PUBLIC OR PRIVATE CLOUD: HOW YOU CAN HAVE YOUR CAKE AND EAT IT TOO WITH RED HAT

Build an Open Hybrid cloud using Red Hat

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DISCLAIMER

Disclaimer

- This session does not pit public cloud against private cloud.
- This session does not compare OpenStack to AWS.
- OpenStack is not a replacement for public cloud.

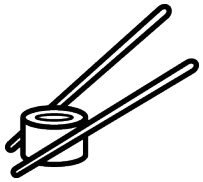
This session discusses how you can build an open-hybrid-cloud and place workloads in the environment where they are best suited.

A COST APPROACH TO BUILDING A CLOUD

Costs: Let’s go out to eat

What criteria do you use?
What does either option cost?
How do you apportion the costs?

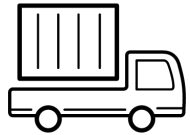





	A la carte menu	**Buffet**
Cost	Priced by the item.	All you can eat at a fixed price.
Use case	Intimate, a meeting.	Family dining, a celebration.
Efficiency	Vendor can prepare/cook by the item.	Vendor prepares a feast, estimates consumption.

Costs: CAPEX and OPEX

Capex - A large financial outlay to acquire the asset, then depreciate over use. Example: trucking.



Capex applied to software - Acquire the software binaries and license to use a software product. Example VMware, Oracle

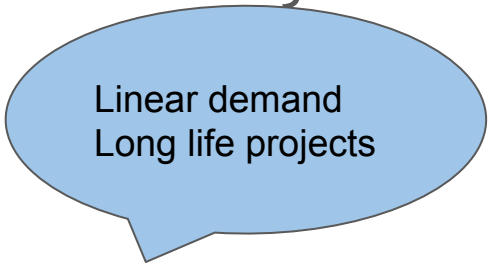
Opex - A fairly even or predictable expense to operate an asset. Example: gasoline, oil and tires.

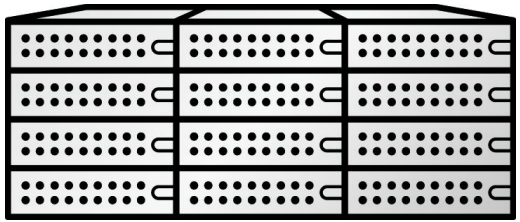
Opex applied to software - support and services. Acquiring software by subscription.

Building a private cloud: CAPEX

Traditional IT method of rolling out an application: budget and prearrange internal capacity

- Datacenter space
- Racks
- Servers
- Storage
- Networking
- Software
- Developers/Sys-admins



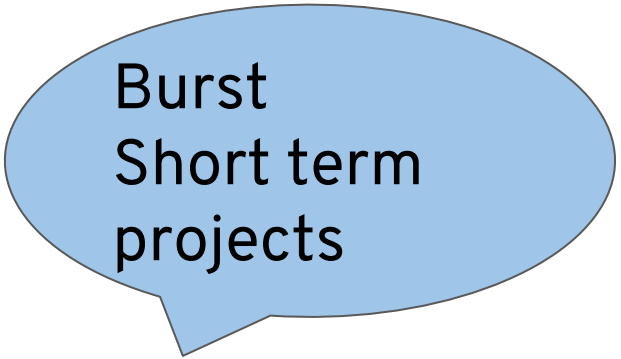


Building a private cloud: CAPEX

Advantages	Caution
 ● Interest on debt-financed capital can be tax deductible. ● Suitable for budgets and planning cycles. ● *Choice* of hardware and software	 ● Excess capacity not easily recovered. ● Employees to manage hardware and software. ● Budget silos: storage, networking, software.

Consuming a public cloud: OPEX

- Dev/test
- Variety of services
- Sizes of storage and virtual servers
- Developer tools



- Startups that don’t want to invest in datacenters and hardware.
- Enterprises that want to become agile or reduce CAPEX costs.

Consuming a public cloud: OPEX

Advantages	Caution
 ● Pay-as-you-go. ● OPEX budget line. ● Fast time to market.	 ● On demand costs are not predictable. ● Bandwidth (egress costs). ● Lock-in: easy to get in, hard to get out. 

