Migrate to the cloud for unprecedented control and scalability.

Gain a competitive edge with a hyperconverged infrastructure.

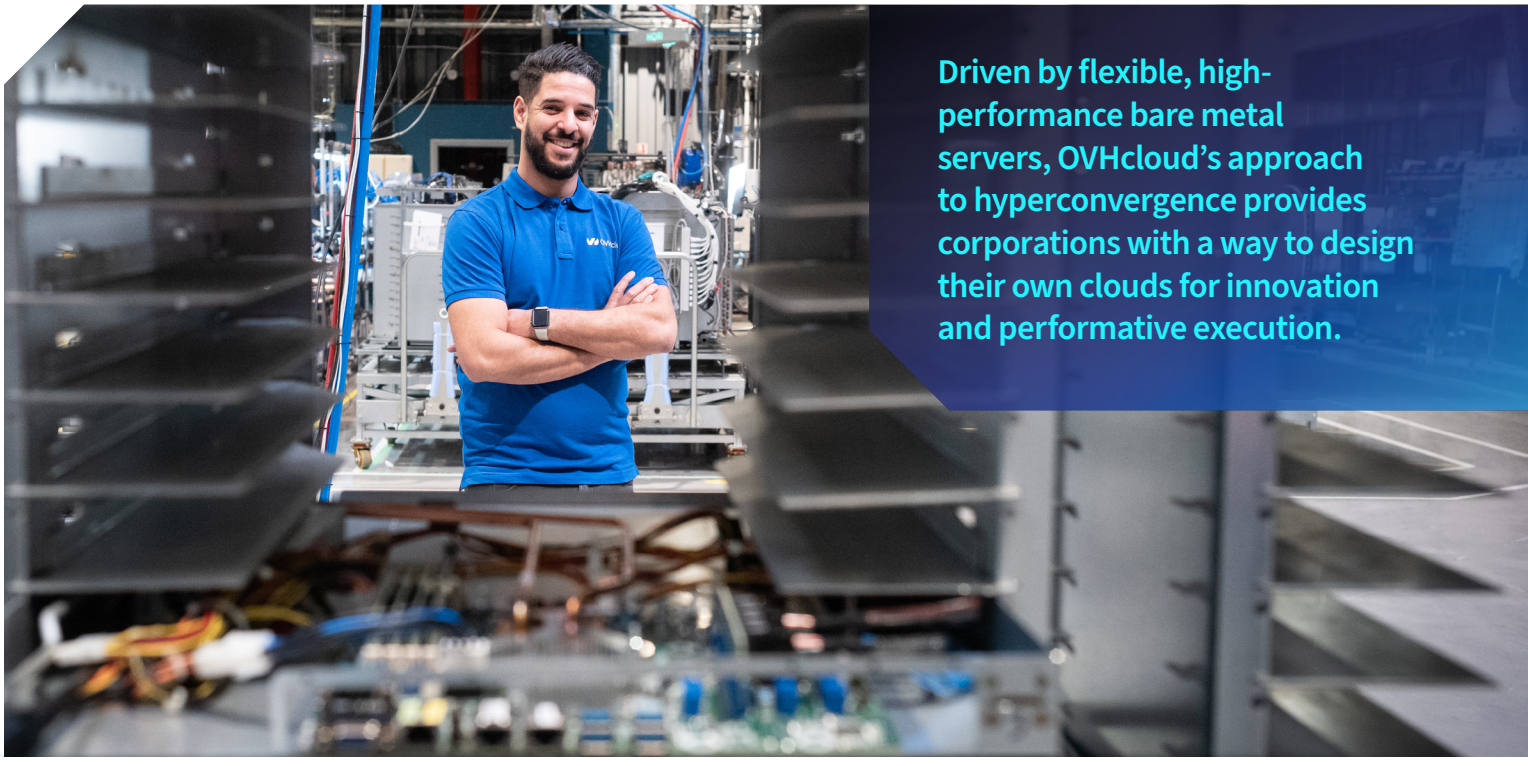
White Paper by

OVHcloud®

Moving to an HCI offers substantially increased simplicity, improved performance and decreased costs.

