# NECS 4.0
## NRB ENTERPRISE CLOUD SERVICES

HYBRID CLOUD PLATFORM

**NRB**
DARING TO COMMIT

NRB
PRIVATE CLOUD

PUBLIC CLOUD
PARTNERS *

NRB COMMUNITY
CLOUD

NRB MANAGED HYBRID CLOUD

* Azure   aws   IBM Cloud
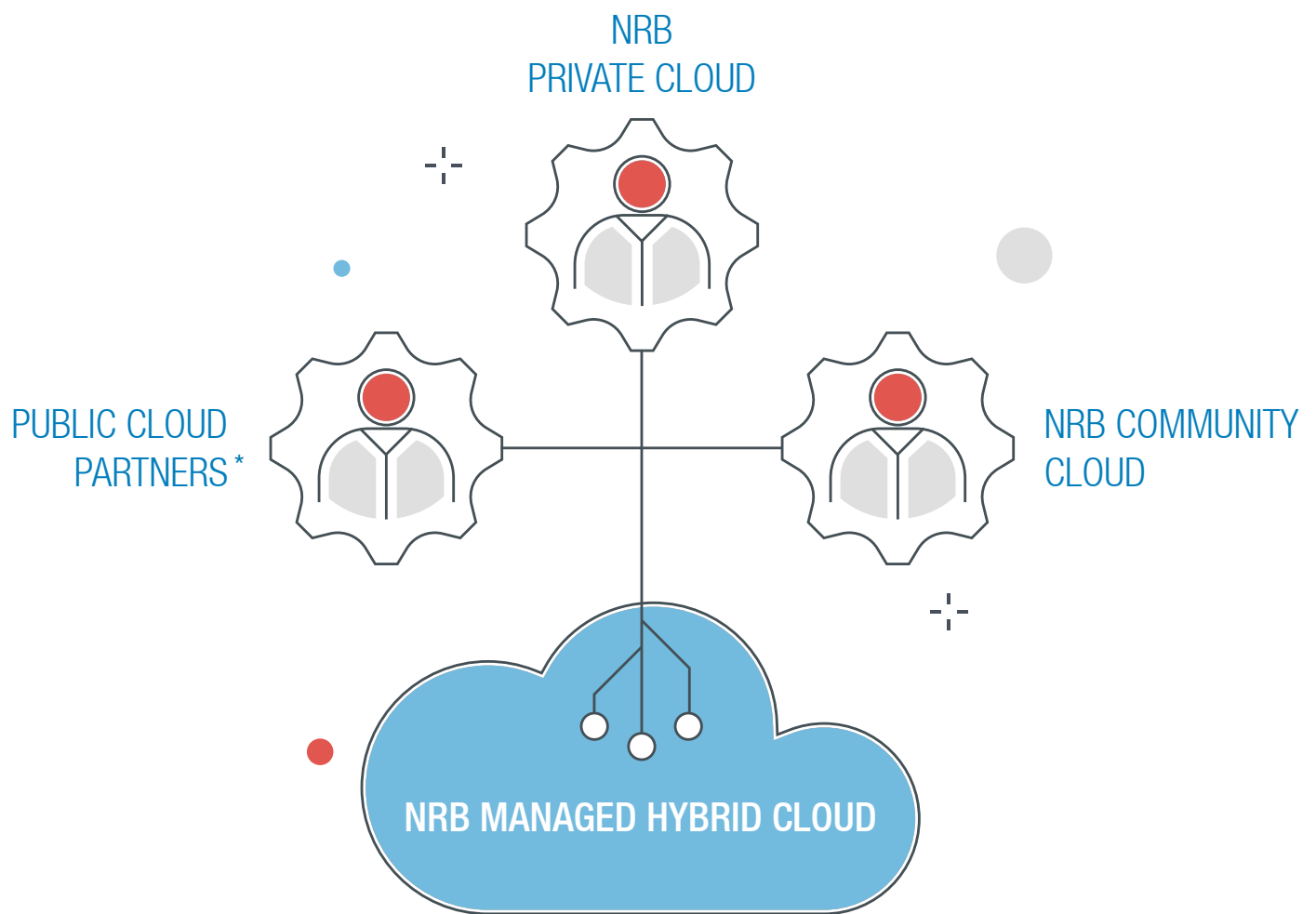
# NECS

## MANAGED HYBRID CLOUD SERVICES

NECS (NRB Enterprise Cloud Services) is a hybrid cloud offering that allows customers to access from a single interface the NRB private cloud and the main public clouds: Amazon AWS, Microsoft Azure, Google Cloud and IBM Cloud.

