Products and Services Service Definition Catalogue

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1.0 OVHcloud Introduction – The world needs different!

OVHCloud has an aim is to provide an open cloud that is reversible and interoperable. This belief empowers our 1.6M customers across 140 countries, as we continue to build on our global footprint of 42 datacentres with the latest generation of private, public and platform services.

Our 100Tbps fibre-optic global network across 44 points of presence with real-time monitoring, **inclusive of DDoS mitigation, is optimised for stability, redundancy and availability**; keeping your organisation services operating efficiently and safely.

A sustainable cloud by design

We have developed an **integrated, green and sustainable business model** utilising cutting edge technology to assemble our **water-cooled servers** that are housed in our purpose-built datacentres. This enables us to offer the best market price when comparing like for like performance, plus our transparent and reduced cost points means predictable costs that won't surprise, easing Financial Operations.

- We produce our own servers and completely disassemble them so that they experience up to 3 lifecycles.
- Thanks to 20 years of innovation, we use 7 times less water to cool our servers than our competitors.
- Our power usage effectiveness (PUE) is 1.28 compared to the market average of 1.57
- 25 of our 42 datacentres are installed in redeveloped buildings
- 100% low-carbon energy by 2025
- 0% landfill by 2025

OVHcloud's core belief is to be a Trusted Cloud partner for our customers

According to IDC, over the next four years, 50% of European organizations will spend 8% of their ICT budget to comply with digital sovereignty principles. Regulatory compliance concerns are part of organizations' top 3 biggest 'security, compliance, or trust' challenges when it comes to cloud. Also Gartner have said that it will be amongst the top 5 strategic issue for senior IT leaders in the next 5 years.

At OVHcloud, your data's security and sovereignty stand at the forefront of our services. Sovereign cloud, a key component of our offerings, guarantees that your data remains untouched and strictly under your control, aligning with our core commitment to being a dedicated cloud specialist. By choosing OVHcloud, you benefit not just from industry-leading cloud solutions but also from a robust framework designed to protect your industrial sovereignty. With our trusted cloud offerings, we empower you to maintain full autonomy over your valuable data, ensuring peace of mind and reinforcing your business's data resiliency. OVHcloud is heavily involved in the efforts led by European public authorities and professional associations defending digital sovereignty in Europe. OVHcloud is a founding member of the CISPE (Cloud Infrastructure Services Providers in Europe) associations plus the GAIA-X project, and actively contributes to these European initiatives. Their purpose is to guarantee the security, interoperability, transparency and trust required for fair data use. In 2020, OVHcloud launched the Open Trusted Cloud program, with the aim of co-creating an ecosystem of SaaS and PaaS solutions in an open, reversible and reliable cloud, with all the digital

players involved. These initiatives aim to leverage the potential of our European ecosystems, and inspire ethical leadership.

The OVHcloud approach **puts you in the driving seat by giving you full digital sovereignty.**

- We never sell, use data analytics or transfer your data
- You choose where to store your data and the jurisdiction, we protect it with our global network and formidable security
- We have the highest standards for protecting your services from DDoS attack, indeed we thwarted the second largest DDoS attach in history.

Best value for performance on the market

- We believe in a fair price to make the cloud accessible to all
- **That means no hidden fees**: providing you with pricing that is predictable and transparent
- **No lock-in** because we embrace no (or low cost) outgoing traffic charges

We build our own datacentres and servers, and orchestrate our own fibre optic network, which enables us to control our costs and offer you the keenest prices in the market across our entire portfolio:

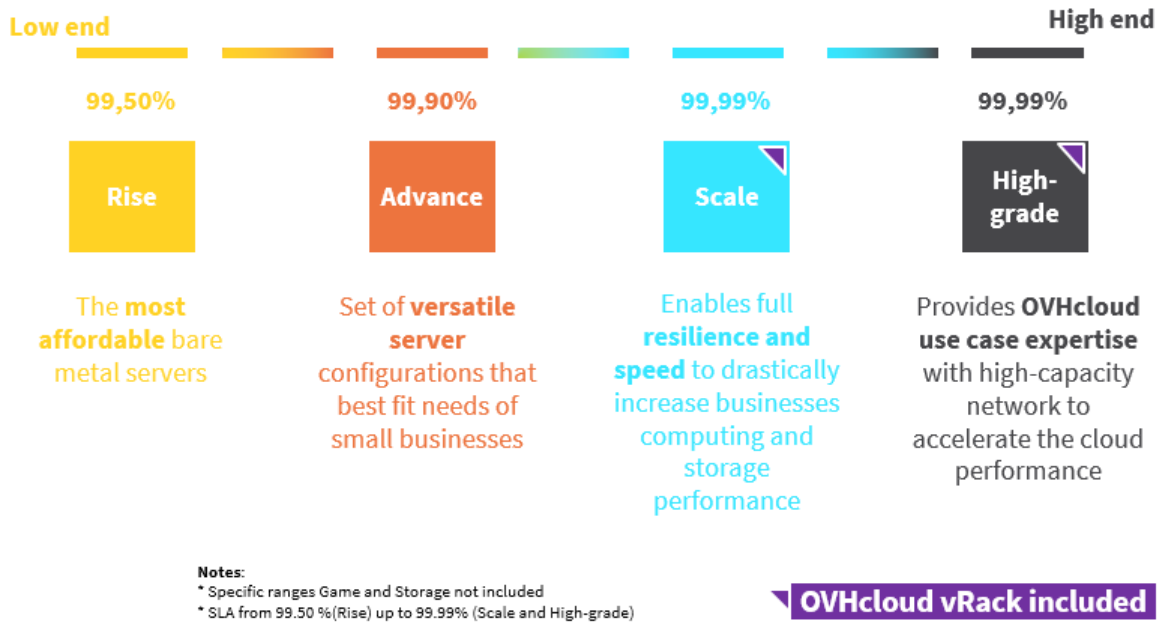
Dedicated Servers
Storage Solutions
AI & Machine Learning
Enterprise Cloud Data Base
Hosted Private cloud
Veeam Backup

Public Cloud
Containers and orchestration
Data Analytics
Logs Data Platform
Public & Private Connectivity
Zerto Disaster Recovery

2.0 Baremetal Servers

Following OVHcloud services are included in this section.

- Rise
- Advance
- Scale
- High Grade



2.1 Overview

A dedicated server, or computing server, is a machine that allocates all of its hardware resources to the user. Unlike a virtual server, which allocates a portion of the resources to virtualisation technology, a dedicated server offers you all of its RAM, storage, and compute power. This technology can be applied to cloud computing, while dedicated servers are referred to as 'bare-metal'. This type of solution emphasises the physical availability of the server's hardware resources, in contrast to services based on virtual instances. We work with Nvidia, AMD & Intel to design and offer solutions to meet the needs of your organisaton.

2.2 Benefits

Performance: With a dedicated server, you can rest assured that all resources are allocated to you to offer you the best performance. Our servers are designed, assembled and maintained by our teams, to offer you optimised configurations for your usage.
Availability: Deploy your servers quickly and efficiently in OVHcloud owned and operated datacentres. Benefit also from a highly resilient secure network (Public & Private), to ensure continuity of service with your customers. Our servers are backed by SLA, from 99.9% to 99.99%.
Scalability: By creating an infrastructure made up of OVHcloud dedicated servers, you build a reliable platform for your business applications. The scalability of your infrastructure is taken even furtherwith the ability to connect your servers to other OVHcloud services, such as Hosted Private Cloud and Public Cloud services and Platforms.

Relevance: With an OVHcloud dedicated server, you get innovative and unique solutions on our entire infrastructure, such as water-cooling for energy efficiency and OVHcloud Link Aggregation (OLA) for high bandwidth consumption, developed by our experts. We are always anticipating your needs to come.
Transparency: We provide clear information on pricing, services and options. All our solutions come with included features by default, and at no extra cost, such as ingress and egress traffic, DDoS mitigation, and 500GB (scalable) of external storage space.
Compliance: Our bare-metal servers are ISO/IEC 27001, 27017, 27018, 27701 certified.
CSA Star, SOCII type 2 in all of our datacentres around the world. A choice of location, for the storage and processing of data, guarantees compliance with local laws.

2.3 Baremetal Server Types

Rise: Rise dedicated servers are OVHcloud's most affordable bare-metal configurations. They are based on powerful Intel and AMD platforms, which combine performance with competitive pricing. These machines are suited to a wide variety of uses for standalone servers, with a simple range of optimised configurations. Examples of usage include hosting of entry level websites, blogs, forums, hosting files / media and general business applications.

Advance: Advance dedicated servers are based on high-performance components, and offer high-speed connectivity with advanced network and security features. Develop your infrastructure to suit your needs by linking your dedicated servers to other cloud services using our high-bandwidth vRack private network. Examples of usage include hosting of websites with e-commmerce, business applications such as ERP / CRM and Virtualisation.

Scale: Implement your business strategy smoothly with rock-solid performance and reliability. Get unparalleled computing power and availability with our dedicated servers. Scale servers are designed to support resource-intensive production uses, while offering high service availability.The platforms in the range are available with different **AMD EPYC** and **Intel Xeon Gold** processors. They include dedicated system disks, as well as redundant high-speed connectivity for better performance.

High-Grade: The highest reliability, security, and performance requirements to get the most out of your data. High Grade dedicated servers are optimised to meet the new challenges of converged infrastructures and storage. These platforms are powered by **AMD EPYC** and **Intel Xeon Gold** processors, and integrate seamlessly into your architecture. You can use them to run industry-leading software and solutions. Designed by our experts in partnership with leading hardware manufacturers, High Grade dedicated servers meet the very highest standards to help you achieve your goals. With an availability rate (SLA) of **99.99%**, you get all the guarantees you need to host your private cloud or hybrid cloud infrastructure. Examples of usage include Big Data, AI / Machine Learning and Hadoop.

3.0 Public Cloud

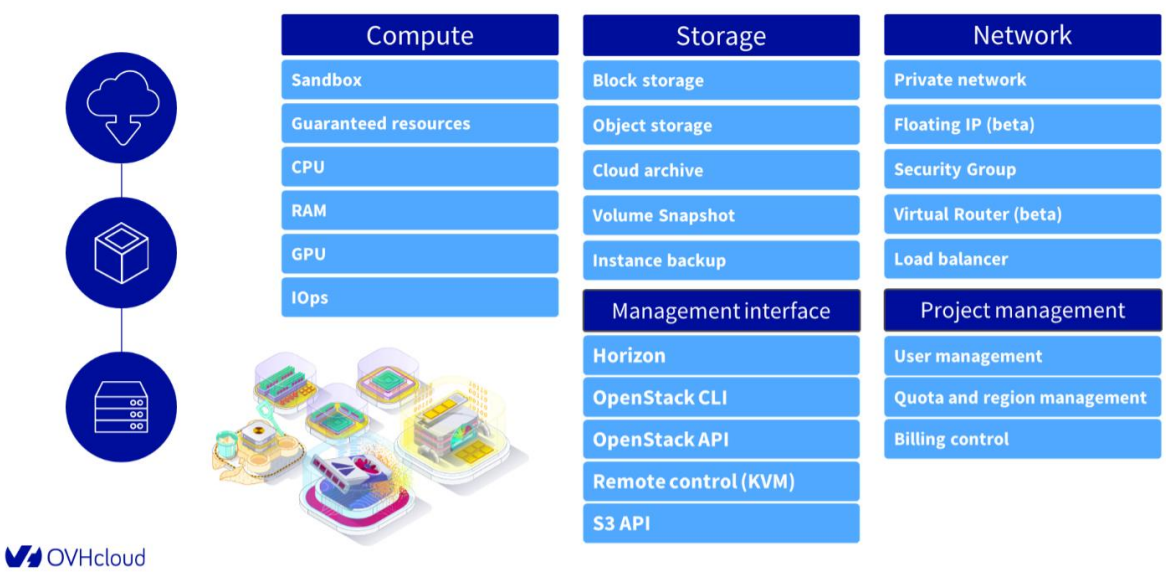
3.1 Overview

Build on OpenStack open-source software, the OVHcloud Public Cloud is distinguished by its features: performance, portability, and flexibility. You can access your cloud via an intuitive customer interface or API. We combine the best virtualisation technology with our hardware and network expertise to provide you with a cloud adapted to every user with guaranteed resources (CPU, RAM, and Bandwidth).

Public Cloud is the ideal solution to host your infrastructure, regardless of the typology of the environment: production, development, testing. It is highly scalable and reliable based on industry standards, offering an agile, innovative, and affordable platform that can match any of your needs.

Each customer is provided with a logically isolated compute and storage space called a tenant and deploy a fully-mutualised infrastructure network, compute clusters, storage clusters. In spite of that, resources for every instance are fully guaranteed. There is no over-commitment to the solution. Each vCPU ordered is a dedicated resource to your system.

Our cloud infrastructures and services are ISO/IEC 27001, 27017, 27018 and 27701 certified. These certifications ensure the presence of an information security management system (ISMS) for managing risks, vulnerabilities and implementing business continuity, as well as a privacy information management system (PIMS).



3.2 Public Cloud Instances

Public cloud instances, or virtual servers, combine the benefits of guaranteed resources and flexibility. We can provision your virtual servers with CPU, RAM, and storage. We never over-allocate resources, so you get flexibility and guaranteed resources 24 hours a day.

3.2.1 Features

Pay-as-you-go

Get commitment-free cloud resources with no surprises in your billing. No more pre-provisioning servers or storage, and no more dormant infrastructures: create and delete each item as you need. We only bill you for your actual usage.

Simple and transparent billing

Your resources and services are grouped into projects. This means you can segment your uses according to your business needs. A bill per project is generated at the end of the month, allowing for transparent and straightforward administration. You can also create a usage forecast and create alerts.

Standardized APIs

All Public Cloud services are accessible via standard cloud computing APIs - OpenStack for Infrastructure-as-a-Service (IaaS), Kubernetes for container orchestration, and so on - you can program your cloud resources through the tools that your teams already have experience of.

3.3 Instance Types

OVHcloud works on a large scale with the best hardware to offer infrastructures with the most competitive price/performance ratio. Each resource is adjusted and configured to provide maximum power to your Public Cloud instances. Our Public Cloud Solutions catalog includes different ranges and options that cover all your cloud needs. All our resources are available on-demand to offer you total flexibility.

General Purpose

General Purpose instances have balanced and guaranteed resources (CPU, memory, storage and network), providing your instances with high performance computing to efficiently manage the bulk of production workloads.

Example pre-configured flavours of public cloud instances.

Name	Memory	vCore	Storage	Public network	Private network
b3-8	8 GB	2	50 GB NVMe	500 Mbps	4 Gbps max.
b3-16	16 GB	4	100 GB NVMe	1 Gbps	4 Gbps max.
b3-32	32 GB	8	200 GB NVMe	2 Gbps	4 Gbps max.
b3-64	64 GB	16	400 GB NVMe	4 Gbps	4 Gbps max.
b3-128	128 GB	32	400 GB NVMe	8 Gbps	8 Gbps max.
b3-256	256 GB	64	400 GB NVMe	16 Gbps	16 Gbps max.

CPU Optimized

Run compute-intensive workloads, critical tasks, complex analyses, scientific simulations and data-intensive computing in record time.

Example pre-configured flavours of public cloud instances.

Name	Memory	vCore	Storage	Public network	Private network
c3-4	4 GB	2	50 GB NVMe	250 Mbps	4 Gbps max.
c3-8	8 GB	4	100 GB NVMe	500 Mbps	4 Gbps max.
c3-16	16 GB	8	200 GB NVMe	1 Gbps	4 Gbps max.
c3-32	32 GB	16	400 GB NVMe	2 Gbps	4 Gbps max.
c3-64	64 GB	32	400 GB NVMe	4 Gbps	4 Gbps max.
c3-128	128 GB	64	400 GB NVMe	8 Gbps	8 Gbps max.

Memory Optimized

Get high speed memory-intensive processing thanks to RAM Optimized instances, perfect for databases and memory-intensive applications, or RAM-intensive purposes

Example pre-configured flavours of public cloud instances.

Name	Memory	vCore	Storage	Public network	Private network
r3-16	16 GB	2	50 GB NVMe	500 Mbps	4 Gbps max.
r3-32	32 GB	4	100 GB NVMe	1 Gbps	4 Gbps max.
r3-64	64 GB	8	200 GB NVMe	2 Gbps	4 Gbps max.
r3-128	128 GB	16	400 GB NVMe	4 Gbps	4 Gbps max.
r3-256	256 GB	32	400 GB NVMe	8 Gbps	8 Gbps max.
r3-512	512 GB	64	400 GB NVMe	20 Gbps	20 Gbps max.

GPU Instances

Get our most powerful public cloud instances, up to 1,000 times faster than a CPU for parallel processing. These instances offer CPUs with a frequency equal to or higher than 2.2GHz. Powered by NVIDIA GPUs which are among the most powerful on the market and designed for use in datacentres. They accelerate computing in the fields of artificial intelligence (AI) and graphic computing or any mathematical heavy compute requirement.

Tesla cards are delivered directly to the instance via PCI Passthrough, without a virtualization layer, so that all of their power is dedicated to your use. Up to four cards can be connected to combine their performance. As a result, the hardware delivers all of its computing power to your application.

Example pre-configured flavours of public cloud instances.

Name	Memory	vCore	GPU	Storage	Public network
h100-380	380 GB	30	H100 80 GB	200 GB + 3.84 TB NVMe Passthrough	8 Gbps
h100-760	760 GB	60	2×H100 80 GB	200 GB + 2 x 3.84 TB NVMe Passthrough	16 Gbps
h100-1520	1.52 TB	120	4×H100 80 GB	200 GB + 4 x 3.84 TB NVMe Passthrough	25 Gbps
l4-90	90 GB	22	L4 24 GB	400 GB NVMe	8 Gbps
l4-180	180 GB	45	2×L4 24 GB	400 GB NVMe	16 Gbps
l4-360	360 GB	90	4×L4 24 GB	400 GB NVMe	25 Gbps
a100-180	180 GB	15	A100 80 GB	300 GB NVMe	8 Gbps
a100-360	360 GB	30	2×A100 80 GB	500 GB NVMe	16 Gbps
a100-720	720 GB	60	4×A100 80 GB	500 GB NVMe	25 Gbps

Fast Storage Instances

IOPS instances deliver the fastest disk transactions in the Public Cloud range. They offer direct access to NVMe drives, each providing at least 400,000 read/write operations per second. And like our other instances, you get the advantages of on-demand resources and hourly billing. These cloud solutions are designed to host database (DB) servers and big data applications.

Unlike standard SSD disks, NVMe (Non-Volatile Memory Express) drives use NAND flash memory cells to store data. With their PCI Express connectors, which until recently were only used by devices like graphic cards, the bottleneck created by the SATA connection is cleared.

