



Multicloud

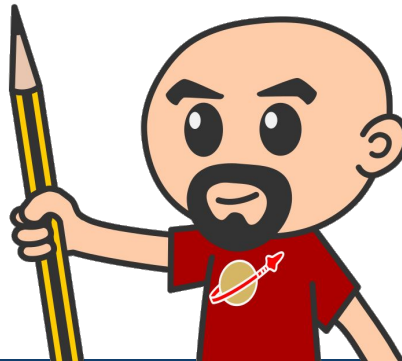
Comment ne pas mettre tous
les oeufs dans le même cloud

Horacio Gonzalez
[@LostInBrittany](#)



Who are we?

Introducing myself and
introducing OVH

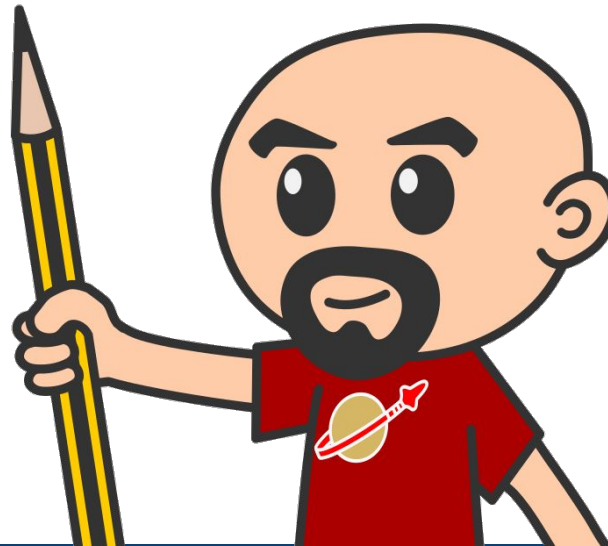


Horacio Gonzalez



@LostInBrittany

Spaniard lost in Brittany,
developer, dreamer and
all-around geek



OVH : Key Figures

1.3M Customers worldwide in **138** Countries
1.5 Billions euros investment over five years
30 Datacenters (growing)
350k Dedicated Servers
200k Private cloud VMs running
650k Public cloud Instances created in a month
15TB bandwidth capacity
35 Points of presence
4TB Anti DDoS capacity
Hosting capacity : **1.3M** Physical Servers

+ **2 500** Employees in **19** countries
18 Years of Innovation

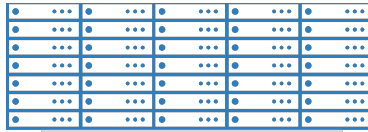


OVH: A Global Leader on Cloud

200k Private cloud
VMs running

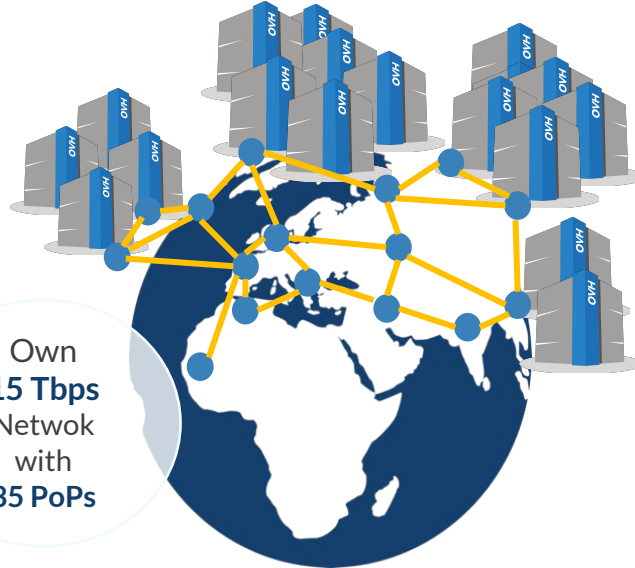


Dedicated IaaS
Europe



Hosting capacity :
1.3M Physical
Servers

360k
Servers already
deployed



Own
15 Tbps
Network
with
35 PoPs

2018
27 Datacenters



2020
50 Datacenters

> **1.3M** Customers in **138** Countries





1st **European** Cloud Provider*

1st **Hosting** provider in Europe

1st **Provider** Microsoft Exchange

Certified vCloud Datacenter

Certified Kubernetes platform (CNCF)

Vmware **Global Service Provider** 2013-2016

Veeam Best Cloud Partner of the year (2018)



OVH: Our solutions



Do you remember old times?

The stories of the grumpy old dev...



