Create a cloud services business your customers love.

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Gartner 2013
CoolVendor

BEST OVERALL VALUE

VENDOR LANDSCAPE AWARD
TREND SETTER
INFO~TECH
research group

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Innovation in action: FP7, H2020 and Flexiant

➢ SummerSOC, Crete

➢ Craig Sheridan, 30th June 2015
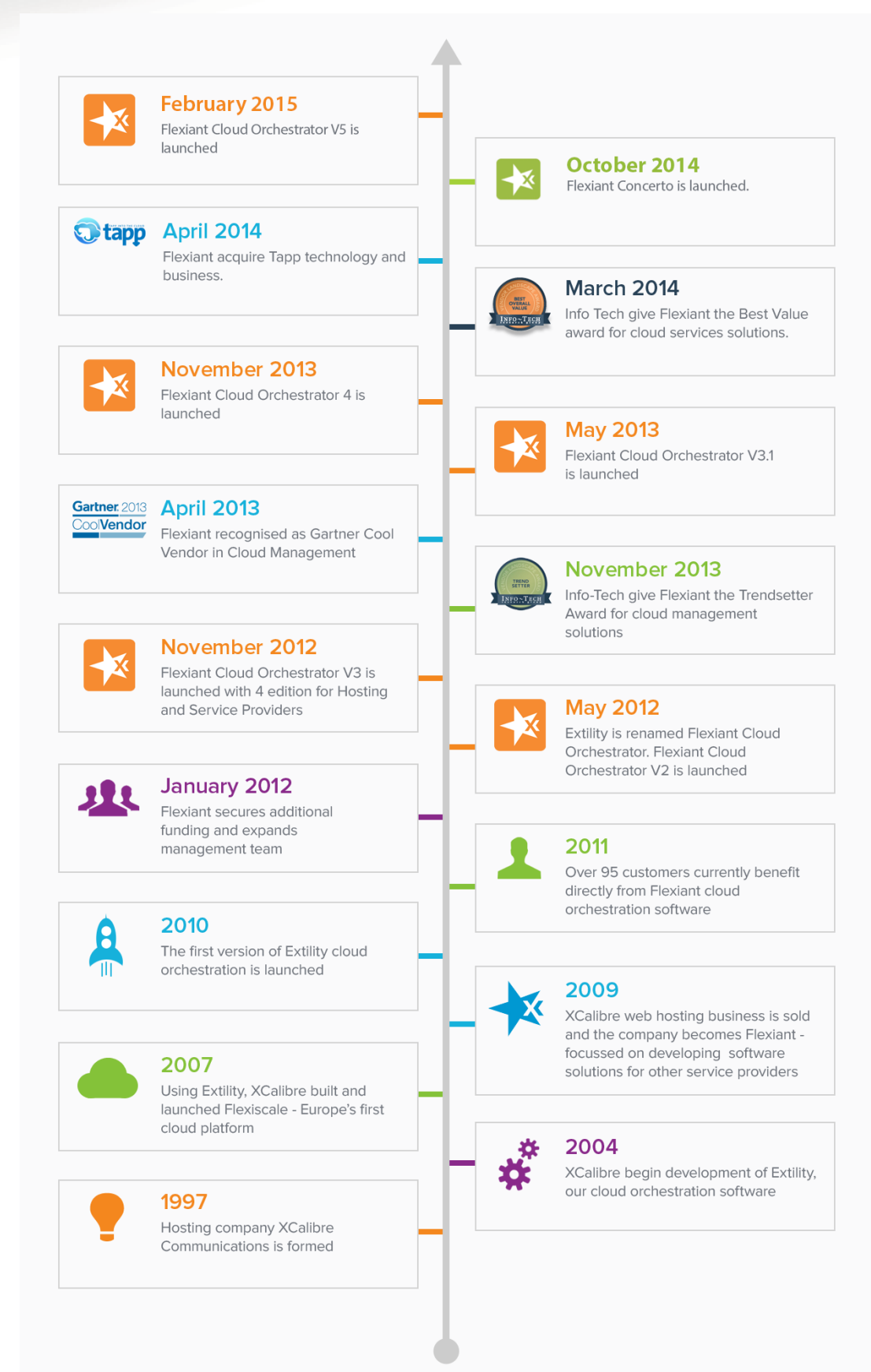
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Trust our Heritage, Trust our Software

➢ Software company – Started in 1997 as a hosting company
➢ 2007 - Launched Europe's first public cloud service
➢ 2010 - Launched world's first installable cloud management software
➢ 2012, FCO recognised as the most innovative cloud management solution
➢ 2014 New product Concerto launched
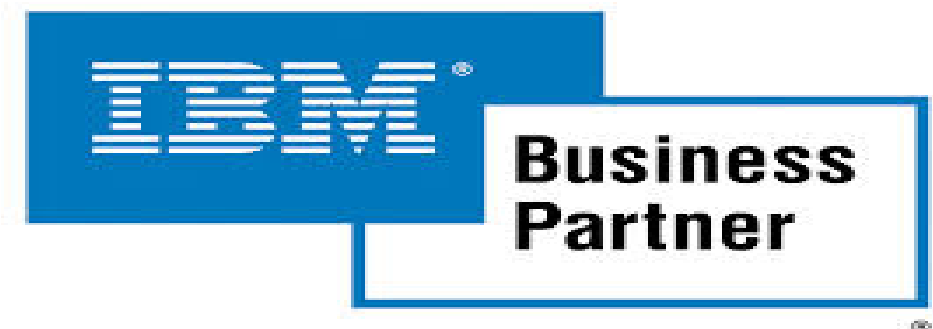➢ 2015 Flexiant Cloud Orchestrator v5 is launched

February 2015
Flexiant Cloud Orchestrator V5 is launched

October 2014
Flexiant Concerto is launched.

April 2014
Flexiant acquire Tapp technology and business.

March 2014
Info Tech give Flexiant the Best Value award for cloud services solutions.

November 2013
Flexiant Cloud Orchestrator 4 is launched

May 2013
Flexiant Cloud Orchestrator V3.1 is launched

April 2013
Flexiant recognised as Gartner Cool Vendor in Cloud Management

November 2013
Info-Tech give Flexiant the Trendsetter Award for cloud management solutions

November 2012
Flexiant Cloud Orchestrator V3 is launched with 4 edition for Hosting and Service Providers

May 2012
Extility is renamed Flexiant Cloud Orchestrator. Flexiant Cloud Orchestrator V2 is launched

January 2012
Flexiant secures additional funding and expands management team

2011
Over 95 customers currently benefit directly from Flexiant cloud orchestration software

2010
The first version of Extility cloud orchestration is launched

2009
XCalibre web hosting business is sold and the company becomes Flexiant - focussed on developing software solutions for other service providers

2007
Using Extility, XCalibre built and launched Flexiscale - Europe's first cloud platform

2004
XCalibre begin development of Extility, our cloud orchestration software

1997
Hosting company XCalibre Communications is formed

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Industry Recognition

Key Partnerships

MARKET REQUIREMENTS

|		
Robust and scalable architecture	Multi-location	Multi-hypervisor
Granular PAYG billing built-in	Reseller enabled	Deployment automation capabilities
Flexible and customisable	Fully API driven	Open to integration with external systems

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The future is bright, the future is cloudy!

The future is the service provider!