Cost to download data out of AWS S3

Data Transfer OUT From Amazon S3 To Internet	
First 1 GB / month	$0.000 per GB
Up to 10 TB / month	$0.090 per GB
Next 40 TB / month	$0.085 per GB
Next 100 TB / month	$0.070 per GB
Next 350 TB / month	$0.050 per GB
Next 524 TB / month	Contact Us
Next 4 PB / month	Contact Us
Greater than 5 PB / month	Contact Us

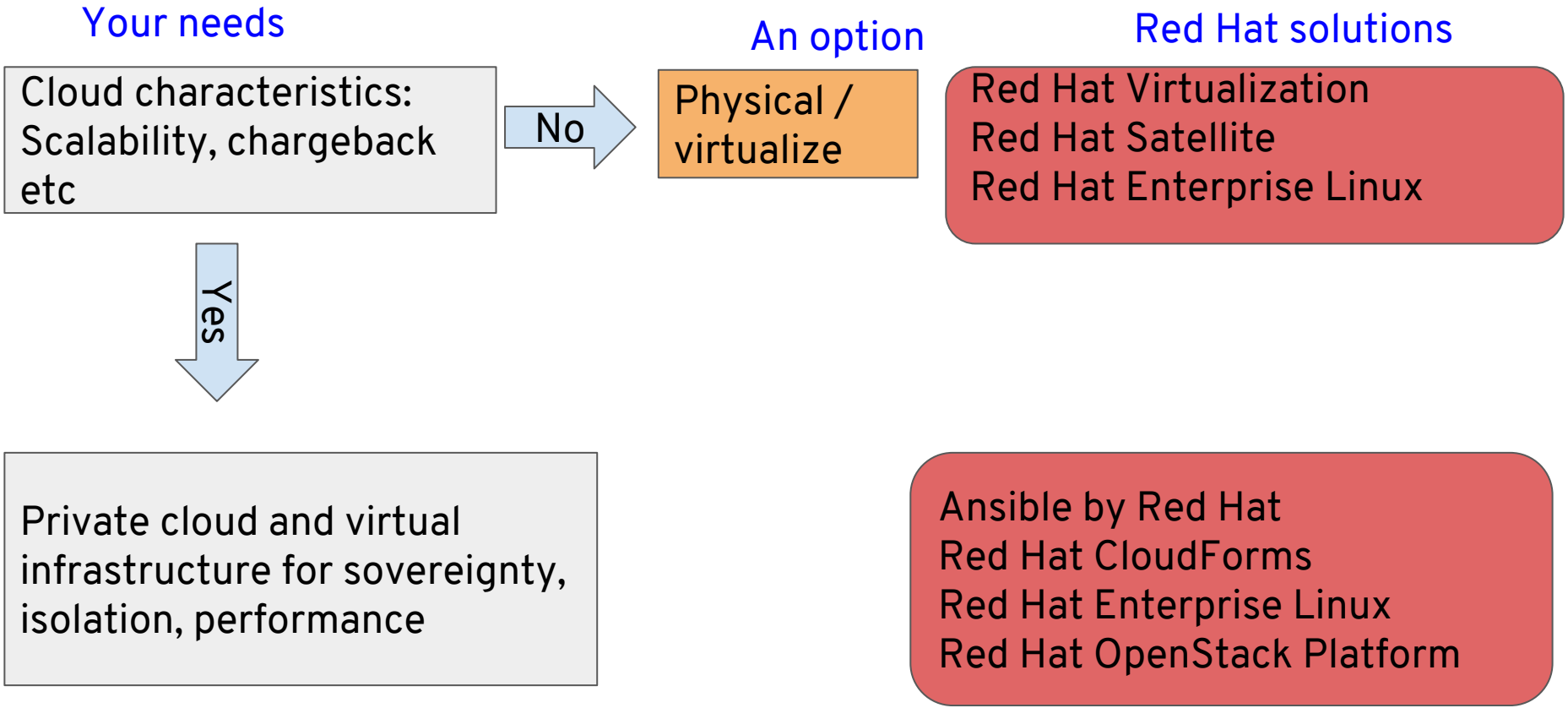
SECURITY

	PRIVATE	PUBLIC
Attack surface	Limited to your datacenter	Shared infrastructure October 2016 
Responsibility & Control	Your staff/vendors.  	Shared responsibility Cloud vendor owns infrastructure - “IN” Customer owns: app, data, IdM, firewall, encryption - “OF”