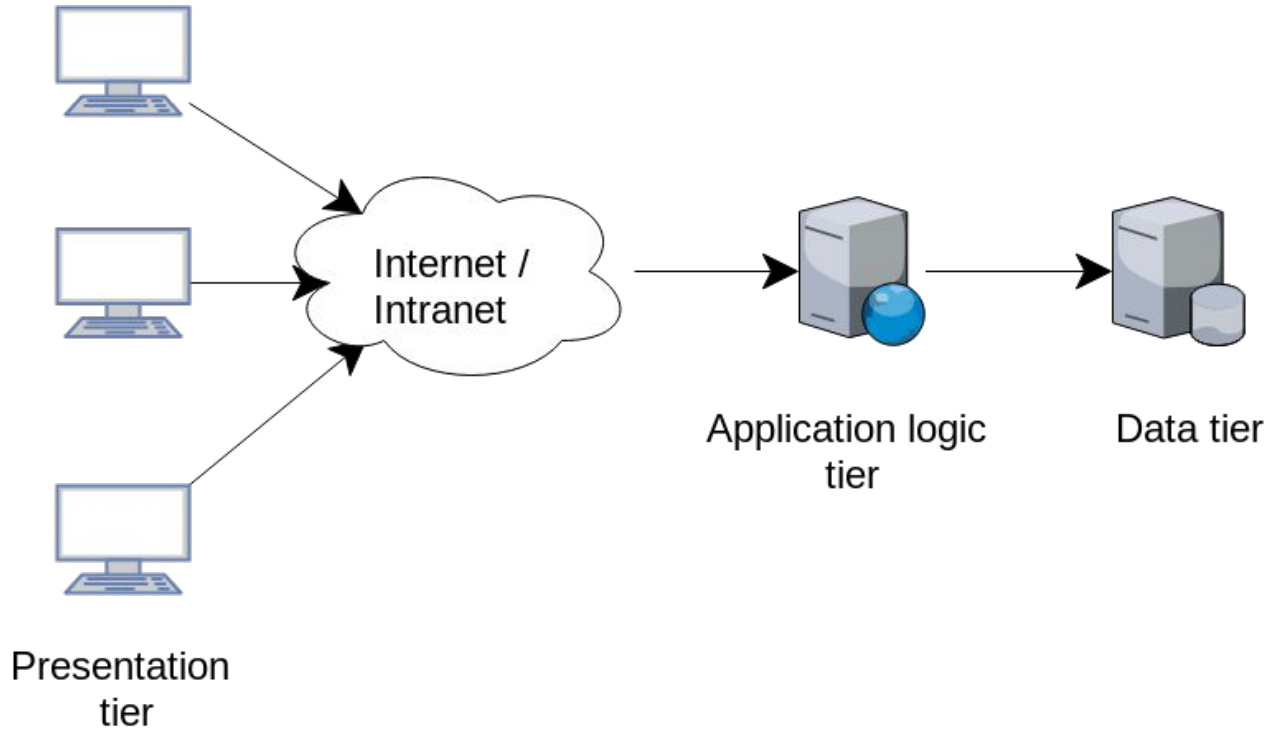
In a time almost forgotten



When even internet was young...



Web architecture was easier...



One application server, one DB

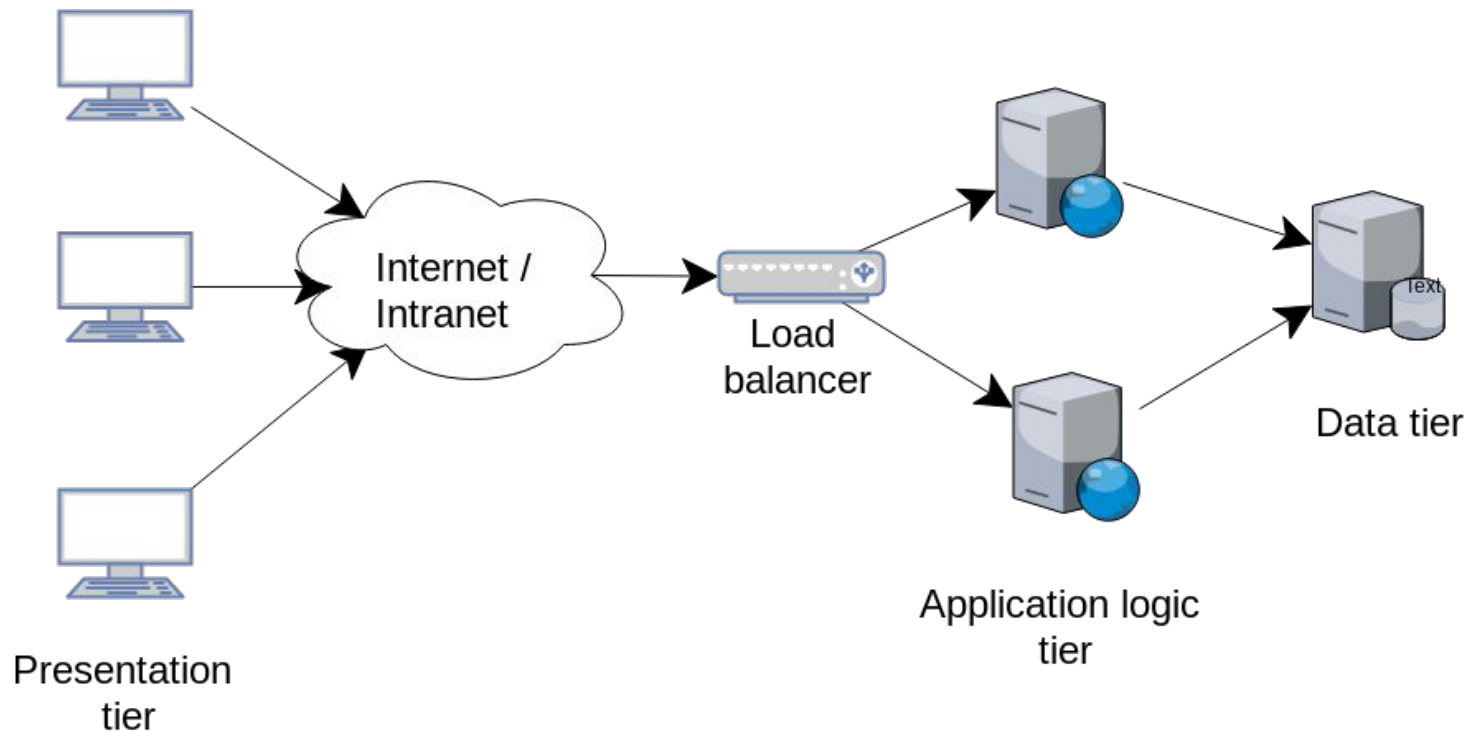


Until somebody asked...

What if the app server goes down?



And we added redundancy



With a step price: load balancer, session affinity...