"Making Service Providers More Competitive Across the Globe"
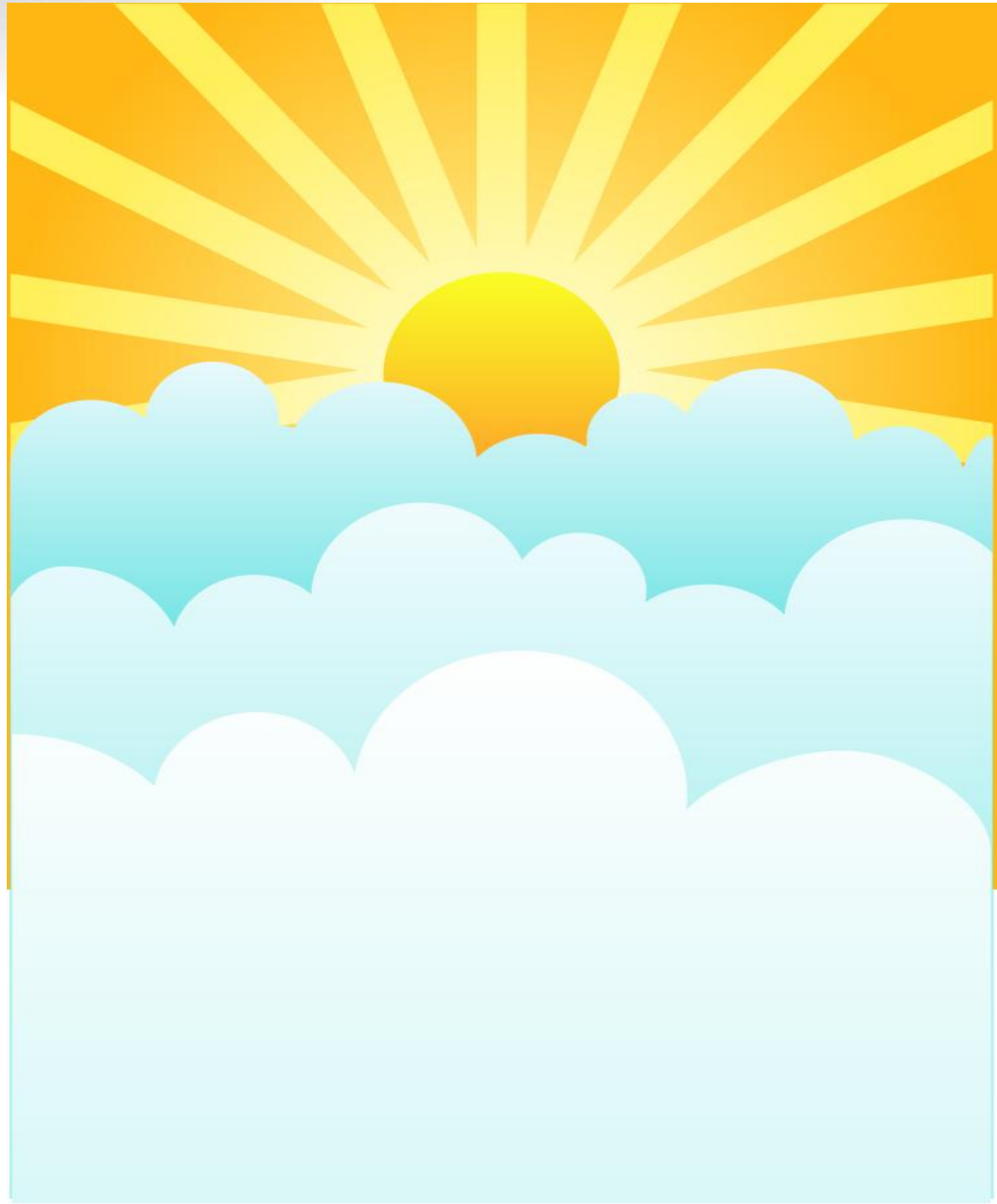
Our software products

flexiant™ cloud orchestrator

flexiant™ concerto

CLOUD INFRASTRUCTURE ORCHESTRATION

MULTI-CLOUD MANAGEMENT

CLOUD BUSINESS ENABLEMENT

APPLICATION LIFECYCLE MANAGEMENT
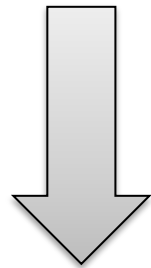
ARMING SERVICE PROVIDERS

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concerto
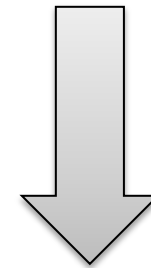
- Multi-cloud workload management and portability tool
- Hosted Platform
- next generation application market
- consistently support and simplify the application management lifecycle (ALM)
- Configuration Management – templates, redeploy
- Integrated DNS – hostname and IP control
- DNS Geo-Localization and Load Balancing- latency, round-robin
- Network Load Balancing – workload distribution when servers non-responsive- redundancy, fault tolerance
- Application Aware Auto-scaling

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- http://www.flexiant.com/our-solutions/concerto-features/
- http://www.flexiant.com/our-solutions/concerto-use-cases/
- http://www.flexiant.com/our-solutions/concerto-frequently-asked-questions/

....a global leader in Cloud Orchestration

We Have Built...

➢ 5 major software releases leading up to Flexiant Cloud Orchestrator V5

➢ 4 licensable software versions for service provider and hosting markets instead of one

➢ academic licence option

	Hosting	Hosting Advanced	Service Provider	Service Provider Advanced
Hardware Orchestration				
Universal Storage Support	✓	✓	✓	✓
Local Storage Support	✓	✓	✓	✓
Direct Storage Integration	-	✓	✓	✓
Universal Node Support	✓	✓	✓	✓
Physical Resource Monitoring	✓	✓	✓	✓
Capacity/Usage Monitoring and Alerting	✓	✓	✓	✓
Nodeconfig/Payload	✓	✓	✓	✓
Automated Node Management	✓	✓	✓	✓
Single Cluster	✓	✓	✓	✓
Multiple Cluster	-	✓	-	✓
Global Capabilities	-	✓	-	✓
Network Services				
Integrated Firewall Service	✓	✓	✓	✓
Interworking VLANs	✓	✓	✓	✓
IPv4 & IPv6 Support	✓	✓	✓	✓
DHCP Service	✓	✓	✓	✓
Public Virtual Networking Mode	✓	✓	✓	✓
VLAN Networking Modes	✓	✓	✓	✓

- Hosting Standard
- Hosting Advanced
- Service Provider Standard
- Service Provider Advanced
- Academic Licence

FCO FRAMEWORK

SELF-SERVICE PORTAL

USER API

ROLE BASED ACCESS

BILLING

METERING

TRIGGERS

CUSTOMER MANAGEMENT	MULTI- BRAND	CLOUD BLUEPRINTS
RESOURCE PROVISIONING	PRODUCT CATALOGUE	IMAGE MANAGEMENT

ORCHESTRATION

ADMIN API

ADMIN PORTAL

FIREWALL

NETWORK

STORAGE

KVM

XEN4

VMWARE VSPHERE

MICROSOFT HYPER-V

STORAGE

HARDWARE

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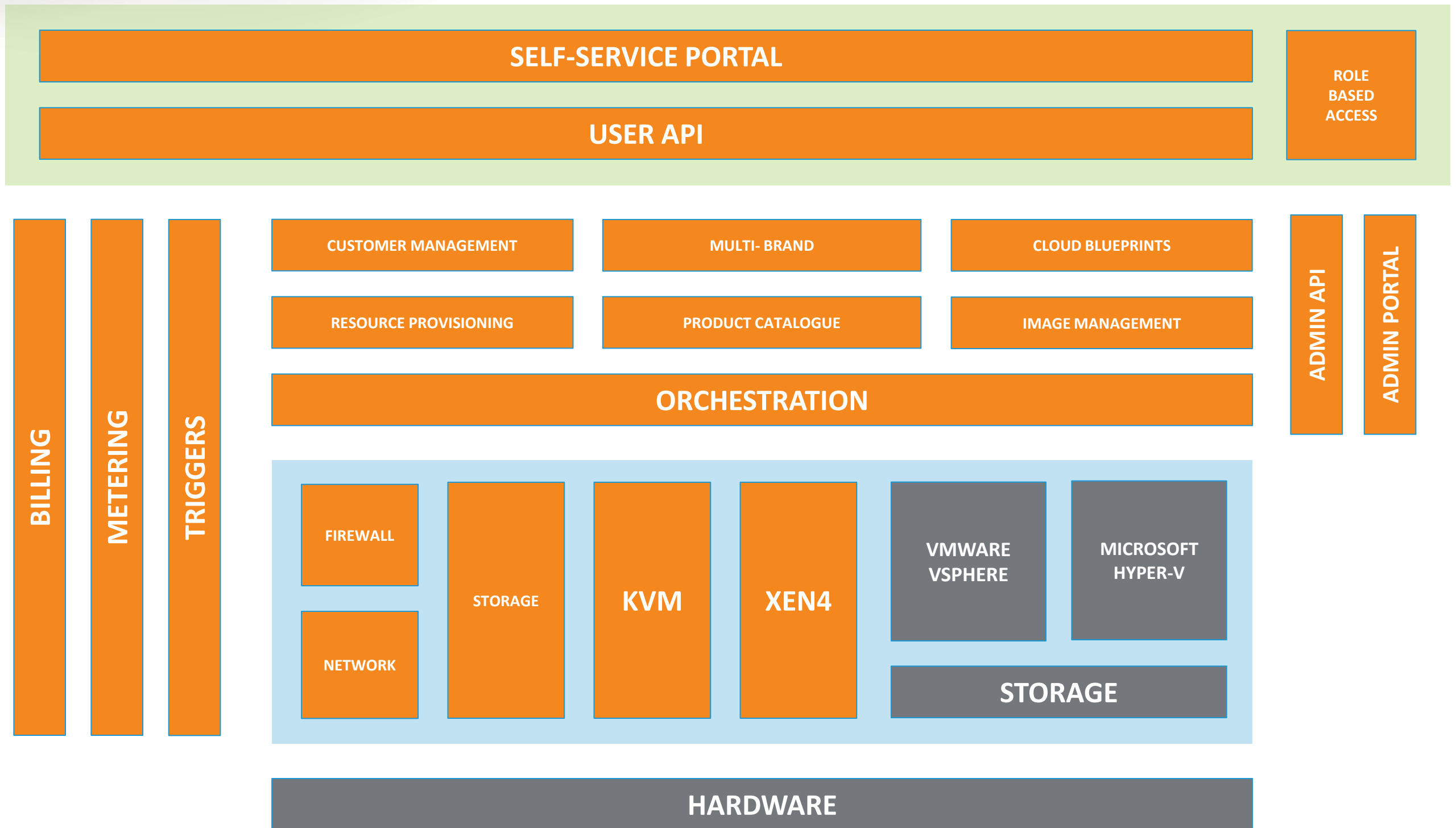
Key Features

