



Openstack evolution

Did Unicorns ever exist? "Depends.."

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#RedHatOSD


Red Hat Openstack 13 - **Queens**



LONG LIFE RELEASE

Red Hat OpenStack Platform 13 (Queens) is our second Long Life Release

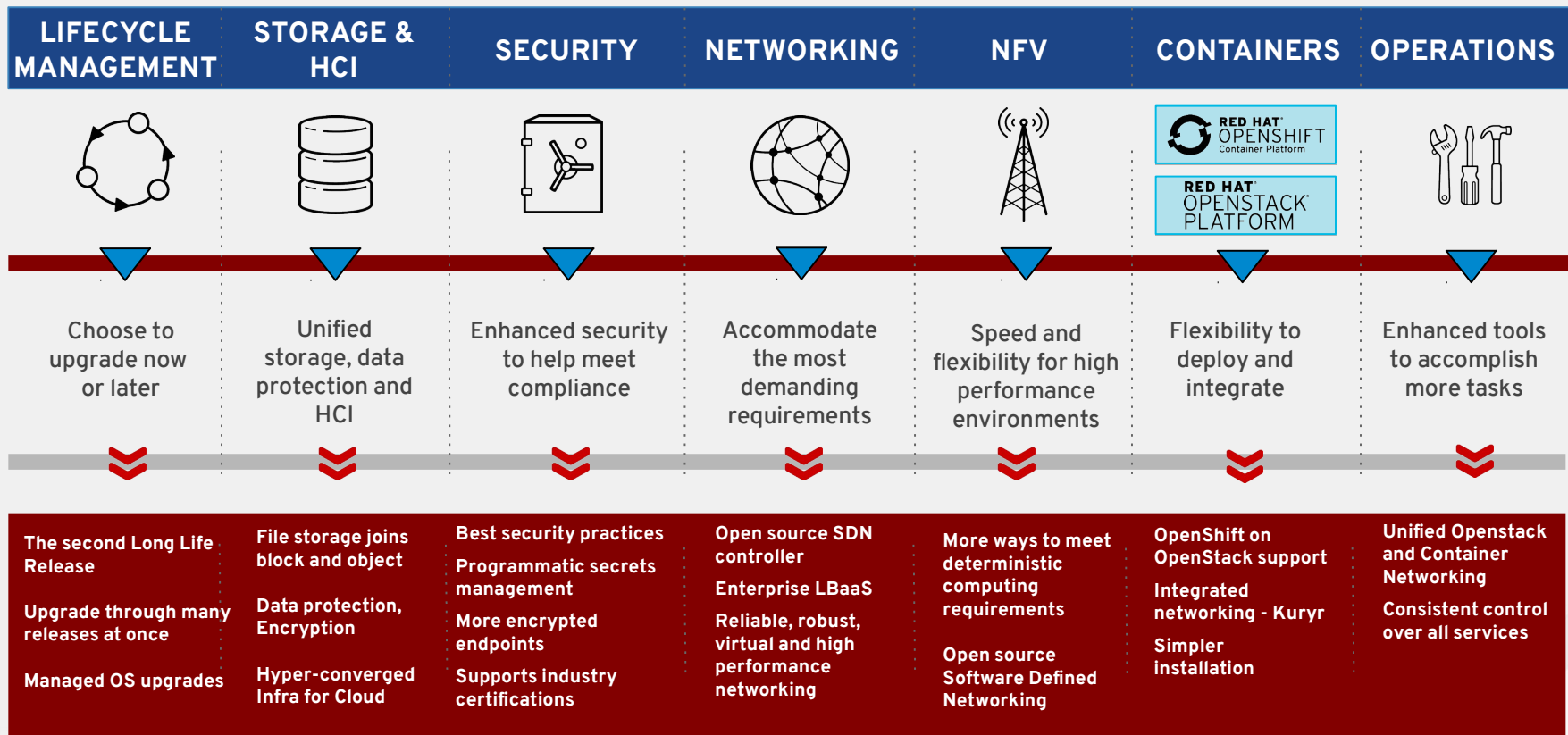
- Choose to upgrade every 6 months and benefit from 1 year of support on that release
- Choose to upgrade every 3 years via long-life releases with an optional extended life-cycle support (ELS) totaling up to 5 years of support