Since the tech boom of the 1990s, legacy three-tier infrastructures have dominated at many corporations and tech firms. Once so game-changing, the three silos of dedicated storage, network and server now hold companies back. They make management and deployment more complicated than necessary, locking IT into multi-year plans that often quickly lose their relevance as the business and tech worlds continue to evolve.

By today's standards, these legacy structures are too complex, increasing costs and limiting an enterprise's ability to scale up as needed. While three-tier infrastructures sustained corporations for decades, expanding demand for increased performance, speedier time to market, and streamlined management have steered many enterprises in a new direction — towards Hyperconverged Infrastructure (HCI). With expansive benefits that include enhanced scalability and efficiency along with a healthier bottom line, many tech firms and corporations are turning to HCI to maintain a competitive edge. Driven by flexible, high-performance bare metal servers, OVHcloud's approach to hyperconvergence provides corporations with a way to design their own clouds for innovation and performative execution. HCI, in short, is the go-to for companies that want cloud-ready data centers and an edge that keeps them competitive.



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What is a HCI?

A data center migration is the process of migrating an entire pre-existing, on-premises infrastructure to the cloud, hosting it in an external data center and decommissioning the existing infrastructure.

To discuss hyperconvergence, it helps to look at an overview of a converged infrastructure, the step that leapfrogged enterprises from legacy infrastructures to HCIs. A converged infrastructure utilizes hardware, whereas HCI is software-defined. This makes the latter a more flexible solution and allows it to share storage to all virtual machines.

So how, then, is HCI structured? It unifies the data center stack by virtualizing the compute, storage and networking of the infrastructure. Software running on a server node is performant and resilient and distributes operation functions. This scalable alternative gives companies an approach that not only benefits their bottom line but streamlines in-house IT.

Benefits of HCI for corporations.

HCI offers structural and operational simplicity. This translates into a range of benefits for an enterprise, including improved performance, a reduced data center footprint and decreased costs.

One way HCI does this is by eliminating the traditional siloed structure that had bogged down the works in legacy solutions and drove up IT work hours and costs. In legacy structures, fragmentation across an enterprise often resulted in one silo draining storage and compute from other silos, reducing overall efficiency. As a unified and standardized infrastructure, HCI is the obvious answer to this pain point. As an extension of this unification, an HCI environment also significantly reduces IT hardware and the engineers needed to manage that hardware. While legacy infrastructures required several IT staff to manage both virtual and physical services, HCI offers the option of having one engineer manage a single platform. Taking an HCI approach also allows a company to switch out a multi-data center approach for one data center run in tandem with a public cloud, further reducing costs and operational redundancies.

Finally, making the move to an HCI environment eliminates one of the most significant costs in legacy solutions — underuse of resources. Three-tier systems by definition required planning and provisioning for years in advance. IT teams would draft three or even five-year plans, making assumptions that often did not play out as expected. This resulted in chronic underuse of resources and, of course, wasted money.

As a SaaS/IaaS option, HCI eliminates this financial pain point, as well as the significant upfront licensing fees associated with legacy infrastructures. Companies pay as they go and as they scale up or down, resulting in significant cost savings and ROI.

HCI Use Cases

The first part of having an HCI environment is combining storage, compute and networking in a single environment. Simplifying the overarching needs of a full on-prem data center. Think of it as a way to host an entire company's server operations contained within one compact environment, lowering the total cost of ownership (TCO).

The second part is to virtualize these components by using a top-of-the-line virtualization platform such as VMware's vSphere, Nutanix's Acropolis or Proxmox Virtual Environment. By utilizing the same virtualization platform across all of your nodes, you will increase your interoperability and will be able to create some stellar environments for your business needs. Following are some common use cases of HCI.