- Triggers

- Multi-hypervisor / Multi-cluster

- Internationalisation

- <u>Ridiculously</u> configurable UI

- Multi-level metering & billing

- HostBill and WHMCS

- Fine-grained permissions

- Application management

- Chef Integration

- Dynamic workload placement

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CLOUD BLUEPRINTS
a.k.a. BENTO BOXES

★ Unique blueprint drag-n-drop designer tool

    ★ Design once, deploy many

    ★ "Deployment Questions" feature for applications self-configuration

★ Resources can be embedded in the blueprint or specified at deployment time

    ★ Granular resource configuration

Chef   ★ integration

US KVM CLUSTER

VDC

web 1

web 2

db

fileserver

Default

Network
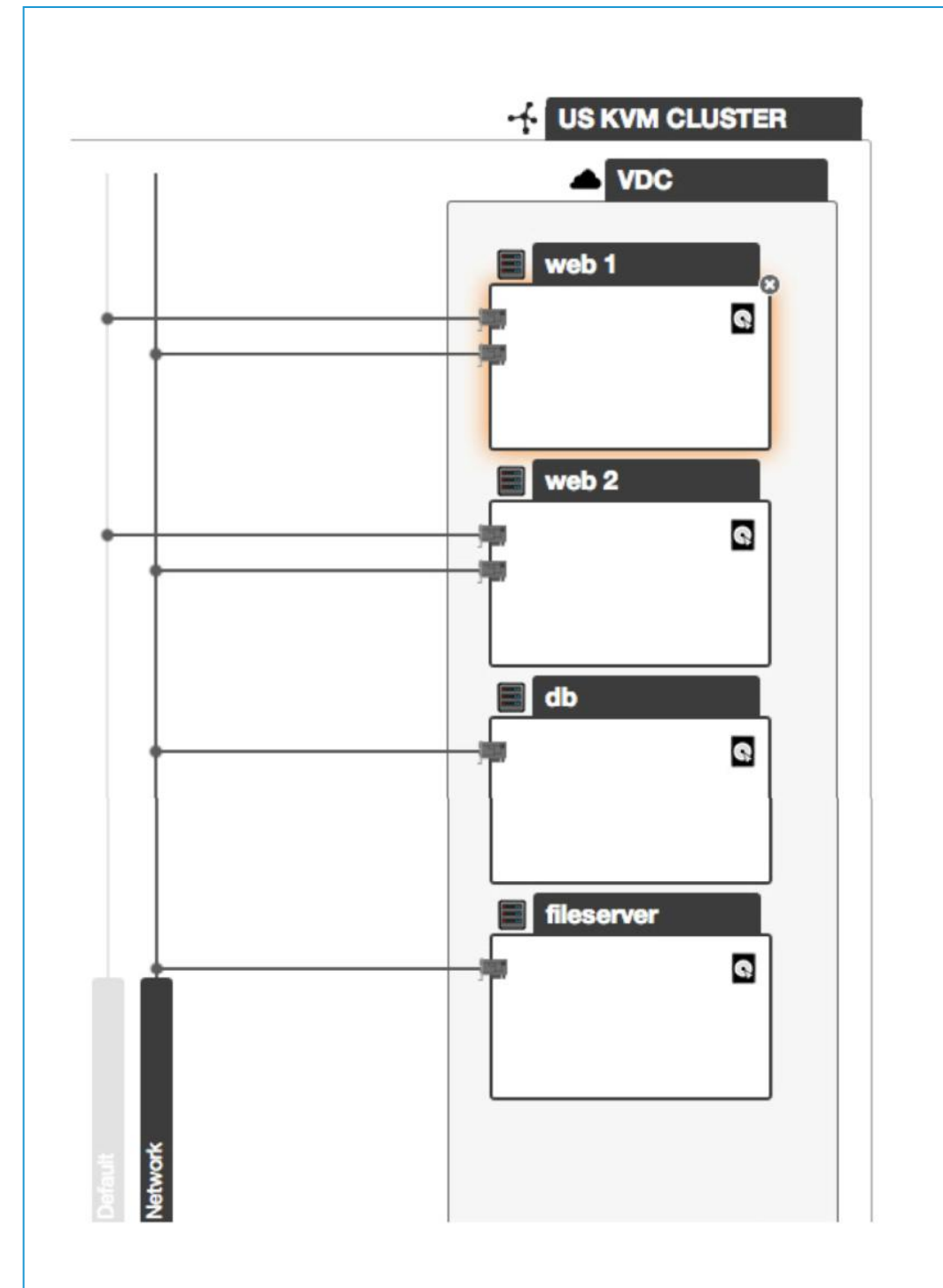
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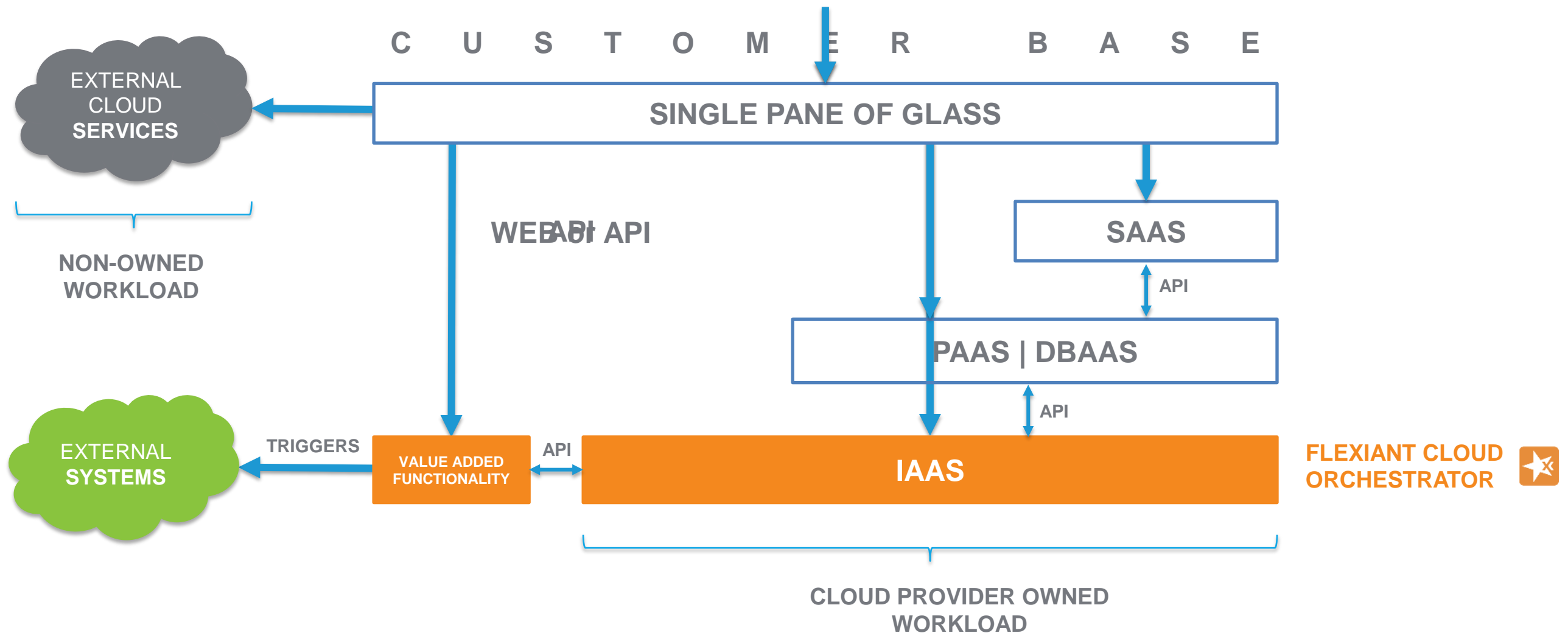
Flexiant Cloud Orchestrator