		Long Life			Long Life			Long Life
RHOSP 8 Liberty	RHOSP 9 Mitaka	RHOSP 10 Newton	RHOSP 11 Ocata	RHOSP 12 Pike	 RHOSP 13 Queens	RHOSP 14 Rocky	RHOSP 15 Stein	RHOSP 16 T...
3 years (ends Apr 2019)	3 years (ends Aug 2019)	3 years (+2 years)*	1 year (out of support)	1 year (ends late 2018)	3 years (+2 years)*	1 year (ends late 2019)	1 year (ends 2020)	3 years (+2 years)*

* With Optional Extended Lifecycle Support (ELS)

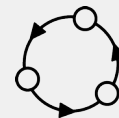


Introducing Red Hat OpenStack Platform 13



FAST FORWARD UPGRADES

Facilitates accelerated upgrades between long life releases



LIFE CYCLE

10

RED HAT®
OPENSTACK®
PLATFORM

13



UPGRADES FOR LONG LIFE RELEASES



- > **Minimum of 3-year support**
+ optional 2-year support extension through
extended life-cycle support

- > **Accelerated upgrade
process** and in-place upgrade
without
additional hardware



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CEPH UNIFIED STORAGE

File Storage Support Added With CephFS and Manila

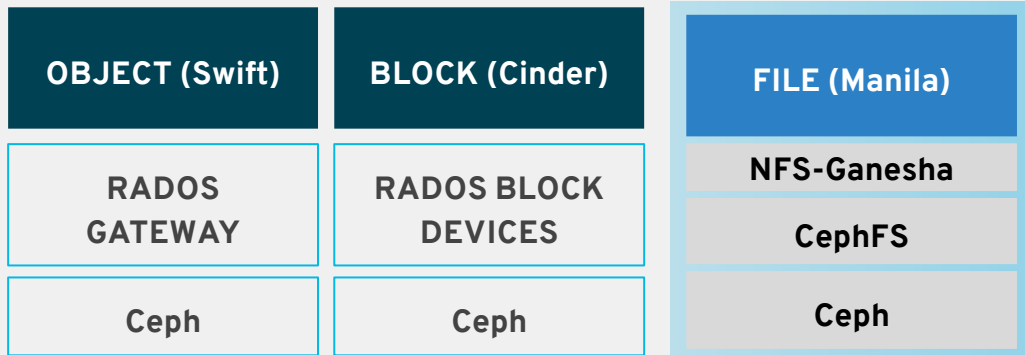


STORAGE

S3-like
Container registries
Developers

VM Devices
Database
Image store backing
Monitoring and
management
High I/O

Shared file systems
Structured files
Data Analytics



Comprehensive Block, Object, and File storage solutions from Red Hat





ENHANCED DATA SECURITY WITH CEPH STORAGE ENCRYPTION

Encrypted volumes and images



STORAGE

SECURE VIRTUAL MACHINE FILESYSTEMS

CINDER VOLUME ENCRYPTION

Allows LUKS-encrypted cinder volumes to be created and used in RBD/Cinder deployments. Keys are managed securely in the Key management service, creating an automated solution from top to bottom.

SECURE VIRTUAL MACHINE CATALOG IMAGES

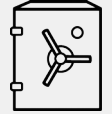
GLANCE IMAGE SIGNING

Ensures that an image uploaded into Glance has not been changed or modified. Uses the Key management service to easily verify image signatures and security automatically.

+ PROGRAMMATIC KEY MANAGEMENT (Barbican)

ENHANCED SECURITY & COMPLIANCE

Covering technical implementation to industry leadership



SECURITY



TLS

More and more internal endpoints are now encrypted with TLS:

- Block storage (cinder)
- Secrets API (barbican)
- Metrics (redis)
- SDN (OpenDaylight)
- Remote consoles (VNC)



COMPLIANCE

- FedRAMP
- ANSSI
- ETSI



SECURITY GUIDE

New Security Guide - Comprehensive industry leading best practices releasing soon.



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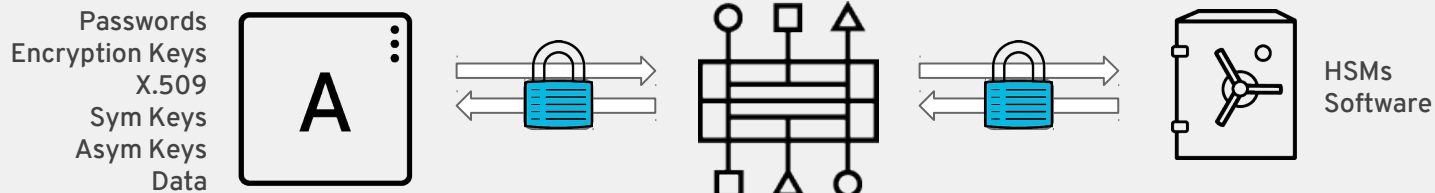


ENHANCED SECURITY WITH PROGRAMMATIC SECRETS MANAGEMENT



SECURITY

Introducing Barbican



Barbican provides an API for accessing your secrets storage such as HSM's and other data vaults.