Hybrid Cloud

Using a hybrid-cloud model is a great business practice for any company that values affordability, security and simplicity. By combining dedicated servers with a private cloud environment, you gain the added benefit of having these bare metal servers run intensive backend applications, have extra storage for backups or disaster recovery, and still possessing the flexibility of adding and removing resources in your cloud environment. The hybrid cloud model has gained a lot of traction over recent years due to its increased agility to meet ever-changing business need. It is quickly becoming one of the most popular ways for businesses to setup their infrastructure. By utilizing a hybrid-cloud approach with OVHcloud's Hosted Private Cloud and HCI-ready Dedicated Servers, you'll be able to leverage the same tools and processes across your entire infrastructure, saving you time, money and frustration.

Having your e-commerce website inaccessible to customers during a sale or promotion can cost money. Worse, having your company's image tarnished by frequent or long outages can cost your company its reputation. Traditional disaster recovery options often involve the expense of building an entire remote data center and copying all of your data to this location. With a hybrid-cloud model, disaster recovery becomes a breeze. You can make a sustainable disaster recovery infrastructure for a fraction of the cost using bare metal servers at the DR site and virtualizing the replication through private cloud, creating low recovery point objectives (RPOs) and recovery time objectives (RTOs) in the process.

Virtual Desktop Infrastructure (VDI)

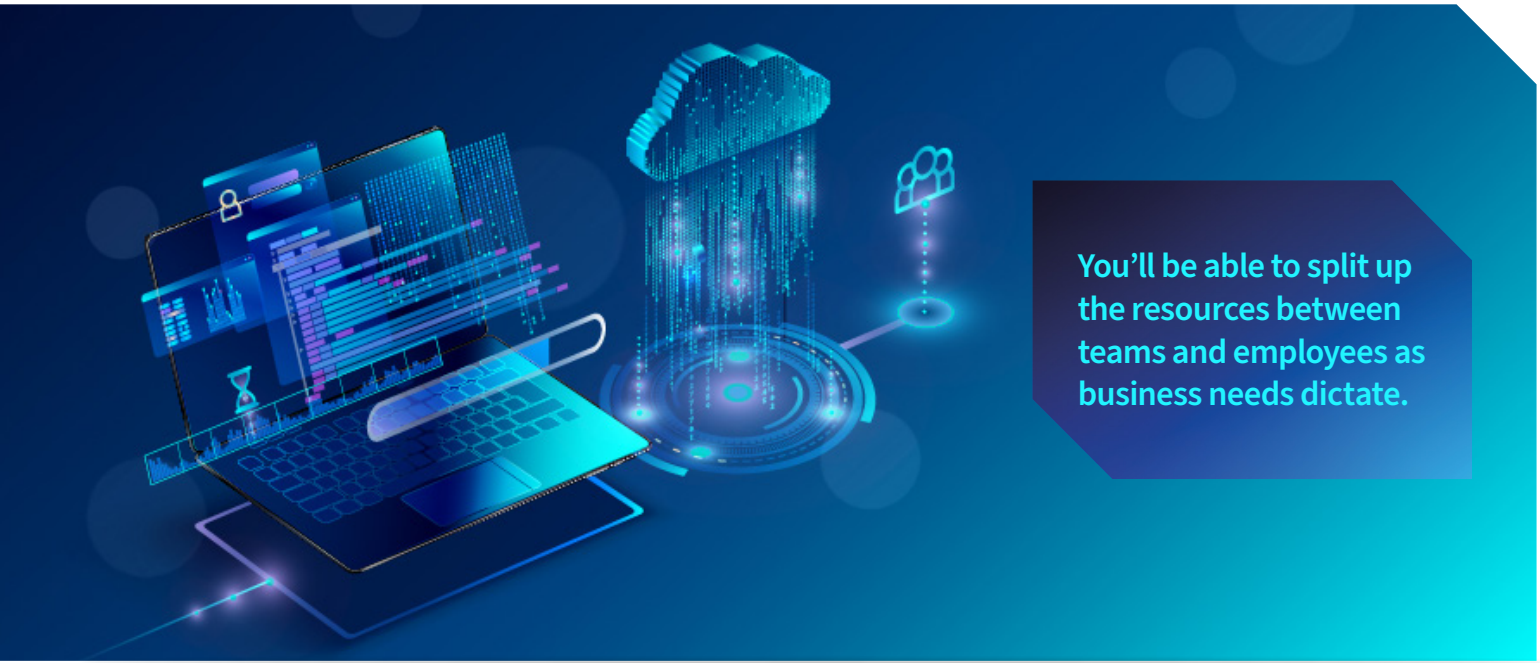
Setting up a VDI is a great way to save time and money. Being able to use the same image on multiple desktops is extremely helpful and efficient for support, network and security teams. You can save a lot of money by not having to purchase expensive desktop and laptop upgrades, additional software or storage. Updates will be centralized for device maintenance and can be taken care of faster and safer without unnecessary downtime. Creating a VDI pool for each of your teams will secure your environments. You can instantly grant or deny access by simply adding users to different pools. VDI will save your business time and money, and improve internal security.