The NECS platform allows the hybridisation of different clouds. It gathers all IT resources on one single management portal and centralises cost, compliance and optimisation management.

In addition to the NECS platform, NRB also offers a continuum of services that guides you through the steps of your cloud adoption path: Advisory Services, Build Services and Run Services.

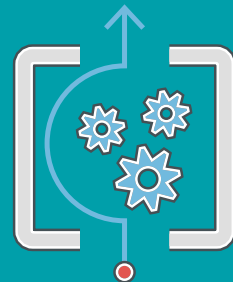## THE UNIQUE POSITIONING OF THE NRB OFFER IS BASED ON 3 ELEMENTS:

### SIMPLICITY

- Consultancy & guidance
- Unique console & invoice
- Identical delivery model for NRB's private cloud and for the public clouds

### PROXIMITY

- Customer-oriented roadmap
- Local presence
- Single contact through a dedicated Service Delivery Manager (SDM)
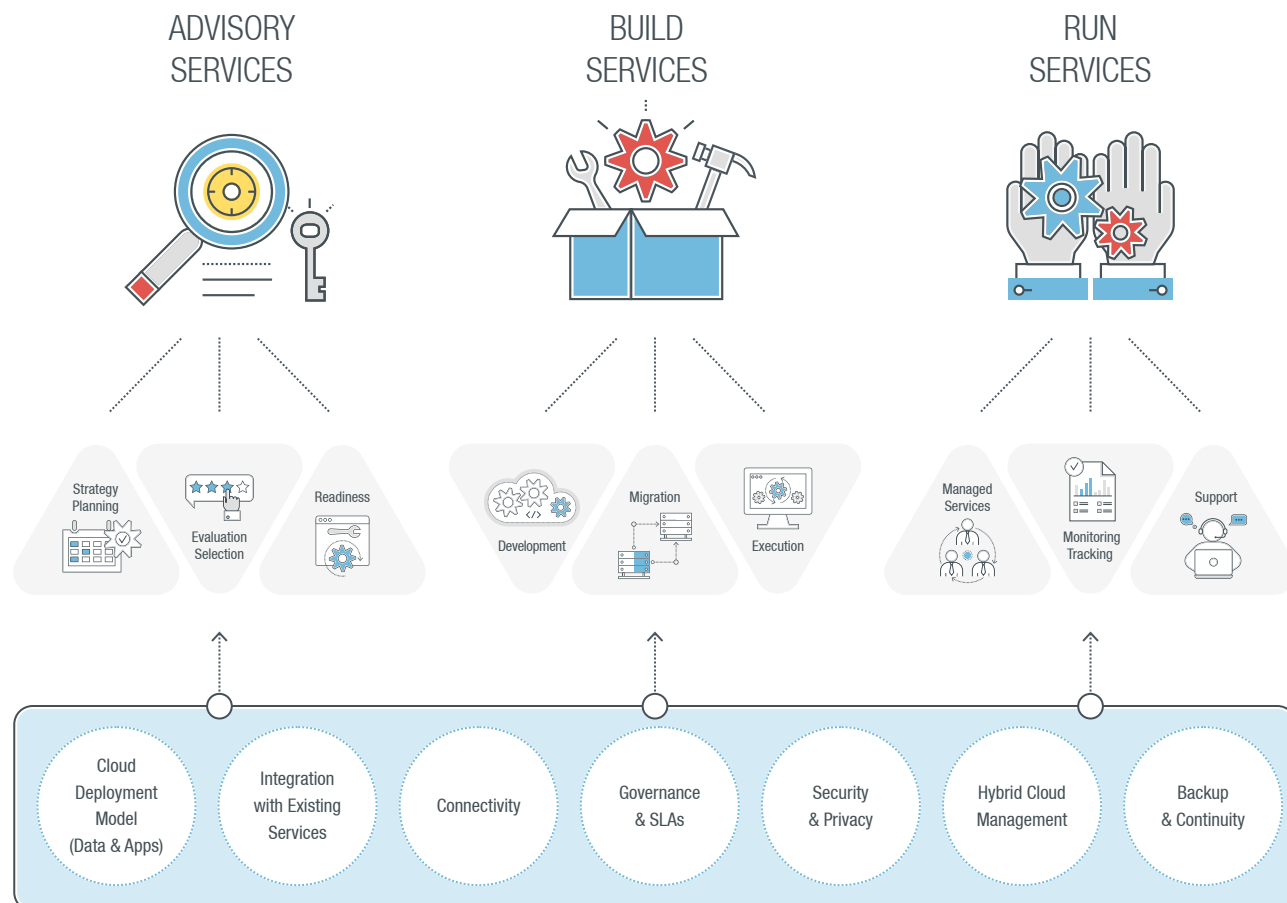
### NEUTRALITY