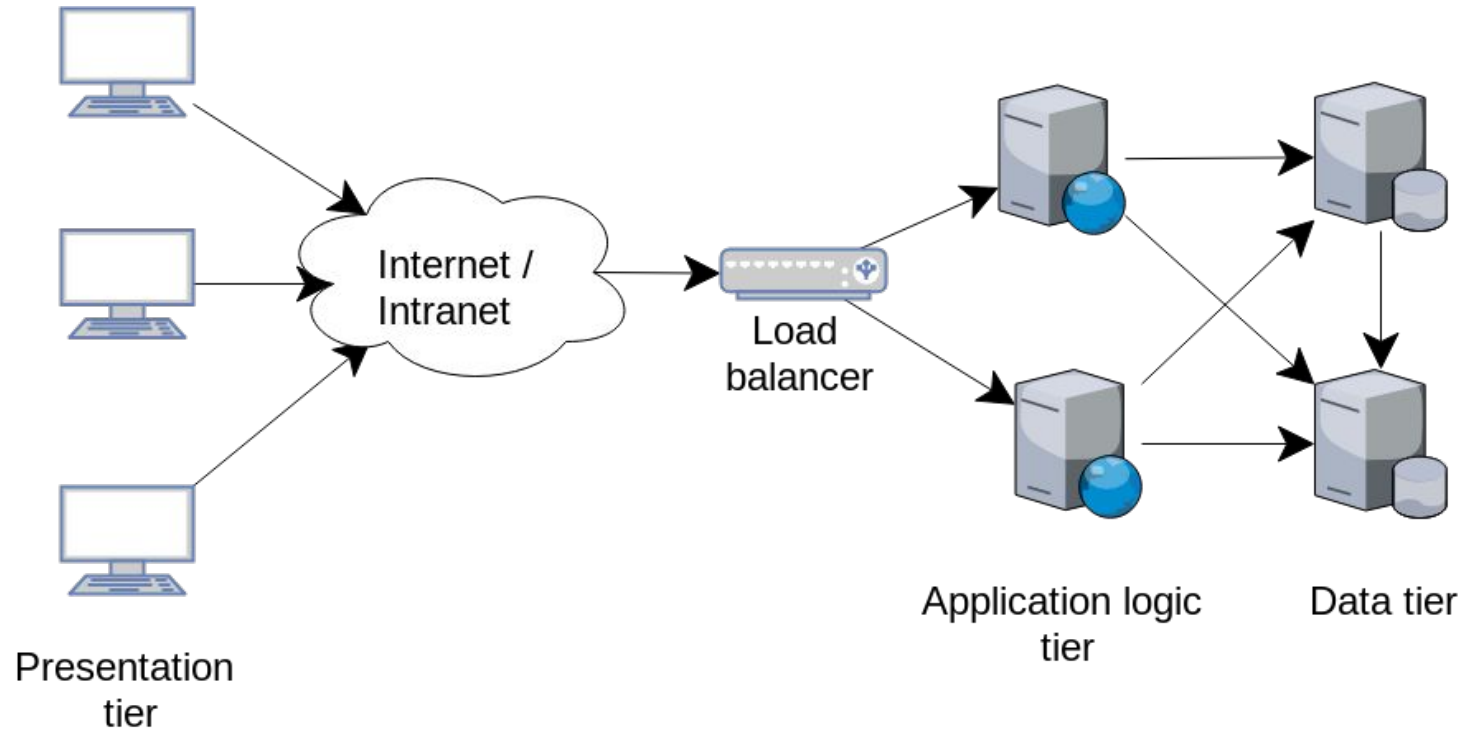


And down the rabbit's hole...

Buuut... if the DB goes down now?



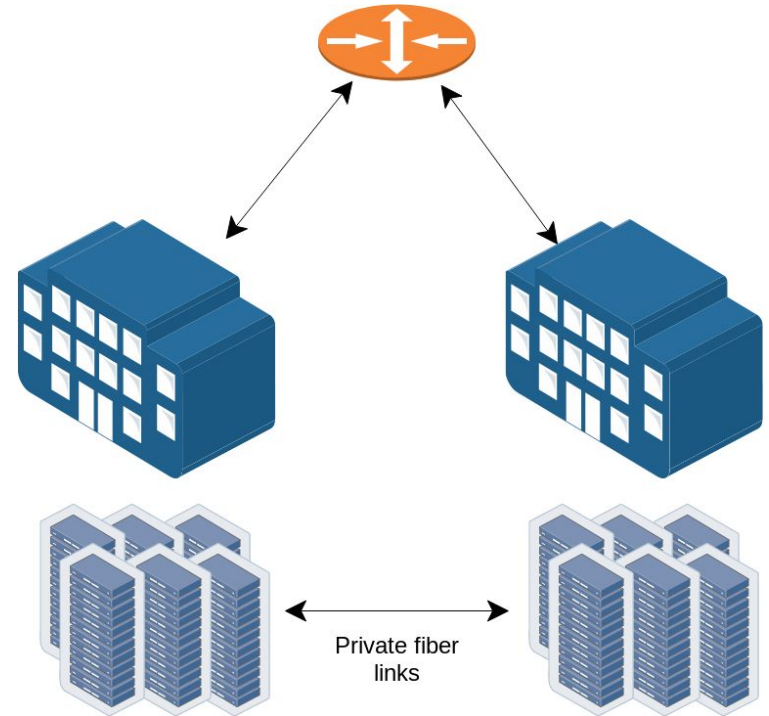
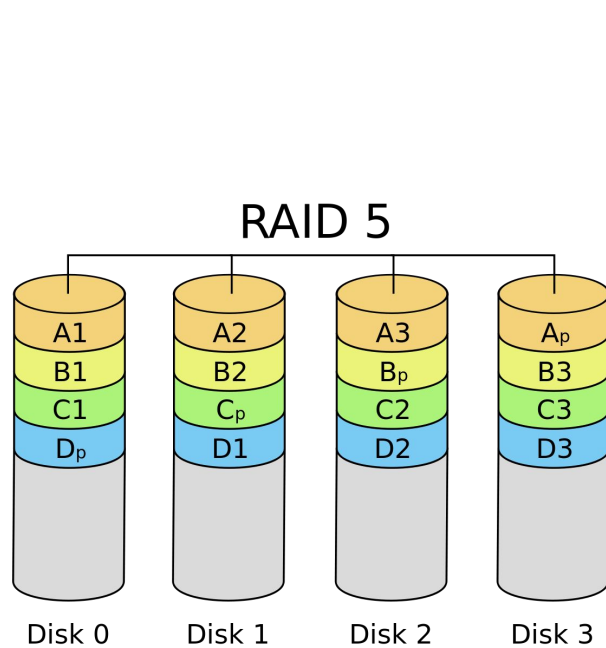
And we added redundancy again



Again with a step price: DB sync...



