

Into the cloud... Based on a true story

**Managing
website
availability
while ensuring
continuous big
data processing,
with a stable and
flexible
infrastructure**





600
requests per second



2 million
data requests processed
per day



70 million
visitors per month

The background

Talent is a Canadian company founded by three people in 2011. It now aggregates job vacancies across the globe. Formerly known as Neuvoo, the company opted to acquire the Talent.com domain name in late 2019, for optimal international visibility.

Talent.com now includes job ads from more than 40,000 companies, and offers tax and salary calculators. With more than 70 million website visits every month, Talent ranks third in the market for job aggregators. It also enables users to assess the average salary of the market they are operating in, as well as the corresponding tax level. Talent users create a profile to receive alerts for job ads that may interest them. With the data collected, searches and reminders can match user requests. Job seekers will then know how to position themselves in the job market. With around 1.410 billion emails and more than 7.2 million SMS messages to send per month, they require optimised management for their IT infrastructure availability.



The challenge

To become a global leader, Talent must ensure that all offers available on the market are listed, whether they come from company career sections, recruitment agencies, or job offer sites. To ensure that this information is up-to-date, effective and relevant, it must come from multiple sources. More than 40,000 companies currently do business with Talent. Its competitive model and availability management enables companies to benefit from the website's international reach, while ensuring the best possible ROI.

To use Elasticsearch along with the front-end and back-end servers, a lot of interaction is required between the servers and the software. Before migrating to OVHcloud, this communication was a real issue for the group. Each server was individually managed without a firewall, which left a potential security vulnerability in the data they stored.

Elasticsearch is an advanced search engine for indexing, analysing and storing data through an intelligent library. In this specific context, it provides users with a search filter to sort job adverts according to specific criteria by keywords, geographical areas, contract types, and more.

The tools that Talent has implemented to meet its users' needs require big data solutions, and an infrastructure that can support this processing. Complementary tools, such as its tax rate and salary calculators, require reliable, available and continuously updated data analysis and processing.

Similarly, since these resources are continually provisioned and processed on an international scale, they need a stable, scalable and redundant infrastructure that can handle a constant load of incoming and outgoing data. For example, the automation of email and SMS alerts sent to users based on their preferences — combined with 24-hour website searches — puts high demands on Talent's infrastructure and constant resource requirements.

Furthermore, the company's global reach not only generates continuous traffic on its website, which requires consistent availability management — it also faces a need for increased visibility. With a worldwide presence, Talent.com must be visible and available to all its customers at all times while ensuring IP address management, so that the appropriate geolocated content is delivered to its web users.

Talent is constantly growing, so the need for performance scales up as it expands. In 2011, the group was using Kimsufi environments. After gradually upgrading to So you Start solutions, in March 2020 it migrated its entire infrastructure to OVHcloud servers and solutions. Talent needed a private, secure network to connect to — and this network would simplify communication, deployment and management for its 200 servers. The company also needed more responsive support, as well as adapted technical advice from support teams. OVHcloud solutions and Business support can meet these needs while ensuring optimal security, scalability and autonomy for the group.

The solution

With OVHcloud, Talent was able to create a simple, efficient infrastructure that allows them to add and deploy virtual servers quickly using APIs, and manage availability. Their power and performance requirements were high, and they also needed to improve security for data storage and backups. This meant that a reliable, secure and flexible infrastructure was a must.