BARBICAN

an OpenStack Community Project



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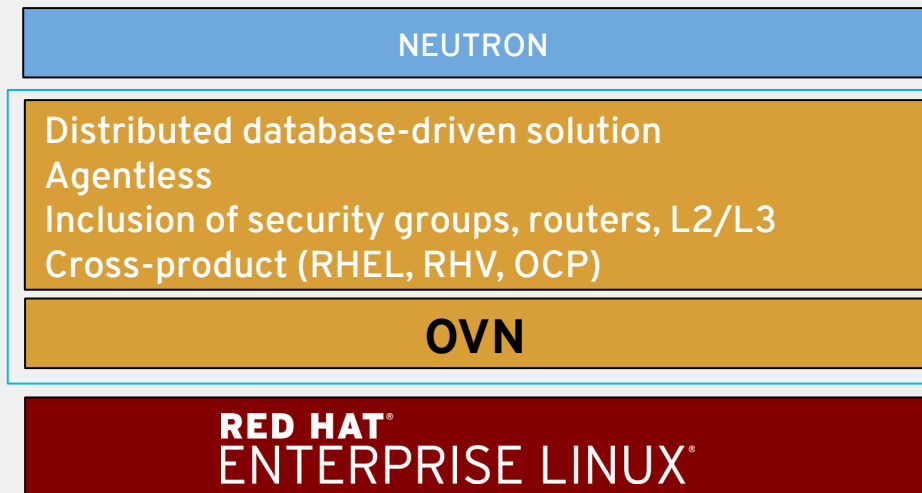
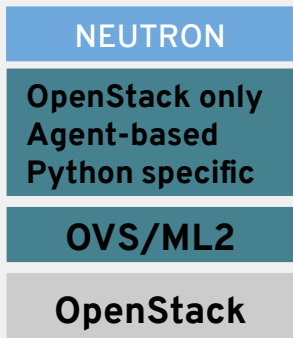


ENHANCED LAYER 2 & LAYER 3 NETWORKING SUPPORT



NETWORKING

Open Virtual Network (OVN)



NOTE: OVN must be called specifically at deploy time.

Upgrade tooling for ML2 to OVS is coming in a future release.