We have been doing that for years



From disks to datacenters



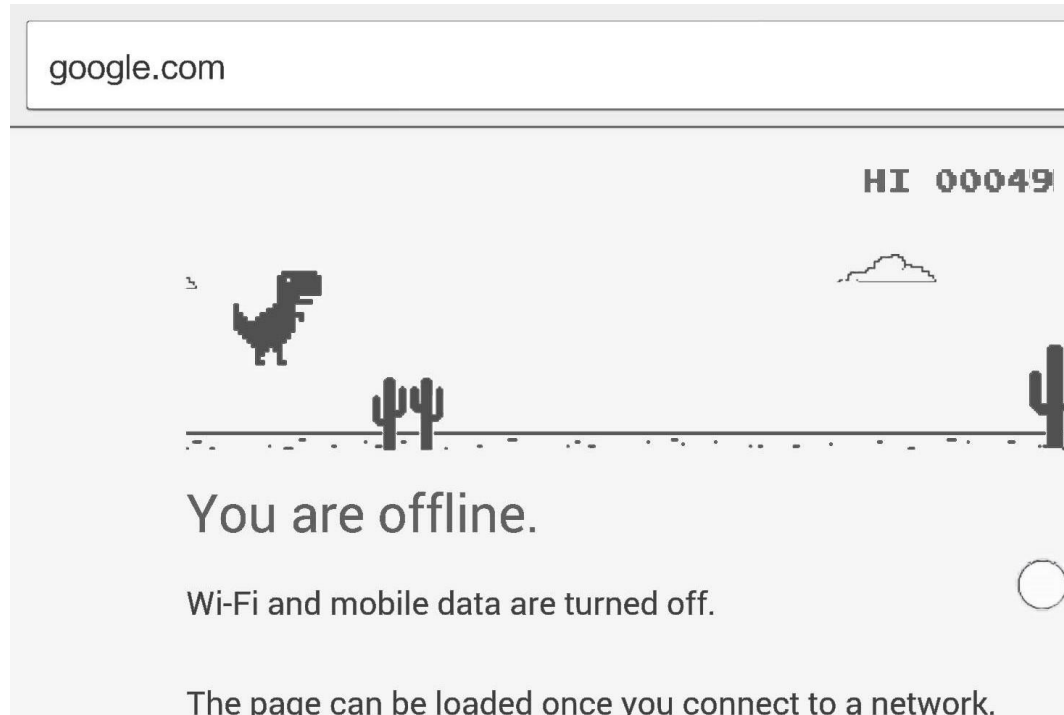
Redundancy has always a price



In money and in complexity



Not having it also has a price



Often worse...



Now we are flying to the clouds



And the questions come back

Heuh... and if the cloud falls down?



And again, answer is redundancy



Why multicloud?

