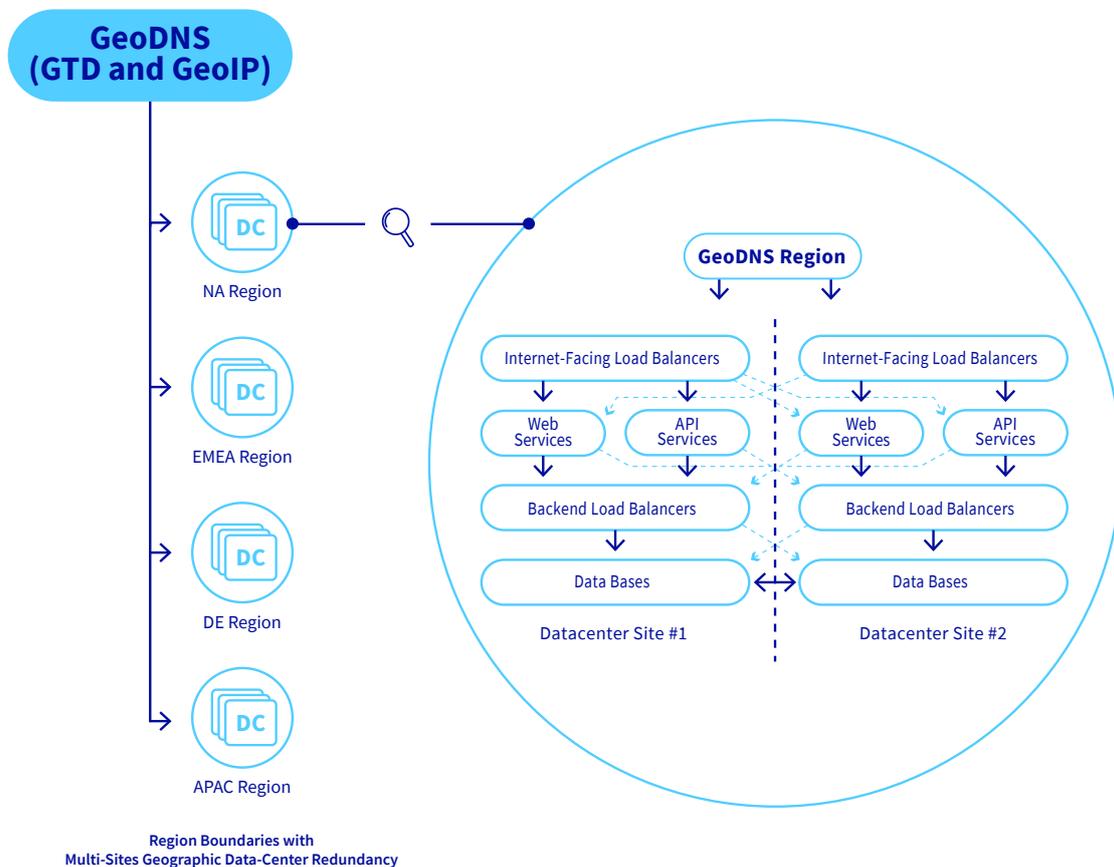
## A hyper-scalable hybrid cloud, with a global presence and optimal security

At to provide a scalable communication platform, ALE has opted for a hybrid cloud computing approach. It can be used as both UCaaS (Unified Communications as a Service) and CPaaS (Communications Platform as a Service), so that third parties can build and resell their own applications through Rainbow.