- Open technologies
- Transparent access to AWS, Azure, Google, IBM or to NRB's private cloud

# THE **CHALLENGES** ARE NUMEROUS

Apart from the costs, security, integration with existing systems, service continuity, one can enlist many more challenges. But above all, it is about managing **change**. The cloud is a vehicle for transformation, with new processes, new skills and a new way of doing business.

Supporting customers in this transformation is part of NRB's mission. As we master hybrid cloud technology, we are able to advise you at each step of your transformation: from enterprise architecture to application migration, including the business case, integration model and of course governance and security.

# OUR **CONSULTANTS** SUPPORT YOU ACROSS THE ENTIRE CONTINUUM OF CLOUD SERVICES

## ADVISORY SERVICES

- Strategy Planning
- Evaluation Selection
- Readiness

## BUILD SERVICES

- Development
- Migration
- Execution

## RUN SERVICES

- Managed Services
- Monitoring Tracking
- Support

- Cloud Deployment Model (Data & Apps)
- Integration with Existing Services
- Connectivity
- Governance & SLAs
- Security & Privacy
- Hybrid Cloud Management
- Backup & Continuity

# THE **BENEFITS** OF A HYBRID CLOUD STRATEGY

## AT THE STRATEGIC LEVEL

Migration to the cloud is a key element of the company's digital transformation. It improves the user experience, builds an ecosystem with suppliers and partners, and streamlines internal processes. However, the customer must be careful not to limit himself to a single technology in order to easily switch from one supplier to another while limiting costs and technological incompatibilities.

NRB's hybrid cloud is an **agnostic approach** to suppliers. It avoids vendor lock-in.

## AT THE OPERATIONAL LEVEL

The hybrid cloud allows applications to be hosted in the cloud environment that is the most appropriate in terms of total cost of ownership (TCO) and quality of service. It reduces on-site infrastructure expenses while providing a model for «on demand» consumption of IT resources in addition to the classic monthly model. NRB's hybrid cloud offers greater agility to the company. It enables to innovate faster and to improve internal processes.

## ON THE TECHNOLOGICAL LEVEL

The cloud offerings on the market differ technologically, architecturally and commercially. An orchestration layer between NRB's private cloud and the public clouds eliminates the management difficulties caused by the heterogeneity of portals and management processes.

The NRB hybrid cloud allows the user to simplify the management of different clouds, which would otherwise require specific skills for each provider.

