

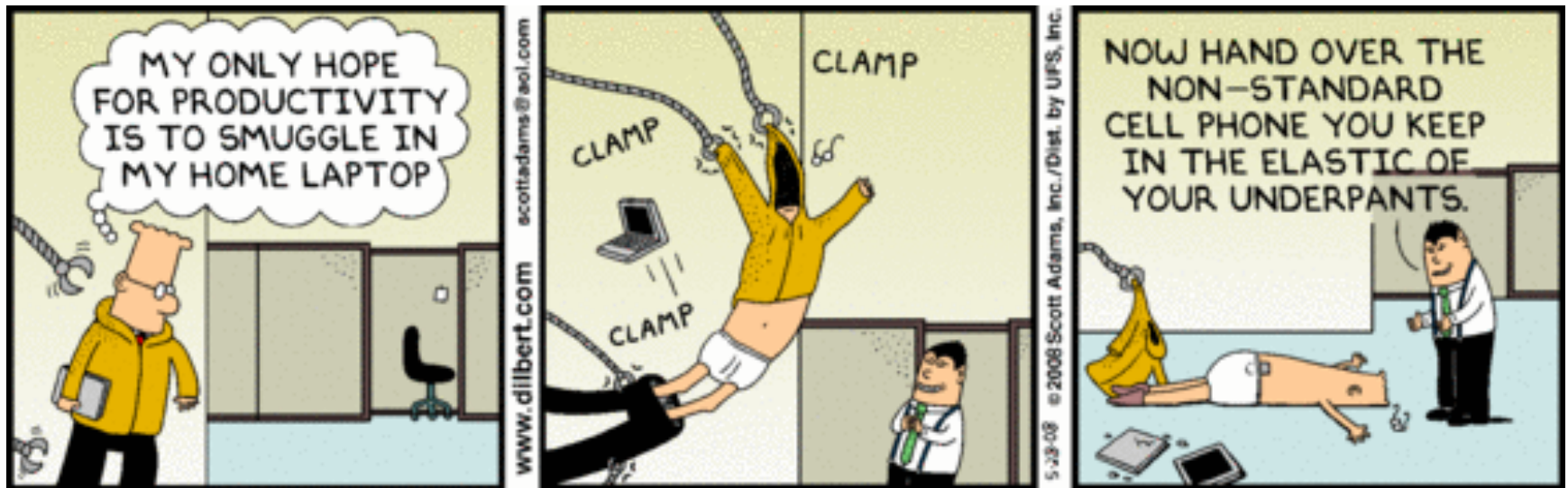


THE EMERGING IT: FRICTIONLESS, HYBRID, PROGRAMMABLE

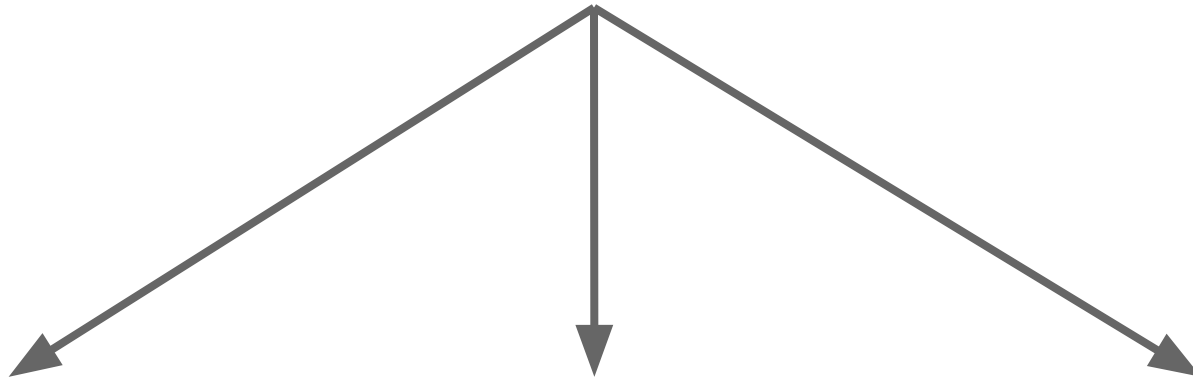
HOW TO STAY RELEVANT?

Alessandro Perilli
GM, Cloud Management Strategy

CONSUMERIZATION OF IT



CONSUMERIZATION OF IT



FRICTIONLESS IT


HYBRID IT

PROGRAMMABLE IT

TOWARDS A FRICTIONLESS IT

IT JUST WORKS





EASE OF USE
SPEED
INTEGRATION

EASE OF USE



ENGINE
START

photo credit: flickr.com/photos/markwalker

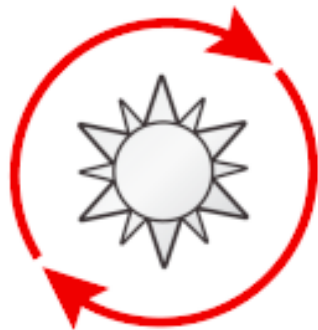
CLOUDFORMS 3.1 vs vCLOUD SUITE 5.5 & SYSTEM CENTER 2012 SP1

	VMware	Microsoft	Red Hat
Self-service Provisioning	vCAC, vCD, vFAD	SCAC, SCSM	CLOUDFORMS
Service Catalog	vCAC, vCD, vFAD	SCVMM, SCSM	
Chargeback	vCAC, vCCM	SCSM	
Capacity Management	vCAC, vCD, vCOM	SCVMM	
Performance Management	vCOM, vFH	SCOM	
Configuration and Change Management	vCM	SCVMM, SCOM	
Life Cycle Management	vCAC, vCD, vFAD	SCVMM	
Orchestration	vCAC, vCO	SCO	
External Cloud Connection	vCAC, vCC, vFAD	SCAC	