- ....testbed

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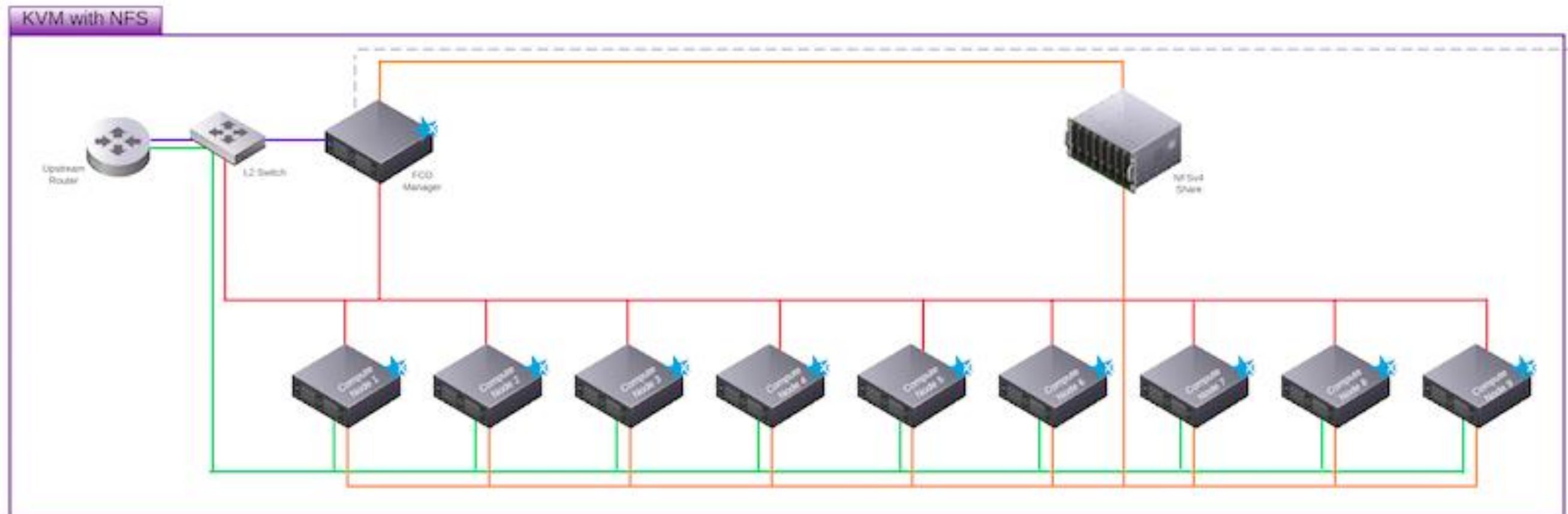
FCO Cluster 1

FCO Cluster 2
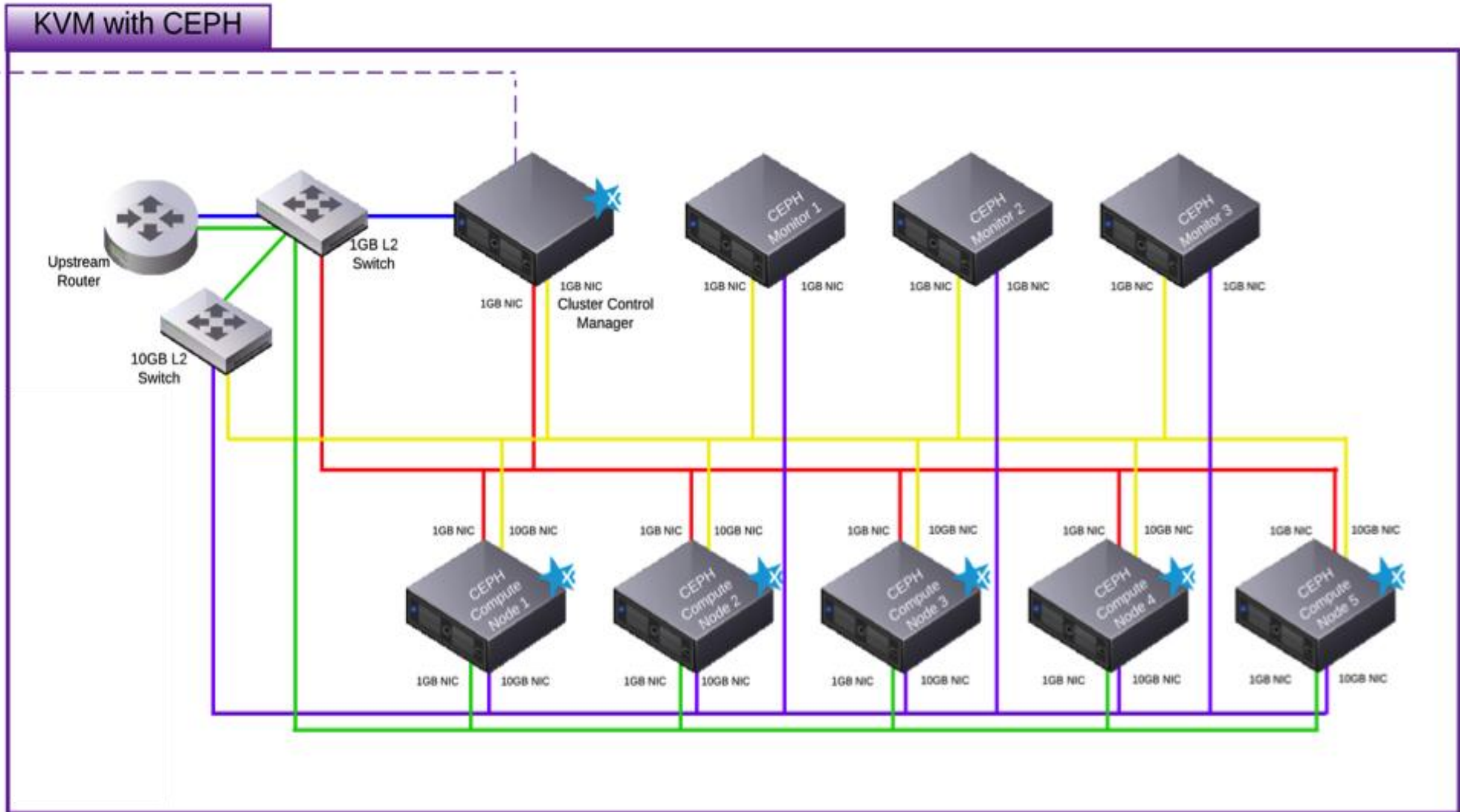
Flexiant Cloud Orchestrator

- ....triggers and API

CALL-IN VIA API

AVAILABLE IN 3.1.x AND IN 4.0

1 How many cloud credits did this customer consume yesterday?

2 3,457

EXTERNAL BILLING SYSTEM

HOSTBILL

API
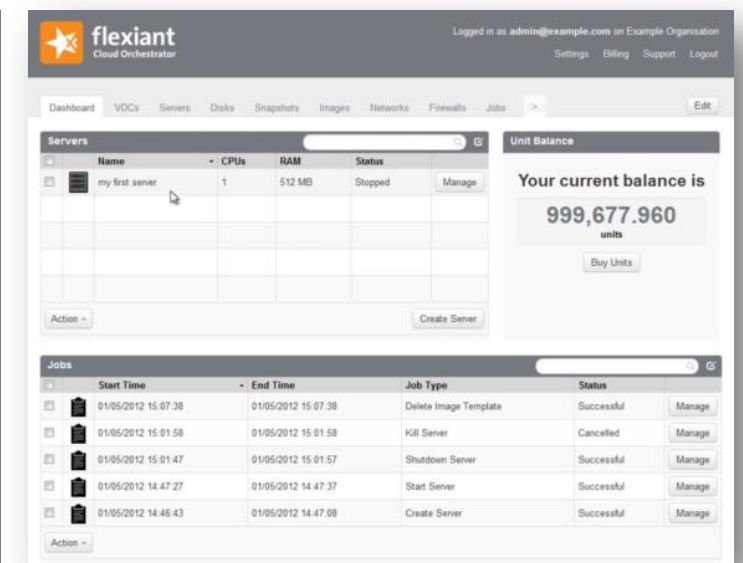
3 This customer just purchased 1000 cloud credits on my control panel