# THE NECS HYBRID PLATFORM OFFERS YOU A **MIXED HOSTING** STRATEGY

In order to respond to business and financial requirements, the NECS hybrid platform allows you to host some applications in the private cloud and others in one or more of the public clouds. A cost simulator allows you to choose the most appropriate cloud.
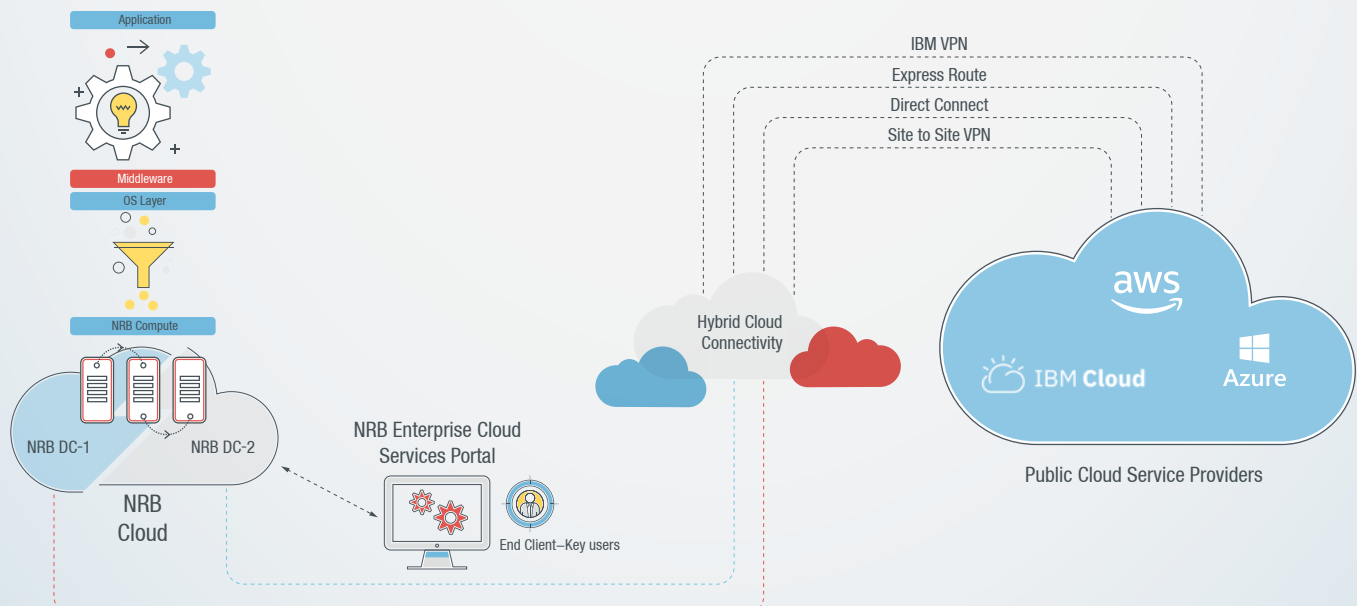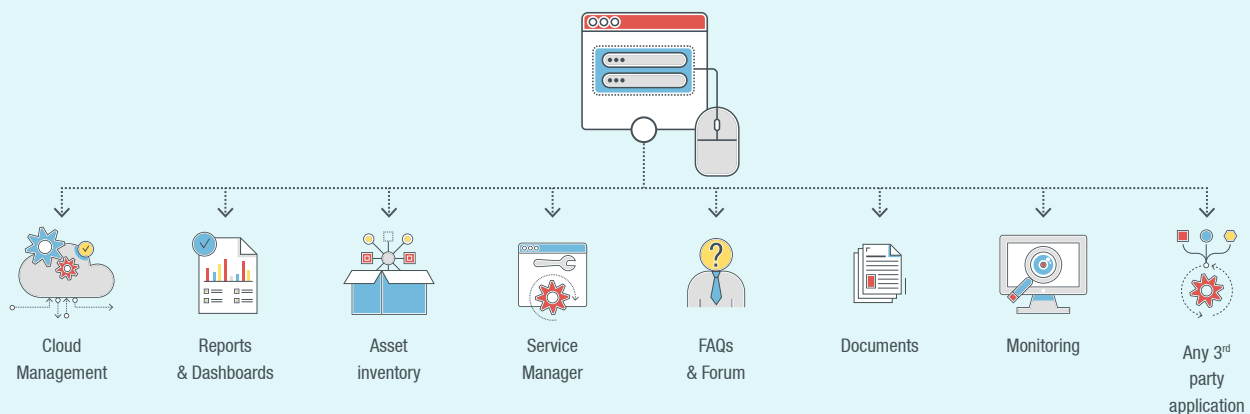
# ARCHITECTURE

## AUTOMATION AND ORCHESTRATION

At the heart of a cloud is a virtualisation infrastructure that could be described as «classic». NRB has chosen quality and proven components: Cisco UCS for physical servers, EMC VMAX for data storage, Cisco ACI for Software Defined Network and VMware for the virtualisation layer.

In order to automate and orchestrate the infrastructure, NRB added a CMP (Cloud Management Platform). This software is the central component of the hybrid cloud. It consists of two parts: one is the web interface that presents the service catalogue and the other is the workflow engine that sequences automatic actions and validates them step by step. It interfaces and manages the various infrastructure components to provide the service you have ordered. It also manages related products such as the CMDB (Configuration Management Database), the monitoring system, etc.