**Because putting all the eggs
in the same basket
is kinda risky...**



Having only a cloud provider



Comforting sensation of simplicity



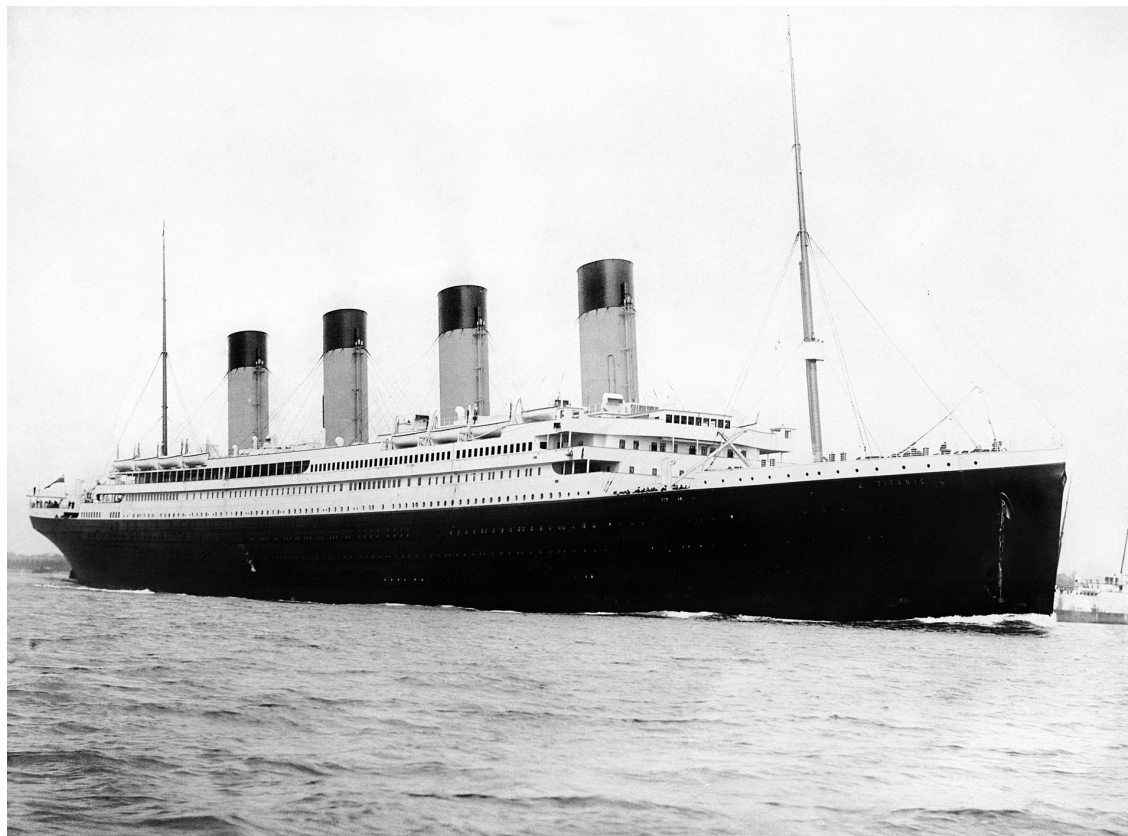
One Cloud to run your apps all



Is it really a good idea?



What could possibly go wrong?



Service interruption



The first risk we think of...
But not the only one!





Geoeconomics



Distortion of competition



Data sovereignty



CLOUD Act, PRISM...



Compliance



GDPR, bank and insurance regulations...



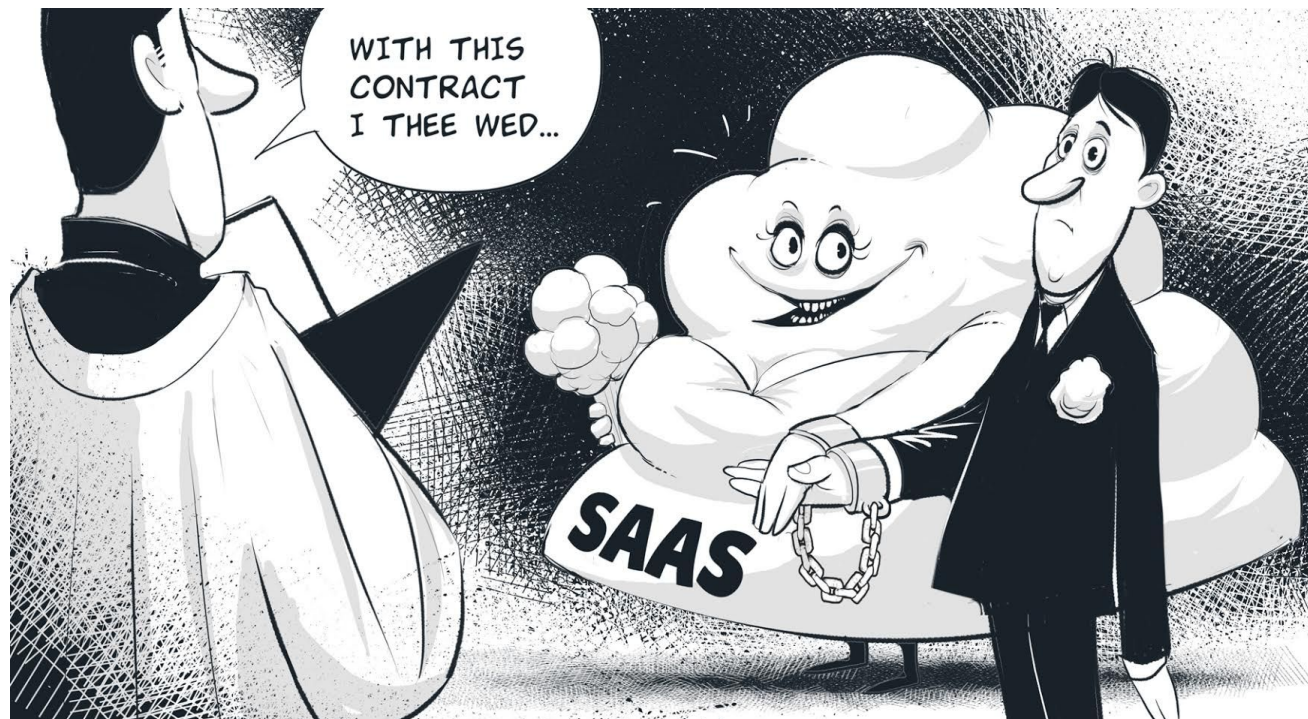
But I can always go away



Can't I?



Well, not so simple...



Vendor lock-in



Technical vendor locking



Proprietary APIs and products



Cost-based vendor locking



Data transfer prices



What can I do then?



Quit the Cloud? Going raise goats in Larzac?

