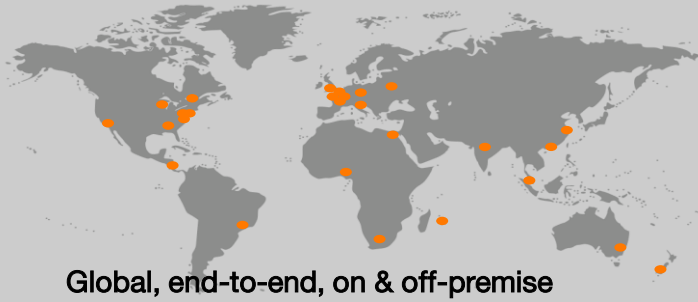


# Private Cloud Solutions

## Hyper-converged private cloud

The **Private Cloud Solutions** from Orange Business Services are deployed by enterprises and public administrations looking for the benefits of the IT modernization with a production grade cloud Infrastructure at scale, while enforcing their own security policies, while complying with the regulatory rules and keeping datacenter location flexibility.



### Our solutions

Designed with most recent cloud technologies of Software Defined DataCenter (Compute, Network, Storage), Orchestration and APIs, the solution is customized to the customer specific needs including:

- location off-site and on premise, security, compliance, availability, disaster protection constraints
- ability to handle legacy applications, next gen applications and specific workloads
- end-to-end solution for multi-site cloud, datacenters, wide-area network and internet
- various degrees of managed services on cloud and legacy IT to meet customer objectives
- assistance in the path from the existing infrastructure to the hybrid cloud and IT target
- commitment to service level agreements

### The solutions serve 12 main objectives









<b>Data protection</b> deploying managed backup to cloud	<b>Disaster Recovery Plan</b> deploying DRP for virtual infrastructure
<b>Security for agile applications</b> deploying micro-segmentation on private cloud	<b>IT services acceleration</b> evolving from virtualization to Software Defined DataCenter
<b>Cloud native applications</b> deploying VM secured containers, orchestrator and registry	<b>Hybrid service catalogue</b> deploying automation and security across private and public cloud
<b>Private datalake &amp; analytics</b> deploying Hadoop and HDFS managed cluster	<b>ERP &amp; database managed</b> with our SAP™ and managed database practice
<b>Infrastructure outsourcing</b> for your private cloud, middleware and applications	<b>Turnkey migration</b> of applications to private cloud with our migration practice
<b>Easily scaling private cloud</b> with hyper-converged managed private cloud solutions	<b>Branch office extension</b> of your private cloud with WAN, security and multi-sites service catalogue

The **Hyper-converged version of the Private Cloud Solutions leverages Nutanix™ hyper-convergence software on Dell EMC™ XC series servers for :**

- a **minimal investment at the start** with combined multi-function servers
- a **progressive investment “as you grow”** with fine grain step of a server
- an **horizontal scale-out design pattern** eliminating bottlenecks
- production grade high-availability and disaster-recovery patterns**



For the complete catalogue of services of the solution, Orange Business Service partners with the following technology leaders :

<b>Hardware</b> 	<b>Hyper-converged</b> 	<b>Cloud foundation</b> 	<b>NAS, Cloud GTW</b> 
<b>Backup</b> 	<b>Object Store</b> 	<b>PaaS</b> 	<b>Big Data</b> 

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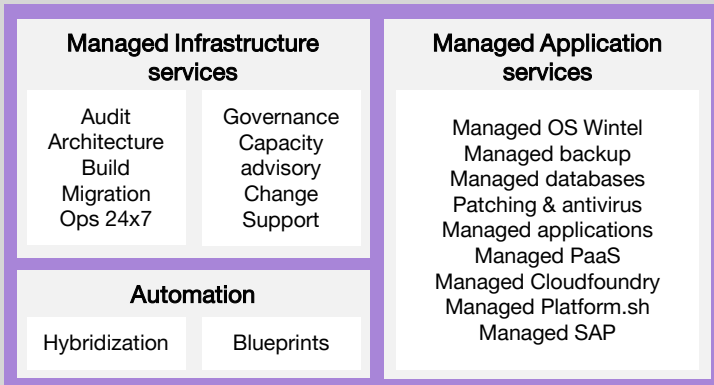
The service catalogue splits into three main folds:

The private cloud foundation services at the heart of the Infrastructure as a Service.

Available in three packages :

- **On-demand Cloud:** resource allocation through request for change or admin
- **Automated Cloud:** user self-service, open APIs with RBAC and orchestrator
- **Micro-segmented Cloud:** security protection at granularity of each VM & Container, NSX SDN

Portal & API				Remote OPS
REST APIs	Orchestration	RBAC	Public cloud plug-in	
<b>Computing</b>	<b>Storage</b>	<b>Network</b>	<b>Security</b>	
VM VM HA-DC Container Physical server	VM volume SAN NAS S3 OBS S3 GTW	Load Balancer Security groups vLAN Connections Branch Office	Firewall Anti-DDOS IDS  HA / PCA Backup PRA	



The private cloud professional and managed services along the whole cycle of the cloud project.

- **Professional services:** expertise and advisory services, from design to run, migration to cloud, governance
- **Managed services:** managed infrastructure, OS, middleware & database, PaaS, applications. Your choice.
- **Automation and hybridization services:** e2e hybridization with public clouds, automation blueprints delivery

The IT specific services since handling the co-existence of cloud and non-cloud IT services in often critical.

- **Managed physical servers and hosting:** complementary to the cloud
- **Managed Datalake and Big Data cluster:** with specific design and middleware
- **Managed Oracle and SAP:** which sometimes involve specific equipment
- **Non cloud IT outsourcing:** when customer want to outsourced other parts of IT

Physical servers	Datalake & Big Data cluster
Co-location	Oracle specific infra
Non cloud IT managed	Other private cloud options

**Highlights of the Hyper-converged Private Cloud Solutions architecture**  
**Orange Business Services** validates reference architectures and operational processes which are adapted to the specific needs of the customer. During the initial phase of the project we establish together the target and path.