### Single Web Interface with Single Sign On



| Cloud Management | Reports & Dashboards | Asset inventory | Service Manager | FAQs & Forum | Documents | Monitoring | Any 3rd party application |

### Cloud management
Manage your cloud infrastructures from a single portal: private NRB cloud and public clouds if you have subscribed to such services

### Reports & Dashboards
Create and generate your own reports on demand

### Asset Inventory
View all assets hosted at NRB: cloud and non-cloud

### Service Manager
View the status of your opened and closed tickets

### FAQ & Forum
Access the Frequently Asked Questions and Discussion Forum

### Documents
Share documents with your Service Delivery Manager

### Monitoring
Visualise the performance and capacity of your cloud infrastructure

### Any third party application
On request, we analyse the possibility of accessing your specific web applications from the parent portal

## OPT-IN SERVICES

- Firewall Management Platform (Palo-Alto)
- Management Platform for private load balancer
- Management Platform for public load balancer

# NECS

## SELF-SERVICE PORTAL

A highly secured web portal accessible from any Internet connection allows you to control your virtual machines, manage your network, and offers you many other services. Fill out an online form and click on «order». Once validated, the order is automatically prepared. Your cloud object is created on the spot.

After delivery, access all operational management features directly. Delete, add, resize. Your systems are always ready for production.

Visualise your costs, capacity increases and system performance through self-service reporting.

Take advantage of the «planning» feature that allows you to perform deferred actions. For example, perform a restart of your server in the middle of the night.
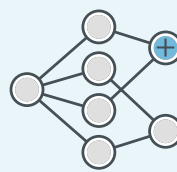
### Self-Service User Account Management

Change or Recover you Password

### Cloud Management Portal

Manage your Cloud Services on a Private, Hybrid and Public Cloud

### Tenant Master Data & Networks

View and Manage Tenant Master Data and Networks configuration

### Firewall Rules and Configuration

View the firewall configuration of your tenant (Panorama)

### File Transfer

Upload/Download VM Templates,ISO Files, container images ou Scripts to your tenant
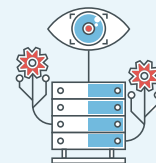
### Your Assets - Incedents - Service Requests

View your assets, Create incidents and Service requests

### Your SDM Repository

Access the documents repository managed by your SDM

### Monitoring

Monitoring

# MAIN **FEATURES** OF NRB'S HYBRID CLOUD SERVICES

## UNIFIED CLOUDS

- Hybrid Cloud IaaS, PaaS & SaaS - the same service available in different clouds

- Service-oriented catalogue - use of concepts similar to those of public clouds

## SELF-SERVICE

- The customer is at the heart of the user experience: access to reporting, service management, self service...

- Orchestration of task flows across different clouds

## INTEGRATION

- Cost simulator: compare the different platforms available

- Integration: the services defined by NRB are available on the various clouds

## CLOUDIFICATION

- SaaS service integration: Office 365, Salesforce, SAP, Mozy

- Cross-cloud managed services: Backup, Monitoring, Management, Support

# FUNCTIONALITIES

## THE FREEDOM OF SELF-SERVICE

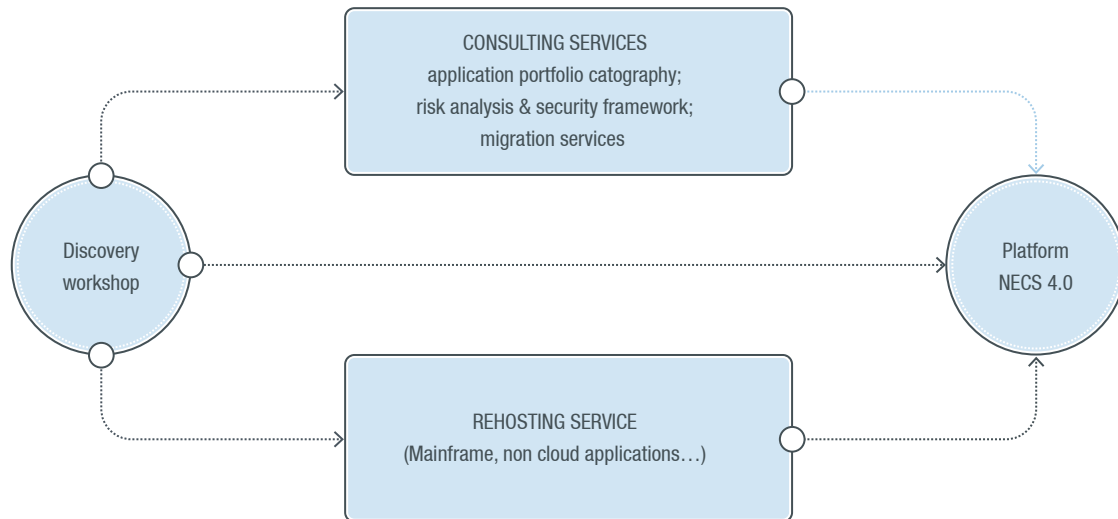The current NRB service catalogue is applicable to all IaaS components.