IOPS instances can access the hardware directly with the PCI Passthrough feature to get the most out of their PCI Express bus access. There is no virtualization layer to access the drive, which means you benefit from all available performance. Some features of virtual instances are limited, such as snapshotting and live migration. Special care must also be taken with the data on NVMe drives with regard to backup.

We offer instances with 1 to 4 NVMe drives, which each offers 1.9TB storage and a minimum of 400,000 IOPS. These configurations are useful when you need to process large data volumes and require exceptionally high performance. The IOPS-price ratio is one of the best in the market and is miles ahead of other solutions.

Example Pre-configured *flavours* of public cloud instances.

Name	Memory	vCore	Storage	NVMe disks	Public network	Private network
i1-45	45 GB	8	50 GB SSD	1.9 TB	1 Gbps guaranteed	2 Gbps max.
i1-90	90 GB	16	50 GB SSD	2 x 1.9 TB	2 Gbps guaranteed	4 Gbps max.
i1-180	180 GB	32	50 GB SSD	4 x 1.9 TB	8 Gbps guaranteed	4 Gbps max.

Discovery Instances

Discovery instances are based on *contended* resources and offer the full experience and features of the Public Cloud at a lower cost. You can manage your instances with the same tools for your tests, development phases and sandbox environments. You also get great value for money in terms of features and the ability to upgrade your solution at any time in just a few clicks.

Discovery instances benefit from the Public Cloud ecosystem, OpenStack APIs, and the entire orchestration system associated with it. This is why they are suitable for deployment or configuration tests, sandbox environments, and many other use cases involving automation.

3.4 Public Cloud Storage

Some constraints will depend on the type of data you need to store and what it is used for — so an adapted solution is required. Whether you need an object storage, block storage, long-term archiving space, or a backup solution for Public Cloud volumes and instances, OVHcloud offers cloud storage solutions to suit all your needs.

Our cloud storage solutions offer exceptional performance, security, and data protection, making them perfect for professional cloud storage. And to ensure that you maintain full control of your data, OVHcloud guarantees reversibility — so you can recover your data at any time without any issues.

Block Storage

When persistent storage requirements increase, you can instantly meet growing demands by hot-adding extra disks to increase the instance's capacity. These volumes are securely hosted in our clusters. They can be used to meet the requirements of applications that handle large volumes of data.

The volumes on each cluster are triple-replicated on three separate disks. Better than a traditional RAID system, the information is distributed on different servers. This ensures the durability of the data in any situation.

Based on Ceph, an open-source technology. This allows you to manage demanding, industrial-scale environments, ensuring the scalability of clusters and the reliability of the service. OVH is a partner of the Ceph Foundation and is investing in the development of this essential building block for OVHcloud.

Ranges

- Standard
- High Speed
- High Speed Gen2

Standard	High Speed	High Speed Gen2
Prioritising the price-GB ratio, "standard" volumes are ideal for storing large amounts of data without any particular performance requirements.	"High speed" volumes can be used to meet needs where storage must be accompanied by high read and write performance.	High Speed Gen2 volumes deliver the performance you need in terms of IOPS and bandwidth
Triple replication	Triple replication	Triple replication
200 IOPS guaranteed Up to 64 MB/s per volume	Up to 3000 IOPS Up to 128 MB/s per volume	30 IOPS/GB up to 16,000 IOPS per volume 0.5 MB/s/GB up to 320 MB/s per volume

Features

- **Resizing**: With volumes ranging from 1 GB to 4 TB, you can start small, then scale up as your needs evolve.
- **Backups**: Trigger snapshots at any time, to freeze the data status while continuing to use your volume. You can then retrieve your data in its desired state.
- **mport and export your data**: In accordance with our reversibility policy, OVH allows you to easily recover your volume using traditional tools, such as OpenStack's CLI. You can also import a volume to the OVH platform, to use directly on your instances.
- **Migrating instances**: You can hot-add and hot-remove volumes. You can also use a volume to move data from one instance to another almost instantaneously within the same region.

Object Storage

Upload your files to a space that you can access in HTTPS using the OpenStack Swift API or the S3 API. Objects have a software layer that directly manages metadata, access permissions, and intelligent behaviours at the data level. It is the most suitable place to store your static files and use them from your application or simply to make them accessible on the web.

▪ Scalable: There's no need to anticipate the provisioning of the additional storage space to meet your growing needs. Object Storage provides unlimited space for your applications. Store all types of files, without being constrained by low disk space.

▪ Resilient: Your data is distributed within clusters that have triple replication for each object. These replicas are placed on both different disks and servers, to ensure their longevity.

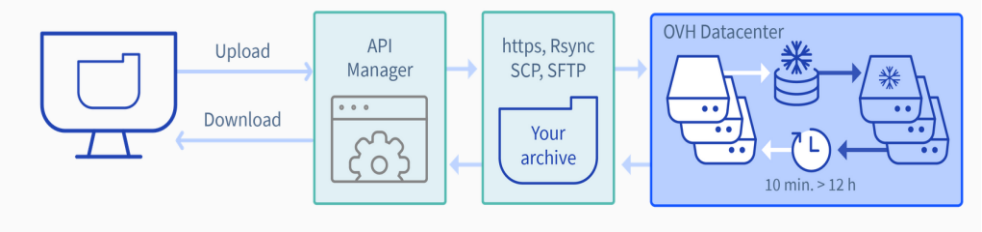
▪ Integrated into your application: APIs can carry all actions out. This feature makes automation possible and makes integration easier in application layers using your data. The OpenStack Swift libraries will simplify the integration, available in your preferred languages.

Features

- **Encryption**: You can encrypt your data with your own key using an SEE-C feature that uses the AES-256 protocol. Sending data to the endpoint is also secure, and the data is encrypted using HTTPS protocol.
- **Versioning**: Versioning helps guard against accidental file deletion or data corruption. It allows you to recover a specific and previous version of lost or corrupted items, even after it's deleted.
- **Immutability**: Your backup data is immutable. Thanks to WORM (write once read many), it cannot be modified. With the S3 lock feature, you can create different settings according to your needs, activity and data type. For example, you can set a retention period or mode (legal, governance, or compliance).
- **ACL management**: By default, all resources (buckets and objects) and subresources (lifecycle configuration, website configuration, etc.) are private. You can change access to these resources by user or by bucket-based policy.
- **Static web content**: By configuring a container in static mode, OVHcloud's Object Storage will act as a standard web server by first serving "index.html", or presenting an HTML index of the objects' URLs if no "index.html" objects exist by default.
- **Large objects**: With Object Storage, you can store objects of up to several TB.
- **CORS**: Cross-Origin Resource Sharing (CORS) is a technique that allows resources from a client web application that is loaded from one domain to interact with resources located in a different domain. Enable CORS on your buckets to allow your web applications to fetch your files stored in OVHcloud Object Storage.
- **Access Logging**: Server Access Logging provides detailed records for the requests that are made to a bucket. Server access logs are useful for many applications. For example, access log information can be useful in security and access audits.

Cloud Archives (SWIFT)

Whether it's for business needs or other obligations, long-term data retention is often a necessity. Two points are important here: the cost of storage, which must be reduced, and data security and recovery, which must be guaranteed. The OVHcloud Cloud Archive solution has been designed with this in mind.



▪ Secure and reliable: Your archived data is treated with the greatest of care. Each file is fragmented and replicated on a redundant infrastructure, with each fragment then written on a different storage device, and a system in place to constantly ensure the integrity of the information. If a missing fragment is ever detected, it is automatically reconstructed by a specific algorithm, using the other parts of the file.

▪ Reversible, based on industry standards: OVH places great importance on the freedom of its users. When you entrust us with your data, we guarantee you will always be able to recover it via standard, easy-to-use protocols, such as SCP or rsync.

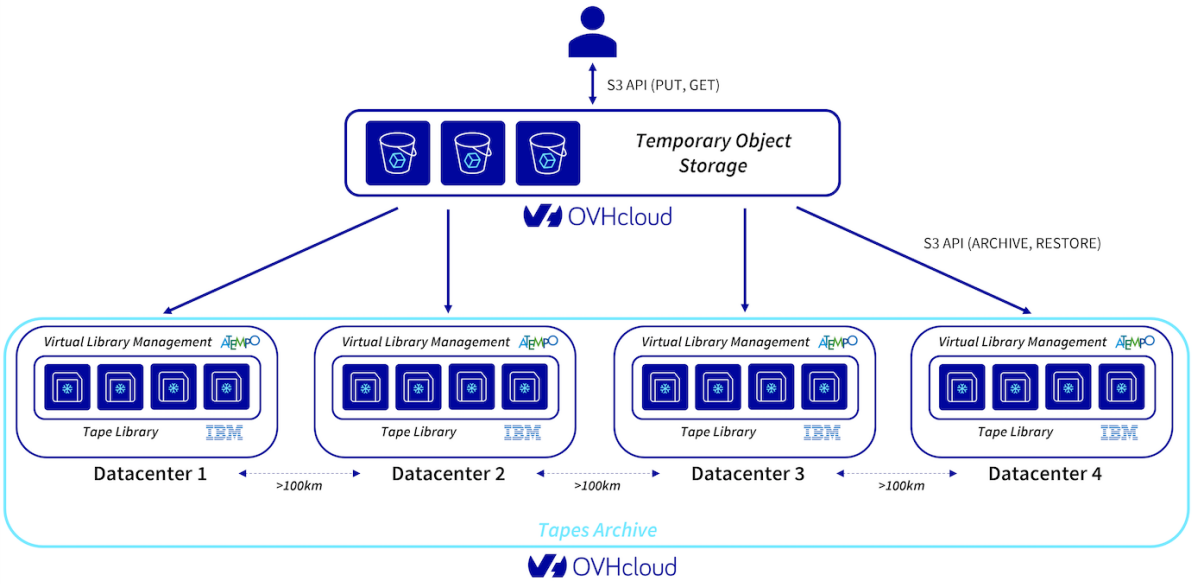
Features

- **Swift API**: The storage solution used in Cloud Archive clusters is OpenStack Swift. This is a standard API that can be used directly by conventional tools.
- **SSH-based protocols**: In addition to access via the Swift API, you can use your favoured tools, such as SFTP, SCP and rsync, for data transfer.
- **No size limit for files**: Cloud Archive allows you to store important files of many TBs, without any size limit.

Cold Archive (S3)

Get long-term data archiving in a secure, resilient space, then retrieve it on demand when you need it. You can archive the very highest volumes of data — up to several petabytes. Get our most cost-effective storage solution, and the best prices on the market for archiving your data.

Our Cold Archive solution is powered by tape storage in a highly resilient, multi-datacentre architecture. Maintain control of your data by archiving it on a trusted platform, which guarantees confidentiality.



Volume Snapshot (Block Storage)

When managing infrastructures and applications, the ability to go back is a key part of your overall security. Volume snapshots give you peace of mind when working with important data during tasks like updating or cleaning databases. With this service, you can "capture" the status of a volume's information at a given time, while carrying on using it as normal. You can then restore your data to its state at the time the snapshot was taken, should this ever prove necessary.

Features

Near-instantaneous snapshots: Snapshots are hosted in the same place as volumes, in Ceph storage clusters. They work according to the copy-on-write principle and are therefore almost instantaneous. During a change, the data is copied on a case-by-case basis for each block.

- **Create new volumes:** A snapshot can be used to create new volumes, opening up further opportunities for industrialisation. In particular, you can freeze the status of a dataset at several points during a deployment, then use the snapshot as a source when creating new volumes that replicate this information.
- **Triple replication:** Volume snapshots are not backups. However, they still benefit from the triple-replication capabilities of the Ceph clusters, managed by OVH, ensuring they offer the same reliability.

Volume Backup (Block Storage)

To ensure better business continuity for your applications, you need to make regular copies of your data, so that you can restore it if you need to. With Volume Backup, you can limit the impact of unwanted data loss on your applications. Having Volume Backup copies of your Block Storage volumes means that you can restore your backed up data whenever necessary.

Volume Snapshot copies are kept on the same Block Storage cluster.
Volume Backup copies are hosted on Object Storage, making your data more resilient.

Instance Backup (VM)

As automated deployments and Infrastructure-as-Code (IaC) services become increasingly popular, a system backup is essential. That's why your instances at OVHcloud can be backed up at any time. The server will export the instance’s disk, enabling you to industrialise your deployments.

▪ Secure and resilient: Instances run on hypervisors, and their system disk is located locally on them. The instance backups copy this data to another storage system, and guarantee triple replication, to ensure reliability.

▪ Simplified backup and restore methods: Instance backups behave like elements of the Private Image Catalog. Once they have been added to it, you can use them to restore the original instance, or even serve as a system image for other instances based

Features

- **Data exports:** In accordance with our reversibility policy, we offer you the ability to recover your backup without any hassle, using standard tools like the OpenStack CLI.
- **System migration to other locations:** Once the backup has been created, you can perform an instance system migration by exporting it, then importing it to the Private Image Catalog of another location.
- **Rolling backups:** OpenStack incorporates a rolling backup system. By specifying the number of elements included in the rotation, the system will automatically maintain its history, deleting the oldest backup when a new one is created.

3.5 Public Cloud Network

OVH manages and maintains its own global network. Over the years, we have developed deep expertise and offered innovative products, such as the vRack, which lets you interconnect your solutions across different regions within a secure private network. Our powerful DDoS mitigation technology is also included in all our solutions.

Load Balancer	Private network	AntiDDoS	Floating IP	Virtual router	Cloud connect
Manage variations in activity by distributing traffic across multiple resources	Deploy private network, supported by the OVHcloud vRack to connect your instances across the globe	Enjoy permanent protection across all your cloud resources, to ensure an optimal level of service	Assign and move your public IP from one instance to another	Route private networks to each other and/or to the Internet	Dedicated connection between your company network and OVHcloud network

Load Balancer

Dynamically distribute your traffic to increase the scalability of your application.

Load Balancer makes it easier to ensure the scalability, high availability, and resilience of your applications. This is achieved by dynamically balancing the traffic load across multiple instances, in multiple regions. Deliver your application's users a great experience, by automatically managing variable traffic and handling peak loads, while getting costs under control. By combining Load Balancer with Gateway and Floating IP, you can set up a solution that acts as a single-entry point to your application, secures the exposure of your private resources, and supports fail-over scenarios.

	Applicable to the following listeners:						
	All	HTTP/TCP/HTTPS*		HTTP/ HTTPS	TERMINATED_HTTPS*		UDP
Load Balancer Size	**Bandwidth**	**Concurrent active session**	**Session created per second**	**Requests per second**	**SSL/TLS session created per second**	**Requests per second**	**Packet per second**
Size S	200 Mbs (up/down)	10k	8k	10k	250	5k	10k
Size M	500 Mbs (up/down)	20k	10k	20k	500	10k	20k
Size L	2 Gbs (up/down)	40k	10k	40k	1,000	20k	40k

Features

- **Regionalised:** Create and expose your Load Balancer service closer to your customers, and take a geographical approach when building your infrastructure.
- **Support any Public Cloud instances:** The Load Balancer can manage several node types, like the standard instances operated by OpenStack and containers provided by Kubernetes. Through the

private network, you can use Hosted Private Cloud virtual machines and Bare Metal servers as a backend.

- **Integrated with Public Cloud ecosystem:** Deploy and manage your Load Balancer directly from your Public Cloud environment, thanks to Octavia API support and all compatible tools (Terraform, Ansible, Salt, etc.).
- **SSL/TLS encryption:** Load Balancer supports SSL/TLS encryption to ensure data confidentiality. You can quickly create your Let's Encrypt DV SSL certificates, included at no additional charge with any of our Load Balancer service plan. You also have the possibility to upload your own certificate if you work with a specific Certificate Authority.
- **Multiple health check protocols:** Define the conditions for excluding an instance or node to fit your criteria. You can choose from: standard TCP verification, HTTP code, or many other options that you can find on the official OpenStack Load Balancer documentation.

Gateway Services (virtual router)

Gateway is the easiest way to ensure a scalable - inbound and outbound - connection between an infrastructure built inside the vRack and a private network that has internet connectivity. Gateway enables secure access to the internet for all your instances. No more need for a public IP address for each instance. Several plans are available, providing distinct bandwidth capabilities to match your specific needs.

Gateway	Small	Medium	Large
Bandwith capacity	200 Mbps	500 Mbps	2Gbps
Outbound internet connectivity (through SNAT)	Yes		
Inbound internet connectivity (through Floating IP)	Yes		

Private Networks

The emergence of software-defined networks (SDNs) in cloud infrastructures has given users increased flexibility when it comes to network management. In this spirit, the OVHcloud Public Cloud lets you design and build your network architecture on demand. By creating private networks, you implement virtual switches to connect your running project instances in real time, without any service interruptions.

- **Extended networks between regions:** Public Cloud Private Networks are built on OVH vRack technology. You can use it to extend private networks between OVH datacentres, connecting instances across different regions around the world through private communication channels.
- **Isolation:** You can create up to 4,000 level 2 private networks. In concrete terms, launching a Private Network implements a new VLAN, whose communications are only accessible to the resources connected to it. This isolation can be used to segment control plane and data plane networks
- **Extension to other OVH services:** You can also use the vRack to connect different OVH services to one another. For example, you can extend your Public Cloud Private Network to connect with your Private Cloud or dedicated servers. This way, you can distribute your application to suit your needs, while keeping the connections private.

Features

- **DHCP servers:** When you create a network, you can choose to use addressing via DHCP. If you choose this option, a DHCP server will be launched on the network to serve your settings.
- **Fixed or dynamic addresses:** ou can choose specific addresses in the network range for a port or instance. You will always need to configure this via DHCP, but you will retain control over the addressing plan by doing so.
- **DNS integration:** The DHCP configuration can include the definition of the DNS servers that should serve your network. This way, you can point to the DNS server of your choice.
- **Unattached ports:** Private networks' ports are independent of their instances, so you can detach a port from an instance without losing it. This can be useful for projects that involve infrastructure orchestration.
- **Range definition:** DHCP servers can serve a specific CIDR configuration, targeting only a part of the IP address range you have chosen.

OVHcloud Connect

With OVHcloud Connect connection solution, you can form secure, high-performance, dedicated, private links between your company network and the OVHcloud datacentre.

OVHcloud Connect Direct

With our Direct solution, you can make your connection locally in datacentres, using facility cross connects dedicated to your traffic and infrastructure deployment. One or more dedicated links can be created between your network equipment and our backbone, in a common point of presence (PoP). To meet the needs of your architectures and applications, you can choose between 1Gbit/s or 10Gbit/s bandwidth.

OVHcloud Connect Provider

With our Provider solution, you can secure access between your cloud service providers and our OVHcloud datacentres. To do this, you will need to order one or more connections from your service provider for your multi-cloud and hybrid cloud solutions.

Get the benefits of an extended network of points of presence (PoPs) from our partner providers. This means you can get 200Mbit/s, 500Mbit/s, 1Gbit/s, 2Gbit/s or 5Gbit/s bandwidth connectivity from extended reach to 3rd party datacenters, platforms and premises.