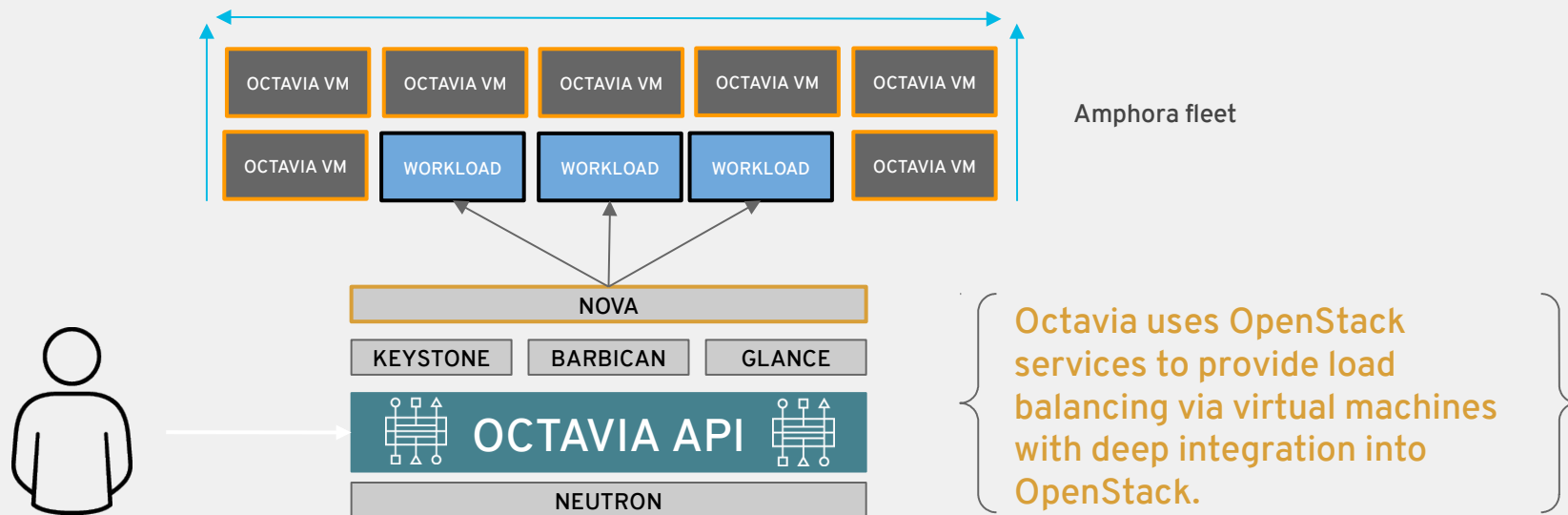


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CLOUD-NATIVE LOAD BALANCING

Introducing Octavia



Predictable Low-Latency for Real Time Computing & Analytics

Faster response times



DIRECTOR +
TUNING +
RED HAT EXPERTISE

RED HAT®
OPENSTACK®
PLATFORM

REAL TIME OVERCLOUD IMAGE
REAL TIME KVM KERNEL ENHANCEMENTS



RED HAT®
ENTERPRISE LINUX®

REAL TIME
ENABLED KERNEL



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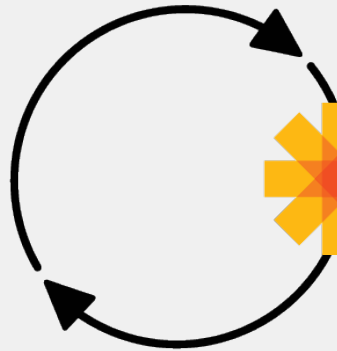


AN OPEN SOURCE INTEGRATED SDN CONTROLLER

Bringing an integrated SDN lifecycle to Red Hat OpenStack Platform.