All these actions can be activated via a web interface or via APIs so that you can industrialise your operations via scripting.

**Overview of features:**

- Deployment of Virtual Machines according to NRB standards
- Creation of your own templates to enrich your private catalogue of services
- Deployment of your own templates
- Creation or modification of validation workflows of orders
- Creation of your own networks
- Managing your firewall
- Import and export of virtual machines
- Creation and management of load balancer
- Access to the log of all actions performed in the portal for audit purposes
- On-demand cost and performance reporting

- Cost simulation based on an application profile that you encode
- Access to the public cloud services catalogue if you have subscribed to it
- Actions on virtual machines:
  - CPU, RAM and disk resizing (hot and cold)
  - Dynamic vertical scaling
  - Start, stop, restart
  - Adding and removing network cards
  - Snapshots
  - Access to the virtual console and BIOS
  - Moving the VM from one region to another
  - Backup and self-restore management
  - Moving disks from one server to another

# THE **STEPS** OF THE PATH

A Discovery workshop will give you a first overview of your infrastructure. On this basis, we can offer you the best possible route to cloudification.



```
                    ┌─────────────────────────────────┐
                    │     CONSULTING SERVICES          │
                    │  application portfolio catography;│
                    │  risk analysis & security framework;│
                    │       migration services          │
                    └─────────────────────────────────┘

   ┌──────────┐                                            ┌──────────┐
   │ Discovery│                                            │ Platform │
   │ workshop │                                            │ NECS 4.0 │
   └──────────┘                                            └──────────┘

                    ┌─────────────────────────────────┐
                    │     REHOSTING SERVICE            │
                    │ (Mainframe, non cloud applications…)│
                    └─────────────────────────────────┘
```

# CHOOSE YOUR **COST MODEL**

Choose the pay-per-use when your architectures are designed from the start for high scalability or when your technical and application infrastructures do not need to be available 24/7. You only pay when you consume.

Choose the always-on cost model and pay a fixed cost per month, whether the machine is used or not. The advantage is a high predictability of your invoice, and a lower cost than in pay-per-use when your services are used 24/7.

You pay monthly for each existing virtual machine, depending on its size (vCPU, RAM and hard disk) and the options chosen.

• The minimum duration is defined in your contractual agreement.

• The first and last month are invoiced pro rata to the number of days, i.e. from the date the virtual machine is commissioned until the end of the month, and from the first day of the month until the date your virtual machine is decommissioned.

Both models are billed by the month, depending on the size and options chosen.

# THE **FOUR "S"** RULE

## NRB'S PRIVATE CLOUD PLATFORM MEETS OUR QUALITY CRITERIA, WHICH ARE SUMMARISED BY THE RULE OF THE **FOUR-"S"**



### SIMPLICITY

A self-service interface, user and service catalog oriented. Not technology-centered. A service offering integrated and multi-clouds. A consulting and guidance service.



### SERVICE

In addition to the self-service infrastructure, various services, performed by experts, are at your disposal. We make your projects a real success.



### SECURITY

The security of our cloud is validated through penetration tests. Multi-factor authentication (MFA) reinforces identification. Rights are based on role management (RBAC) for fine permission management. All connections are secured through a TLS (Transport Layer Security).
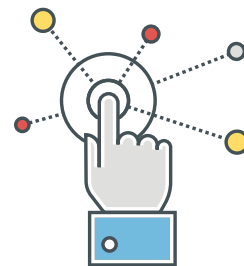


### SCALABILITY

A continuous predictive capacity management process allows us to offer you an almost limitless private cloud platform: increase or decrease the size of your infrastructure at the pace of your business.

# CONTACT

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