OVHcloud connected partners:

Console Connect
Equinix
InterCloud
Megaport
Orange
RISQ

4.0 Hosted Private Cloud

- Hosted Private Cloud Powered by VMware vSphere
- Hosted Private Cloud Powered by VMware Cloud Director*
- Hosted Private Cloud Powered by Nutanix
- SAP HANA on Private Cloud

*multi-tenant infrastructure deployment

4.1 Overview

Hosted Private Cloud is a single-tenant, physically isolated environment for optimal performance. Scale from entry to enterprise to meet your business needs. Get all the benefits of hosting on-premises without the large capital investment. Leave the day-to-day maintenance to OVH, so you can focus on running the rest of your business. You get high availability for your IT services. Hosted Private Cloud offers a service level agreement (SLA) of 99.9%. You get a 100% dedicated, ready-to-use infrastructure in just one hour with a private cloud solution. This service gives you more flexibility and scalability to handle large workloads — since, at any time, you can add more resources. Sensitive data hosted on a Hosted Private Cloud infrastructure is based on strictly dedicated physical machines hosted in our certified datacentres. OVHcloud's Hosted Private Cloud solution gives you the technical support you need to ensure that your cloud projects succeed.

4.2 Hosted Private Cloud Powered by VMware vSphere

The combination of powerful next-generation Intel hardware with VMware technology we deliver a fully-isolated, dedicated environments that can handle the most critical workloads. With our Hosted Private Cloud solutions, you get a private infrastructure that has a 99.9% availability rate, and is hosted and managed by our teams — leaving you to focus on your core business.

Best of VMware Technology: Hosted Private Cloud has been designed with the same platform you are currently using for on-premises infrastructures — including vSphere, vCenter, NSX and vROps. Get the very most out of services you are already familiar with, built on the foundations of the VMware Software-Defined Datacentre (SDDC).

Secure isolation: Servers are dedicated to your workloads, you can build a highly-available infrastructure across multiple host clusters. They can replicate your data across datacentres with a high-capacity private network, isolation rules and strict redundancy.

You benefit from all the power of your hardware and your network capacities whose maintenance in operational conditions is ensured by OVHcloud ,with the following added values:

vCenter + vSphere as a service

With the Hosted Private Cloud, you have access to the vSphere hypervisor within a short time after your initial order; from this interface you have all the freedom to create your VMs according to your needs, your projects your workload load

Cloud scalability

Your additional resources on demand: you can add / delete hosts and datastores whenever you want; these resources are delivered, configured in your infrastructure with monthly or hourly billing

Guaranteed stability and performance

You use 100% of your resources without compromise in order to provide all the guarantees necessary for your business and your customers

A transparent Cloud

Your data is in a controlled cloud. With Hosted Private Cloud, you choose your Datacentre as well as your Hardware. Regarding costs, VMware licenses are included, unlimited traffic and guaranteed bandwidth, no hidden costs

The three pillars of Software-Defined Datacentre

Software-defined network

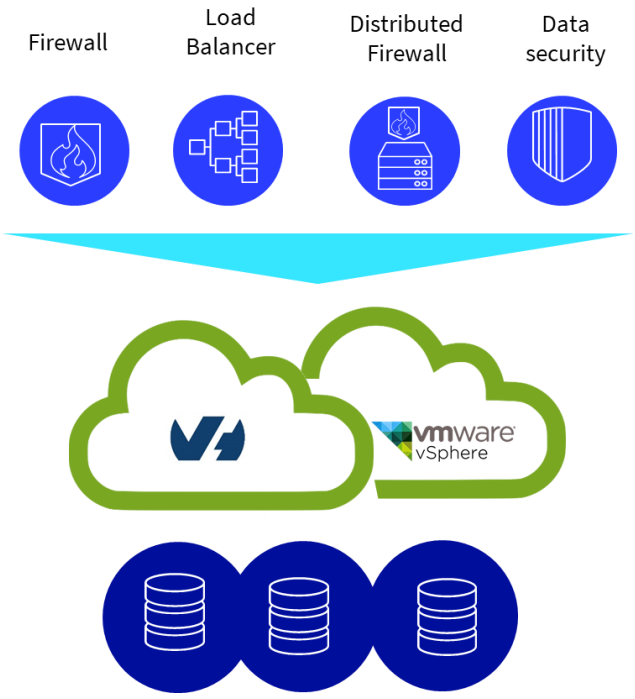
Extensive security services with NSX included, Firewall, load balancer, security rules via vSphere

Software-defined computing

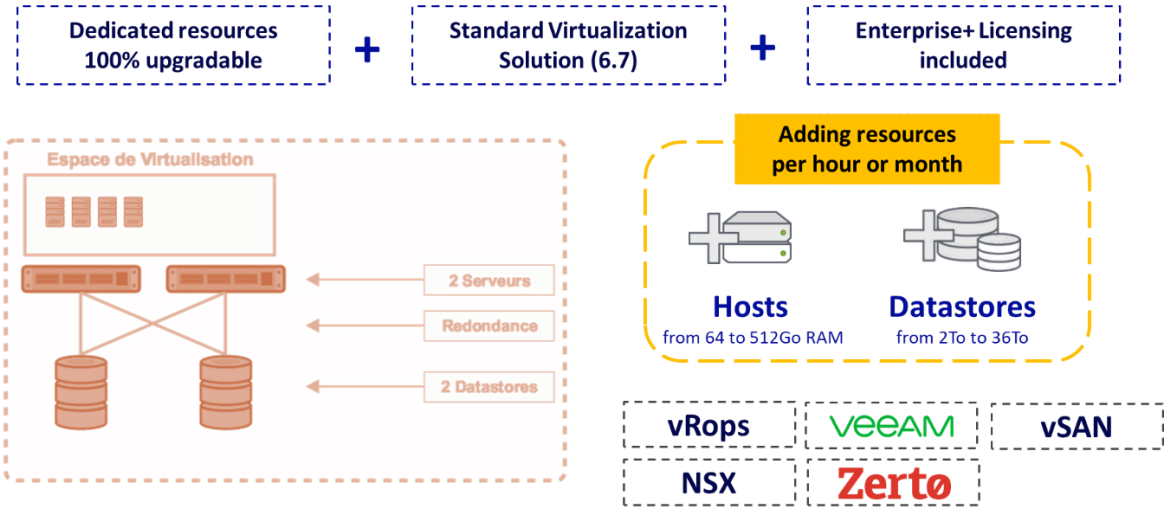
vSphere + Entreprise Plus License included for all your VMs + hosts on fully-dedicated hosts

Software-Defined storage

vSAN all Flash (SSD) hosts for extreme performance. Intel hosts and NFS datastores



Hosted Private Cloud Pack Concept



*vSphere 7.x now GA

Services Included: Our starter packs are made up of two hosts equipped with Intel processors, and two (NFS) datastores for your storage disks :

2 x 3TB datastores
vSphere Enterprise Plus platform
vRack private network
Anti-DDoS protection
vScope monitoring
NSX licence
vROps monitoring
Bandwidth

Hosted Private Cloud Hosts

Our Intel hosts are compatible with VLAN technology, to isolate your virtual machines from the public network and connect them to other vRack-compatible services. These are available in pre-configured packs, or on demand when you place your initial order. Add more hosts via the OVHcloud Control Panel, or directly via vSphere, with delivery in just a few minutes.

01	02	03	04	05
Premier 48	Premier 96	Premier 192	Premier 384	Premier 768
vSphere 6.7	vSphere 6.7	vSphere 6.7	vSphere 6.7	vSphere 6.7
▪ 2 x Datastores 2 Tb NFS ▪ NSX included ▪ 4000 vLAN ▪ 2 x Hosts	▪ 2 x Datastores 2 Tb NFS ▪ NSX included ▪ 4000 vLAN ▪ 2x Hosts	▪ 2 x Datastores 2 Tb NFS ▪ NSX included ▪ 4000 vLAN ▪ 2x Hosts	▪ 2 x Datastores 2 Tb NFS ▪ NSX included ▪ 4000 Vlan ▪ 2x Hosts	▪ 2 x Datastores 2 Tb NFS ▪ NSX included ▪ 4000 vLAN ▪ 2x Host
Host configuration ▪ 1x Intel Xeon Silver 4214 ▪ 1x 12 cores/24 threads ▪ 2.4 GHz ▪ 48 Gb RAM ▪ 4 x 25 Gbps	Host configuration ▪ 1 x Intel Xeon Silver 4214 ▪ 1x 12 cores/24 threads ▪ 2.4 GHz ▪ 96 Gb RAM ▪ 4 x 25 Gbps	Host configuration ▪ 1 x Intel Xeon Gold 6242 ▪ 1x 16 cores/32 threads ▪ 2.9 GHz ▪ 192 Gb RAM ▪ 4 x 25 Gbps	Host configuration ▪ 2 x Intel Xeon Gold 6242 ▪ 2x 16 cores/32 threads ▪ 2.9 GHz ▪ 384 Gb RAM ▪ 4 x 25 Gbps	Host configuration ▪ 2 x Intel Xeon Gold 6242 ▪ 2x 16 cores/32 threads ▪ 2.9 GHz ▪ 768 Gb RAM ▪ 4 x 25 Gbps

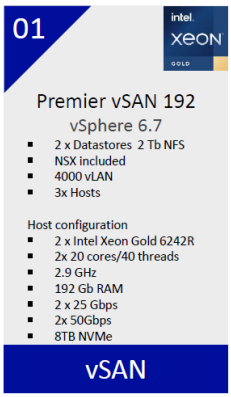
*vSphere 7.x now GA

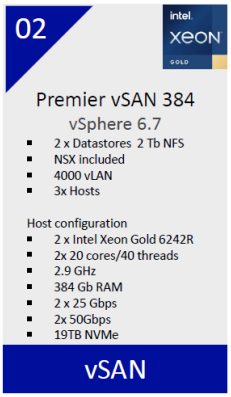
Hosted Private Network Cloud Storage (NFS)

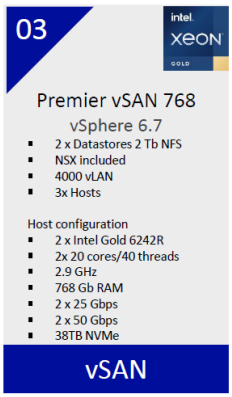
You will have dedicated RAID-1 or RAID-10 storage spaces. With this technology, your data is fully secure. It is saved identically on two disks at the same time. It is then read randomly on one of the two disks, so packet loss is completely avoided as a result.

Datastores	Description
3 Tb	SSD disks in usable space
6 Tb	SSD disks in usable space
9 Tb	SSD disks in usable space
18 Tb	SSD disks in usable space
36 Tb	SSD disks in usable space

Hosted Private Cloud vSAN







*vSphere 7.x now GA

Features

- **Immediate access to your dedicated infrastructure:** When you order a Hosted Private Cloud solution, we deliver a dedicated infrastructure in just one hour. It is pre-configured (vCenter) and ready-to-use via the vSphere interface, so all you need to do is deploy your virtual machines.
- **Additional resources available on demand:** Need more hardware resources to create new VMs? You can add and remove hosts and datastores at any time. These resources are pre-configured, delivered to your infrastructure in 30 minutes, and can be billed on either an hourly or monthly basis.
- **Automatic replacement of your resources:** If an incident occurs on any of your hosts, you will not need to contact us. The hosts are automatically replaced with identical or equivalent hosts. With delivery guaranteed in less than 60 minutes, and automatic rebooting for your VMs (VMware HA feature included), your infrastructure is highly-available 24/7.

4.3 Hosted Private Cloud Powered by VMware Cloud Director

VMware-driven platform, managed, shared, and affordable.

VMware Cloud Director* (VCD) is an alternative to your current VMware infrastructure. It is powered by VMware Cloud Foundation (VCF) and fully aligned with VMware's latest strategic direction.

Benefit from the comfort of a managed, shared, and cost-effective solution to VMware deployment. At OVHcloud, we are fully committed to achieving our long-term objectives: creating an open, trusted, and sustainable cloud with the best value for performance.

VMware Cloud Director attests to OVHcloud's unwavering focus on developing and delivering VMware-based solutions that align with Broadcom's strategic decisions.

VMware Cloud Director (VCD) broadens our portfolio of VCF-based solutions.

VMware Cloud Director		VCD Standard	VCD NSX	VCD NSX - vSAN
Infrastructure	*Type*	Managed & Shared infra	Managed & Shared infra	Managed & Shared infra
	Target	Standard vSphere offers	Standard NSX offers	all HCI offers, with or without NSX
	Storage Type	NFS Storage	NFS Storage	vSAN
Features	*vSAN (Add on)*			✓
	Elastic Resources ratio Ghz / vCPU	✓	✓	✓
	Aria Operations	included	included	included
	Distributed Routing	✓	✓	✓
	Edge Firewall		✓	✓
	IP Address Public	2	2	2
	Private Network – vRack Support	✓	✓	✓
	Licensed Catalog (Windows, MSSQL...)	✓	✓	✓
	Backup	⊖	⊖	⊖
SLA		99.95%	99.95%	99.95%
Localisations		All except. APAC	All except. APAC	All except. APAC
Compliance/Certifications		Coming in 2025 Roadmap	Coming in 2025 Roadmap	Coming in 2025 Roadmap

VCD Standard

- Resource allocated and guaranteed.
- VMware Cloud Director
- NSX Networking: Switching and Routing

VCD NSX

- Resource allocated and guaranteed.
- VMware Cloud Director
- NSX Networking: Switching and routing.
- NSX Firewall: Distributed and Gateway Firewall

VCS NSX with vSAN

- Resource allocated and guaranteed.
- VMware Cloud Director
- NSX Networking: Switching and Routing
- NSX Firewall: Distributed and Gateway Firewall
- vSAN storage included.

4.4 Hosted Private Cloud Powered by Nutanix

This solution offers all-in-one, scalable Private Cloud platform. It combines pre-installed Nutanix Cloud Platform licences with OVHcloud infrastructures that are secure and 100% dedicated.

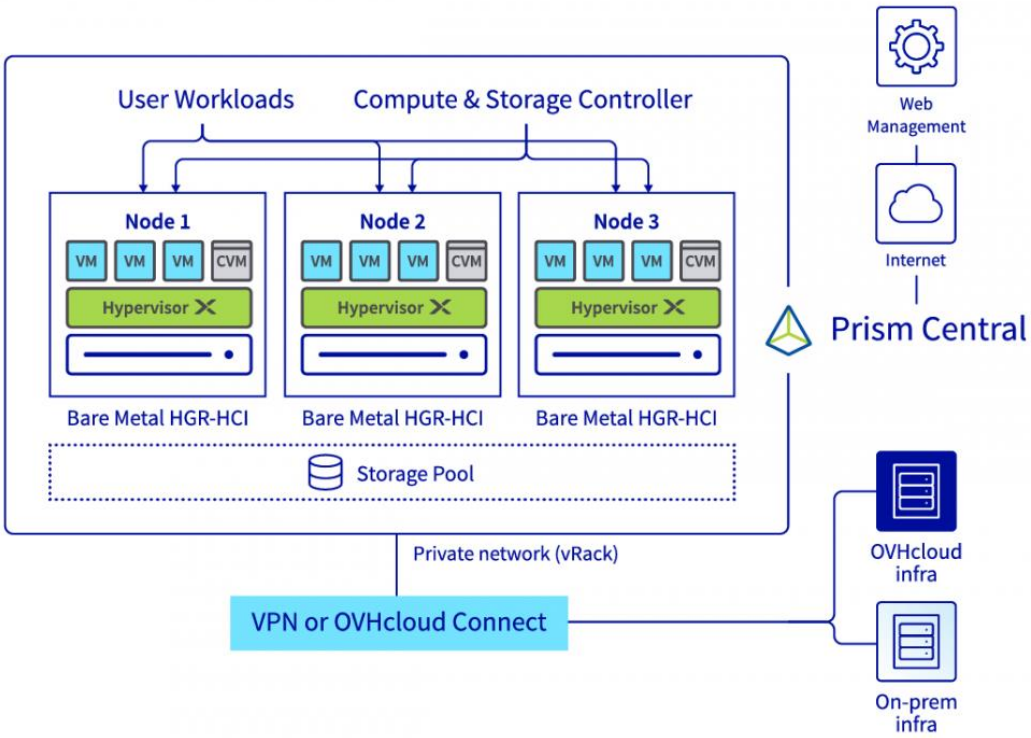
You get a ready-to-use Nutanix hyperconverged infrastructure (HCI)

Hosted Private Cloud powered by Nutanix is built with our next-generation dedicated servers. This platform has been designed and optimised for hyperconverged infrastructures. You get computing power, an ultra-high bandwidth network (up to 50Gbit/s on the private network), and SAS SSD storage.

Our Nutanix-certified dedicated servers

Nutanix-certified High-Grade Intel (HGR-HCI-1, 2 and 3) dedicated servers. They are designed and optimised for hyperconverged infrastructures. They offer high computing power, a very high bandwidth network (up to 50 Gbps on the private network), and SAS SSD storage, to ensure that your cluster works perfectly.

- Dual Intel Xeon Gold Processor 6226R/6242R/6248R
- 192GB to 1.5 TB RAM
- Storage - from 6 to 24 3.84TB SAS SSDs



Our Nutanix on OVHcloud services are made up of clusters containing at least three dedicated servers (up to 15 servers maximum). They include tools to ensure a secure connection to your Nutanix cluster. You can adjust the compute, memory and storage resources by adding new servers, or changing their technical specifications.

Our packs contain AOS licences in Pro and Ultimate versions, as well as Prism Pro and Flow, which meet your infrastructure needs with Nutanix features.

The Nutanix Standard pack is designed for companies running multiple applications, or a larger-scale extension at one or more production sites.

The Nutanix Advanced pack is suitable for more complex multi-site deployments, and for more advanced security requirements (synchronous replication, software encryption and advanced orchestration).

	Nutanix Standard Pack	Nutanix Advanced Pack
AOS version	Pro AHV Volumes Karbon Move Files Objects	Ultimate All Pro features + Multisites DR Advanced Replication Advanced Security
Prism Pro	✓	✓
Flow	✓	✓

For client with alternate licensing arrangement the BYOL (Bring Your Own Licence) service offers full licence portability, and only includes the dedicated, Nutanix-certified OVHcloud Hosted Private Cloud infrastructure. It is designed for users who already own Nutanix software licences, and just need the underlying hardware.

3.4 SAP HANA

SAP® Certified
in Cloud and Infrastructure Operations

OVHcloud has achieved **SAP® certification for Cloud and Infrastructure Operations** for it's European region.

SAP® Certified
Integration with SAP HANA®

The SAP HANA on Private Cloud service is based on SAP HANA-certified HCI servers, as well as our certified backup agent OVHcloud Backint Agent for SAP HANA databases

SAP HANA-certified servers

Our high-performance, high-availability hardware has been designed to manage even the most resource-intensive SAP workloads. Our SAP HANA-certified HCI servers are sustainable by design, and benefit from our 20 years of proven experience in eco-design (water-cooling system).