RED HAT[®]
OPENSTACK[®]
PLATFORM



OPEN
DAYLIGHT

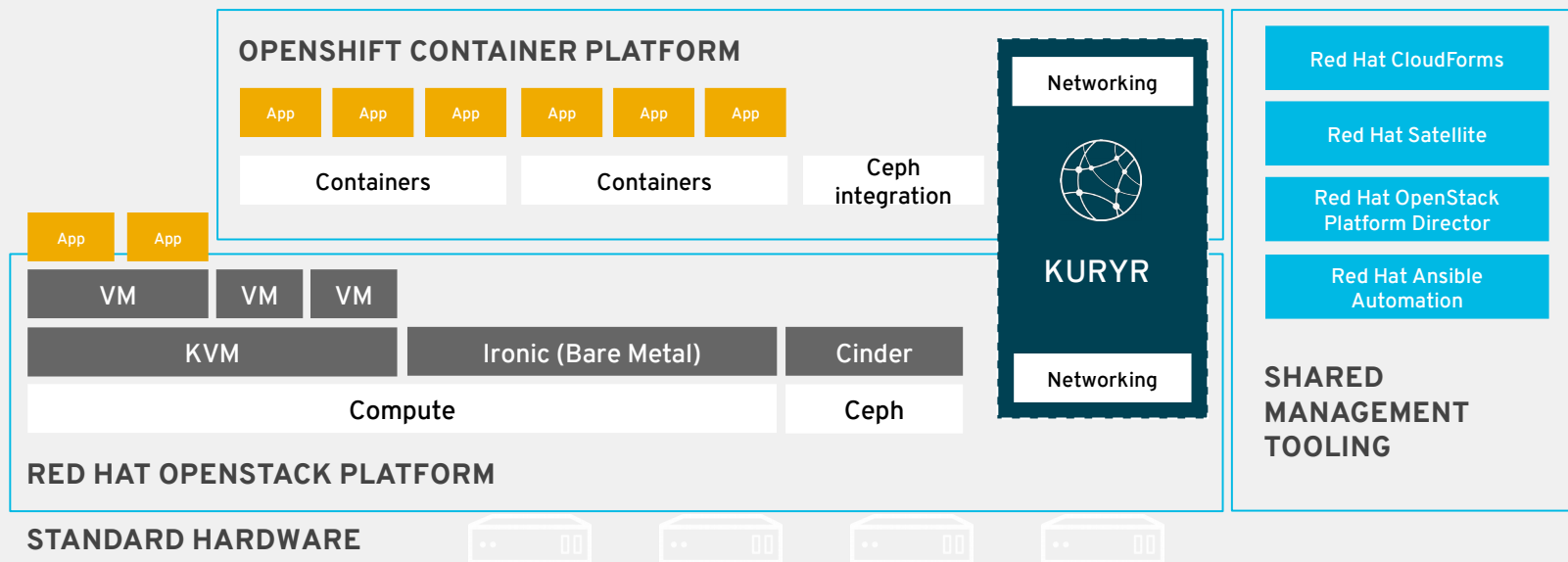


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OPENSIFT ON OPENSTACK

Integrations



Kuryr with OCP 3.11 is in Technology Preview

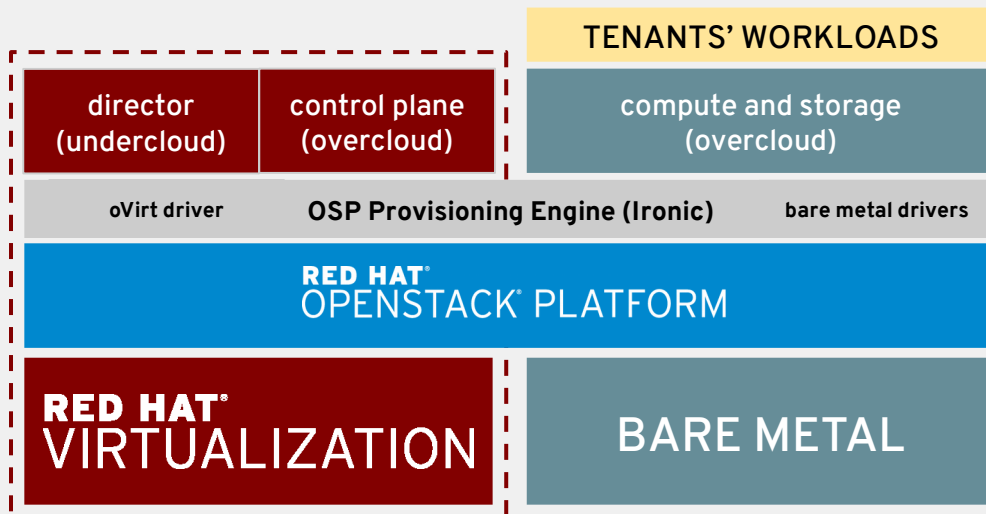


VIRTUALIZED MANAGEMENT INFRASTRUCTURE

Use Red Hat Virtualization to save time and money



OPERATIONS



YES!

You can now use the features already in Red Hat Virtualization for Red Hat OpenStack Platform services.*

* Does not provide RHV as a hypervisor for OSP workloads.



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RHOSP 13 - Queens Key take away

- Long term release (3+2 years) based on Openstack Queens release
- Fast forward upgrade from 10 -> 13
- Cinder volume encryption
- Manila in combination with CephFS
- Barbican
- OVN fully support
- Real Time KVM
- Opendaylight





GRAZIE PER L'ATTENZIONE

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Nexi Cloud



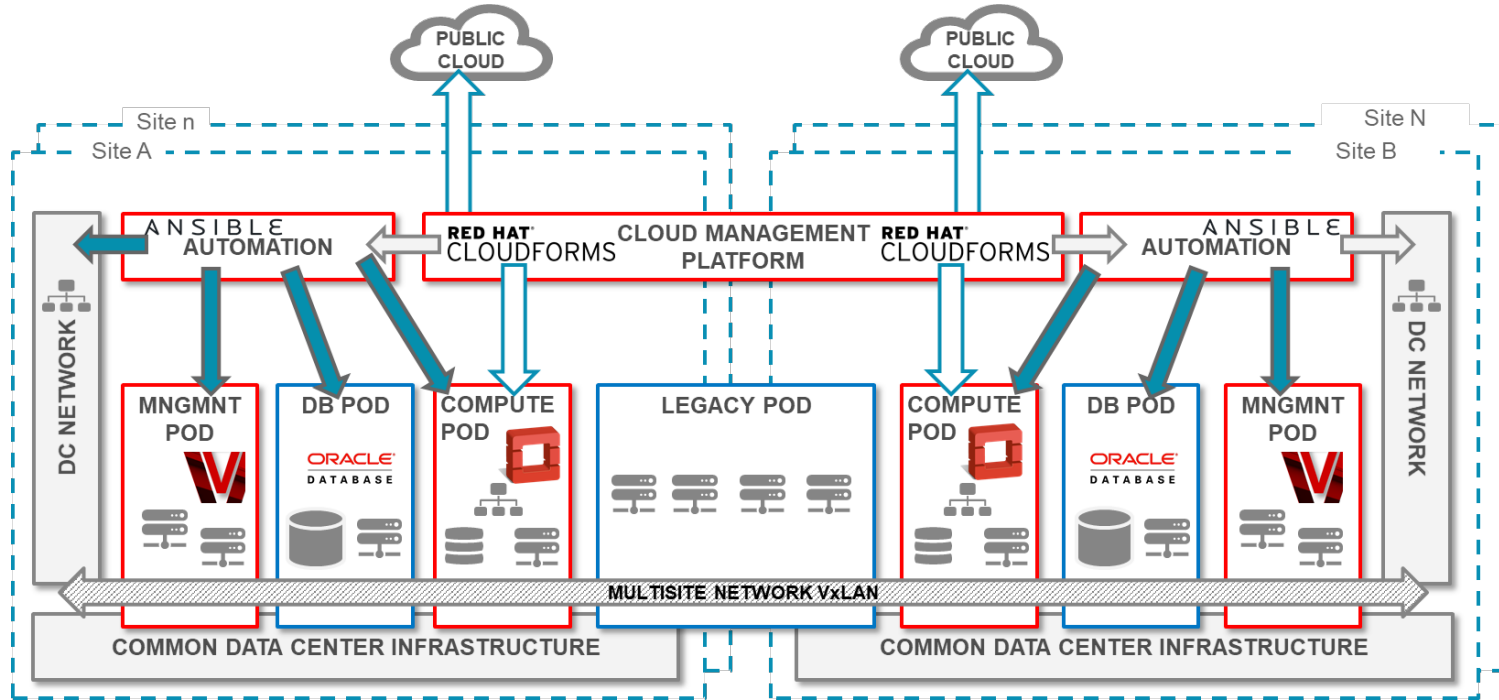
Nuova infrastruttura a supporto delle applicazioni a microservizi