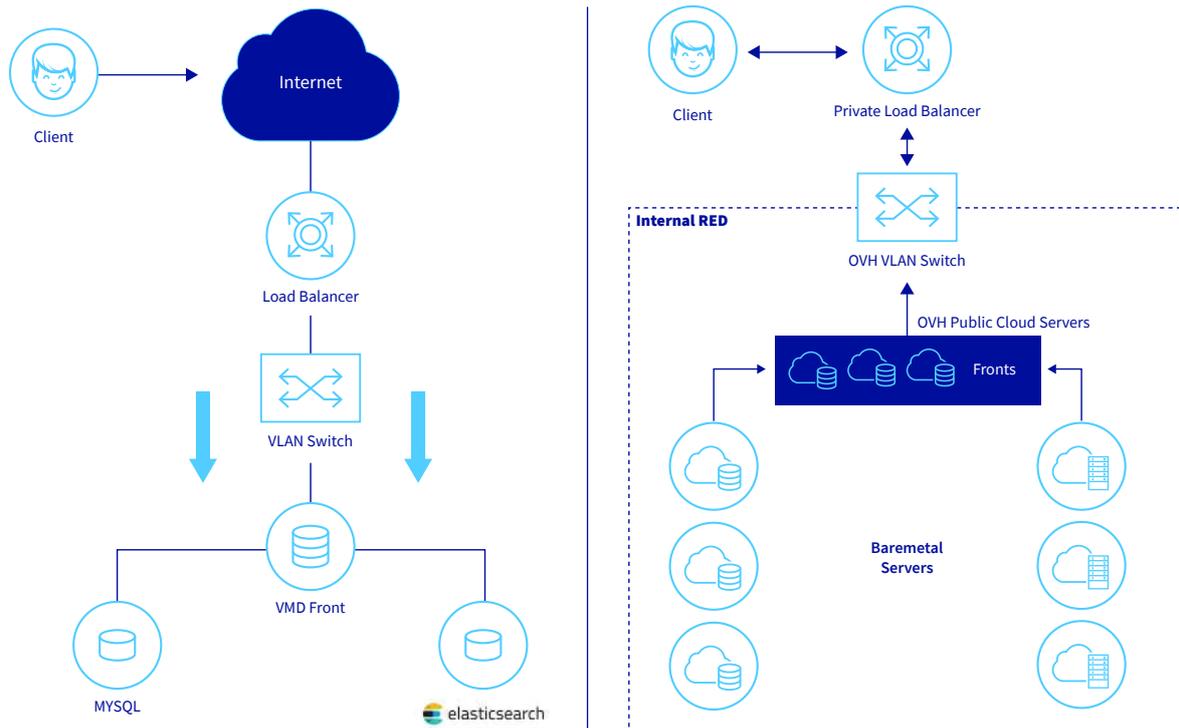
To meet this need, Talent decided to use OVHcloud's vRack private network via VLAN connections, creating image servers and templates to deploy with Public Cloud instances and their dedicated servers. The ADV-4 dedicated servers were chosen because of their high RAM capacity, which is perfect for Elasticsearch implementation when coupled with software use.

“OVHcloud has a market of its own. While most hosting providers are all moving to cloud creation, OVHcloud continues to offer reliable, flexible and affordable dedicated server solutions. The freedom to choose, manage and develop our own infrastructure is vital to our company, and the ability to communicate with support at all levels is invaluable to us.”

Daniel Acevedo, Director of Infrastructure, Talent

This design means that that several processes can run simultaneously without compromising the RAM dedicated to Elasticsearch. Public Cloud solutions b2-30 can be used to meet the needs required for managing variations in traffic and activity loads. Talent also uses APIs to manage and reboot servers, so that they can be deployed easily and efficiently through automated procedures.

Users then securely log in to Talent.com via HTTPS with SSL certification. This will direct them to the Load Balancer, which in turn delivers a secure, quick search. The Load Balancer distributes the search correctly according to the requested load, so that the request is as quick and accurate as possible, using the most appropriate resources. By connecting to OVHcloud's vRack private network, they can then send this request on a secure infrastructure. The front-end server sends a request via Elasticsearch to the Talent databases, to distribute all the information required based on the initial user search.



The vRack is protected by firewalls, to ensure integrity for user data when customers log in to the website. Servers can also be restored via APIs, which maintain the data that is vital for the website to work properly on both company and user sides. The ability to replicate databases is essential, so that historical data can be accessed and cloned in the event of a server failure or interruption. This maintains data integrity, and keeps it secure so that it can be constantly updated.

“Our IT team is now able to manage a highly secure environment from one centralised place. It’s very easy for us to respond to demand, and adjust our infrastructure as required.”

Sotirios Tavoulas, Senior SysAdmin, Talent

The result

By migrating to OVHcloud solutions, Talent has improved its infrastructure's security, performance and availability.

The network and servers deliver resources that are entirely dedicated to their project. With all servers connected to the OVHcloud private network, the response time was halved. Similarly, the time it takes to transfer data has drastically decreased, and the use of Elasticsearch has been simplified. While the transfer of hundreds of gigabits of data took between 30 and 60 minutes, Talent can now extract information from its databases in less than 30 minutes, half as much time as before. With Public Cloud instances, deploying and backing up company, user and customer data has become an easy task. This means the group can focus on developing and expanding their projects instead of managing their infrastructure's availability.

Furthermore, even though infrastructure management has been simplified using Public Cloud instances, the cost has been halved. This is a significant figure for a rapidly growing international company that collects job adverts from more than 40,000 companies, and receives more than 70 million website visits per month.

With this infrastructure design, Talent can provide a reliable, secure and quick service to its users, while continuing to adapt and automate its infrastructure and databases. With the vRack, they are guaranteed a network that can support continuous loads on their servers, and their need for scalability is met with Public Cloud instances.

In total, the website receives 600 requests per second, and processes more than 2 million big data requests every day.

“As we grow, OVHcloud supports us with the variety of servers it offers. OVHcloud solutions are efficient, affordable, and provide us with the security we need. With their services, we now have the scalable infrastructure we needed.”

Freddy Cabrera, Head of DevOps, Talent

OVHcloud is a global, hyper-scale cloud provider that offers businesses industry-leading performance and value. Founded in 1999, the group manages and maintains 30 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”.