The SAP HANA-certified HCI servers, available in versions such as 'OVHcloud Managed VMware vSphere, Hyperconverged Storage' and 'OVHcloud Managed VMware vSphere, Software-Defined Datacentre', give you all the computing power you need to host your OLTP and OLAP workloads, a high-speed network (10 Gbps guaranteed for public bandwidth) and ultra-high-performance local storage, ensuring optimal operation for your SAP applications.

Dual Intel Xeon Gold 6248R processors, 48 cores/96 threads
1.5 TB RAM
11.52 TB raw local storage (vSAN storage)
166,658 SAPS, OLAP and OLTP compliance

Our SAP HANA on Private Cloud packs consist of a minimum of three servers (up to a maximum of 64 servers per cluster) and two 3 TB datastores for your additional needs (excluding SAP HANA).

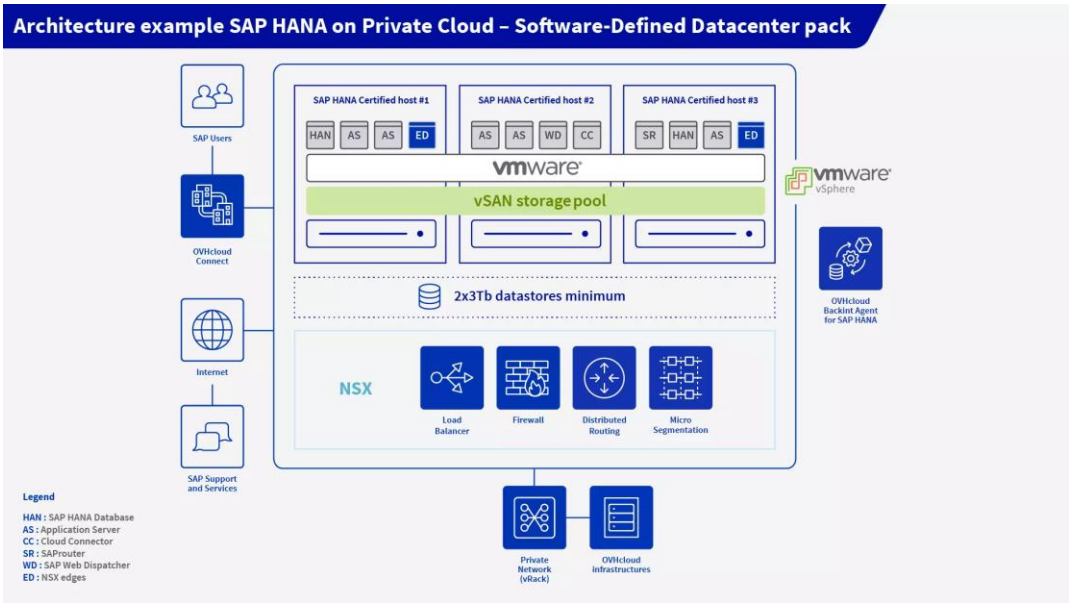
SUSE

You have a range of optional SAP features: SUSE Linux Enterprise Server (SLES) for SAP applications OS templates for use in Bring Your Own Licence (BYOL) mode, OVHcloud Backint Agent for SAP HANA databases, Veeam Managed Backup, SAP HANA* Infrastructure as Code (Terraform module), pre-installation of SAP HANA database using VM SAP HANA* templates*. This means you can migrate and deploy your most critical SAP environments securely, in a sovereign environment.

VMware on OVHcloud infrastructure

The SAP HANA on Private Cloud solution is based on the VMware on OVHcloud infrastructure. This means that you can deploy your SAP infrastructure effortlessly, in a sovereign cloud. With integrated VMware on OVHcloud features, you maximise server availability (High Availability, Fault Tolerance,

servers replaced within an hour in the event of a hardware failure) and benefit from existing certifications and qualifications (including C5, G-Cloud, AgID, ENS, HDS, PCI DSS and SecNumCloud). You can also use the Zerto module to protect your SAP virtual machines, and migrate them from one datacentre to another in one click.



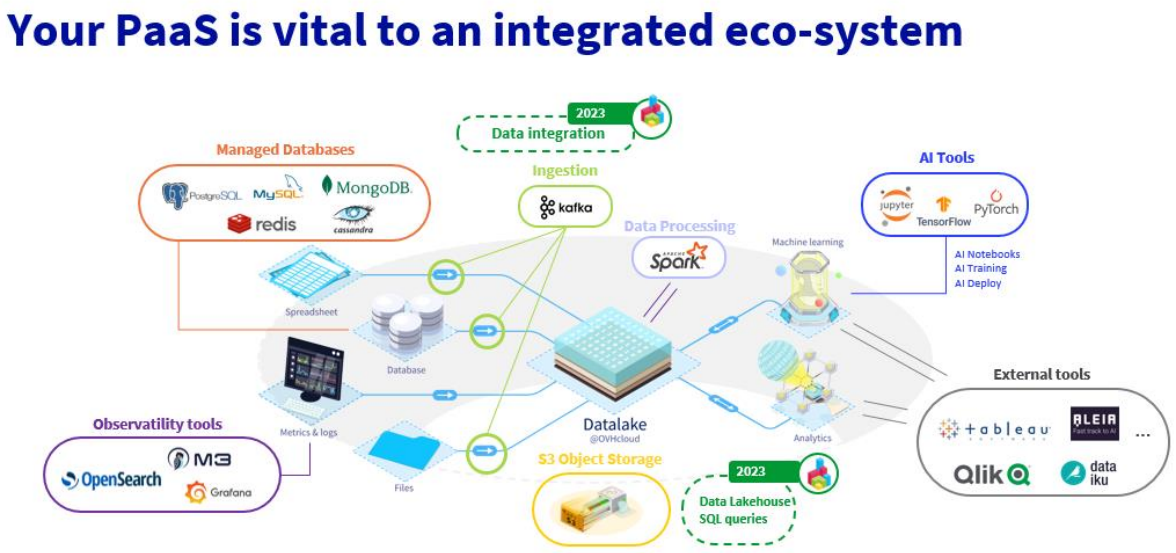
3.4 Included Features

- IPv4 & IPv6: Your services comes with an IPv4 and IPv6 address ranges.
- Public bandwidth: You get inclusive traffic on your server.
- Private network: You can connect your server to our private network: vRack
- OVHcloud link Aggregation: Thanks to our unique technology, you can easily group your public and private networks for increased availability and redundancy.
- Anti-DDoS protection: With this exclusive protection.

Additional options that can form part of your solution

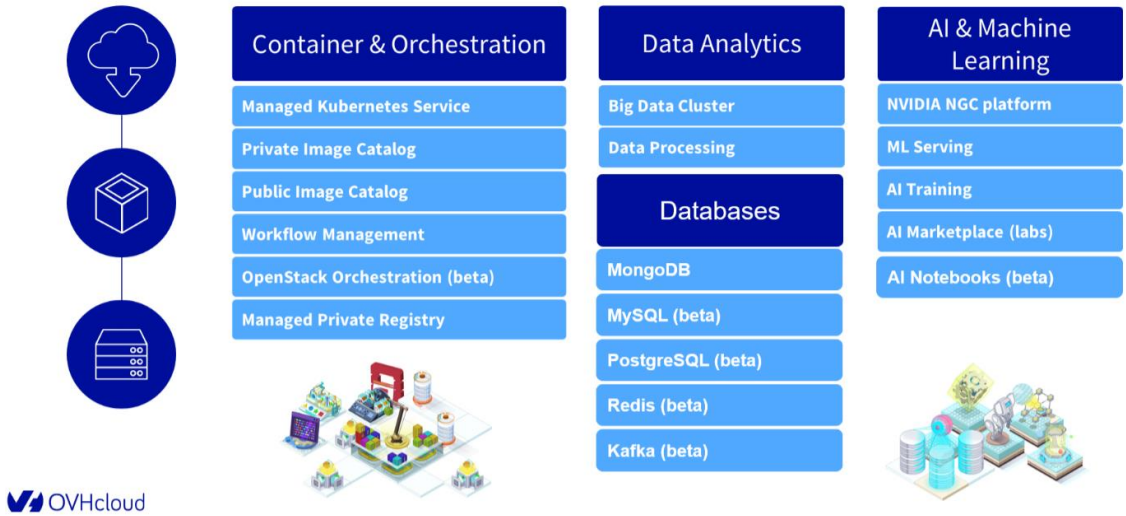
- IP addresses: IP addresses and/or IP blocks are transferrable between OVHcloud servers, allowing you to keep them if you change machines
- Failover IP: In the event of an incident, update, or migration, this will help you maintain business continuity
- Object Storage: High volume usage based storage, ideal for use as a backup repository.
- OVHcloud Connect: with this feature you can create a private high-speed connection performance and security between your external networked services and OVHcloud infrastructures.
- NAS storage: Access your data from anywhere, anytime. This innovation allows you to centralise your stored data and your backups This is done on two different servers, to ensure high availability.

5.0 Managed Solutions (Platform as a Service)



We will specifically cover the following OVHcloud services in this section.

1. Managed Kubernetes Service
2. Managed Private Registry
3. Managed Database as a Services
4. Managed Data Platforms and AI as a Service (AIaaS)
5. Log Management



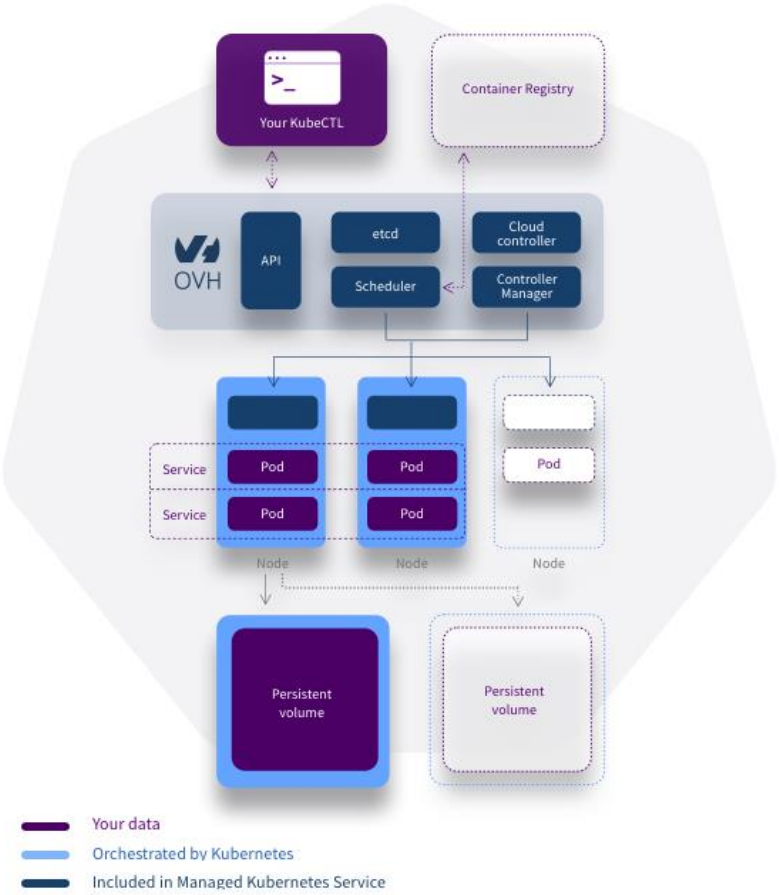
5.1 Managed Kubernetes Service

The Managed Kubernetes® solution is powered by OVHcloud Public Cloud instances. With OVHcloud Load Balancers and additional disks integrated into it, you can host any kind of work-load on it with total reversibility. The internal components of the solution are deployed, hosted, monitored and maintained in good health by our teams. They are also upgraded free of charge. This way, you can focus on the containers and services associated with your core business, while getting the very most out of the Kubernetes® ecosystem.

Fully managed by OVHcloud: OVHcloud deploys, hosts and maintains all of the components needed for Kubernetes to work, including updates and security patches. We also maintain the necessary components on your nodes. Enjoy all the features of a certified Kubernetes service after downloading your kubeconfig file and concentrate solely on your activity. Our teams will take care of the software elements and the underlying hardware, which also benefits from OVHcloud's Anti-DDoS protection.

Scalability and high availability: Exposing a service on multiple worker nodes can be easily done in just a few command lines. Kubernetes launches the containers and configures the load balancer for you. You can also define the health conditions for each service. Kubernetes will relaunch the pods and containers that do not meet these conditions. Furthermore, your nodes will be monitored by us, and your services benefit from the high availability of our Infrastructure-as-a-Service (IaaS) solutions. What's more, you can instantly add computing nodes.

ISO/IEC 27001, 27701 and health data hosting compliance: Our cloud infrastructures and services are ISO/IEC 27001, 27017, 27018 and 27701 certified. These certifications ensure the presence of an information security management system (ISMS) for managing risks, vulnerabilities and implementing business continuity, as well as a privacy information management system (PIMS).



Features

- **Persistent volumes:** You can add persistent volumes to your worker nodes. These are based on additional disks of the size and type of your choice (standard or high-performance, billed to the nearest gigabyte). This ensures durability for your stateful application data.

- **Load Balancer and pod autoscaling:** Your Kubernetes® service is delivered to you, then your work nodes are provisioned, in a few minutes. The scheduler displays new services or replicates them on your nodes in a matter of seconds. By integrating the OVH Load Balancer, you can efficiently distribute traffic over multiple nodes. You can set CPU/RAM quotas, health conditions and automatic scaling for your pods.
- **Role-based access control:** The role-based access control feature is included as standard, and can be used to deploy services that require specific levels of access.
- **Multiple versions and upgrades:** You can choose to use one of the last three stable versions of Kubernetes® when creating your cluster. We offer new minor versions in the quarter following their availability.
- **Auto-scaling nodes:** Dynamically add computing resources to your cluster, to fit your nodes' requirements.
- **Integration with the vRack:** Display your cluster and its services publicly, or solely through your private OVHcloud network.

5.2 Managed Private Registry

Managed Private Registry service makes it easy to store, manage and access your container images and Helm charts, offering enterprise-grade features and predictable pricing.

Full interoperability, thanks to open standards

Managed Private Registry is built on open source solutions, such as Docker, and the CNCF Harbor project, to guarantee its interoperability. It supports all OCI (Open Container Initiative) images and Helm charts, and can work with any containerisation platforms and orchestration tools, such as the Kubernetes ecosystem.

Maximum security for your images

Secure access for your teams, with role-based access control (RBAC). With Content Trust ensuring the integrity of your images' sources, and by performing automatic vulnerability analysis, you are protected against most risks. All this is backed up with robust SLAs.

Multiple pay-as-you-go plans, with predictable pricing

The Managed Private Registry service offers a range of pay-as-you-go plans, to suit your development team's size and needs. These include the amount of stored data, concurrent connections to the registry and SLAs. Inbound/outbound traffic and service maintenance are included, so you know exactly what you will pay at the end of the month.

Included Features

- **Helm Chart and Container Images:** If you already utilise Kubernetes, or any other container management solution, you can continue managing your images using tools and processes you know and trust
- **Content Trust:** Ensures that your images have been automatically validated by Docker Notary, so you can always trust their sources, without the need to manually authenticate each of them
- **Dedicated Harbor Interface or Harbor API :** Managed Private Registry offers effortless configuration management, through either an intuitive graphic interface, or the Docker registry API

- **Vulnerability scanning:** Automatically monitor your risk exposure, with periodic checks for common vulnerabilities
- **RBAC and namespaces:** Offer your teams secure access to images, with the ability to configure individual rights, delivering both security and high availability
- **Replication:** Synchronise your images across multiple registries, in line with your management policies, for stress-free versioning
- **Robot accounts:** Streamline and automate your processes, via the issue of a token with specific rights
- **Automated deletion:** Automate the removal of unused images, to make more efficient use of your storage and simplify lifecycle management
- **Logging:** Automated logging provides complete traceability, to fulfil even the most stringent compliance requirements

5.3 Managed Database Services

In Managed databases services, infrastructure and administration, including set-up, backup, scalability and security will be managed by OVHcloud which allows customers to focus on building and deploying cloud-based applications. Below are some of the available databases engines:

MongoDB	Kafka MirrorMaker
MySQL	Kafka Connect
PostgreSQL	Kafka
Redis	Cassandra
Opensearch	M3DB
Grafana	M3 Aggregators

Providing a fully managed solution that comes with the software license and covers the complete stack which includes agile provisioning in minutes, specifically you receive:

- Power efficient hosting in water-cooled racks
- Virtual instances & Operating System
- Network settings, public & private.

- Encryption
- Scalability
- Backup storage
- Security, Patches & Updates
- Setup, monitoring & maintenance
- Auditing, secured data, ACL permission management

Managed Database - MongoDB

Deploy, run and scale the leading NoSQL database, as a service, on our trusted cloud while keeping sole control over your data. MongoDB provides a flexible data model to organize and store any type of data, including documents - making it ideal for building modern applications. We take care of all the database service management, including set-up, maintenance, security, backup and scalability. This frees up developers and their teams, so they can focus on delivering great features for your applications.

Features

- **Flexible schema:** MongoDB provides schema control to the developers. This makes updating data modelling effortless, which in turn increases application release iterations.
- **Horizontal Scalability:** With MongoDB's sharding capabilities, data can be distributed across multiple machines within the database cluster. Horizontal scalability is straightforward, simply add additional nodes to increase capacity.
- **High Performance:** MongoDB provides high performance data persistence. Support for embedded data models, for example, reduces I/O activity on database systems and indexes support for faster queries.
- **Document Database:** Work with the natural data type for you programming language. Seamlessly convert database documents to native objects of Javascript, Go, Python or Java.
- **High Availability:** MongoDB's replication facility, 'Replica set', provides automatic fail-over data redundancy. With our Business and Enterprise plans, your MongoDB cluster ensures your database is always available.
- **Included Backup:** As data is critical for your business, each of our plans includes backup. Both our Business and Enterprise plans enable you to customize retention policies for your backup.
- **Replica nodes:** Ensure redundancy and increase data availability with MongoDB replication capabilities. Provide multiple copies of data on different database nodes. Replica are key for applications in production, and are available with our business and enterprise plans.
- **Encrypted Storage Engine:** Encryption at rest, when used in conjunction with transport encryption and good security policies, helps ensure compliance with security and privacy standards.
- **TLS/SSL Encryption:** To ensure data confidentiality, MongoDB supports TLS/SSL (Transport Layer Security/Secure Sockets Layer) to encrypt all of MongoDB's network traffic.
- **Role Based Access Control (RBAC):** Leverage RBAC to govern access to your MongoDB database and enforce compliance with security requirements. Grant your users one or more roles, that defines their rights to access database resources and operations. Available only with the Enterprise plan.