Milano, 30 Ottobre 2018

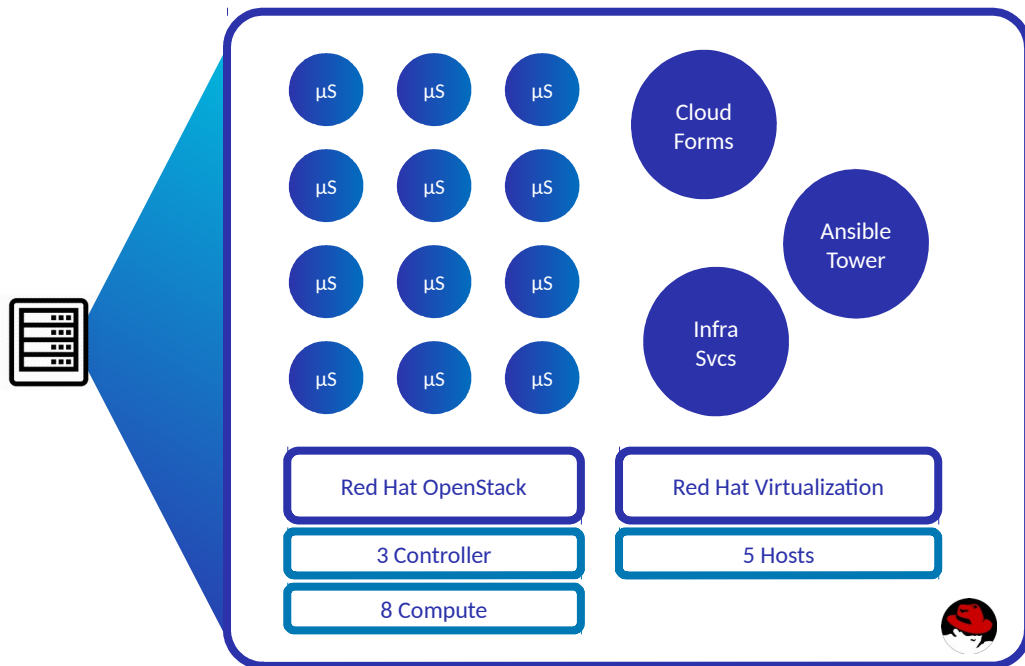
Amedeo Salvati @amedeosalvati

IT Service Management & Infrastructures

Nexi Cloud - Software Defined Data Center



Architettura basata su Point of Delivery (POD)



