

Into the cloud... Based on a true story

# Microbit offers managed private cloud services from a scalable, secure and highly- available infrastructure





**18 million**  
visits per month



**27TB**  
of monthly traffic generated



**21**  
dedicated servers

## The background

In the era of digital transformation, many mid-to-large sized companies are migrating to the cloud in order to avoid losing their competitive streak. Many have already adopted this new paradigm, which helps to reduce costs and improve the efficiency of IT systems.

To meet this growing need, Luis Daniel Beltrán founded Microbit in 1994, a 100% Mexico-based company offering hosting solutions and infrastructures. At a time when few providers offered this type of service in the country, Microbit's founders realised that the sector represented an opportunity to help individuals and businesses solve their internet infrastructure problems. Since then, and for nearly 25 years now, the company's range of services has evolved and broadened with new solutions as they have appeared on the market. These services offer solutions that are best adapted to its customers' needs.

Today, Microbit offers private cloud solutions in highly-available environments, which complement its IT security and management services to make cloud migration as smooth as possible. The company also offers other products, such as dedicated servers and virtual private servers (VPS).

# The challenge

To design its private cloud environment, Microbit was looking for a scalable, secure and highly-available platform. Their platform receives around 18 million visits per month and responds to 370 million requests, using a total bandwidth of 27TB.

To guarantee high availability for their infrastructure, the physical servers that make up the platform needed to have a redundant electrical system. Their storage required good connectivity to guarantee security for the data hosted on it. Furthermore, the company needed the flexibility to scale its infrastructure easily, so it could suit its customers' needs.

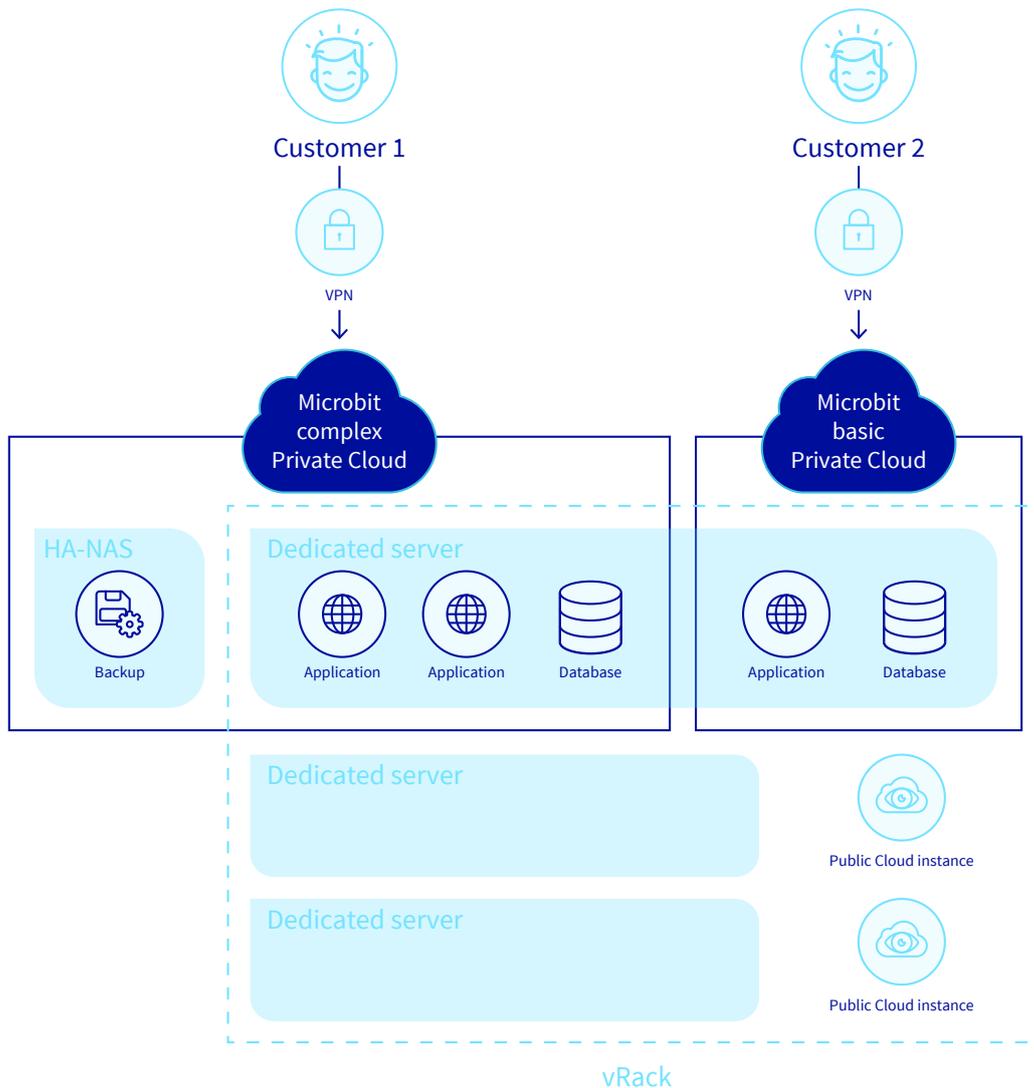
Since Microbit wanted to deploy a virtualisation architecture, it needed high-performance hardware and full control over its resources.