Creating a VDI for your company with OVHcloud's ready-to-deploy dedicated High Grade HCI Intel servers will provide you with the best of both worlds — top-of-the-line hardware with a reduced cost to your business.

You'll be able to split up the resources between teams and employees as business needs dictate.

Let OVHcloud worry about the hardware. Whether you are using VMware or Nutanix, bring your vCenter or Nutanix Cloud Platform licenses over and get ready to experience the power of a hyperconverged infrastructure on our next generation hardware. By using an OVHcloud HCI-ready Dedicated Server and creating a VDI, you can quickly reallocate any resources necessary to additional teams. Need more storage space for a team? Simply allocate it to the team's VDI pool.

Need to get rid of a set of images? Simply delete the pool. The flexibility and convenience of using VDI pools is outstanding and utilizing OVHcloud's top-notch hardware will make sure your employees don't have to worry about performance issues.



HCI ROBO Solutions

With remote office/branch office (ROBO) IT personnel, you can significantly lower IT costs, have an increase in IT expertise, and have a follow-the-sun, round-the-clock work model. However, having remote employees all work on the same infrastructure can be a nightmare, causing a huge slow-down in productivity, and remote-accessing storage arrays can be extremely complex and difficult. But, by utilizing HCI, the heavy lifting can be done for you. By virtualizing the storage environment, your HCI environment takes control of the storage-related tasks from the physical software. This allows users to effectively and efficiently access data remotely, presenting the same view into the virtualized storage arrays, and granting remote employees access to critical data.

HCI enables companies to get more out of existing servers. By consolidating the data in a centralized location, the data is readily available. This is especially helpful for users in ROBO locations that need to access the data as if it were right next to them. Because users are all presented with the same common view into the storage, it doesn't matter where they are geographically located.

HCI solves the challenges of ROBO deployment by eliminating the need for duplication of infrastructure, decreasing the time of data transfer, being a more scalable option, and having a simplistic data storage environment.

By virtualizing the storage environment, your HCI environment takes control of the storage-related tasks from the physical software.

Software as a Service (SaaS) Hosting

Expensive, complicated and often long-term licensing, long installation times and compatibility issues have given birth to a new software model known as SaaS. SaaS solves the issues of the long-term contracts with expensive corporate software. Having a SaaS provider means having peace of mind. No complex long-term software contracts, no multi-user licensing to worry about, and no compatibility issues to keep on top of. By taking an HCI multi-data center approach to SaaS, you are able to reach your customers in a time-sensitive manner without having to staff at each location.

It's critical to have your SaaS services located near your customer base to reduce latency and foster a seamless experience. It's important to partner with a provider with a global multi-data center presence to meet your needs.