Benefici

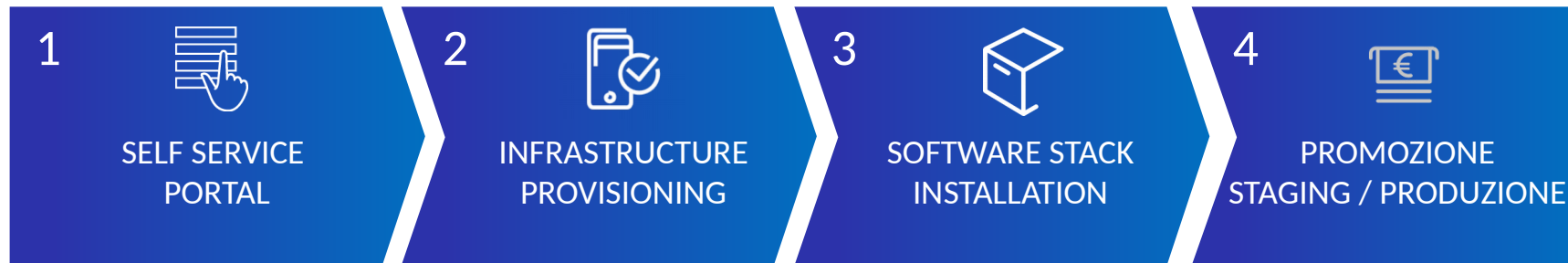
Unità atomica infrastrutturale

- Predicibilità
- Semplifica la scalabilità dei servizi
- POD di differenti tier
- PCI-DSS Compliant

Deployment completamente automatizzato

- Infrastructure as Code
- Riduzione errore umano
- Migliori SLA e riduzione downtime
- Possibilità di implementare Blue Green Deployment

Flusso di creazione dei servizi



- **Self Service Portal**

Ambienti richiesti attraverso un catalogo servizi predefinito pubblicato su CloudForms