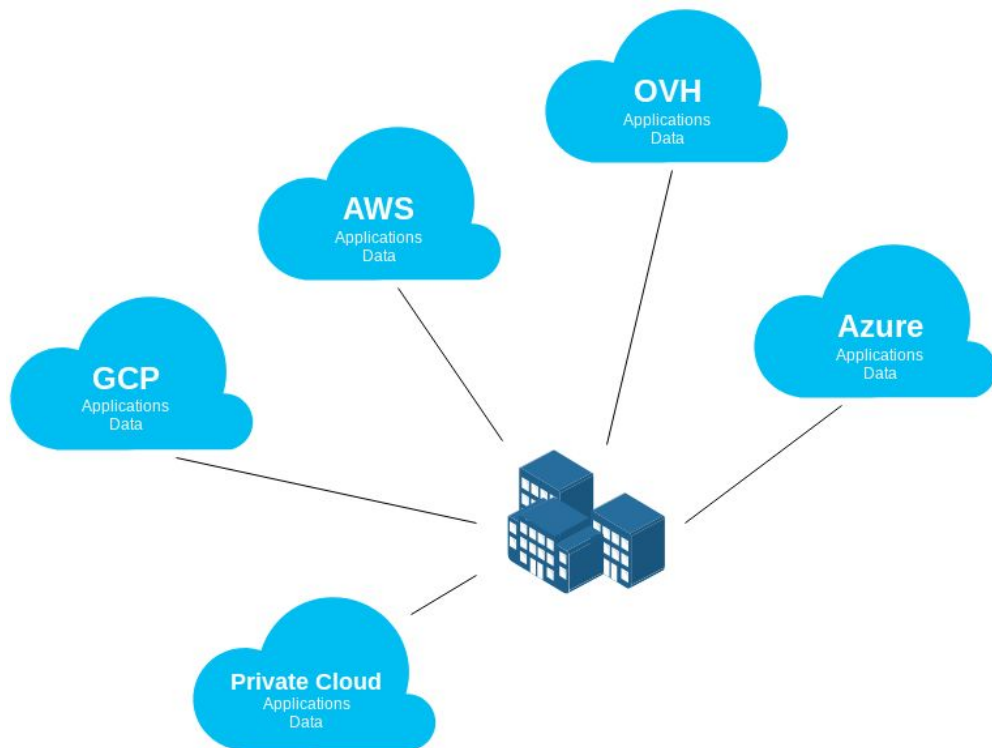


Building a multcloud strategy

Hey, even Gartner agrees it's a good idea!



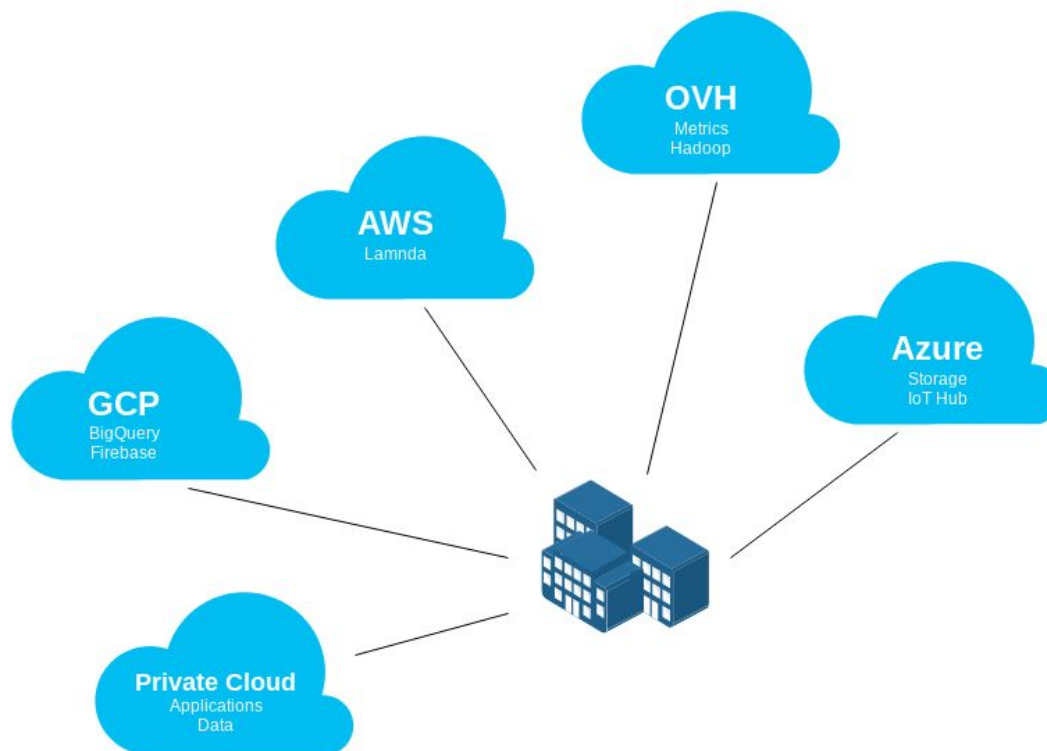
Multicloud can be daunting



Too much complexity!