Managed Database- MySQL

A fully-managed service for your MySQL database which gives you more control over your data for e-commerce projects and applications. OVHcloud manages configuration, maintenance and backup to high availability and updates.

Features

- **Database forking:** Make a copy of your MySQL code base without affecting the live database. This means you can develop, test, or analyse in a configuration similar to your production environment.
- **Backup retention period:** The different Managed Databases for MySQL plans are tailored to the testing, development, pre-production and production phases. Each service offers a backup retention period adapted to these specific uses.
- **Backups included:** Each of our plans includes a backup to preserve the integrity of your data. The backup is performed in real time to a remote location by default. Depending on the plan you have chosen, you can restore your data from an earlier point in time.
- **TLS encryption:** In order to ensure data confidentiality, MySQL uses the Transport Layer Security/Secure Sockets Layer (TLS/SSL) protocol to encrypt data at rest or in transit.
- **Private network connectivity (vRack):** You can restrict access to your SQL database service via our private network, which also gives you up to 4Gbit/s bandwidth.
- **99.95% guaranteed availability:** With three-node clusters, you get a highly available service. We offer a 99.95% guaranteed service commitment for your most critical deployments under the Enterprise plan.
- **Real-time log visualisation:** Analyse or perform diagnostics on your database to optimise the running of your application. You can view up to the last 100 lines of real-time logs.
- **High availability:** With our Business and Enterprise solutions, several nodes are included in your MySQL cluster by default. Thanks to our contractual service commitments, high availability for your database is guaranteed.

Managed Database - PostgreSQL

Accelerate your business by deploying a managed PostgreSQL cluster. Get an open-source relational database engine that can handle heavy workloads. We will manage the service including configuration, maintenance, backup, high availability and updates

Features

- **Database forking:** Make a copy of your PostgreSQL code base without affecting your database during the production phase. This means you can develop, test, or analyse in a configuration similar to your production environment.
- **Backup retention:** We offer several service plans that meet your test, development and production needs. They each offer different backup retention periods for each of these uses.
- **Backups included:** Each of our plans includes a backup to preserve the integrity of your data. The backup is performed in real time to a remote location by default. Depending on the plan you have chosen, you can restore your data from an earlier point in time.
- **TLS encryption:** PostgreSQL uses the Transport Layer Security/Secure Sockets Layer (TLS/SSL) protocol to encrypt data at rest or in transit, to ensure the confidentiality of your data.

- **Private network connectivity (vRack):** You can restrict access to your SQL database service via our private network, which also gives you up to 2Gbit/s bandwidth.
- **99.95% guaranteed availability:** With three-node clusters, you get a highly available service. We offer a 99.95% guaranteed service commitment for your most critical deployments under the Enterprise plan.
- **Real-time log visualisation:** Analyse or perform diagnostics on your database to optimise the running of your application. You can view up to the last 100 lines of real-time logs.

Managed Database - Redis

Deploy and run the Redis database engine with a service managed by our teams. We take care of the implementation, maintenance, security, backup and scalability of your solution.

Features

- **Publisher/Subscriber:** Redis offers a message publishing and subscription mechanism, so that you can distribute your content to the most relevant subscribers. This splitting allows for a more dynamic network topology.
- **Advanced sizing capabilities:** To achieve the desired level of performance, Redis allows you to size a system's resources (vertical scaling) or add or remove nodes from a cluster (horizontal scaling).
- **Geospatial support:** The geospatial data structures and performances of Redis make it an ideal tool for geolocation-based applications. Its indexing allows you to process and analyse user data in real time, from IoT devices or other sources.
- **High availability:** Redis uses a primary/secondary architecture that replicates data, so you get high read performance and easy data recovery in the event of an outage.
- **Eviction policy:** Redis has a maximum memory setting that controls how much data can be stored. What's more, you can choose from six eviction policies to set the behaviour that the engine should apply once this limit is reached.
- **99.95% guaranteed availability:** With three-node clusters, you get a highly available service. We offer a 99.95% guaranteed service commitment for your most critical deployments under the Enterprise plan.
- **Real-time log and metric visualisation:** Analyse or perform diagnostics on your database to optimise the running of your application. You can view up to the last 100 lines of real-time logs.

Managed Database - Kafka

Deploy Apache Kafka cluster managed by our teams, while retaining control of your data. With this service, you can focus on developing your applications without having to worry about managing their configuration, monitoring, backup, redundancy and updates.

- **Features**
- **Schema Registry:** Keep all your Apache Kafka message schemas in a centralised registry for better data governance.
- **Kafka REST:** Use Apache Kafka via HTTP on platforms where Kafka connectors are not yet available.
- **Publisher/Subscriber:** With the message publishing and subscription mechanism, you can publish messages on a given topic and distribute them to subscribers.

- **High availability:** The Managed Databases for Kafka plans offer a minimum of a 3-node cluster. They also have a data replication function, making your services more easily available.
- **TLS encryption:** To ensure data confidentiality, Apache Kafka uses the Transport Layer Security/Secure Sockets Layer (TLS/SSL) protocol to encrypt data at rest or in transit.
- **99.95% guaranteed availability:** With three-node clusters, you get a highly available service. We offer a 99.95% guaranteed service commitment for your most critical deployments under the Enterprise plan.
- **Real-time log and metric visualisation:** Analyse or perform diagnostics on your database to optimise the running of your application. You can view up to the last 100 lines of real-time logs.
- **Private network connectivity (vRack):** With our Business and Enterprise solutions, you can restrict access to your database service thanks to our private network. You also get up to 2Gbit/s bandwidth.

Managed Database - OpenSearch

Deploy and run the NoSQL OpenSearch indexing, content search and analytics engine within a service managed by our teams. We take care of the implementation, maintenance, security, backup and scalability of your solution. By opting for this product, you can simplify day-to-day work for your developers by enabling them to focus on building applications.

Features

- **High and reliable performance:** With OpenSearch, you can store, search and analyse large volumes of data in real time with response times of a few milliseconds.
- **NoSQL storage engine:** OpenSearch stores data in JSON format, and offers a persistent storage medium you can search on directly. Furthermore, any tool with an API that reads JSON can also use this data.
- **Custom data indexing:** With OpenSearch, you can define custom policies to automate common index management tasks, such as rolling and deletion..
- **REST API:** OpenSearch exposes its services via REST APIs. You can perform CRUD operations on documents or in your data pipelines with the ingest APIs. You can also offer a more comprehensive full-text search with the search API.
- **Scalability:** One of the advantages of the OpenSearch solution is its ability to manage traffic spikes by spreading the load across several machines. This scaling method offers both simplicity and stability.
- **99.95% guaranteed availability:** With three-node clusters, you get a highly available service. We offer a 99.95% guaranteed service commitment for your most critical deployments under the Enterprise plan.
- **Real-time log and metric visualisation:** Analyse or perform diagnostics on your database to optimise the running of your application. You can view up to the last 100 lines of real-time logs.
- **Private network connectivity (vRack):** With our Business and Enterprise solutions, you can restrict access to your database service thanks to our private network. You also get up to 2Gbit/s bandwidth.

Managed Database - Kafka MirrorMaker

With Kafka MirrorMaker, you can copy data between two Kafka clusters. This service lets you focus on developing your applications without having to worry about managing their configuration, monitoring, backup, redundancy or updates.

Features

- **High availability:** The Managed Databases for Kafka MirrorMaker solutions offer a 3-node cluster as a minimum.
- **TLS encryption:** To ensure data confidentiality, Apache Kafka uses the Transport Layer Security/Secure Sockets Layer (TLS/SSL) protocol to encrypt data at rest or in transit.
- **99.95% guaranteed availability:** With three-node clusters, you get a highly available service. We offer a 99.95% guaranteed service commitment for your most critical deployments under the Enterprise plan.
- **Real-time log and metric visualisation:** Analyse or perform diagnostics on your database to optimise the running of your application. You can view up to the last 100 lines of real-time logs.
- **Private network connectivity (vRack):** With our Business and Enterprise solutions, you can restrict access to your database service thanks to our private network. You also get up to 2Gbit/s bandwidth.

Managed Database - Kafka Connect

With Kafka Connect, you can connect external systems to a Kafka cluster. This means you can focus on developing your applications without having to worry about hardware management like configuration, monitoring, backups, redundancy and updates.

Features

- **High availability:** A 6-node clusters and a guaranteed 99.95% SLA.
- **Real-time log visualisation:** Analyse or perform diagnostics on your database to optimise the running of your application. You can view up to the last 100 lines of real-time logs.
- **Multiple data sources supported:** One of Grafana's great advantages is the fact that it supports multiple data sources: Prometheus, MySQL, PostgreSQL, Elasticsearch, and more.
- **TLS encryption:** To ensure data confidentiality, Grafana uses the Transport Layer Security/Secure Sockets Layer (TLS/SSL) protocol to encrypt data at rest or in transit.

Managed Database - Grafana

Grafana is an open-source suite for real-time data analytics, monitoring and visualisation. This service is designed to create customisable dashboards, providing users with a tool to get the very most out of their data.

Features

- **Environment customisation:** With Grafana, you can view certain previously-recorded dashboards at defined times. Data display is optimised, with different control panels for simpler and more fluid analysis.

- **A wide range of visualisation types:** From heatmaps to histograms, graphics and maps, Grafana offers quick and flexible visualisations that enable you to display your data as you wish.
- **Multiple data sources supported:** One of Grafana's great advantages is the fact that it supports multiple data sources: Prometheus, MySQL, PostgreSQL, Elasticsearch, and more.
- **TLS encryption:** To ensure data confidentiality, Grafana uses the Transport Layer Security/Secure Sockets Layer (TLS/SSL) protocol

Managed Database - Cassandra

Accelerate your business by deploying a managed Cassandra cluster This performance-orientated, open-source NoSQL database engine is perfect for processing more resource-intensive tasks, with uncompromised availability. We will manage the service including configuration, maintenance, backup, high availability and updates and you can focus on developing your application features.

Features

- **Distributed cluster:** The Cassandra service can be deployed in a distributed cluster with horizontal scalability. This means that as more nodes are added, overall performance and availability will increase. This is in contrast to vertical scalability, which would require upgrading to a server with more resources each time.
- **Backup retention:** We offer several service packs that meet your test, development and production needs. They include different backup retention periods for each of these uses.
- **Backups included:** Each of our solutions includes a backup. It is performed in real time to a remote location by default, so you can restore your data from an earlier point in time.
- **TLS encryption:** Cassandra uses the Transport Layer Security/Secure Sockets Layer (TLS/SSL) protocol to encrypt data at rest or in transit, in order to ensure the confidentiality of your data.
- **High Availability:** With a cluster of 3 nodes available by default, the Enterprise pack gives you a guaranteed service level of 99.95%. You also get an additional guarantee for your most critical deployments.
- **Replication nodes:** By replicating your data via these nodes, you ensure redundancy and increase data availability.
- **Real-time log visualisation:** With this feature, you get an overview of your last 100 log lines. This simplifies the process of running diagnostics on your database, and optimises the running of your application.
- **Private network connectivity (vRack):** With our Business and Enterprise solutions, you can restrict access to your database service thanks to our private network. You also get up to 2Gbit/s bandwidth.

Managed Database - M3DB

Deploy an open source, distributed and high-performance time series database engine instantly to collect your metrics on a small or large scale. M3DB is compatible with Prometheus and offers excellent data compression while ensuring maximum resilience. By using Managed Databases for M3DB, you can focus on your applications. The service is fully managed in terms of configuration, monitoring, backup, redundancy and updates.

Features

- **Optimised storage:** With the M3TSZ float64 algorithm inspired by Gorilla TSZ compression, the storage optimisation ratio can reach a value of x11.
- **TLS encryption:** Transactions to M3DB are transferred via HTTPS protocol, which ensures transaction security on the transport of data, and the identification of the service.
- **Avoid vendor lock-in with PromQL:** Established as the standard in the field of monitoring, PromQL enables metrics to be addressed with both standard and custom tools avoiding vendor lock-in as a result.
- **Designed for load balancing:** The M3DB design has been redesigned to scale horizontally, so users can add nodes as required. This way, the workload is automatically distributed across the cluster nodes, and you do not need to add more systems.
- **High Availability:** Business and Enterprise packs guarantee resilience for your data, with triple synchronous data replication and consistency checks that can be adjusted to suit your needs.
- **Private network connectivity (vRack):** With our Business and Enterprise solutions, you can restrict access to your database service thanks to our private network. You also get up to 2Gbit/s bandwidth.

Managed Database - M3 Aggregator

Deploy an M3 Aggregator architecture dedicated to aggregating streams, and free up resources on your M3DB database. It also integrates the streams directly into your metrics workflow. When data streams from the same time series database come from multiple sources (e.g. multiple workloads contributing to a single metric), your data needs to be aggregated to provide relevant analysis and efficient storage. An M3 Aggregator deployment will be directly compatible with your M3DB database, and will spare you the task of managing this type of infrastructure.

Features

- **Designed for load balancing:** The M3 Aggregator is designed to scale horizontally, so you can add nodes as required. This way, the workload is automatically distributed across the cluster nodes, and you do not need to add more systems.
- **High availability:** You can ensure optimal resilience for your data, with triple synchronous data replication and consistency checks that can be adjusted to suit your needs.
- **Aggregation rules managed by etcd before flushing:** The rules you are about to set up are shared within the cluster using etcd. Once it is applied, the aggregated data is pushed into your M3DB database.
- **TLS encryption:** Transactions to M3 Aggregator are transferred by HTTPS protocol, which ensures transaction security on data transport and service identification.
- **High Availability:** Business and Enterprise packs guarantee resilience for your data, with triple synchronous data replication and consistency checks that can be adjusted to suit your needs.
- **Private network connectivity (vRack):** With our Business and Enterprise solutions, you can restrict access to your database service thanks to our private network. You also get up to 2Gbit/s bandwidth.

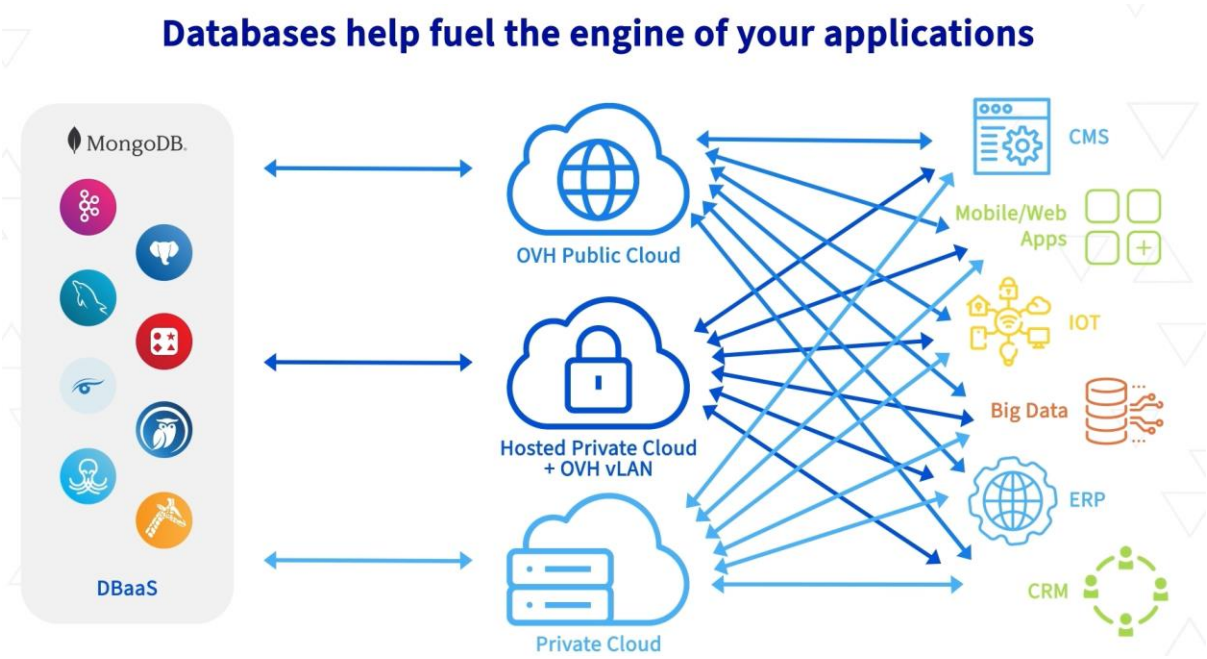
Managed Database Summary

OVHcloud deliver a selection of the most popular open-source databases, each supporting your business applications.

In every case you need it to integrate seamlessly, using the right DBaaS from a cloud service provider like OVHcloud is easy to select and spin up to suit your business need.

Consuming DBaaS efficiently integrates into your deployed infrastructure, whether you are running a Public Cloud or Hosted Private Cloud environment, which you may want to supplement with additional services. DBaaS integrates across all OVHcloud infrastructure deployments like Bare Metal, Public Cloud Instances, Managed Kubernetes …

In all these scenarios you receive a robust private and public network to ensure adequate connectivity and security.



5.4 Managed Data Platforms and AI as a Service (AIaaS)

In addition to our range of storage and machine learning solutions, OVHcloud offers a portfolio of data analytics services to effortlessly analyse your data. From data ingestion to usage, we have built clear solutions that help you control your costs and get started quickly.

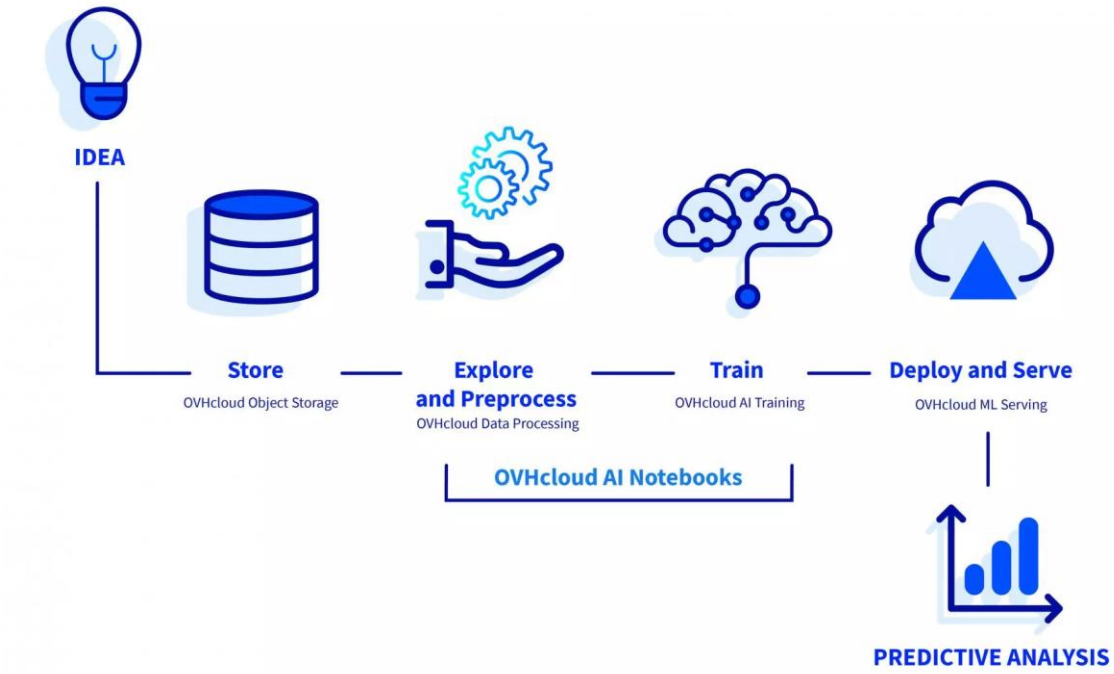
Open-source: In the world of data, open-source solutions are now the most well-developed, high-performance offerings. OVHcloud chose to base its solutions on open-source software, such as the Apache Hadoop and Apache Spark suites. Our own developments are also open source, so that the tech community benefits from them.