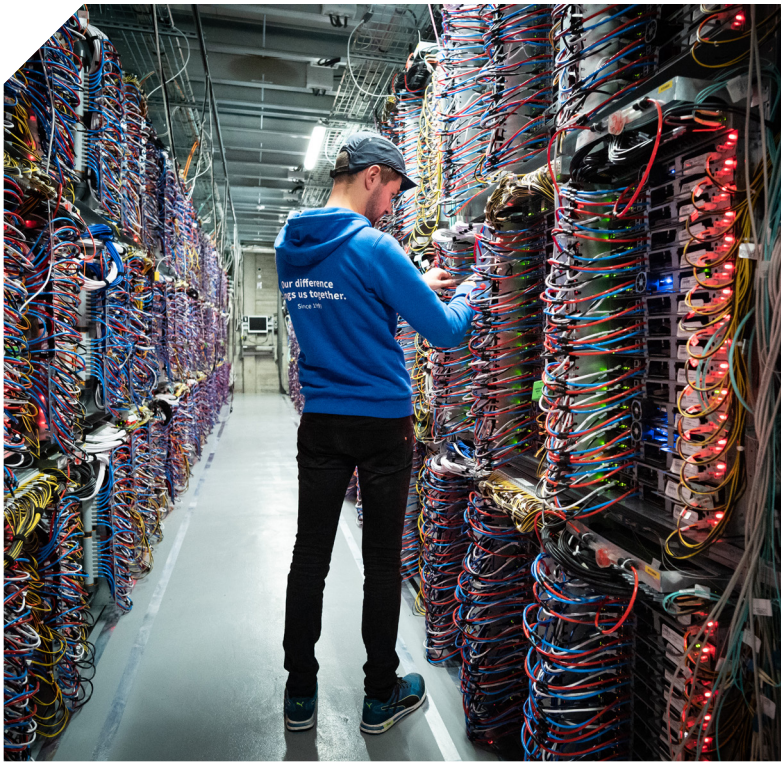
Location isn't the only important thing to consider when hosting demanding software. In order to host robust software solutions, you also need the right equipment. Making sure that your servers have the processing power, RAM and fast storage options for your customers is imperative. By providing cutting-edge software without pricey long-term contracts, you'll be able to satisfy your customers' demands.

Having the ability to team up with OVHcloud and use our bare metal dedicated servers will ensure that you can meet all of your customers' needs. With top-of-the-line Intel and AMD processors, up to two TBs of RAM and tons of NVMe storage options, your software will run smoother than ever. With so many configuration options and vast amounts of resources available to you, creating application servers for your clients will be easier than ever.

Big Data

Development costs, storage requirements, processing and compute requirements, security and upscaling issues — Big Data is expensive and complicated. Not only do you need to have a comprehensive plan to capture valuable data types, you also need to have a server capable of processing the information. This requires a lot of RAM for accessing and storing data on a short-term basis and fast SSDs or NVMe storage on a permanent basis. But storing the data isn't the only hurdle. You need to make sure that the processing power of your server is up to the task. Having a best-in-class processor will ensure you're able to keep up with the high demands of processing seemingly unrelated data into valuable business trends.

But what happens when you need to store even more data? NVMe storage can get expensive quickly, and it's unrealistic to store petabytes of data using those drives. This is where cold storage comes into play. Not all of your data will need to be accessed on a day-to-day basis, but it's imperative that when it is needed, you are able to access it quickly. Utilizing OVHcloud's archive and cold storage, you are able to store swaths of data and access it quickly on our new Scale and HG range servers that come equipped with 25Gbps interfaces and are capable of 10Gbps data transfer.



Having amazing storage and processing isn't enough. You have to make sure your data is safe. According to RiskBased Security's 2020 Q3 Report, 2020 was the worst year for information being exposed at 8.3 billion records. It's important when choosing a cloud provider that you pick someone who understands how critical data security is. In choosing a powerful OVHcloud Dedicated Server, you will enjoy the advantage of being the only tenant, and be able to rely on our strong security standards, anti-DDoS protection and industry certifications. We take your data seriously, and we are constantly improving and looking for any vulnerabilities in our network.

The benefits of HCI are numerous, from simplicity and improved performance to substantial decreases in costs.

OVHcloud US is a subsidiary of OVHcloud, a global player and Europe's leading cloud provider operating more than 400,000 servers within 37 data centers across four continents. For over 20 years, the company has relied on an integrated model that provides complete control of its value chain from the design of its servers to the construction and management of its data centers, including the orchestration of its fiber-optic network. This unique approach allows it to independently cover all the uses of its 1.6 million customers in more than 140 countries. OVHcloud now offers latest generation solutions combining performance, price predictability, and total sovereignty over their data to support their growth in complete freedom.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