4 Ok, I've topped up his units balance

CALL-OUT WITH TRIGGERS

AVAILABLE IN 4.0

1 There is a new user signup, add it to your database

2 Ok, done

3 A new server has been provisioned, add it to your pool
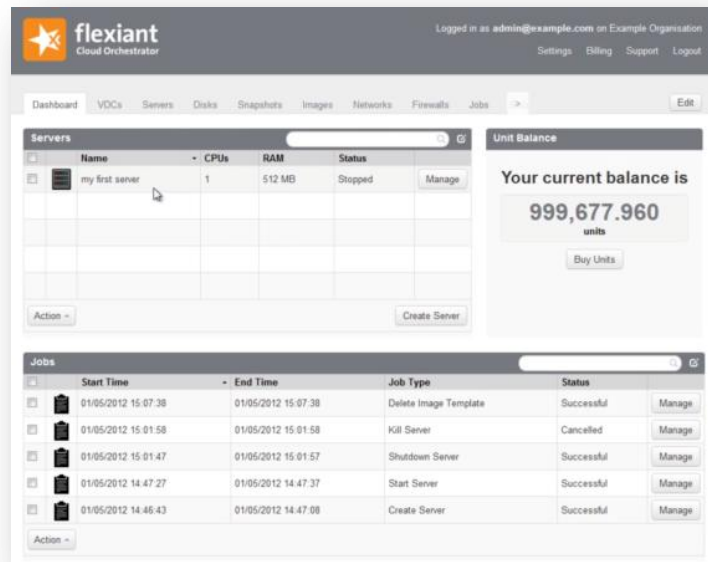
4 Ok, done

FDL trigger

FDL trigger

EXTERNAL CRM

LOAD BALANCER

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TRIGGERS

NEW

★ The ability to execute arbitrary code triggered by almost any event within FCO

★ Plug-ins are written using our lua-based FDL (Flexiant Development Language)

the programming language
Lua
20 years

★ To integrate external system (end customer or service provider)

★ To alter the **business logic** of Flexiant Cloud Orchestrator

TRIGGERS TYPES

★ PRE-event
★ POST-event
★ SCHEDULED

salesforce
Chef
zendesk
twilio
zapier
DUCKSBOARD
MailChimp

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Cloud and SDN

- Enable SPs to offer complete VNO on top of public and private infrastructure
- Secure connectivity to customers with environments spanning multiple clusters, multiple clouds or cloud/on-premise hybrids.
- Deploy as a virtual appliance or integrate as-a-service

This would enable a number of use cases, including:

- Bursting into public cloud from on-premises to cope with spikes in capacity requirements

- Benefiting from the economies of scale of multi-tenanted cloud without compromising on security between end users

- Providing cloud based on-demand capacity such as for dev/test while maintaining the same security, privacy and network configuration as for an on-premise solution

- Secure connectivity between points of presence in multiple geographies across diverse cloud providers

STORAGE- provide a user capable way of choosing different storage options, with potentially different price, performance or reliability factors dependent on their requirements.

- Describe what differentiates each resource when offering product

- VMs should be able to support different virtual disks from different storage arrays within the same VM

- The ability to move disks between storage units within the cluster

- Different storage tiers should be able to be priced at different levels.

- Hadoop is leading the charge of Big Data analytics.

- MapReduce framework has been used by Google for years and it's behind the success of its search engine

- Hadoop available to everyone thanks to the wide support of the open-source community, hence high adoption

- Numerous businesses are trying to take it to market (Cloudera, Hortonworks, etc). Amazon Web Services is also behind its push with its Elastic Map Reduce (EMR) service

Big Data

Manufacturers using sensor networks to save millions on the production floor

- *RAYTHEON "If a screw is turned 12 rather than 13 times, production of missiles halts*

- *STORK- Identifies problems through machine noise frequencies and sends engineers to fix before they break*

- *VOLVO collects TBs of data from sensors in their cars-industry standards dictate 5 but they collect over 400 measurements*

- *CHEVRON- generates as much data as Google – a large offshore field generates 10GB per day. In 1997 they had 5TB of data now they grow at 2TB per day.*

Integrating FCO with Parallels automation and the creation of an APS package allowing application developers to get to market quickly and integrating their unique container technology.

Inktank are a distributed team made up of about fifty storage, distributed computing and open source experts. They are on a mission to transform the storage industry by driving the widespread adoption of software-defined storage with Ceph.

- UShareSoft automates software delivery for virtualization and cloud computing.
- They make it easy for IT professionals to create and maintain software appliances, vApps and templates for physical, virtual and cloud environments.
- UForge provides the best OS and image format agnostic platform to assemble self-deployable distributed images for on-demand application delivery.

SolidFire delivers high-performance data storage systems for cloud service providers. Leveraging an all-flash scale-out storage architecture with patented volume-level quality-of-service (QoS) controls, providers can now guarantee storage performance to thousands of applications within shared infrastructures. By using real-time data reduction techniques and system-wide automation, SolidFire is fueling new and profitable block-storage services that are advancing the way the world uses the cloud.