Compliance and security for data: As a cloud provider responsible for hosting personal data, our commitment involves respecting data confidentiality.

Simple, predictable pricing: OVHcloud works hard to offer simple pricing — and to achieve this, traffic is not billed for IT resources.

Hybrid cloud architectures: With our private network features (vRack), our data analytics products can be connected to all of the other products in our online catalogue: Private Cloud, Public Cloud and Dedicated Servers. This way, you can always find a solution that is adapted to your future challenges.

Reversibility: OVHcloud takes sovereignty and freedom of personal data very seriously. You can recover your data at any time using standard protocols.



5.5.1 Data Processing

Data processing refers to the process of analysing raw data. These vast volumes of data are crucial for companies. Once the data is processed, it offers a better understanding of sales figures, the effectiveness of a marketing campaign, and financial risk. This operation is divided into several steps:

Data collection. The amount of data collected influences the quality of the result. It can come from different sources: customer files, inventories, previous studies, and more. To be usable, it must be reliable.

Data preparation. This phase involves “cleaning” the databases. It aims to eliminate poor quality elements and/or errors.

Importing processed data and starting processing. To automate this analysis, you need to use a machine learning algorithm**.**

Data interpretation. In this step, you can extract information that everyone can read and use. Data storage. The data may be used for future studies.

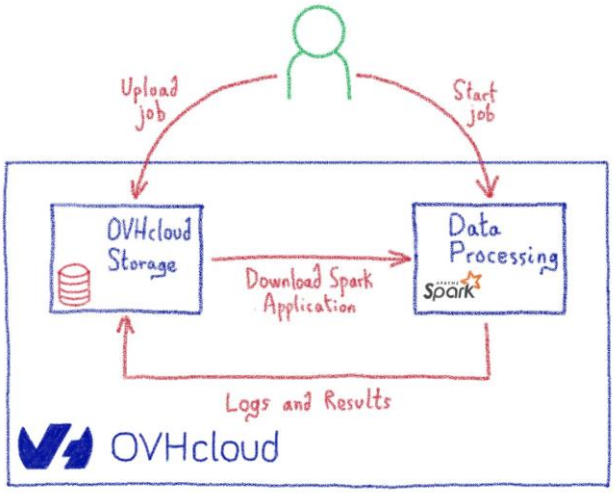
Data storage is subject to regulations. For example, the GDPR requires a secure, compliant solution for all your data.

Quick, simple data analysis with Apache Spark

When you want to process your business data, you have a certain volume of data in one place, and a query in another, in the form of a few lines of code. With Data Processing, OVHcloud deploys an Apache Spark cluster in just a few minutes to respond to your query.

To implement efficient data processing in your company, you can deploy a dedicated Apache Spark cluster in just a few minutes. To do this, simply go to the OVHcloud Control Panel and deploy your cluster. You can then start your data processing**.**

OVHcloud carefully optimises its deployments, and this has made it able to create and destroy Apache Spark clusters on demand, which are used to process high volumes of data. Once they are deployed, Spark will directly browse through the data and load it into the memory, then process it all at once before delivering the result and freeing up the resources.



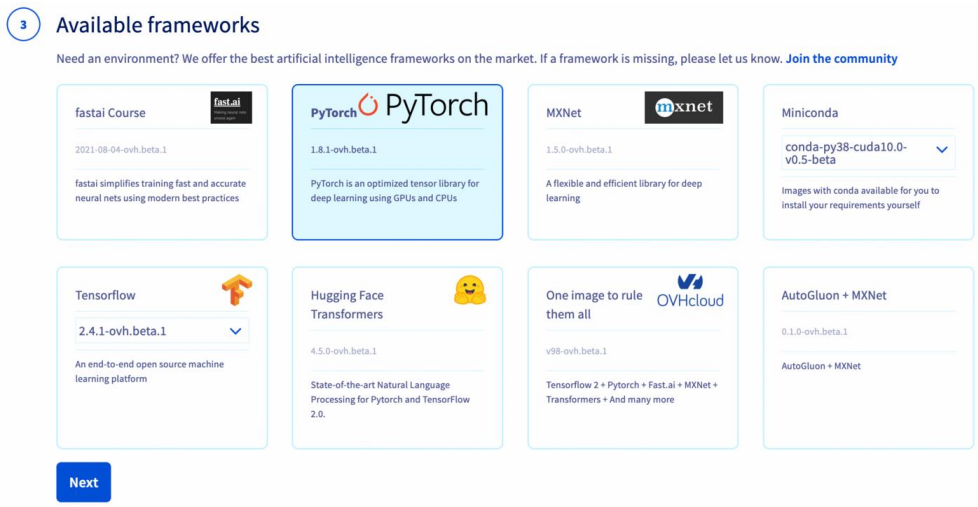
AI Notebooks

Use our AI Notebooks solution for quick access to Jupyter or VS Code, and launch your notebooks quickly with the resources you need. You also get secure user access, simplified use of your data, and the most popular artificial intelligence frameworks (TensorFlow, PyTorch, Hugging Face and Scikit-learn) to develop your business.

For developers and data scientists: We offer fully-managed artificial intelligence (AI) work environments. This way, you can focus on your projects rather than your infrastructure. Launch notebooks in just a few clicks, or from the command line — then add your data. Your project is now operational.

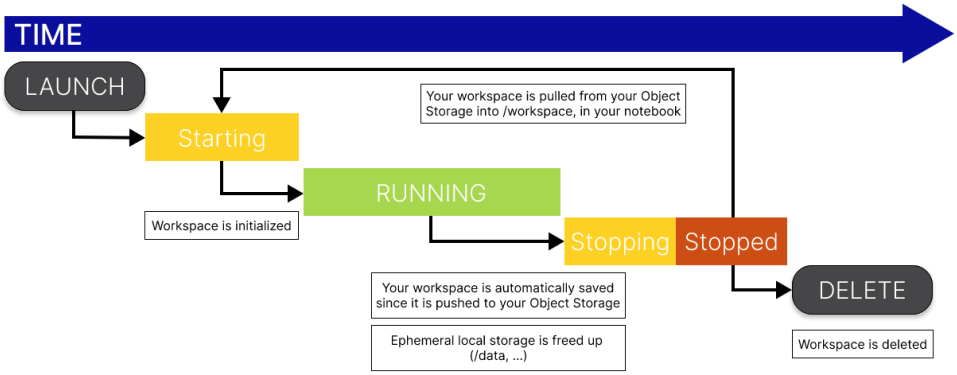
Clear and flexible pricing: Allocate dedicated CPU and GPU resources to your notebook when you need them. You are charged for resources according to your usage. We offer simple, per-minute pricing, so you can manage your budget.

The most popular AI frameworks: With our AI Notebooks solution, you can use the most widely-used frameworks natively: TensorFlow, PyTorch, Scikit-learn, MXNet and Hugging Face. You can also import many additional libraries.



Built on open and open-source standards: AI Notebooks offers the most popular code editing applications: Jupyter and VS Code. By default, each notebook is compatible with industry-leading applications and frameworks such as Scikit-learn, TensorFlow, PyTorch and Hugging Face. This means you get total reversibility for your projects**.**

notebook's workspace storage usage during its various states:



AI Training

Launch your AI training tasks in the cloud, without having to worry about how the infrastructure works. AI Training enables data scientists to focus on their core business, without having to worry about orchestrating computing resources.

AI Training is a technology-neutral platform. It is based on the open-source Kubernetes platform, so you can optimise the resource usage for your training, depending on your needs. This public cloud solution is commitment-free, pay-as-you-go, and dynamically adapts to your resource usage to offer you maximum flexibility and power. AI Training drastically improves productivity for data scientists and simplifies day-to-day work by eliminating complex engineering tasks.

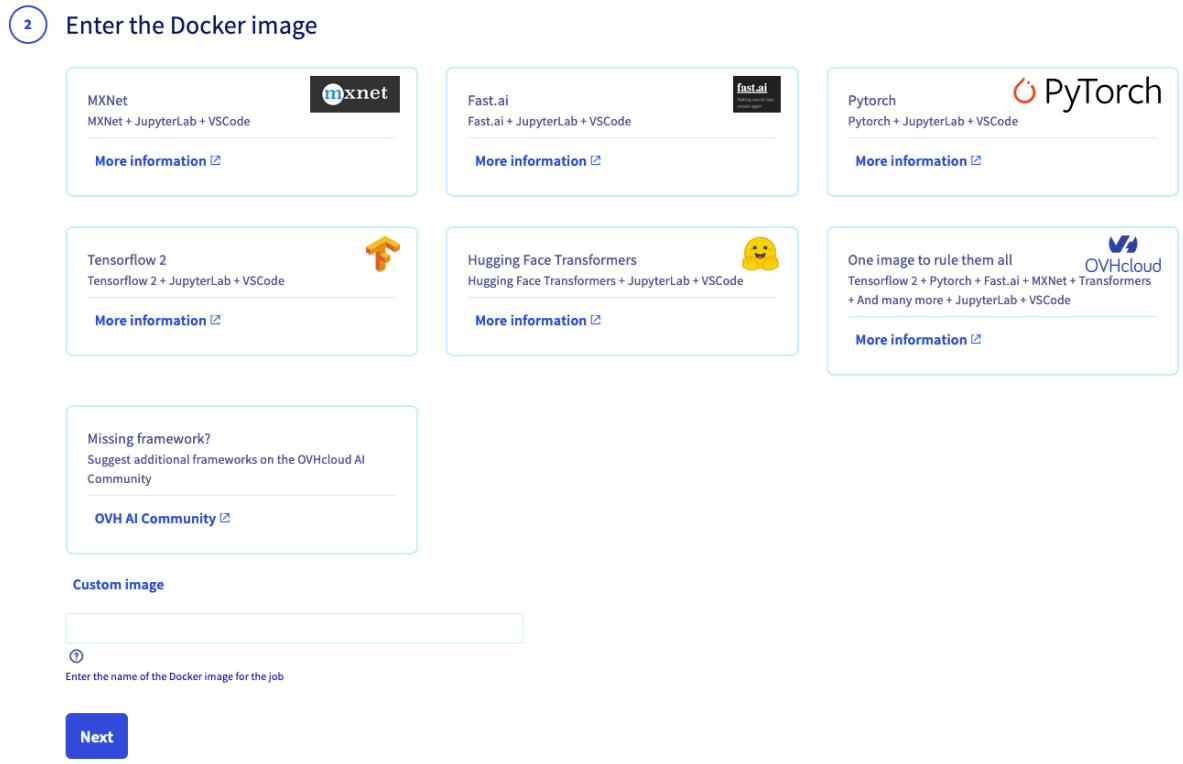
For developers and data scientists: Develop your models with popular frameworks like Scikit-learn, XGBoost and TensorFlow. Launch training tasks on one or more CPU/GPU nodes in a few seconds. All you need to run is a single line of code or an API call

Resource optimization: Our solution manages usage planning for your CPU/GPU computing resources. This means you do not need to factor it into your organisation.

GPU power at the best price: AI Training offers you the best prices on the market for CPU/GPU resources. Billing per minute is transparent, which simplifies the way you manage your budget, and helps you optimise your spending.

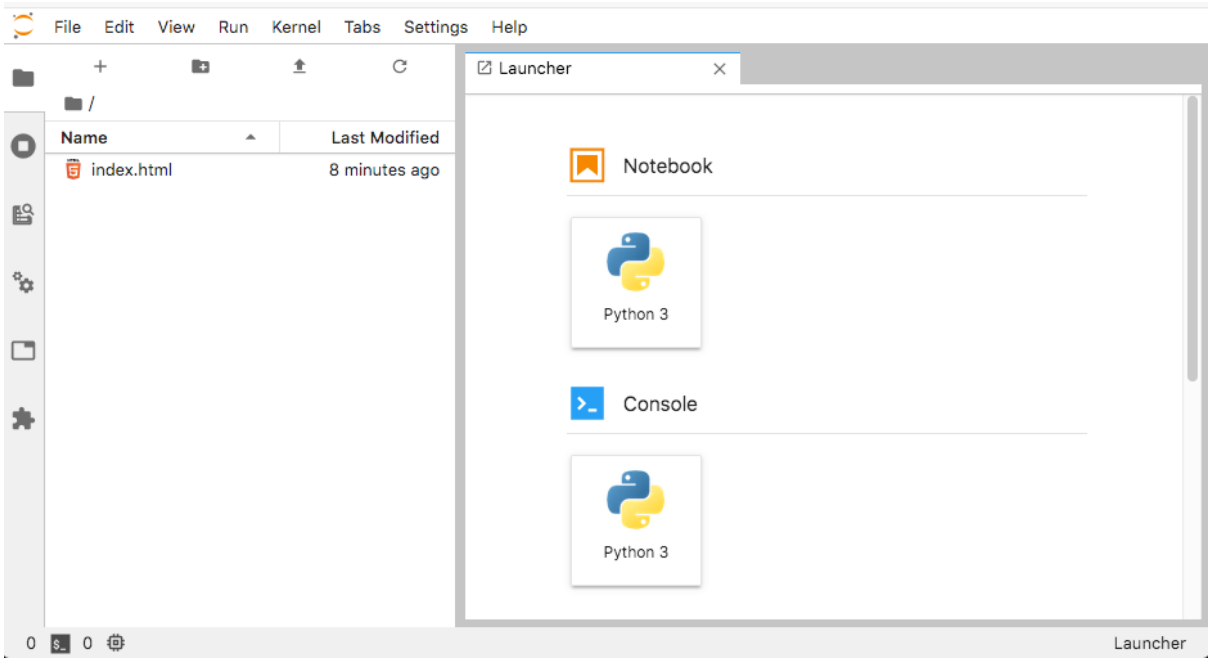
Built on open and open-source standards: AI Training is natively compatible with industry-leading applications and frameworks, such as Scikit-learn, TensorFlow, Pytorch and Jupyter Notebook. Transparency is a key value of ours, and we promise total reversibility for your training processes.

Preset Images: OVHcloud provides a set of images from which you can choose to ease the submission of your first jobs. Provided images are essentially a JupyterLab environment bundled with some Deep Learning technology such as Tensorflow or MXNet.



In most provided preset images you can choose which editor you prefer between JupyterLab and VisualStudio code.

Select the one that you want to use and you will be redirected to the corresponding one.



AI Deploy

Effortlessly deploy machine learning models and applications

When you have reached the end of an AI project cycle, putting your machine learning models or applications into production, this can be a resource-intensive stage. To facilitate this, deploy your Docker images effortlessly and without Kubernetes expertise using AI Deploy. Carry out requests via API for your models and via the web interface for your production applications, while OVHcloud manages the infrastructure and security of the environments.

Speedy managed deployment: Switching from a machine learning prototype to deploying a model into production is often a time-consuming process. Use AI Deploy from your Control Panel, via the API or in the command line (CLI), and easily industrialise your models with flexibility in a matter of minutes.

No architecture to manage: Export your models or applications in a Docker image, and AI Deploy will take care of the rest. Your deployments are supported with total abstraction of the hardware architecture.

Flexibility and performance: Specify a minimum and maximum number of instances for your deployments, and only pay when you use them. AI Deploy uses automatic scaling. Whether you have 10 requests per day or 10,000 per minute, we will increase and decrease the resources you need to give you an optimal experience.

CPU and GPU resources: Deploy models and applications with NVIDIA CPUs or GPUs according to your needs, even for the most demanding inferences.

High availability: Select deployments on multiple instances to benefit from high availability. Load balancing is automatic and managed by AI Deploy.

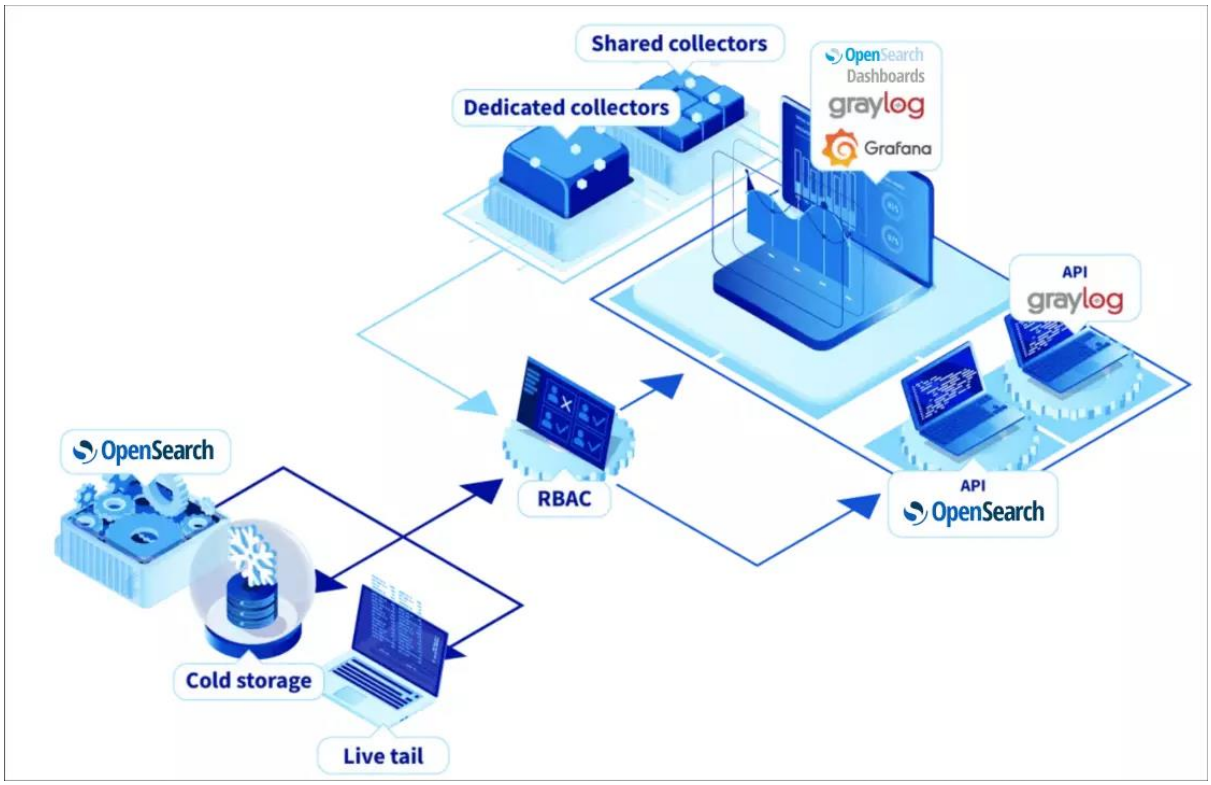
Ready-to-use models: With our ecosystem of partners, you can access a catalogue of ready-to-use models to speed up your application and service development and give you a competitive edge.