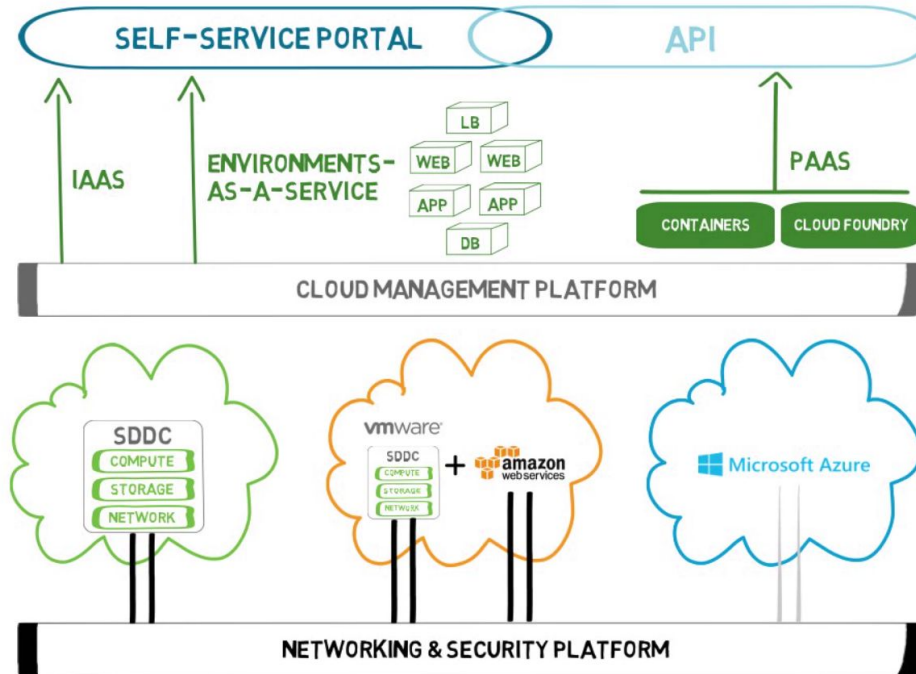
The mix and match strategy



Taking the best of each provider



The SDDC based multicloud

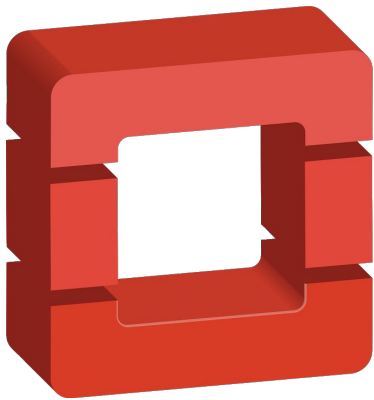


Software-defined data-centers



OpenStack Multicloud

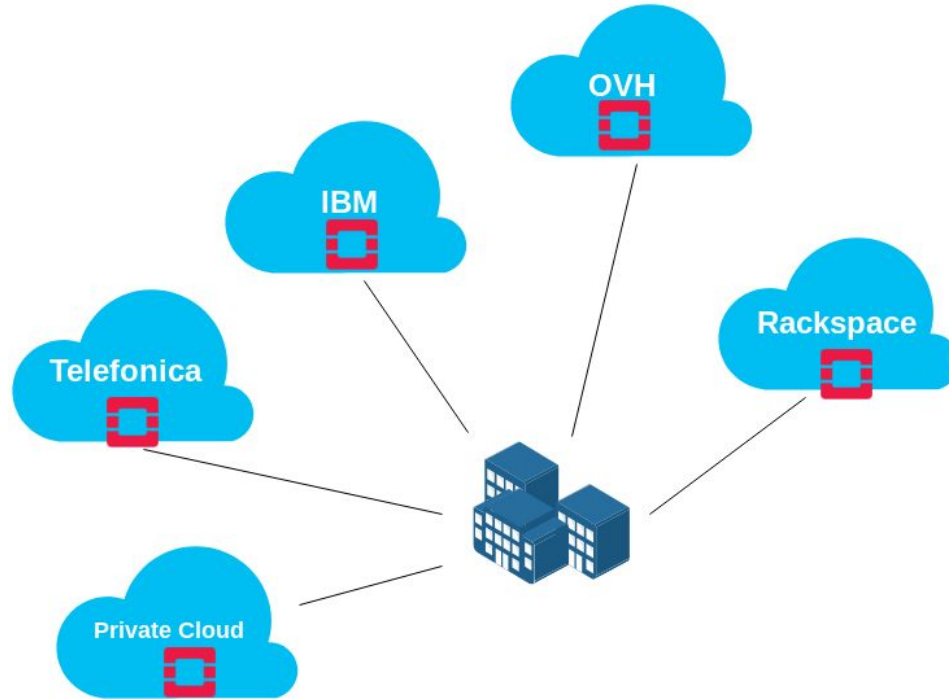
Low level open source cloud platform



openstack™



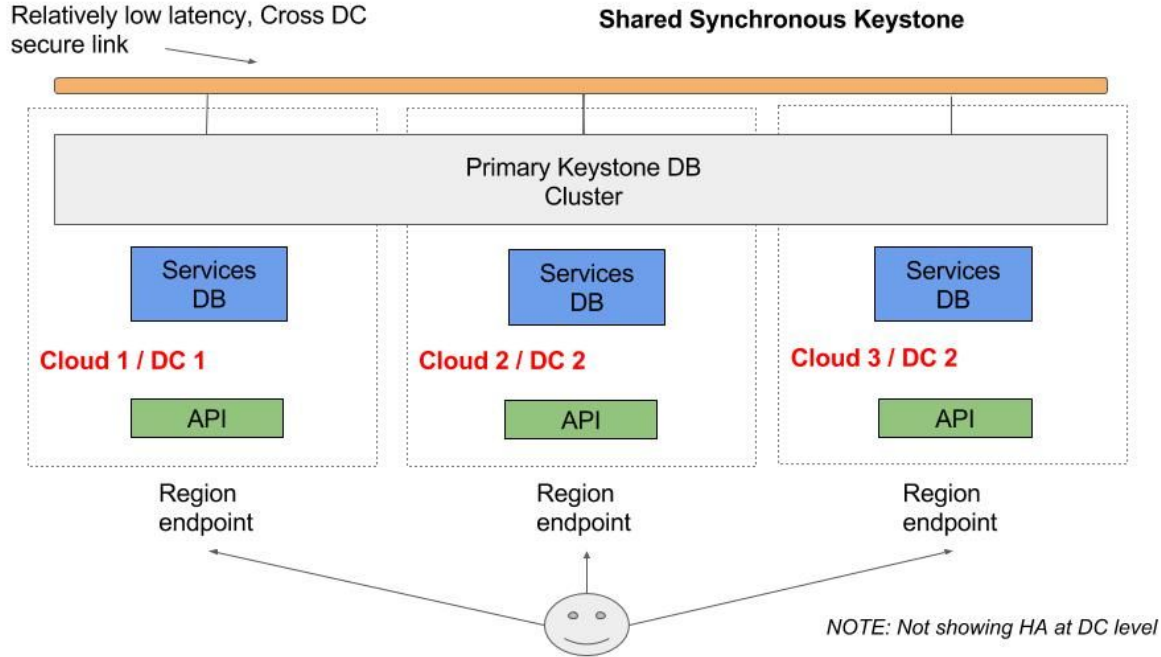
Useful for hybrid clouds



Most private clouds are based on OpenStack
Many cloud providers offer OpenStack, managed or



Multi-region OpenStack



Doesn't scale very well...



Very powerful...