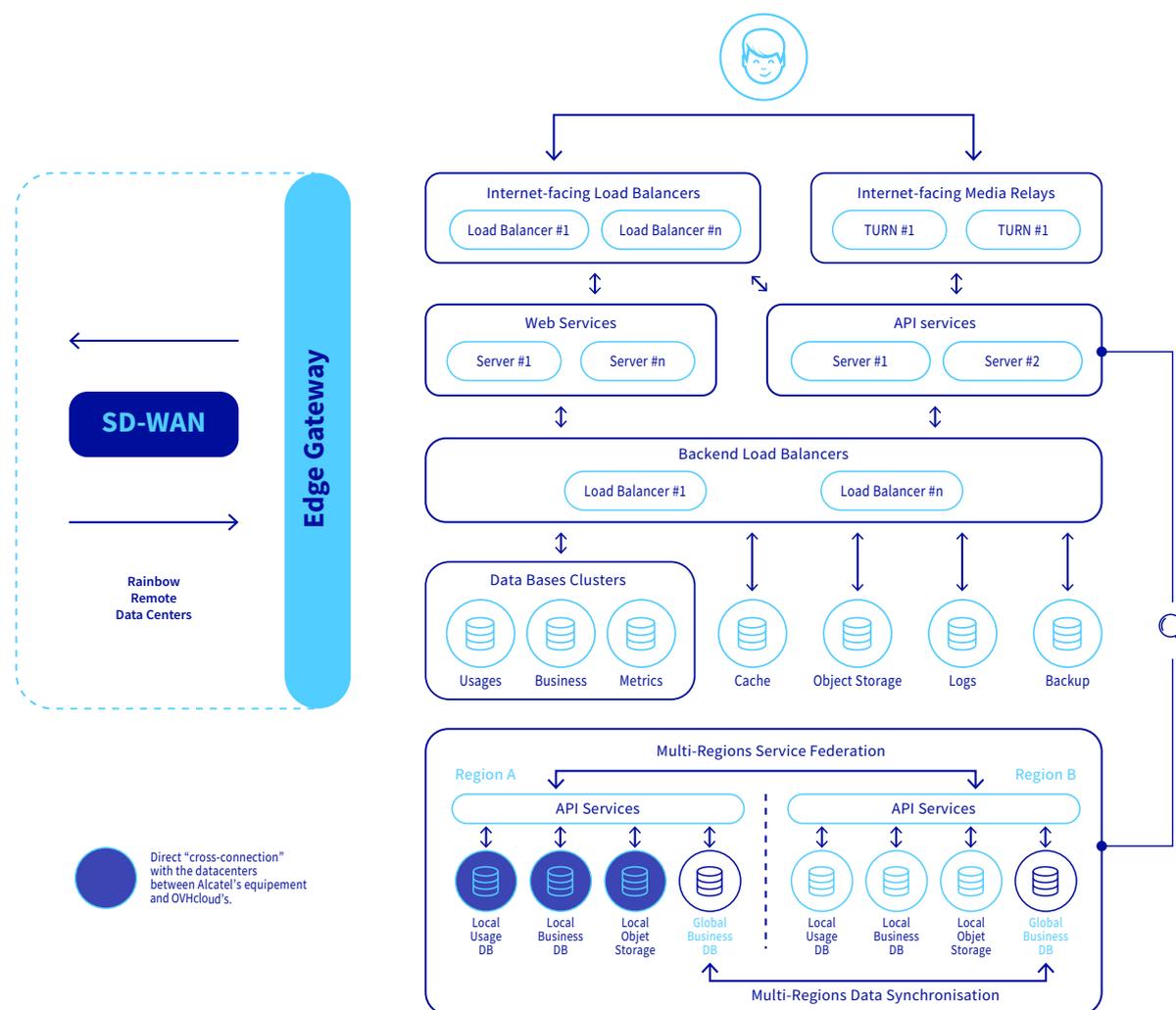
Today, the company utilises the full range of OVHcloud solutions, ranging from bare-metal servers to virtual machines. Rainbow uses almost all of OVHcloud's datacentres, so that it can deliver high availability, resiliency and data protection to a global customer base.

This solution is powered by more than 200 dedicated servers (from the Infrastructure and Premium HG ranges), and virtual servers (from the Hosted Private Cloud range) in our Roubaix, Gravelines, Strasbourg (France), Frankfurt (Germany), London (UK), Beauharnois (Canada), Sydney (Australia) and Singapore datacentres. All of the servers are connected to one another via the vRack private network. Rainbow also benefits from OVHcloud's HDS approvals and infrastructures, which allow its healthcare customers to host their confidential data.