FP7 & Flexiant

Optimis

4Caast

CumuloNimbo

PaaSage

CELAR

MODACLOUDS

MOVESMART

CACTOS

S-Case
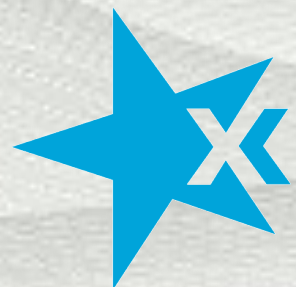
Flexiant and CELAR
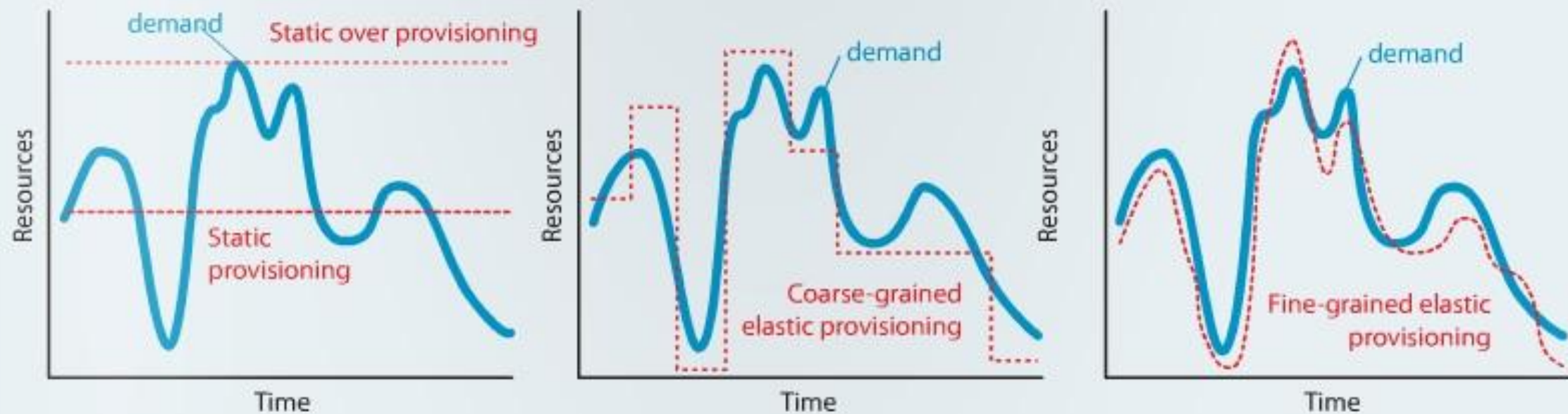
Figure 1: Resource provisioning strategies
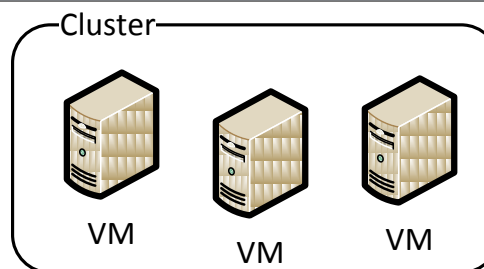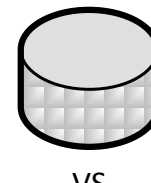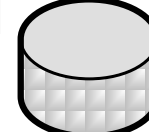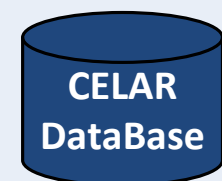
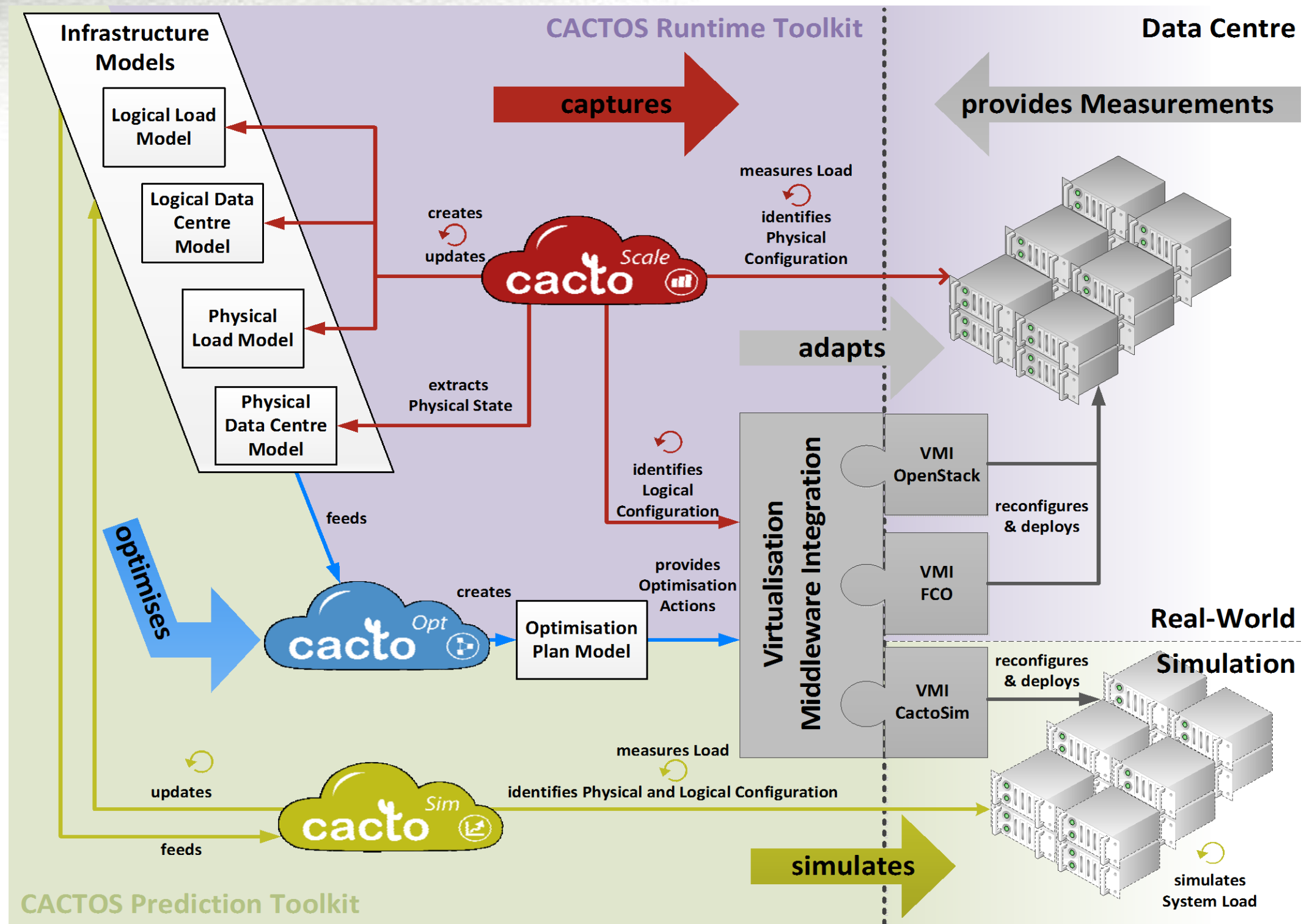# CELAR