SPEED



27 HRS



PHYSICAL
SERVER

12 MINS



VIRTUAL
MACHINE

10 SECS



CONTAINER
INSTANCE

INTEGRATION



photo credit: flickr.com/photos/crystalflickr

Service Catalogs

All Services

Apps

Apache (Container)

Red Hat OpenShift Enterprise 2.1

OpenShift All-In-One

OpenShift Enterprise Multi Node

Catalog Items

Catalogs

Service "Apache (Container)"



Order

Name Apache (Container)

Description Docker based Apache

Long Description

Cloudforms with **Kubernetes & Docker**

This demonstration shows how Red Hat Cloudforms can deliver Docker Images using the Kubernetes Cluster manager.

We are delivering to a **Red Hat Virtualization** platform, but this can easily be switched to any of the following:

[Red Hat OpenStack](#)[Amazon EC2](#)[VMware vSphere](#)[Microsoft HyperV \(SCVMM\)](#)

27
Nodes

2

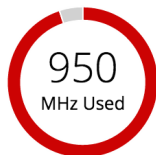
120
Containers2
Registries210
Projects500
Container Groups

35

1500
Services1250
Images175
Routes

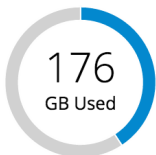
Utilization

CPU

50 Available
of 1000 MHz

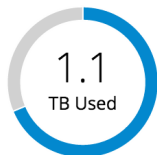
Last 30 Days

Memory

256 Available
of 432 GB

Last 30 Days

Storage

0.5 Available
of 1.6 TB

Last 30 Days

Network

200 Available
of 1300 Gbps

Last 30 Days

Container Group Trends

Last 30 Days

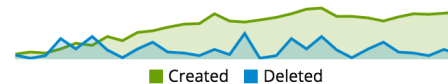


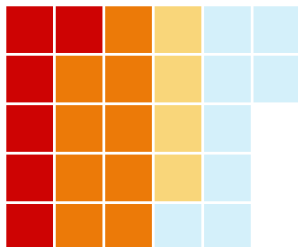
Image Creation Trends

Last 30 Days

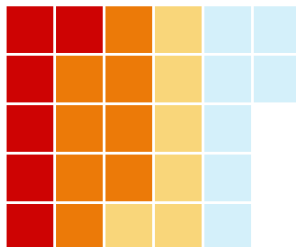


Utilization By Nodes

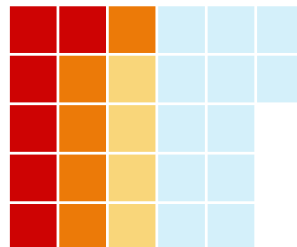
CPU

> 90% 80-90% 70-80% < 70%

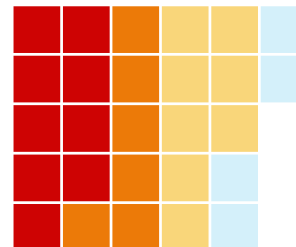
Memory



Storage



Network

Very Low Low High Very High

TOWARDS A HYBRID IT

“HYBRID” MEANS EMBRACING IT DIVERSITY

- Concurrent consumption of
 legacy and **next generation** IT
 virtual infrastructures and **clouds**
 IaaS and **PaaS** clouds
 private and **public** clouds
 traditional and **cloud-native** workloads
- Maintaining infra/plat/mgmt **consistency where possible**