To help you harness the power of your data securely, we work with partners that guarantee data sovereignty, reversibility, simplicity, and transparency of our solutions.

Auto-scaling: Whether your model receives a high volume of requests, or you use it at specific times of day, we automatically scale its deployment so it adapts in record time.

5.5 Logs Data Platform

Increase visibility into your applications' environments by collecting, processing, analysing and storing your logs in a full-featured, managed platform. Log analyses are vital in keeping your infrastructure and applications up and running. We provide a cost-effective, turnkey solution designed for scale, so you can focus on your core responsibilities.



Powerful and scalable

We facilitate log analysis so you can focus on your core responsibilities. This complete platform enables the collecting, indexing, storing, and analyzing of logs. Store and process your logs on a highly available and scalable infrastructure. Send a few logs per minute, or thousands of logs per second. Our Logs Data Platform combines the performance of OVHcloud infrastructure with the power of OpenSearch - providing sub-second search results.

Secure and centralised storage of your logs

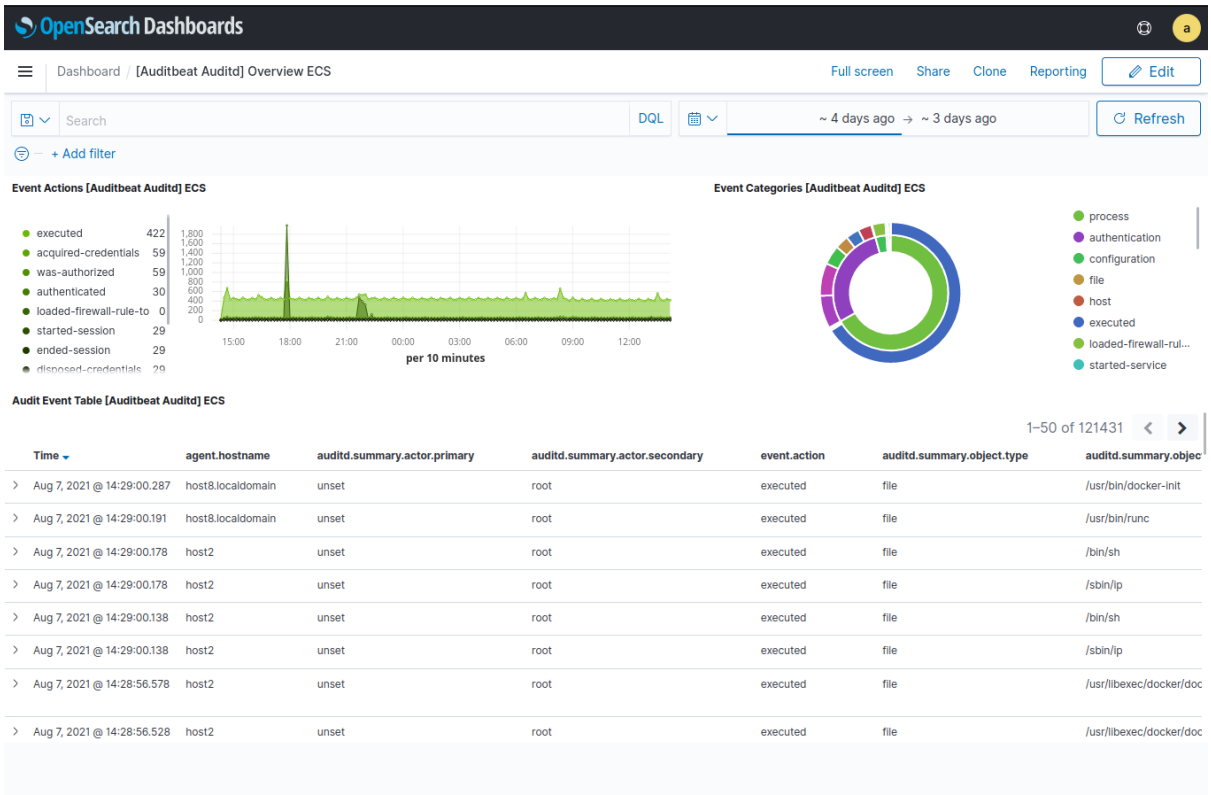
Storage of your logs is isolated by default. For the highest security requirements, a dedicated physical storage option is available. Facilitate auditability by indexing and storing your logs with a

retention policy of your choice. Log transfers are secured with TLS encryption and the platform includes built-in DDoS protection.

Standard and reversible

Take advantage of our complete log analysis tool. Benefit from the full OpenSearch (OpenSearch Logstash OpenSearch Dashboards) ecosystem, while using your existing tools; including Graylog, Grafana, Flowgger collectors and Filebeat.

Leverage our hardware agnostic platform to send your log file from any cloud provider, or from on-premises clusters.



Enterprise-grade log management

With Logs Data Platform, you can store your logs in complete isolation, within an entirely dedicated cluster. This ensures compliance with your corporate security policies. Thanks to the dedicated cluster, you can access your firewall and configure the Network Access Control List. You can also set up a custom retention policy. Get complete isolation from storage, collection, and visualization, by leveraging our advanced options. This helps your log management solution comply with even the most stringent security requirements.

6.0 Backup And Resiliency

Following OVHcloud services are included in this section

1. Veeam Managed Backup for VMware Infrastructure
2. Veeam Enterprise Platform for all backups
3. Managed Zerto Platform for VMware Infrastructure

6.1 Veeam Managed Backup for VMware Infrastructure

Protect and back up your virtual machines to ensure long-term stability of your infrastructure. Our managed backup solution based on Veeam Backup & Replication technology, you can use it to restore your data simply, by enabling automatic backup for your VMs.

Backup-as-a-Service: VM backups are fully automated and monitored by OVHcloud. You can restore these machines at any time.

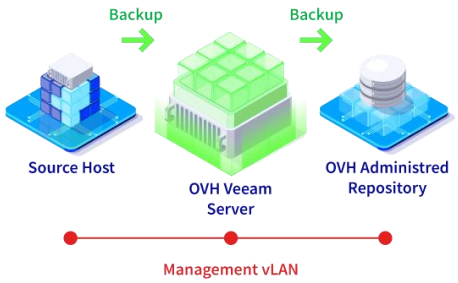
Storage included: Your data backups are stored in dedicated, complimentary infrastructures. You can access your backups easily via an administration link.

Daily monitoring: You are sent a custom report every day. This report will include a list of all your backups, and their respective statuses.

Features	Standard	Advanced	Premium
Custom backup report	Yes	Yes	Yes
Encrypted backup	Yes	Yes	Yes
Custom start time for backups	No	Yes	Yes
Number of retentions (1 point = 1 day)	14 points	35 points	35 points
Number of full backups	2	5	5
Off-site replication	No	Yes	Yes
Choice of days for each backup	No	Yes	Yes
Long-term retention (GFS Retention)	No	No	Yes (11 points)
1 proxy backup per host	No	No	Yes

Automatic, transparent and with no impact on available space

Your managed backups are taken from the VMs selected, using the OVHcloud Veeam Server. Then your management vLAN for your infrastructure transfers your data to your repository configured in RAID. This operation is fully managed by our teams. With this additional storage, you will have more usable usable space on the infrastructure.



To enable Veeam Managed Backup on your Hosted Private Cloud, you need to create a virtual machine based on Windows. If you have a Windows Datacenter licence ordered from OVHcloud, the licence cost will be included. If you do not have a Windows Datacenter

licence ordered from OVHcloud, an additional charge will be applied for the licence. To create a Windows VM, you will need to enable the HA and DRS services in vSphere. This virtual machine will follow the DRS affinity rules you have defined.

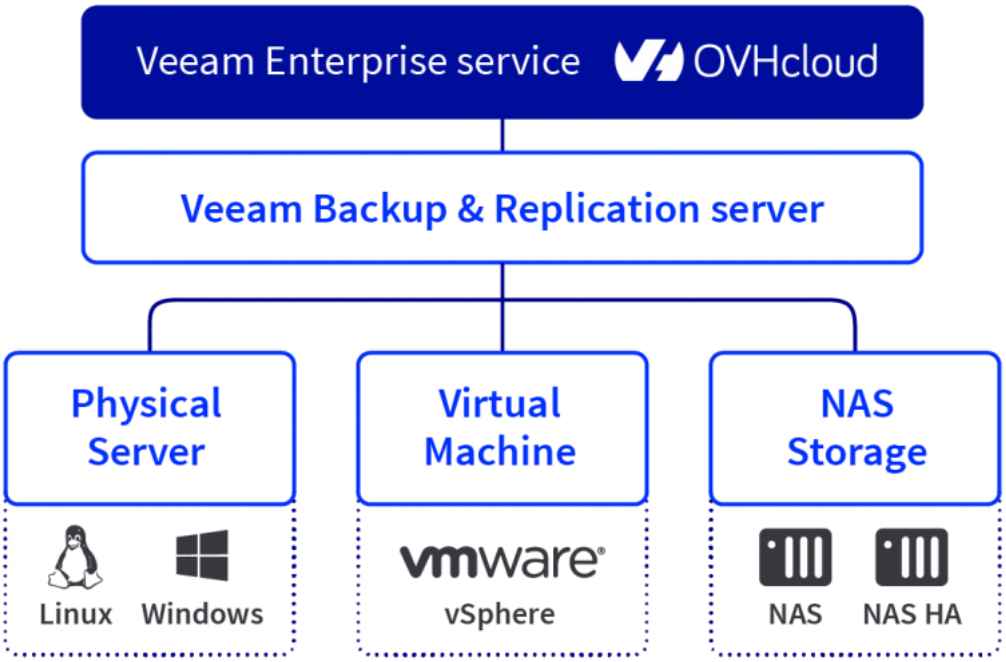
Backup stability

For stability reasons, we cannot take backups of VMs with a volume higher than 2TB. If you have over 15 VMs backed up, you might need to create an additional proxy backup to ensure that your backups will be taken successfully.

6.2 Veeam Enterprise Platform for all backups

Veeam Backup & Replication platform uses Enterprise Plus licences from OVHcloud to ensure backup, recovery, and replication for multiple strategic workloads including VMware, Windows and Linux physical servers, and NAS storage. Compatible with:

- Virtual machines running VMware
- Windows and Linux physical servers
- NAS storage



Secure your business: Set up backup and replication for your applications, machines and data, so that you can get back up-and-running quickly if your infrastructure experiences any downtime.

Get full control of your backups: Manage all of your backups at OVHcloud or in your own datacentre regardless of the number of machines you have, or their location.

Pay-as-you-go: our services are billed as closely as possible to your real-time usage of our solution, from the following month onwards.

6.3 Managed Zerto Platform for VMware Infrastructure

The Zerto platform, managed by OVHcloud, guarantees resilience for your data in a datacentre of your choice by protecting your critical environments against data loss, technical issues and service interruptions.

Easier implementation: Get full access to the Zerto Virtual Manager (ZVM) via existing OVHcloud vSphere accounts. Using the Zerto ZVM API, you can improve your disaster recovery plan (DRP) after an incident. With the RESTful API, you can automate the many tasks that are required for managing recovery after an incident, without having to use the Zerto user interface.

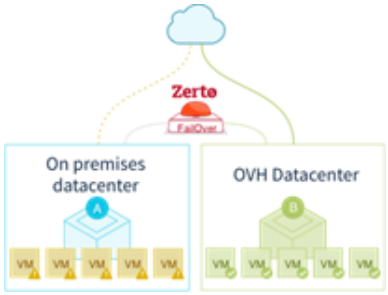
Continuous syncing: Virtual machines are copied at an average speed of 90MBps*. The OVHcloud network is 10 times faster than what is standard on the market, which mean your data can be copied in almost real time.

*Average speed recorded over one week of syncing between our Roubaix and Strasbourg datacentres. This information is not contractual.

Secure data transfer: Your data is synced via the private fibre optic network between OVHcloud datacentres. Your data is transferred between remote sites via a VPN, so all data transfers are secure.

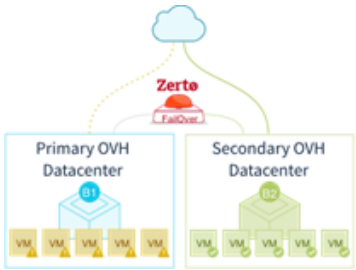
Disaster recovery from any primary site to OVHcloud:

In the event of a technical incident, the applications hosted on an on-premises datacentre are switched to your OVHcloud infrastructure.



Disaster recovery from one Hosted Private Cloud to another

In the event of a technical incident, the applications hosted on your Hosted Private Cloud are switched to a second solution, changing their location as a result.



Optimised Recovery Point Objectives and Recovery Time Objectives : With Zerto and continuous high-bandwidth syncing, the risk of data loss before the switch is absolutely minimal. The recovery time objective (RTO) is optimised before the virtual machines are automatically switched onto the backup infrastructure.

7.0 Network and security solutions

Following OVHcloud services are included in this section

1. Failover IP
2. vRack
3. Anti-DDOS
4. Loadbalancer
5. Bandwidth
6. OVHcloud Connect

7.1 Failover IP

A Failover IP is an Additional IP that can be switched from one service to another in the same datacentre. You can also switch IPs between different datacentres if the datacentres are in the same country.

The key benefits of Floating IPs are:

- enabling IP blocks, so you can configure multiple IP addresses to your services.
- allowing for failover, so you can switch between services effortlessly.
- assigning additional geolocated IPs to expand your global audiences.

IP blocks: By adding IP blocks, you can configure multiple IP addresses to your services. You can assign IPs into groups of 4, 8, 16, or up to 256 per server, with unlimited block publications. This makes upgrades simple, as you can reroute your IP to new hardware, rather than having to reconfigure the static IP. With multiple IPs grouped into blocks, you can manage your platforms more efficiently — upgrading and migrating from one service to another with ease. IP blocks increase your control and speed, so that you can execute your business strategies and responses quickly.

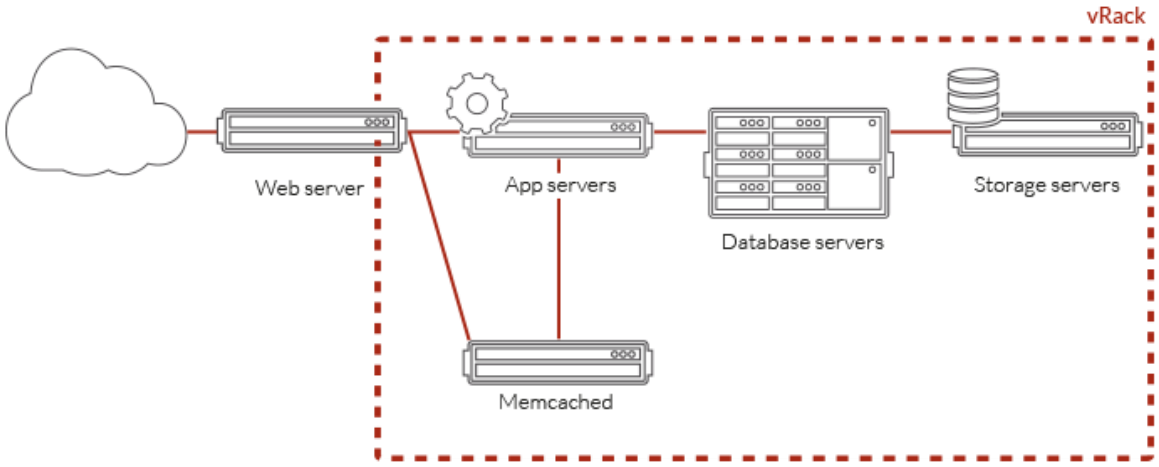
Failover Capabilities: Failover IPs, also named floating IPs, can be switched from one service to another in a few seconds. This means you get an uninterrupted hosting solution, and it helps you overcome issues such as hardware failure, system overruns, and other kinds of infrastructure issues. This way, if you switch from one service to another, you can keep the entire configuration linked to that IP. Floating IPs provide a solution which removes interruption or downtime if servers are overrun, and can be used in this way for “Always On” availability.

IP Geolocation: With our announcement IP service, you can expand your project for a global audience. With OVHcloud, you can link to additional geolocated IPs. Additional IPs can be geolocated in 14 available destinations. This considerably improves the ranking of your projects in popular search engines, radically improving your webpage SEO status.

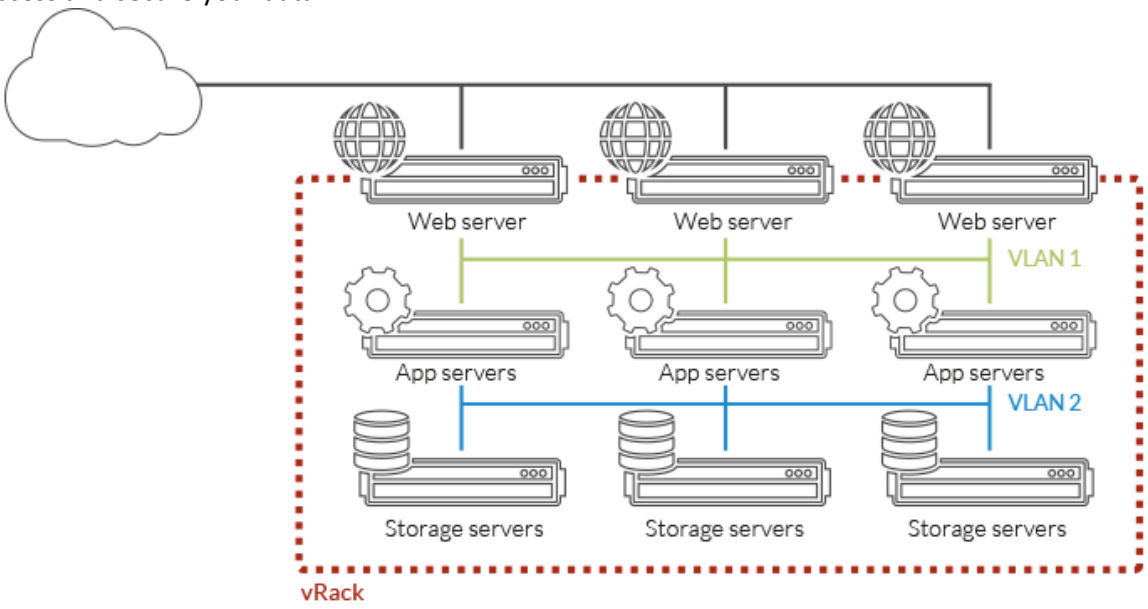
7.2 vRack

The vRack (virtual rack) technology enables your OVH services to be connected, isolated or spread across one or multiple private secure networks. Build complex private infrastructures on a global multi-datacenter scale using unique network technologies.