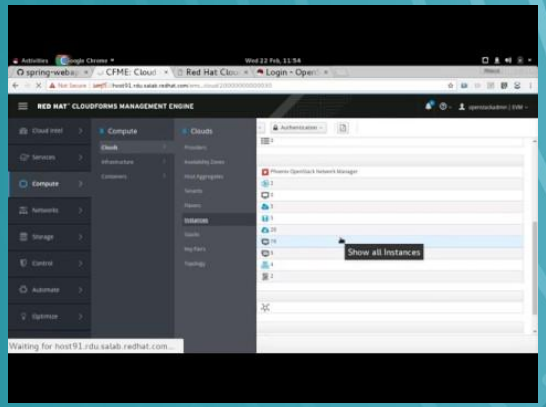
Let’s talk about firewalls, TCP/IP ports

YOUR NEEDS

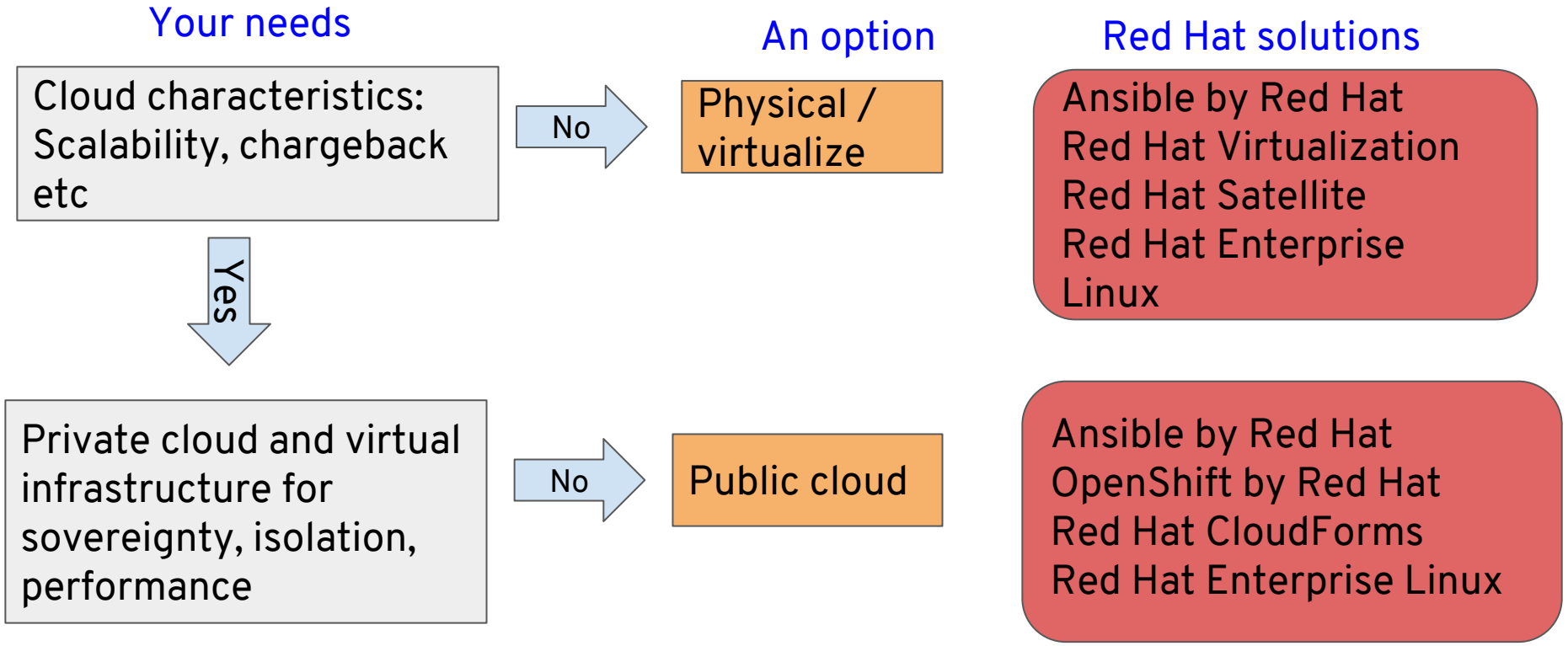
Decision tree



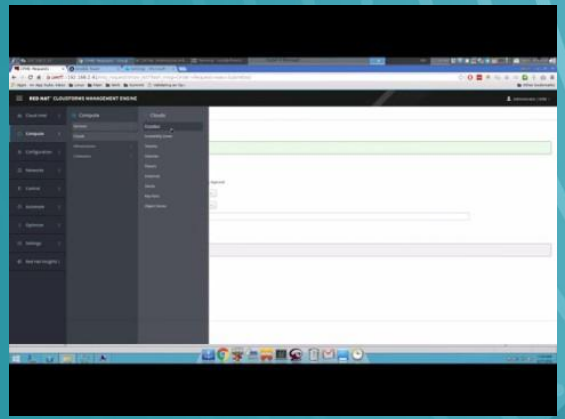
Private Cloud Demo

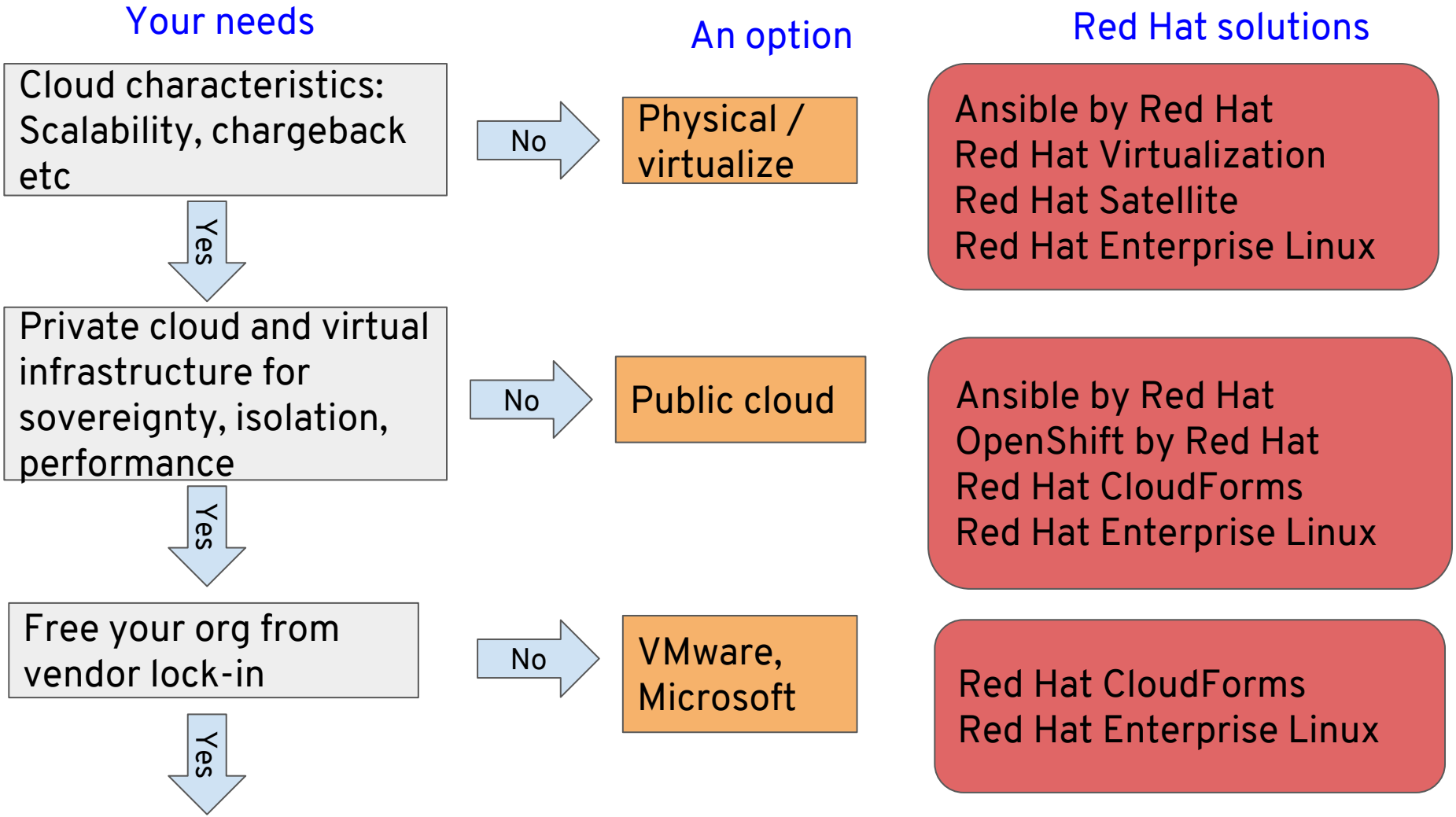


Decision tree

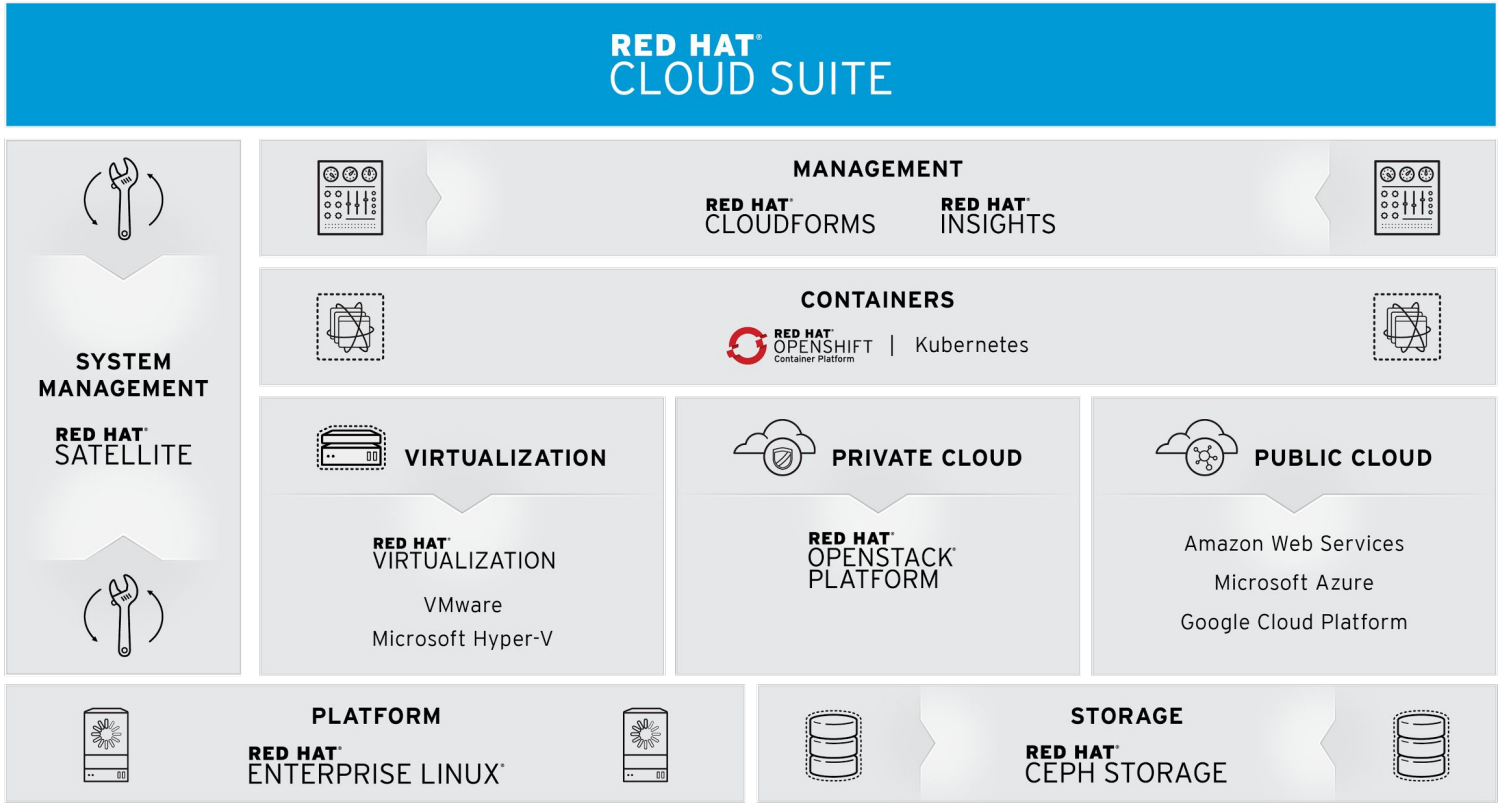


Public Cloud Demo




Your needs
An option
Red Hat solutions
Cloud characteristics: Scalability, chargeback etc
No
Physical / virtualize
Ansible by Red Hat
Red Hat Virtualization
Red Hat Satellite
Red Hat Enterprise Linux
Yes