Advanced GeoDNS usage mechanisms optimise performance by redirecting users to the OVHcloud servers closest to them. From an application point of view, each geographical region benefits from the entire OVHcloud datacentre network, and provides full redundancy and load balancing to overcome any possible issues.



Rainbow's internal architecture is directly connected to OVHcloud's infrastructure through OVHcloud Connect. This guarantees independence for each geographical region (see diagram above) in terms of data storage and service processing. As a result, European customers can rest assured that their data will remain in Europe. Communication and connection between different regions is also ensured through the secure, high-performance internal links provided by the vRack.



### Solutions chosen for international development:

- Public Cloud Object Storage
- Dedicated servers (Infrastructure, Premium HG and Storage ranges)
- Hosted Private Cloud
- HA-NAS
- vRack

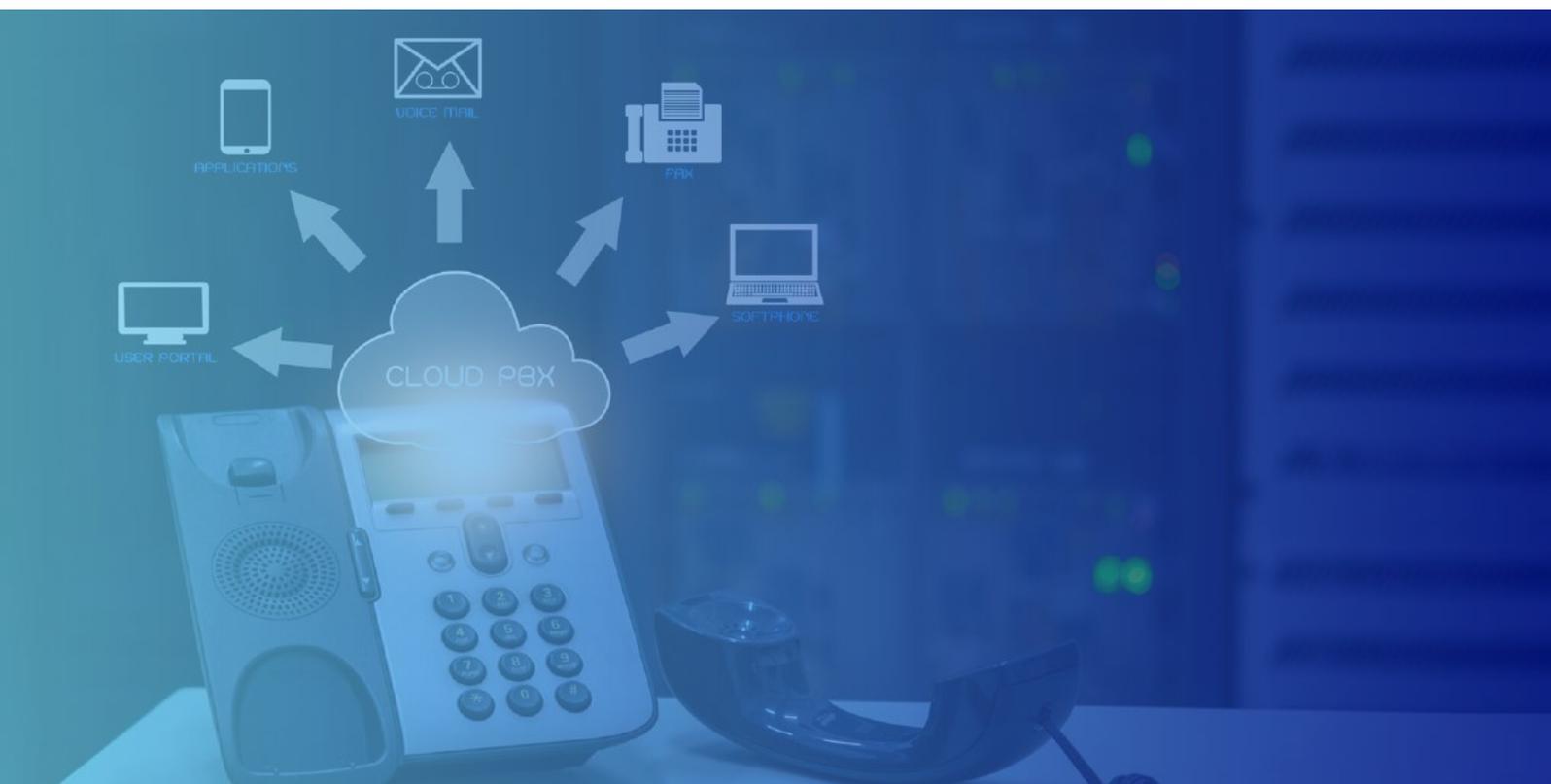
Rainbow's infrastructure maximises the use of OVHcloud dedicated servers whenever heavy processing (for CPU, RAM, network or disk I/O) is required. It also benefits from OVHcloud's SDDC cluster for less resource-intensive applications, temporary requirements, or when a customer needs to extend the infrastructure quickly, with additional processing nodes.