But also rather complicated to master

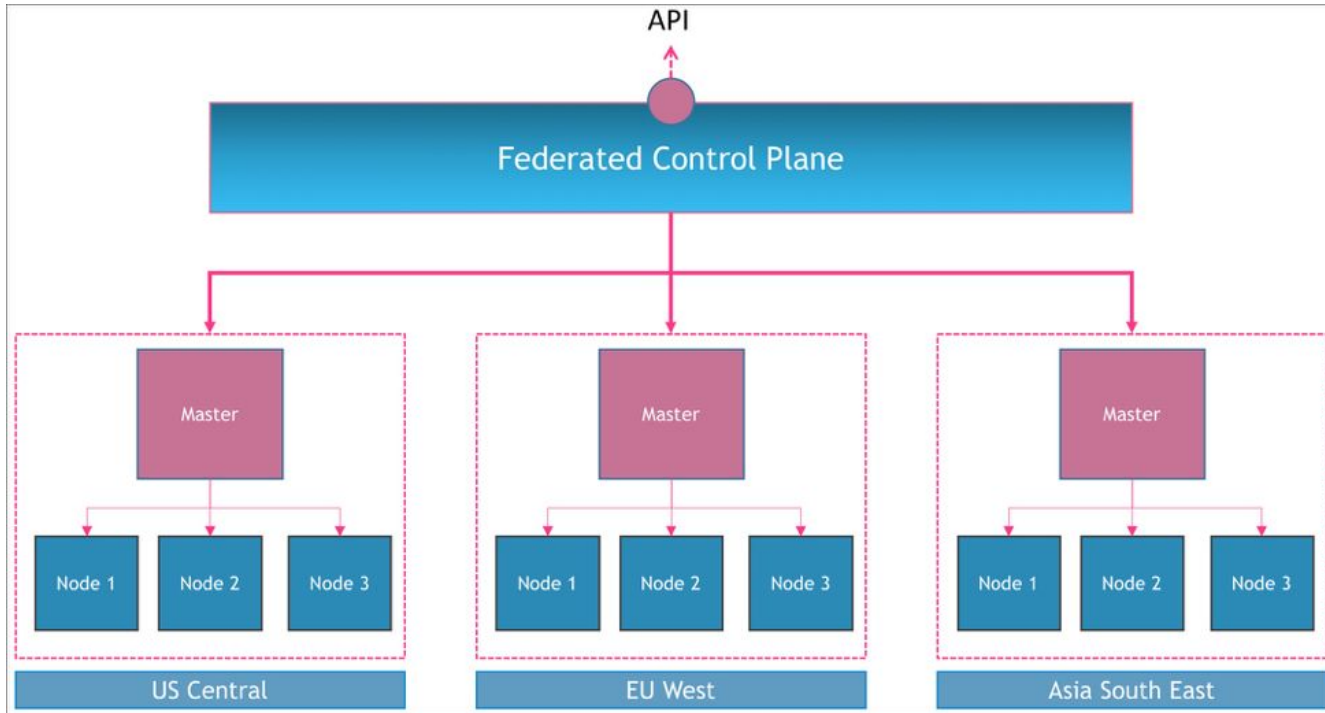


Kubernetes based multcloud

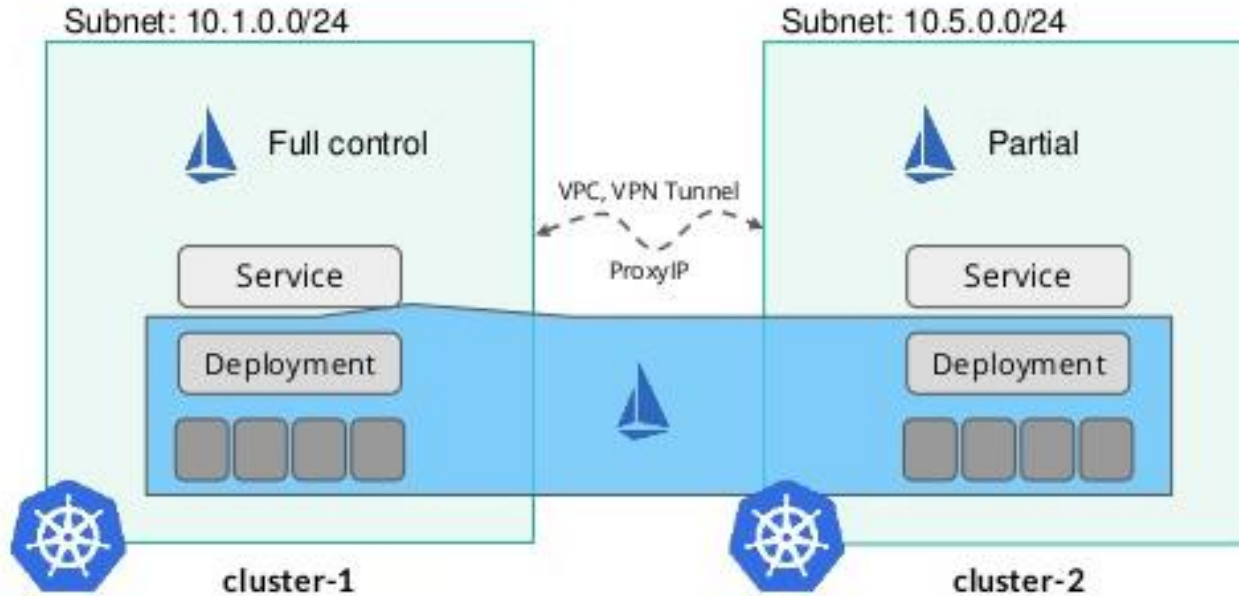
Higher level open source multcloud



Kubernetes Federation



Multi-cluster Istio



Kubernetes is easier for devs



But you need good devops/SRE... or managed K8s