- **Orchestrazione Heat**

Gruppi di istanze per ruolo

- **Standardizzazione IaaS+**

Security Group, Reti
Tipologie di istanze

- **Introduzione metadati**

Tagging degli ambienti

- **Ansible Tower Workflows**

Ansible Playbook installa ambienti in base ai metadati

- **Versioning**

Playbook mantenuti su repository Git e deliverati tramite git TAG

- **Processo PCI compliant di**

- promozione**

Redeploy completo dello Stack in modo automatizzato

Stack Heat

Topology

Overview

Resources

Events

Template



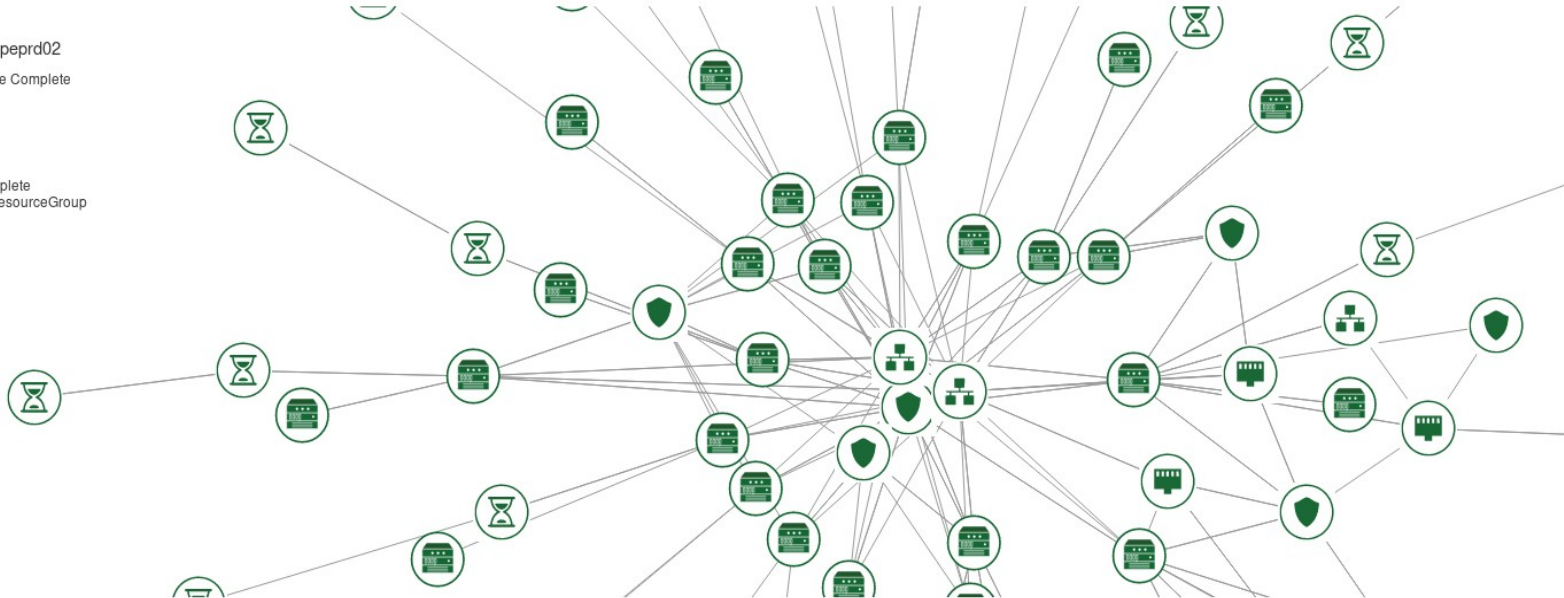
npaypeprd02

Create Complete

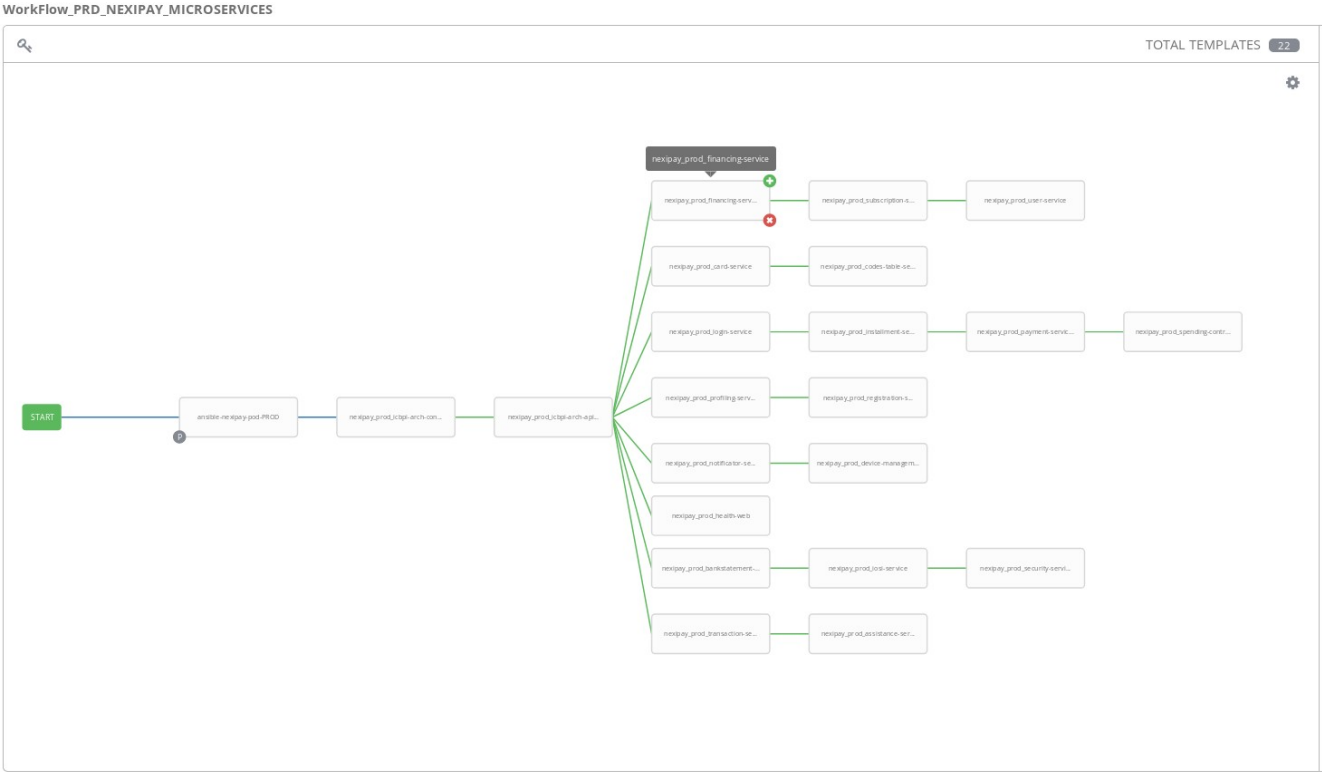
msb_vm

Create Complete

OS::Heat::ResourceGroup



Ansible Tower - Workflow



Demo



nexi



Risultati e benefici ottenuti

- Reazione rapida ad eventuali failure
- Standardizzazione e automazione al 100% dei rilasci applicativi
- Riduzione dei rischi attraverso Blue / Green deployment
- Scaling out / in delle applicazioni

nexi
every day, every pay