The infrastructure has been designed for maximum availability — it is free of SPoFs (single points of failure), horizontally scalable, and deployed consistently across each region. This level of availability is only possible because all of its components are connected to one other through the vRack.

And with the certifications offered by the OVHcloud Hosted Private Cloud, Rainbow also offers a datacentre dedicated to hosting sensitive healthcare data. It is partitioned by connecting dedicated HDS infrastructures, with security principles for isolating data that are similar to those used for partitioning geographical regions.

*"You can't offer the best service if it's not supported by the right cloud infrastructure. This is where OVHcloud comes in. We manage confidentiality for user data, and we also take care of user experience. OVHcloud is Europe's leading cloud services provider, and one of the largest cloud providers founded outside of the US."*

**Benjamin Zores, Director of Cloud Infrastructure and Operations**



## The result

The Rainbow solution was released in July 2017, and is powered by a high-performance, global infrastructure. As a result, it can effortlessly manage its costs and guarantee reliability for its services.

In 2018, the Rainbow solution delivered the following results:

- more than 1 million users
- more than 1,000 third-party companies registered on the Rainbow hub and building their own services
- 140 billion messages processed annually
- 200 million API calls on average per month
- 60 million cumulative minutes (116 years) of audio/video communications
- a maximum global response time of 200ms for API calls
- 99.5% guaranteed availability for applications

Since Rainbow was released, its potential uses have become increasingly broad.

A major Asian hotel chain uses it to remove the need for physical phones, and deploy a mobile application. This way, it manages the customer journey before, during and after their stay, with the goal of saving time and boosting efficiency.

An Indonesian company, which provides a mobile payment and money transfer application, was able to implement Rainbow-based real-time communication services on this software. This service allows users to chat via audio, video or instant messages while they carry out operations together.

In Europe, an online banking company also uses it as a tool for sharing documents and communications (audio and video) between its customers and advisors.

*"ALE knows that it can rely on the responsiveness and expertise of OVHcloud's technical account managers if it needs support with its infrastructure. This is largely due to the fact that, unlike other industry players, OVHcloud has full control over its value chain — from datacentre design to server delivery."*

**Benjamin Zores, Director of Cloud Infrastructure and Operations**

We can expect further collaboration between OVHcloud and ALE in the near future, especially since there are rumours of new projects on the verge of being launched.

OVHcloud is a global player and the leading European cloud provider operating 400,000 servers within its own 31 data centres across 4 continents. For 20 years, the Group has been leveraging an integrated model that provides full control of our value chain, from designing our servers to managing our data centres through to orchestrating our fibre-optic network. This unique approach enables OVHcloud to cover, independently, the full spectrum of use cases for our 1.6 million customers across 140 countries. OVHcloud now offers customers latest-generation solutions that combine high performance, predictable pricing and full data sovereignty to support their unfettered growth.