# The solution

To meet these needs, Microbit looked at OVHcloud's wide range of solutions and competitive prices. In 2010, the company decided to migrate almost all of its IT infrastructure to OVHcloud — starting with dedicated servers — and gradually integrating other solutions.

Currently, its platform is made up of 21 dedicated servers, a centralised storage space (HA-NAS), and a variable number of virtual private servers and Public Cloud instances. All of these resources are connected via the vRack, OVHcloud's private network.



*"Our private cloud is built on three or more servers, grouped in a cluster on Proxmox (KVM). It offers high-availability shared storage and multiple virtual machines connected via the vRack, which delivers outstanding flexibility and reliability."*

**Joaquín González, COO of Microbit**

Unlike the public network, the vRack can be used with multicast, which is essential for orchestrating extended clusters in most virtualisation environments.

The selected dedicated servers host a total of 82 virtual machines. This means they are able to handle traffic spikes, ensure optimal security, and they are also compatible with the vRack. "We use the vRack to isolate the traffic from hosts to HA-NAS from that of each virtual machine," explains Joaquín González. This way, the private network offers the optimal connectivity and security required for creating highly-available infrastructures.

The Public Cloud instances and VPS solutions complement the dedicated servers, giving Microbit the flexibility its infrastructure requires. Instances are remarkably flexible as they can be deployed very quickly, and are billed on a pay-as-you-go basis — so once they are no longer needed, they can simply be deleted.

HA-NAS enables Microbit to store up to 13.2TB of data on dedicated SAS disks configured in RAID, offering optimal security and availability with high read-write performance.

# The result

According to González, their current infrastructure provides them with the highest level of availability to handle any kind of hardware outage, because of OVHcloud's SLAs.

*"Ultimately, virtualising our customers' infrastructure means we can offer flexibility and reliability like never before."*

**Joaquín González, COO of Microbit**

All Microbit services built on OVHcloud solutions meet the very strictest security standards. The platform complies with the European data protection legislation (GDPR) as well as several data security standards, including ISO 27001. It also includes anti-DDoS protection.

With all this in mind, Microbit can focus on one thing: offering its customers the custom support and proximity they are looking for.

OVHcloud is a global, hyper-scale cloud provider that offers businesses industry-leading performance and value. Founded in 1999, the group manages and maintains 32 datacentres across four continents, deploys their own fibre-optic global network and controls the entire hosting chain. Relying on their own infrastructures, OVHcloud offers simple and powerful solutions and tools that put technology at the service of business, and revolutionise the way that our more than one million customers around the world work. Respect for individuals, freedom and equal opportunities for access to new technology have always been firmly rooted principles of the company. "Innovation for freedom".