Private cloud and virtual infrastructure for sovereignty, isolation, performance
No
Public cloud
Ansible by Red Hat
OpenShift by Red Hat
Red Hat CloudForms
Red Hat Enterprise Linux
Yes
Free your org from vendor lock-in
No
VMware, Microsoft
Red Hat CloudForms
Red Hat Enterprise Linux
Yes

Use an open-hybrid-cloud



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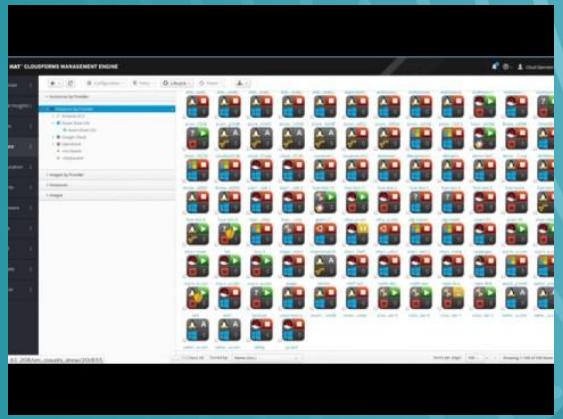
Hybrid Cloud Demo



A CUSTOMER EXAMPLE

CHALLENGE: SELF-SERVE STATION TO SPEED DELIVERY OF I.T. RESOURCES

Car sales are beyond showrooms and classified ads to digital channels that connect buyers and sellers.
More than two-thirds of U.S. car buyers have used a Cox Automotive company.
Cox Automotive operates 25+ companies, all creating new products and competing for technology resources.

SOLUTION: INFRASTRUCTURE-AS-A-SERVICE WITH RED HAT CLOUDFORMS

Cox Automotive chose Red Hat Cloud Infrastructure to manage its infrastructure in the cloud and deliver self-service access.
Using Red Hat CloudForms, Cox Automotive employees can view the entire technology environment on one dashboard. The easy-access
self-service portal allows any employee to provision technology resources and develop new products for customers.

Private, public or hybrid cloud

with Red Hat you can have your cake and eat it too!

QUESTIONS

Video Sources

Self Service on Private Cloud - Michael Solberg
https://youtu.be/0YIaz45FZYU

One click migrate to Azure - Jason Ritenour
https://youtu.be/l0ib1U5h1EY

Hybrid Cloud Management - Jerome Marc
https://youtu.be/d81C9GEBU1E

RED HAT SUMMIT

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