MODAClouds

- ➤ *Multiple Hooks required*

- ➤ *APIs*

- ➤ *Code*

- ➤ *Abstraction Layers*

PaaSage

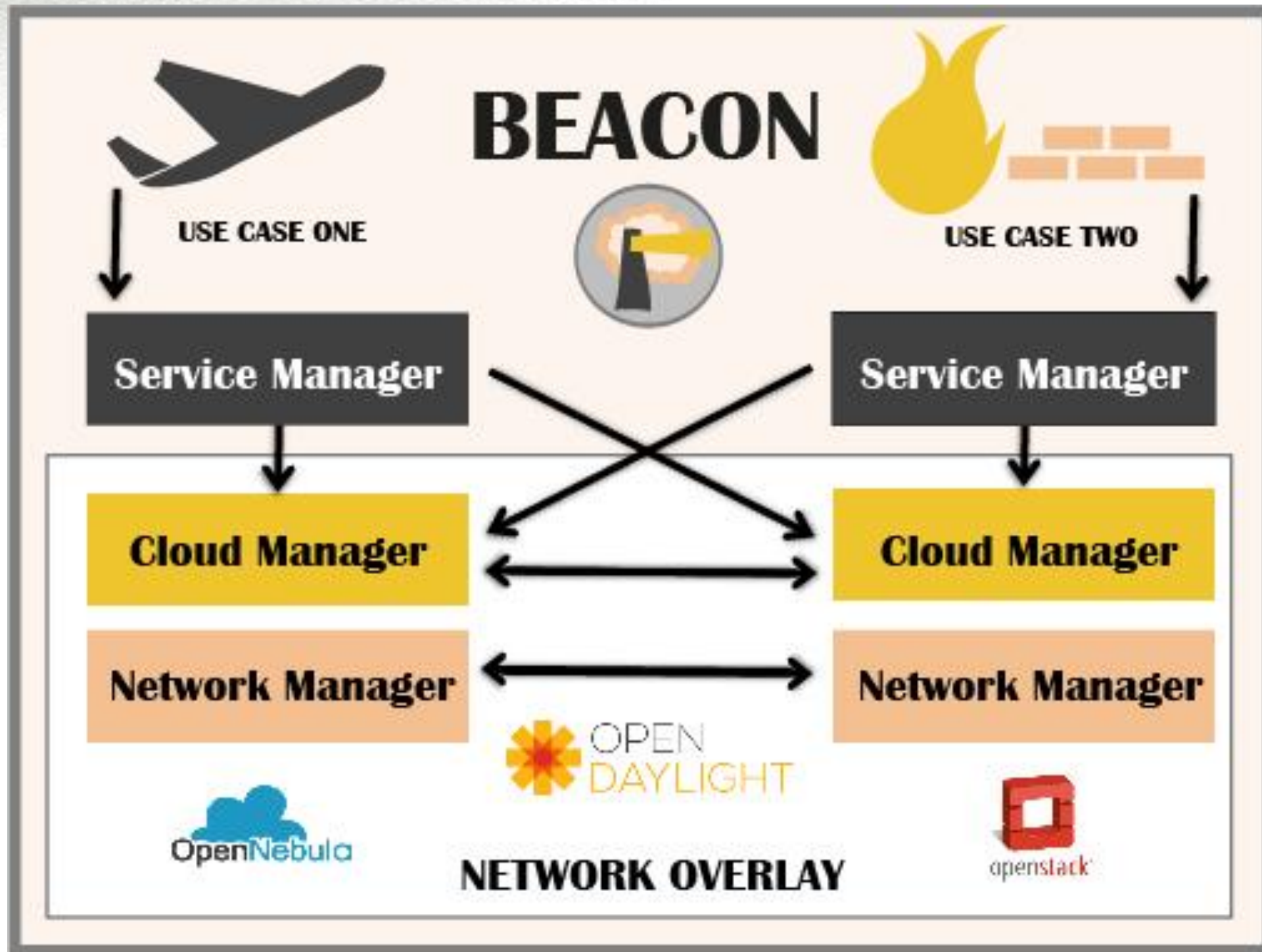# S-CASE workflow

UML diagrams:
- edited & images
- static & dynamic

storyboards

analysis class diagrams

textual requirements

Mainly identify RESTful CRUD resources, their properties and connections

Models & Processes
NLP/Vision/Software Engineering

S-CASE Ontology

workflow editor

Web Service Synthesis & Composition

retrieve resources

deploy composite WS

retrieve appropriate 3rd party WS

Web Service Semantic Annotation & Matchmaking

domain ontologies

3rd party Web Services

WS WS WS WS

annotate

YouREST

WS → WS

deploy build

WS

CIM

PIM

MDE

PSM

Code

S-CASE Repository
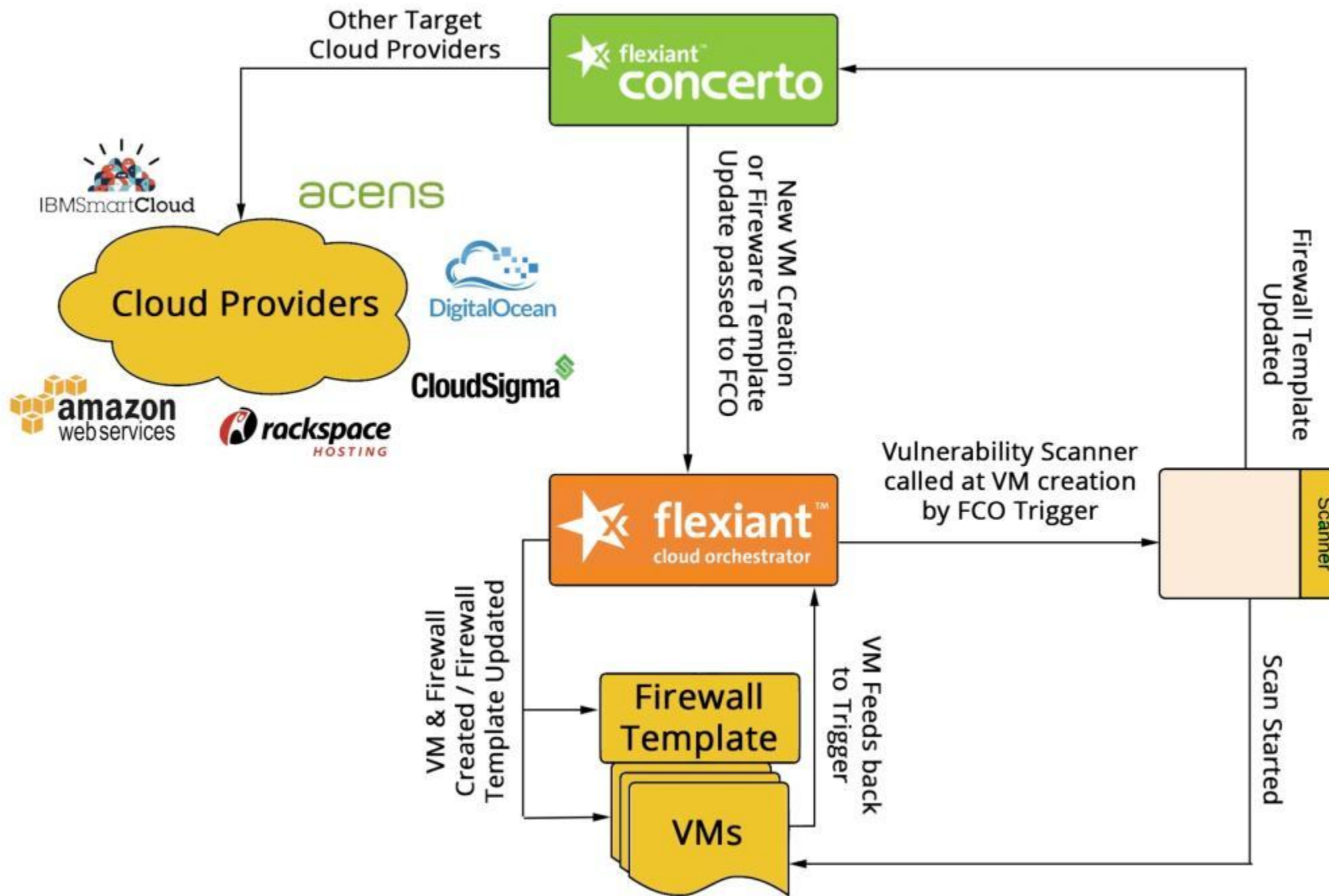
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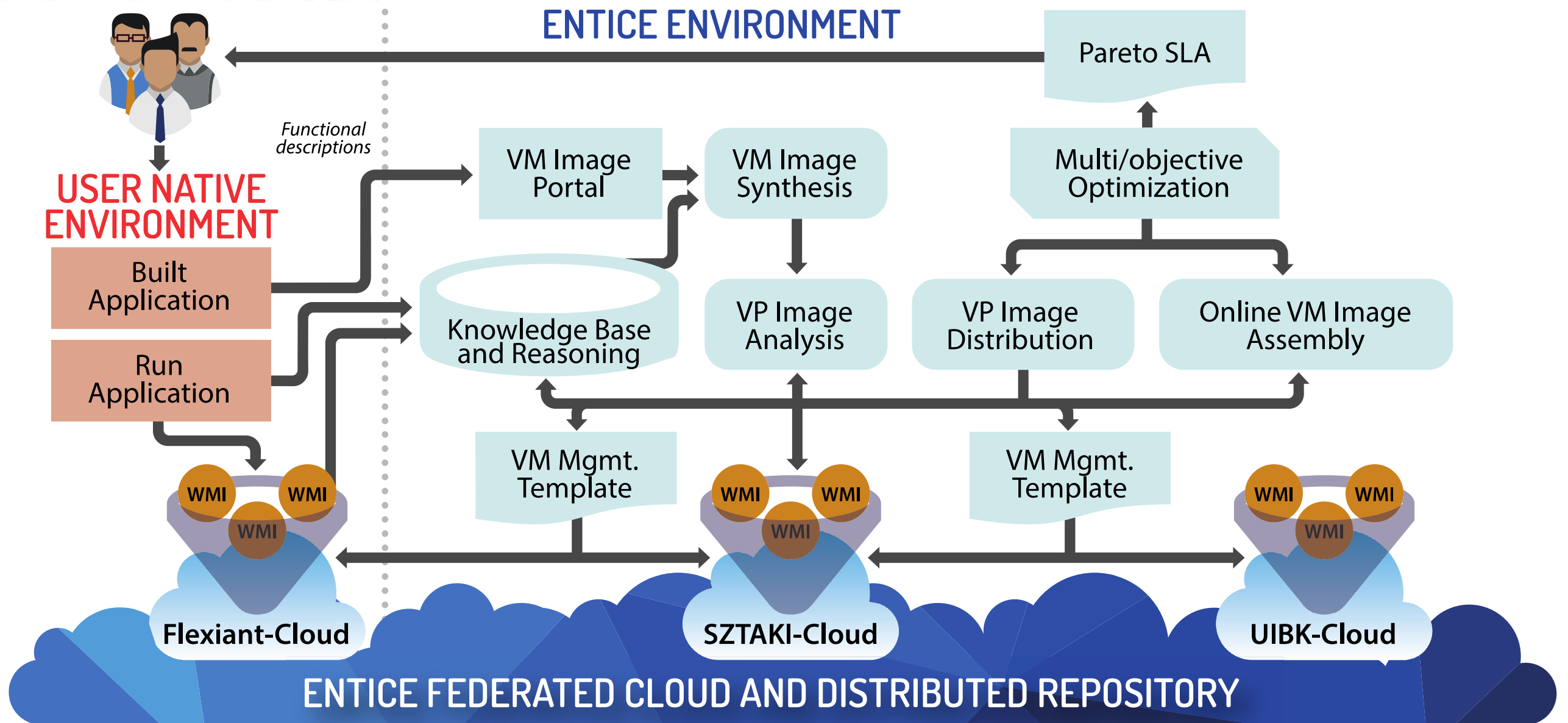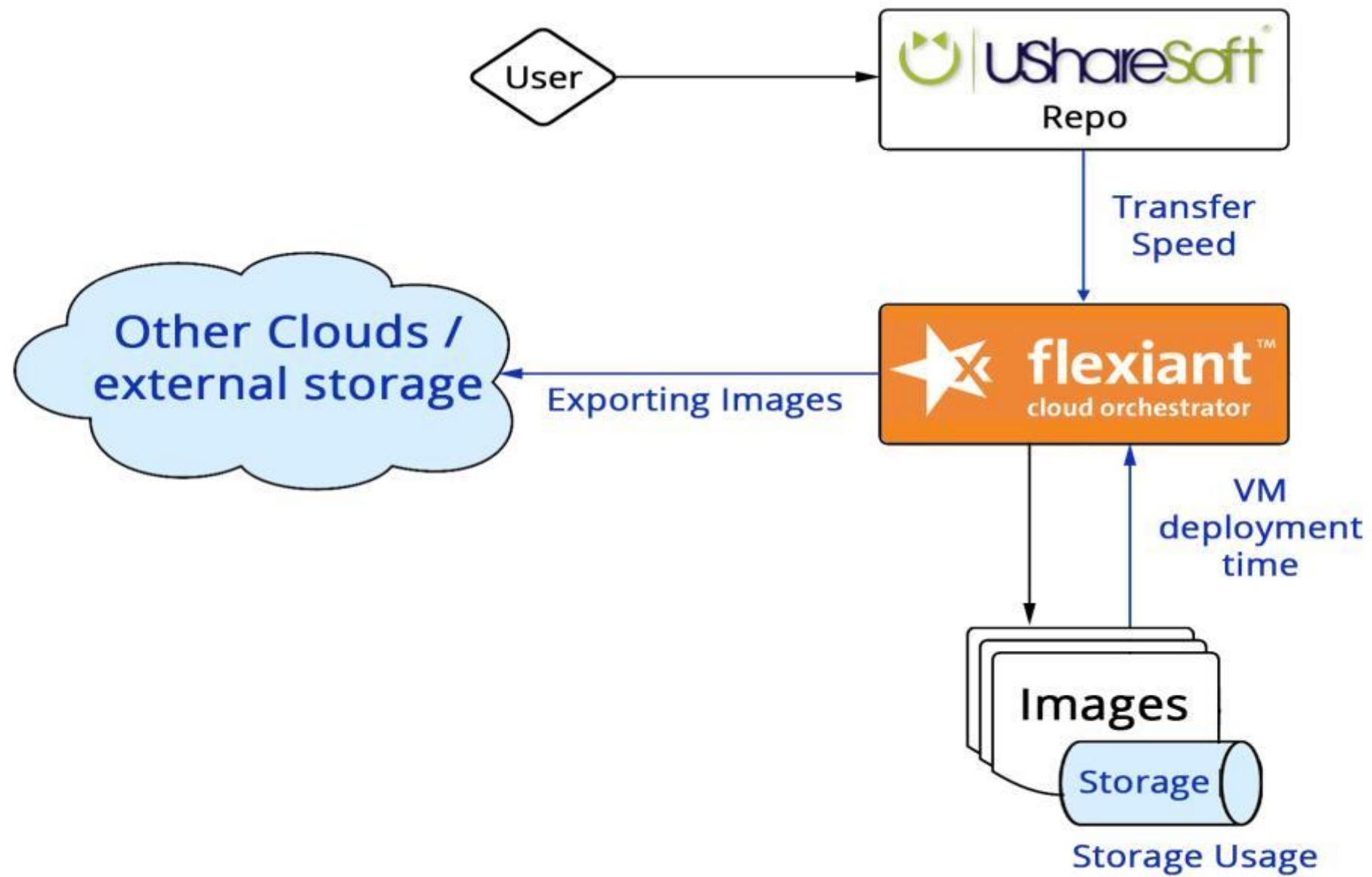your cloud simplified