Build your private network: The vRack enables you to isolate your critical servers within a private VLAN. Your data is secure and communication between your servers is not routed via the public network.



Multiply your VLANs : Deploy up to 4000 private VLANs to isolate your servers, to filter customer access and secure your data.



A multi-service infrastructure: The vRack adapts to the needs of your business. Build your infrastructure using the products and services of our Infrastructure, Storage, Big Data and Private Cloud ranges.

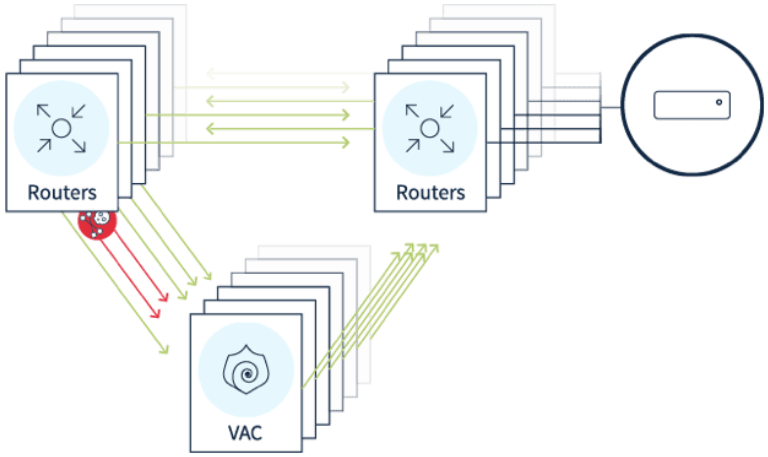
High security infrastructure: Using bastion hosts or similar secures access to your VLANs to the maximum, as an extension of your company network or as part of a critical data hosting system.

Multi-datacentre VLAN: The vRack functions between the various OVH datacentres. From Europe to Canada, design your private redundant infrastructures distributed between multiple datacentres.

7.3 Anti-DDOS

OVHcloud Anti-DDoS solution fights against these distributed denial-of-service attacks. With all of our services, we include a migration solution based on a unique technology, which combines three technologies to:

- analyse data packets quickly in real-time
- divert your server's incoming traffic
- separate non-legitimate requests from others and let legitimate traffic pass through



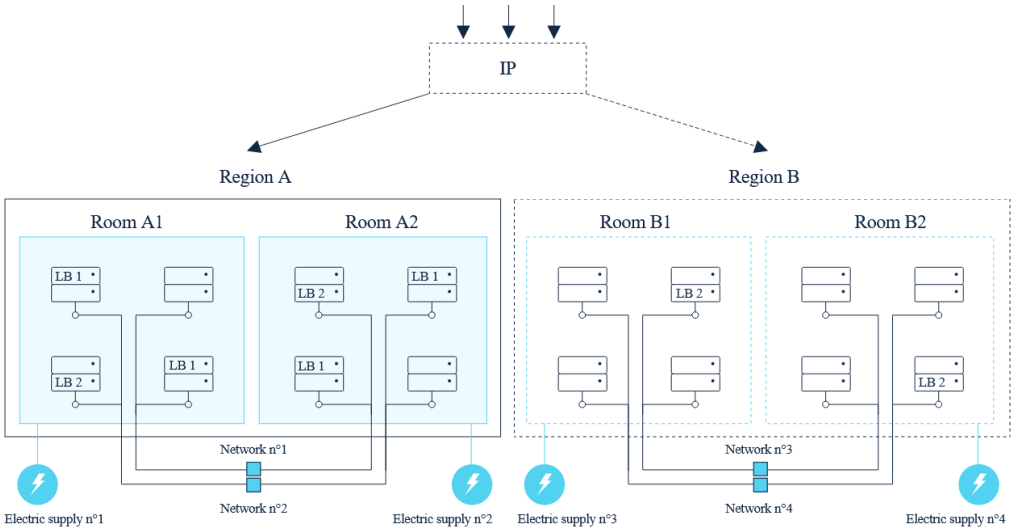
Included Features

- **Mitigation:** Measures put in place to protect your system against DDoS attacks, while letting legitimate traffic pass through.
- **Firewall Network:** Permanently active L7 mitigation protection, exclusive to Game servers and specifically designed for certain gaming and communication protocols.
- **Game Anti-DDoS:** A software program you can use to deploy custom rules for filtering traffic, giving you more adapted protection.
- **VAC:** An infrastructure designed and deployed by OVH for all our services, to vacuum and mitigate traffic during a DDoS attack.

7.4 LoadBalancer

The OVH Load Balancer distributes the load between your various services in our datacentres. With this service, you can scale your infrastructure to handle high volumes of traffic, gain a high fault tolerance, and provide optimal response times. All of this comes with a service that aims for Zero Downtime

Infrastructure:



Included Features

- **Failover IP:** If you migrate your load balancing IP from one Load Balancer solution to another, it will work without any interruptions, allowing you to mitigate hardware issues, excessive loads on your infrastructures, and much more.
- **Anycast:** The Anycast DNS system means that the server nearest to your user's location will load your website, improving load times.
- **Advanced probes:** Optimise server usage in your farms, using our advanced probes, which are adaptable to most situations.
- **SSL between LB and server farms:** Maintain a high level of security and process HTTPS requests by activating SSL on your Load Balancer, as well as between your Load Balancer and servers.
- **Routing/ACL:** Go even further with your Load Balancer! Route, redirect or reject traffic depending on the HTTP method used, or even the value of a cookie or an HTTP header.
- **Advanced probes:** Use advanced probes to optimise your server usage and monitoring. With these probes, you can finely configure the way your Load Balancer verifies the status of your servers. This way, you can choose to keep a server in the farm, or temporarily remove it to avoid any impact on your service, when necessary.

7.5 Bandwidth

We include public bandwidth as well as additional guaranteed bandwidth options and unlimited, unmetered traffic.

Unlimited and unmetered traffic: Our bandwidth is unlimited and unmetered. Depending on your project's resource requirements, you can also choose an additional guaranteed bandwidth option to boost your default public bandwidth. This means you can maintain constant throughput for ingress and egress traffic.

Optimal network connectivity: The OVHcloud network infrastructure adapts to your users' needs and locations, to guarantee the quickest data transfer speed for your customers. With our

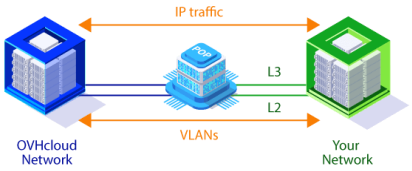
bandwidth options, you can harness the power and reach of OVHcloud's global infrastructure. Optimal performance delivers minimal latency, a better user experience, and better traffic flow.

7.6 OVHcloud connect

With our OVHcloud Connect hybrid connection solution, you can form a secure, high-performance link between your company network and the OVHcloud vRack.Data is transferred through our infrastructures via our Direct solution, and you get a dedicated connection with 1Gbit/s or 10Gbit/s bandwidth.You can also choose our Provider solution, with one of our partners. With this solution, you get from 200Mbit/s to 5Gbit/s bandwidth, and even more global coverage.

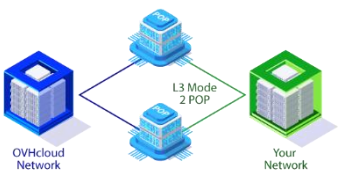
Global coverage through points of presence from both OVHcloud and our partners: With our extended network, we are as close as possible to your datacentres. Connect your network to OVHcloud infrastructures via our global points of presence, or those offered by our partners.

Layer 2 or layer 3 connection: A layer 2 connection simplifies the way you connect your datacentre's campus network to your OVHcloud vRack private network.



With a layer 3 connection, you can connect your company's WAN network to your OVHcloud vRack private network, so that it is considered as a site within your company network. This option is only available for our Provider solution.

Geographical redundancy and SLA: Layer 3 networks require one or more private external BGP (Border Gateway Protocol) sessions to be established between your company and OVHcloud.



For critical environments, redundancy is strongly recommended with two OVHcloud Connect solutions distributed between two geographically distinct points of presence, using BGP redundancy mechanisms.

8. OVHcloud Support Services

Technical support
Our team handles incidents via telephone, email (ticket) and live chat. From the Premium level upwards, you can also get on-demand support as you get started with your services.

Service objective
Our customer support teams are available for incident management, either during working hours (Standard and Premium level) or 24/7 (Business and Enterprise level). We also prioritise requests according to the level of support the customer has subscribed to. Our goal is to provide you with a first response within 15 minutes to 8 business hours.

Support Levels
For production environments, we recommend signing up to the Business or Enterprise level of support in order to get a proactive, targeted service, pre-sales engineers and experts (on request, plus pricing). In addition to service objectives and support technicians, Account Managers, appointed Technical Account Managers (Enterprise support only) and Solutions Architects are on hand to help you meet the technical challenges you face on a daily basis.

Online Help Centre
You can access our Help Centre. This will contain all of the resources available to help you use your services — guides, tutorials, FAQ, chat bot and diagnostic tools.

Our Status page provides information on overall maintenance operations, as well as any major incidents that are ongoing. Finally, you can visit the OVHcloud Community space to ask questions, search for information, publish content and interact with other users.

Standard Support Level
Standard Support is included with all OVHcloud solutions. This level is mainly for autonomous customers who use services for non-critical applications.

Resources, tools and a community: From the Standard support level upwards, you have access to a comprehensive support centre where you can browse guides, tutorials and FAQs. To give you total independence and transparency, we offer a range of tools for managing your services.

- Control Panel
- Task Statuses
- Datacentre monitoring
- Network monitoring

Our community can also answer your questions in the OVHcloud Community space.

Technical support during working hours: Our Support team is here to help you during working hours, with the aim of providing a first response within 8 working hours. In the event of an incident or for administrative questions, you can reach us by ticket via the OVHcloud Control Panel (Support request tab).

The Standard service level is suitable for non-critical environments owned by independent customers. We recommend signing up to a Premium, Business or Enterprise solution to get a higher level of service.

Premium Support Level

Does your business need quicker response times from our support teams? With Premium Support, your support requests are prioritised over Standard Support customer requests. We recommend it for non-critical environments.

Technical support during working hours: As a Premium customer, you get priority access to support during working hours compared to customers with Standard support. Our goal is to provide you with a first response within 2 business hours. The handling time is quicker than with Standard Support.

Communication and support channels: Your requests can be processed via all our customer support channels (telephone calls, tickets) — no matter what the nature of your request is.

Business Support Level

The right level of support for production environments. OVHcloud Business Support provides 24/7 access to technical support. The purpose of this is to provide a first response within 30 minutes to your critical incidents (criticality level P1). It also gives you the option of requesting additional cloud architecture services (on quotation).

Custom service: We are keen to build a solid relationship with your teams, based on sharing information openly and transparently. These discussions will give us a better understanding of your infrastructure, and the challenges you face. A telephone number (with no additional charge) is provided for all customers who sign up to Business support — and they can use this in addition to other communication channels. You can also use the OVHcloud Control Panel to submit your requests to our technical Business Support team.

Reactivity: We implement a range of measures to ensure that we process requests for critical production environments more quickly than for lower support levels. This way, your requests are prioritised over the Standard and Premium support levels. For non-urgent maintenance operations scheduled in advance, we will warn you beforehand via notification whenever possible, so that you can manage your services.

Expertise: With Business support, you can stay in contact with a team of dedicated engineers who deliver the ultimate customer experience. Together with your teams and our experts, we advise you on your infrastructure, and develop both action plans and continuous improvement plans.

Enterprise Support Level

Enterprise Support provides you with key account expertise for your critical production environments, with extensive 24/7 technical support and additional services.

Extended technical support: 24/7 access to Enterprise support engineers and priority support for your requests over other support levels. A telephone number (with no additional charge) is provided for all customers who sign up to Enterprise support — and they can use this in addition to other communication channels.

Categorisation of requests: To track your support requests depending on how critical they are, we have set up a system with 5 priority levels. Depending on the circumstances, a maximum priority incident (P1) may automatically trigger the setup of a crisis unit led by the Technical Account Manager. They will then coordinate the actions between our teams, so that we can get your service up and running again as quickly as we can.

Proactivity and custom services: Your IT infrastructure is subject to regular custom monitoring, so you will be informed of any maintenance operations. We will detail how the maintenance will be carried out, and any potential impacts we expect to result from it. Whenever possible, we also offer an extended time slot for maintenance, so that you can adapt it to suit your business requirements. On request, during certain tests (e.g. disaster recovery plans, infrastructure migration), our experts will help you create a project plan (on quotation).

Security audits: With Enterprise support, you can request an audit of the infrastructures you own, both on-site and remotely (4 hours of audit/year). This is to ensure that the OVHcloud ISMS is working properly for certified services, or to help you receive a certification. These audits will be organised depending on the availability of security teams, and procedures for accessing our datacentres. They must be requested a minimum of 30 days in advance.

Technical Account Manager: The Technical Account Manager is responsible for your onboarding, and regular monitoring of your OVHcloud solutions. They are your appointed technical contact point. This contact will be available continuously to help you use your services, and will help you implement the infrastructures your projects are based on.

Every month, they draw up an activity report. This document lists the availability rates for the services, the follow-up to support requests, a dashboard for resource usage, and recommendations for upgrading the OVHcloud infrastructures you use.

Finally, if you need advanced or specific support, they can mobilise one or more specialists (e.g. architects, security experts) on quotation.

Professional Services

Get ahead of the game with OVHcloud expertise and build your teams' skills with Professional Services. Our multi-cloud experts will guide you in making choices and opting for the right technology to ensure long-term success for your business.

OVHcloud Professional Services provides technical advice and support for all client transformation projects. Our cloud architects have an in-depth understanding of the cloud offerings on the market — and, of course, they have the most advanced expertise on all OVHcloud solutions.

We support all of our customers with every step of their projects — no matter how ambitious they are — from defining the target architecture to migrating environments and training your teams. Depending on the project and your expectations, we may recommend partners who will deliver the very best experience for your cloud and on-premises environments.

Professional Services operates around 3 main axes of value-added services.

- Training
- Delivery
- Technical advice

Assisted Migration Services	Audit Services	Training Services

Clear and Robust Methodology

- Discovery: Understand your business goals, use cases, and gather necessary information.
- Design & Planning: Plan most suitable solution based on OVHcloud best practices.
- Testing: Perform in-house testing of your solution and check for any optimization.
- Execution & Review: Assist you in your Implementation and perform post-implementation review.

Professional Services Packs: VMware Hosted Private Cloud

Hosted Private Cloud Basics (1 Day)	Hosted Private Cloud Complete (5 Day)
○ VMware vSphere	○ VMware vSphere
○ VMware NSX	○ VMware NSX
○ OVHcloud Private Networking	○ OVHcloud Private Networking
○ Veeam Backup	○ Veeam Backup
○ Zerto Replication	○ Zerto Replication

VMware vROPs (1 Day)	VMware vSAN (1 Day)
○ vROPs Dashboard	○ vSAN Functionality
○ vROPS Reporting	○ vSAN Deployment

Veeam Backup Services (1 Day)
○ OVHcloud Managed Backup
○ Veeam Enterprise Plus
○ Veeam Jobs and Functions
○ Veeam Configuration
○ Veeam Backup, Replication, Restore

Disaster Recovery Plan Standard (1 Day)	Disaster Recovery Plan Advanced (1 Day)
○ Disaster Recovery Plan Strategy	○ Discovery Workshop
○ Workloads	○ DR Assessment and Recommendations
○ Validation	○ Delivery (Technical Guidance)
○ Methodology	
○ Zerto Software	

Migration (1 Day) – non-complex architecture	Migration (2 Day) – complex architecture
○ Discovery	○ Discovery
○ Target vDC requirements	○ Target vDC requirements
○ VM testing and connectivity.	○ Configuration of vSphere Target vDC
○ NSX basics	○ NSX migration
○ VM migration – Guidance	○ VM migration – assistance as needed

NSX-T Basic (1 Day)	NSX-T Kick Start (2 Day)	NSX-T Advanced (5 Days)
Discovery	Discovery	Audit & Discovery
Design	NSX-T Design and Deploy	Design Architecture
Deploy	NSX-T test	Deploy and Test
NSX-V to T Migration	Migration VM and N/W Stack	Migration VM and N/W Stack

Professional Services Packs: Nutanix Hosted Private Cloud

Onboarding Basics (1 Day)	Onboarding Advanced (2 Days)
Discovery	Discovery Workshop
OVHcloud Nutanix Architecture	OVHcloud Services and Architecture
OVHcloud Private Networking	Customer specific Discovery
OVHcloud IP Load Balancer	Customer specific Design
Design	Customer Specific Build and Deploy
Build	

Professional Services: SAP Hosted Private Cloud

SAP HANA on Private Cloud (5 Days)	SAP HANA on Bare Metal Servers (2 Days)
Discovery Workshop	Discovery Workshop
Architecture Review	Architecture Review
Design	OVHcloud Networking
Implementation Guidance	Design
Deploy	Deploy
Backup and Recovery	Backup and Recovery

Professional Services: Public Cloud

Onboarding Basics (1 Day)	Onboarding Advanced (2 days)
Openstack	Openstack
Compute	Compute
Management	Management
Network and Security	Network and Security
Storage	Storage
Design	Design and Scripting

Professional Services: Managed Kubernetes

Managed Kubernetes Onboarding (2 Days)	Managed Kubernetes Training (2 Days)
What is Managed Kubernetes	Containerization and Kubernetes
Best Practices	Workloads
Implementation and Migration	Storage and Security
Automation	Deployment

Rancher (1 Day)
Discovery
Best Practices
Implementation
Migration

Professional Services: Database as a Service (DBaaS)

DBaaS Discovery (1 Day)
Learning and Using OVHcloud DBaaS
DR and Backup Strategies
Architecture
Implementation

MongoDB Basic (1 Day)	MongoDB Advanced (2 Days)
NoSQL	MongoDB and NoSQL Principles
Best Practice	Workshop
Architecture Reference	Architecture and Best Practices

Professional Services: Data Processing and AI Workflows

Discovery and Plan (1 Day)	Discover, Plan and Deploy (2 Days)
Discovery Workshop	Discovery workshop
Data processing	Use Case Assessment and Review
AI Notebooks	Architectural Review and Plan
AI Training	Implementation Guidance
AI Deploy	Deploy
Architectural Review and Plan	