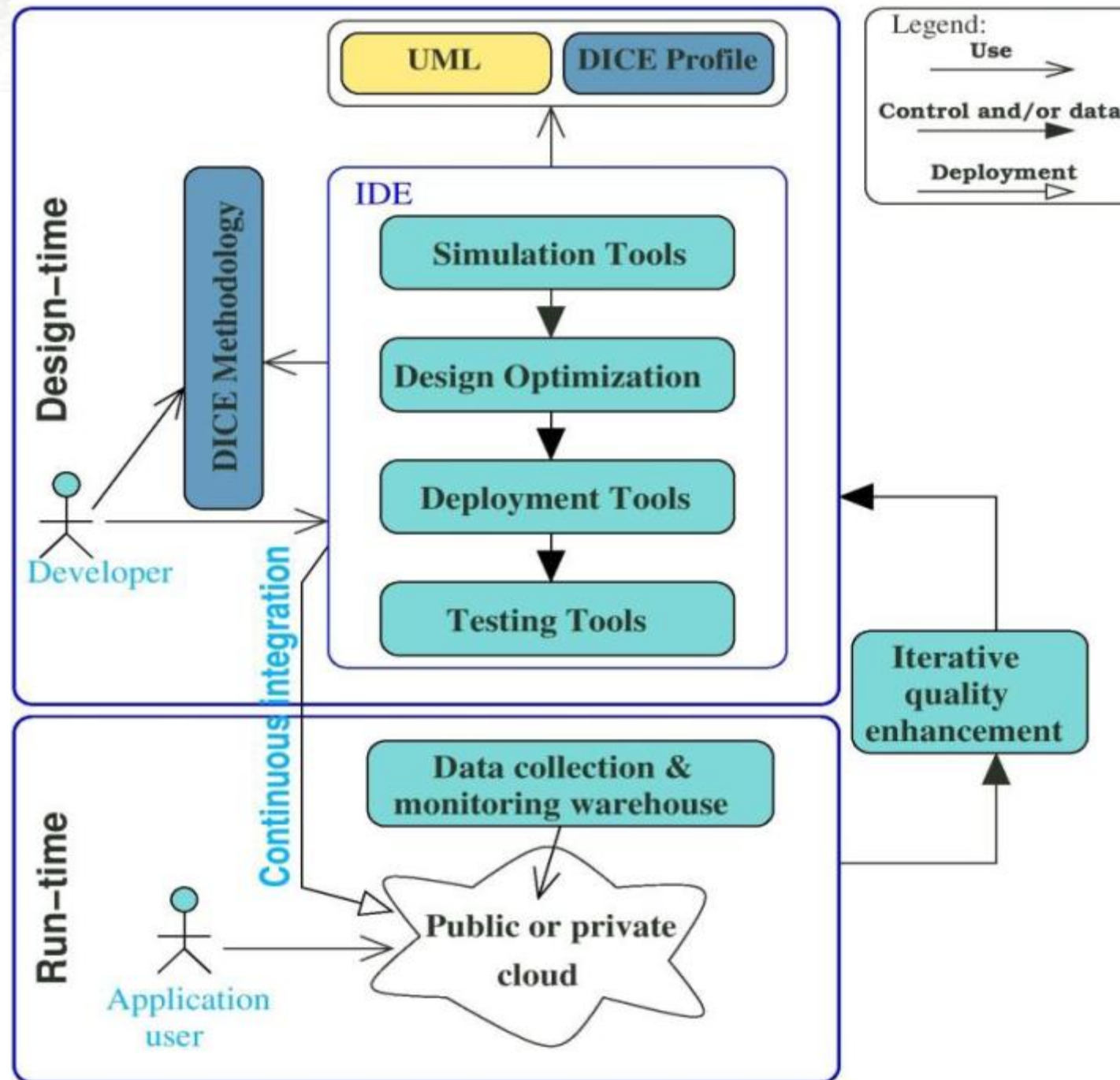
New Projects

Beacon

Entice

Entice will provide a multi locate Image repo
From this that ENTICE will address the following FCO limitations:

- Optimise/improve images distribution/storage-as-a-service offering
- Support different levels of QoS related to performance, cost and storage
- FLEX is striving towards chef cookbook templates to automatically configure and tune environments for specific applications
- FCO requires secure connectivity between geographically distributed points of presence across diverse Cloud providers
- Possibly use Docker containers.

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Dice

Quality–Driven Development of Data–Intensive Software

Fault Injection Tool

THANK YOU

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KEEP
CALM
AND
ASK A CLOUD
EXPERT