MULTI-TIER ARCHITECTURE
MULTI-LAYER CONSISTENCY
MULTI-VENDOR SUPPORT

TRADITIONAL WORKLOADS



CLOUD-NATIVE WORKLOADS

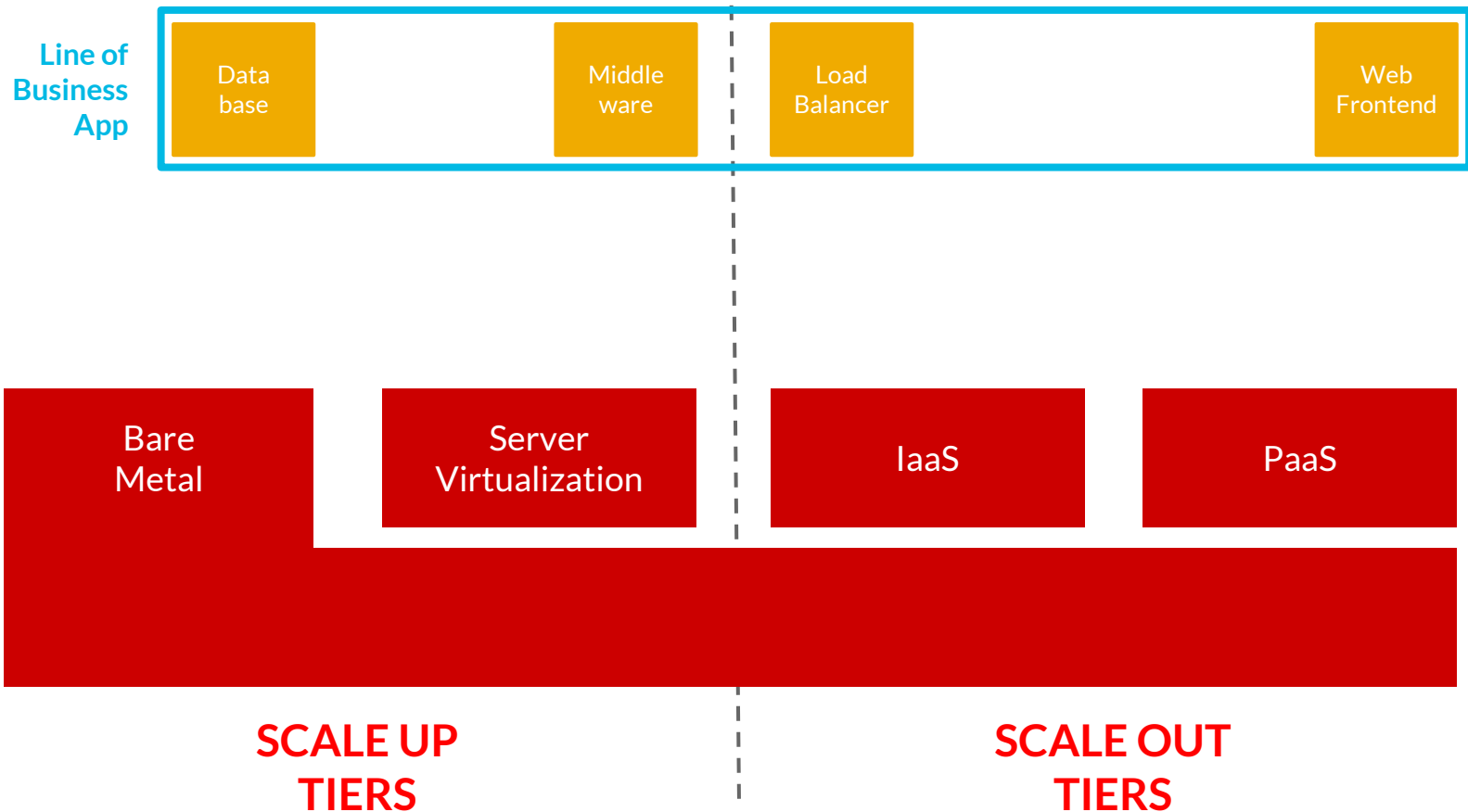


SCALE UP
TIERS

SCALE OUT
TIERS

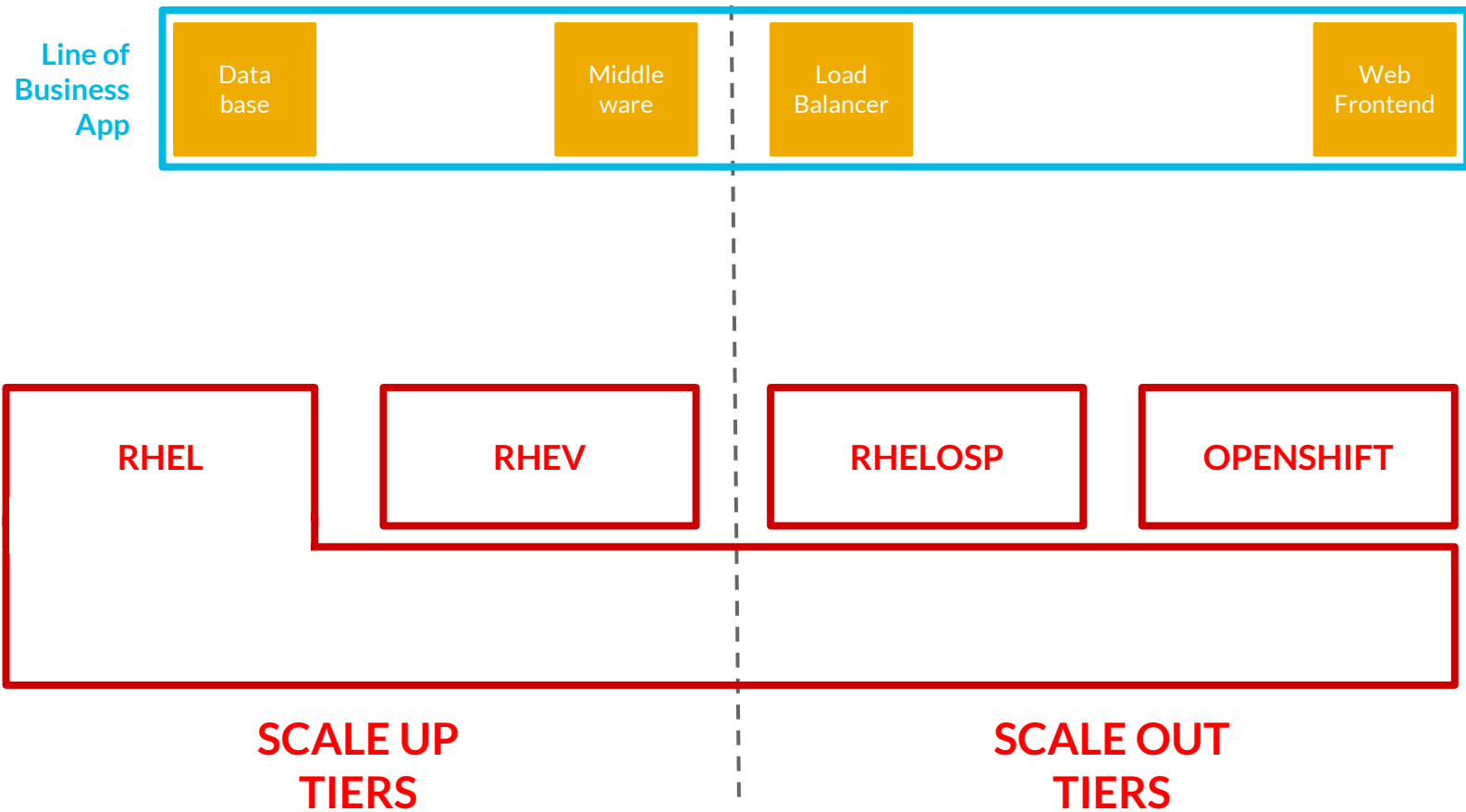
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS



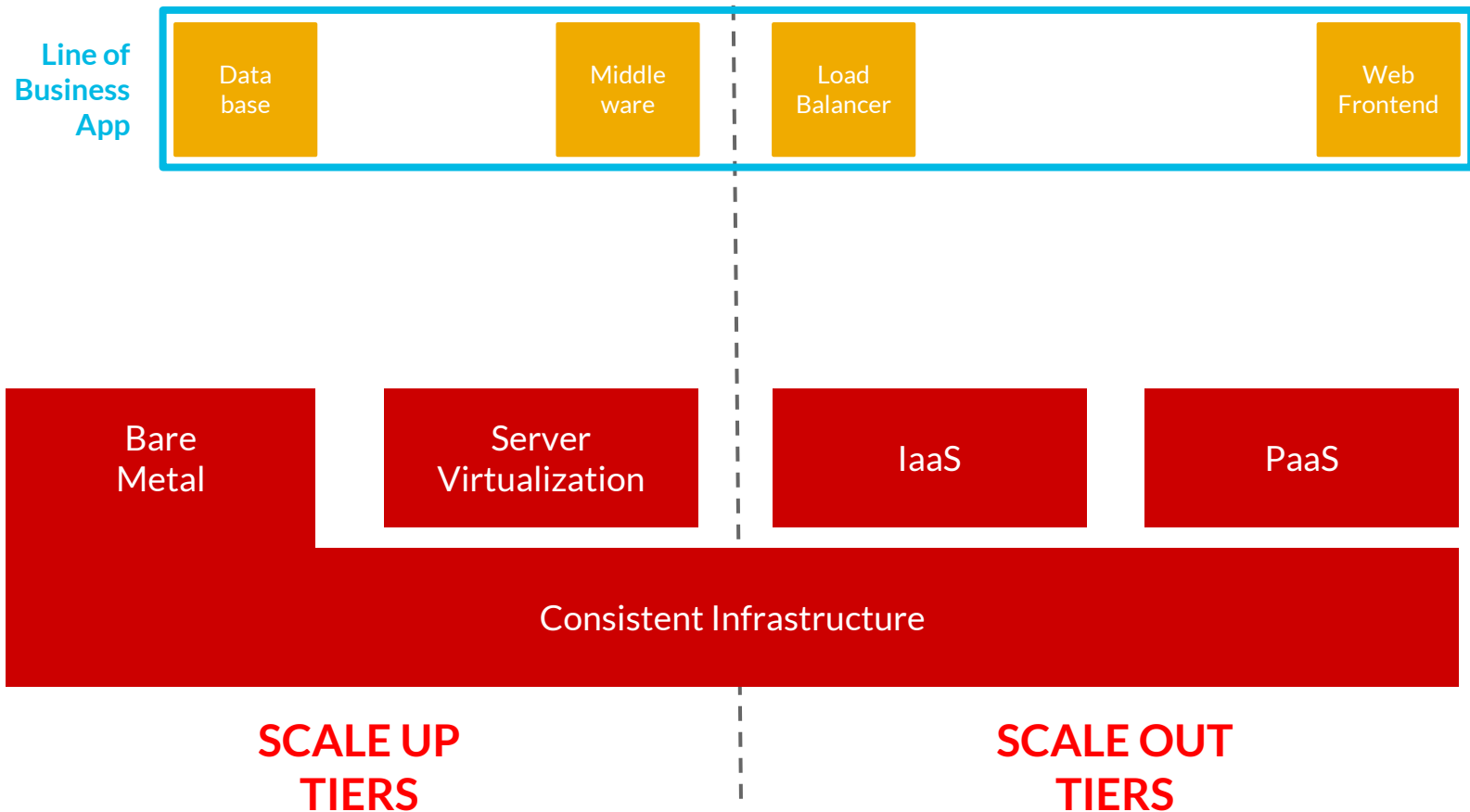
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS



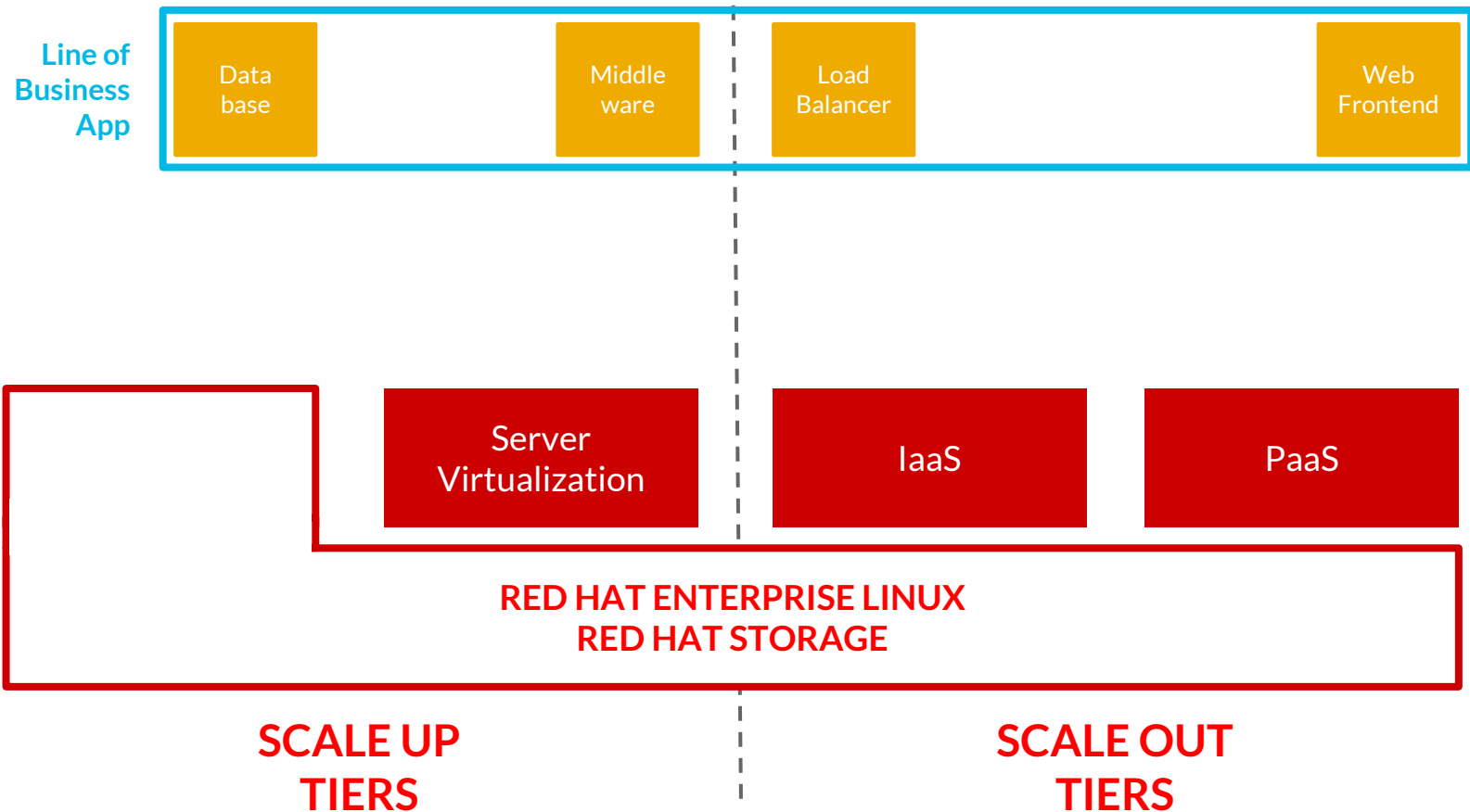
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS



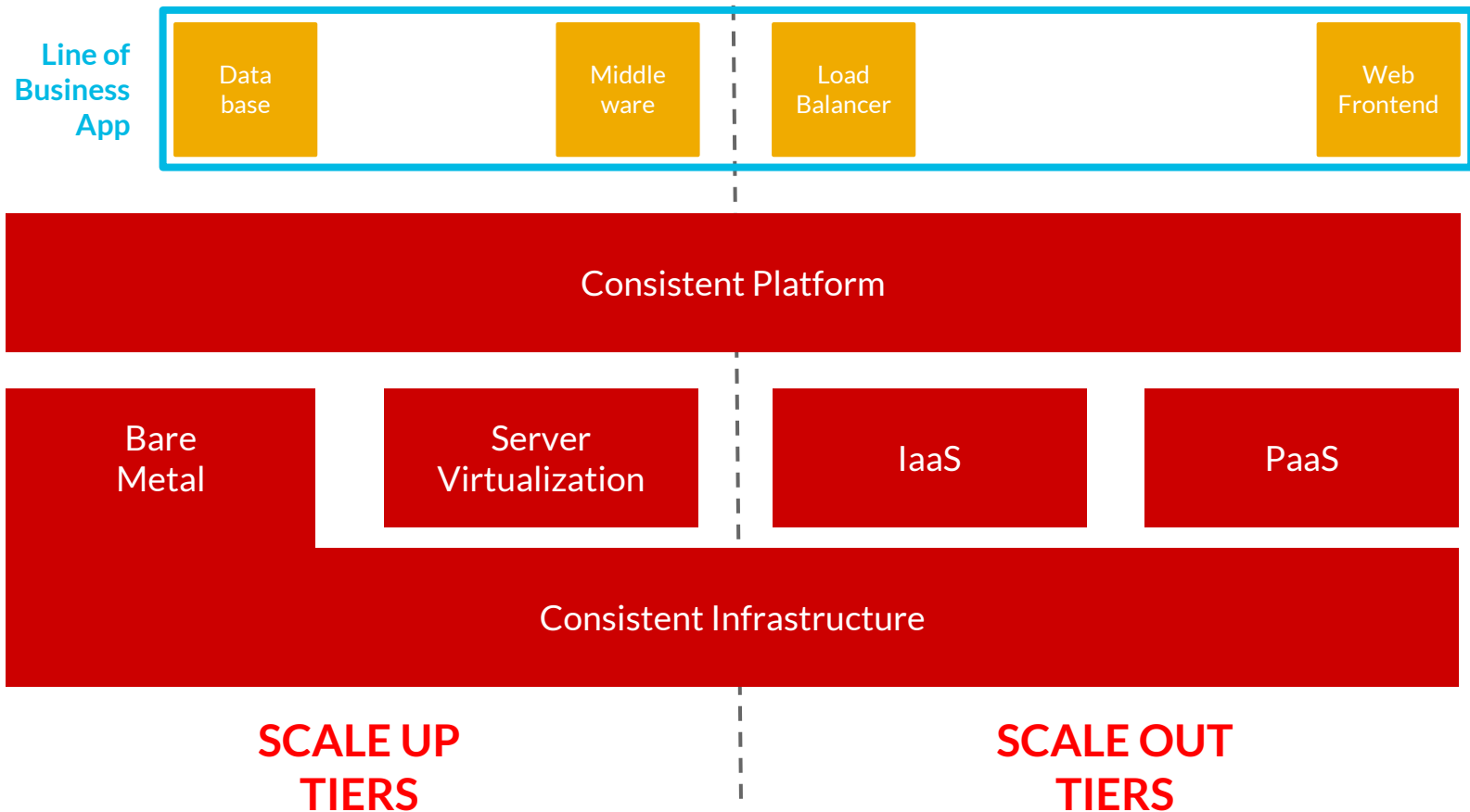
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS



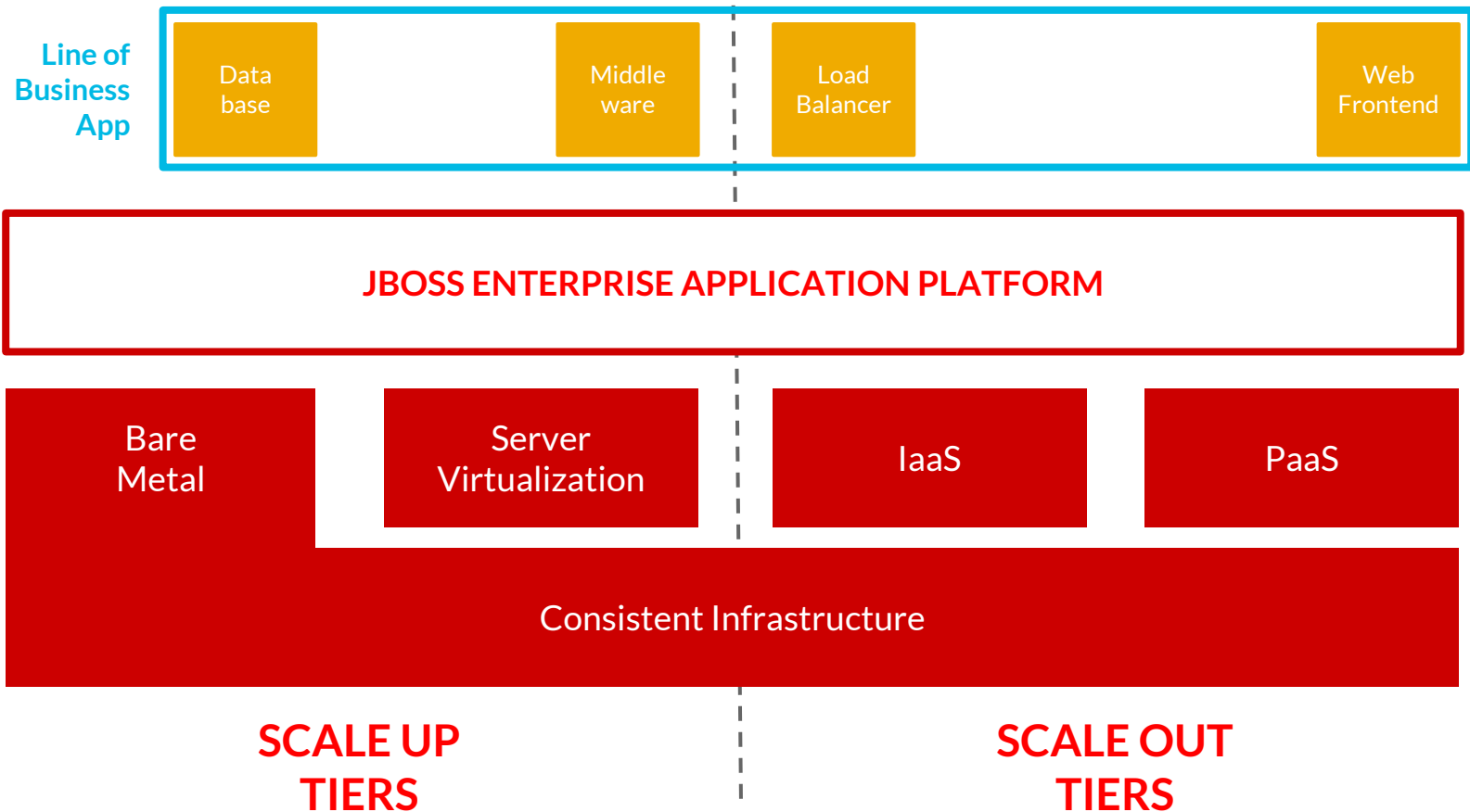
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS



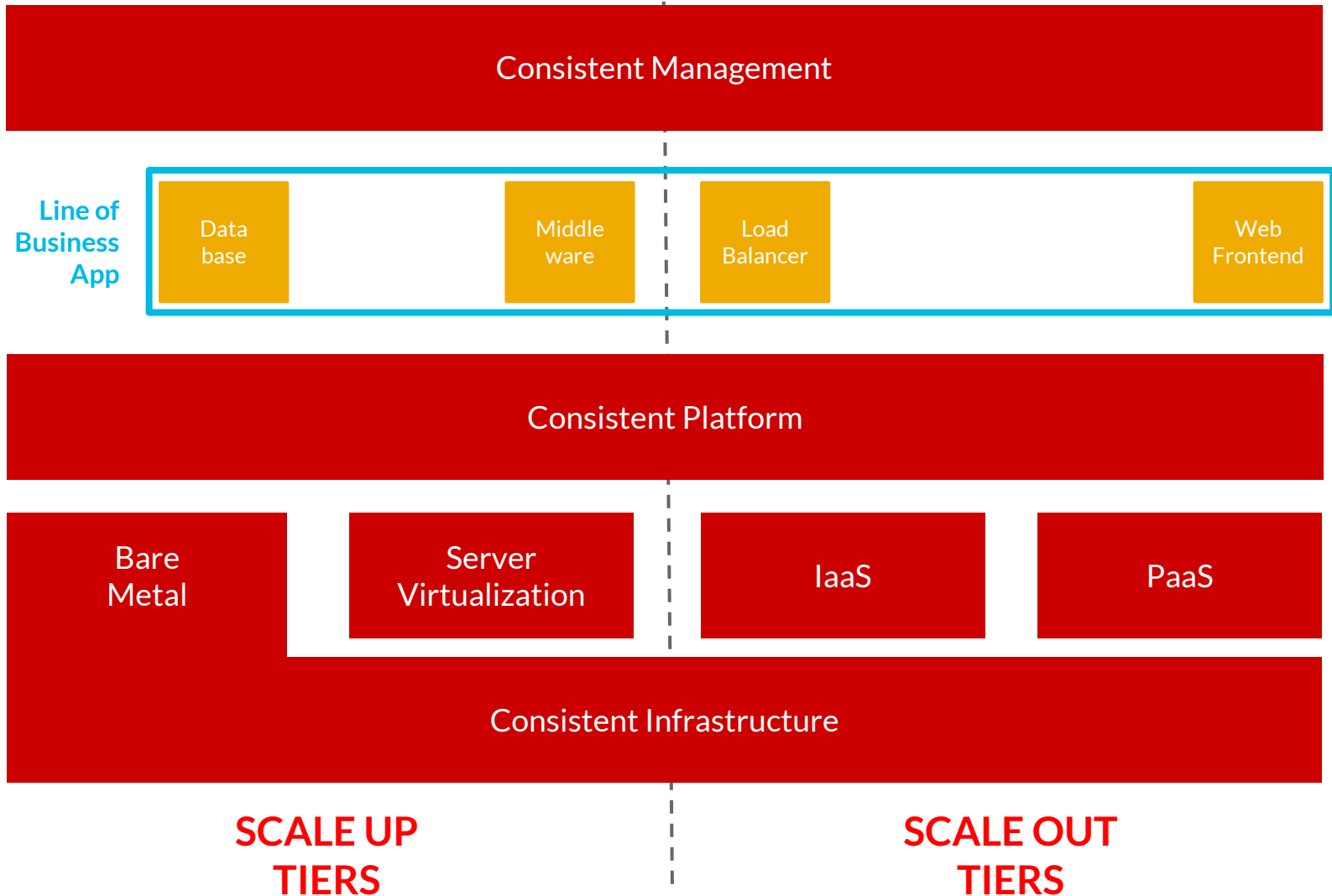
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS



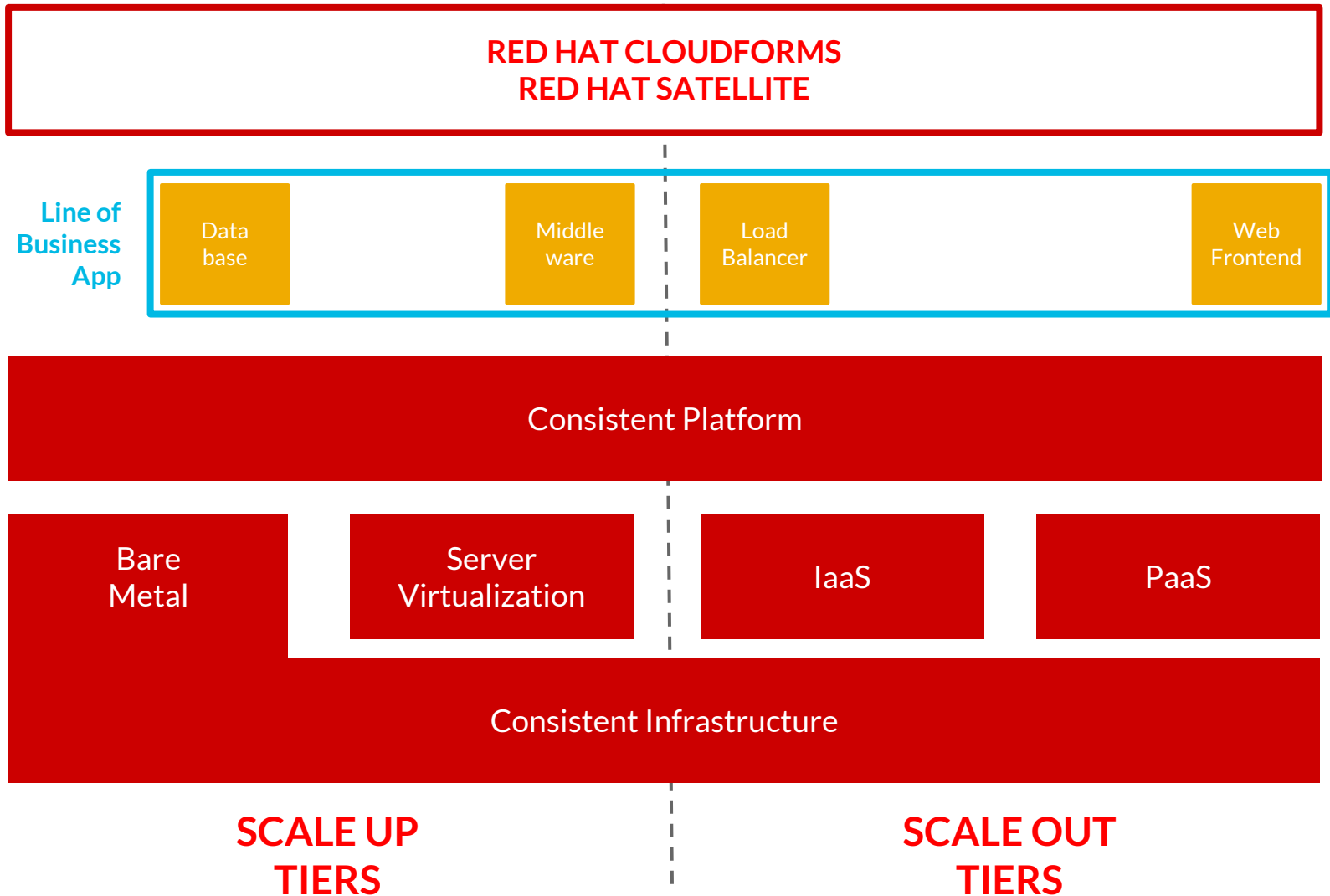
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS



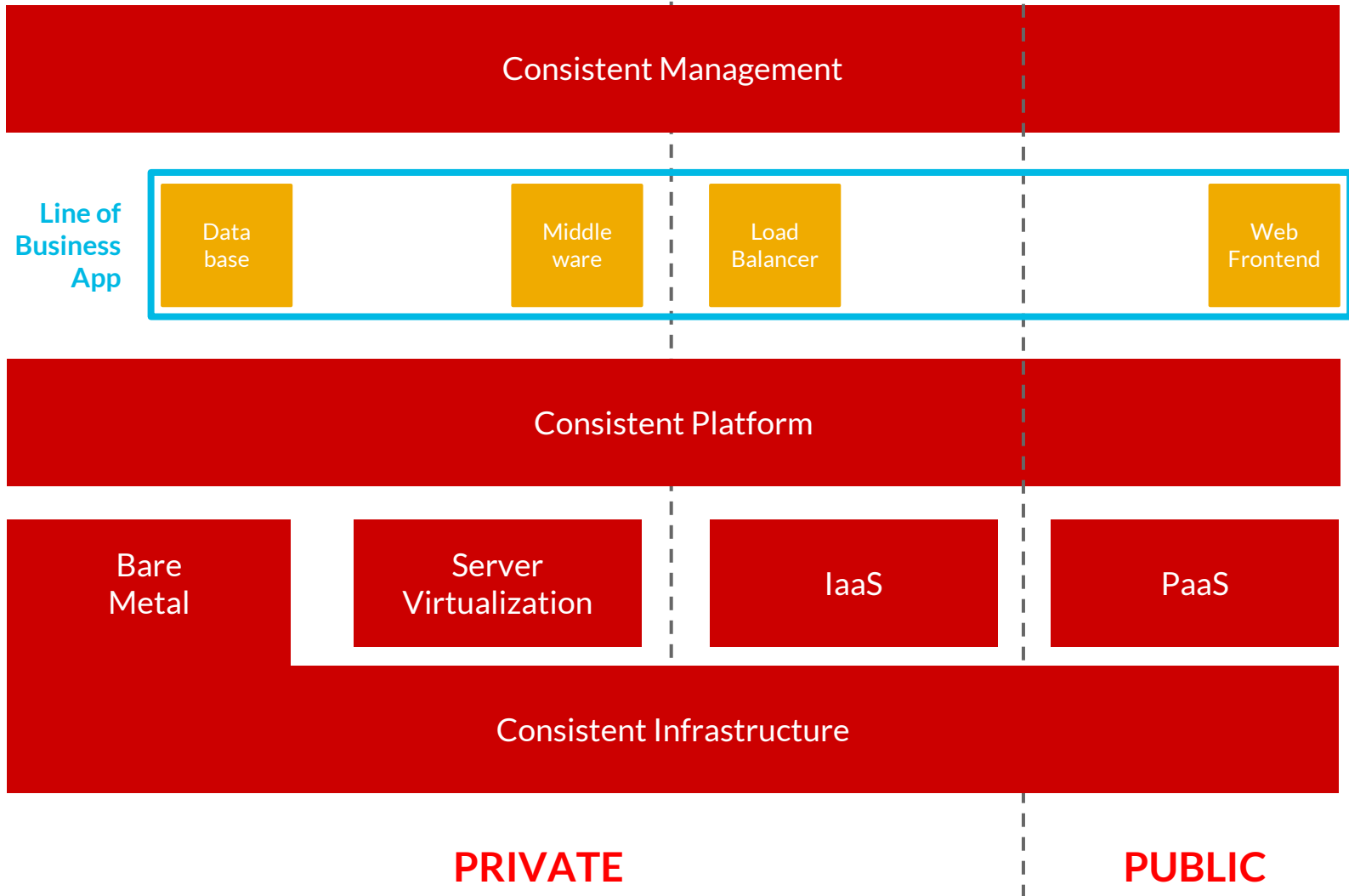
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS



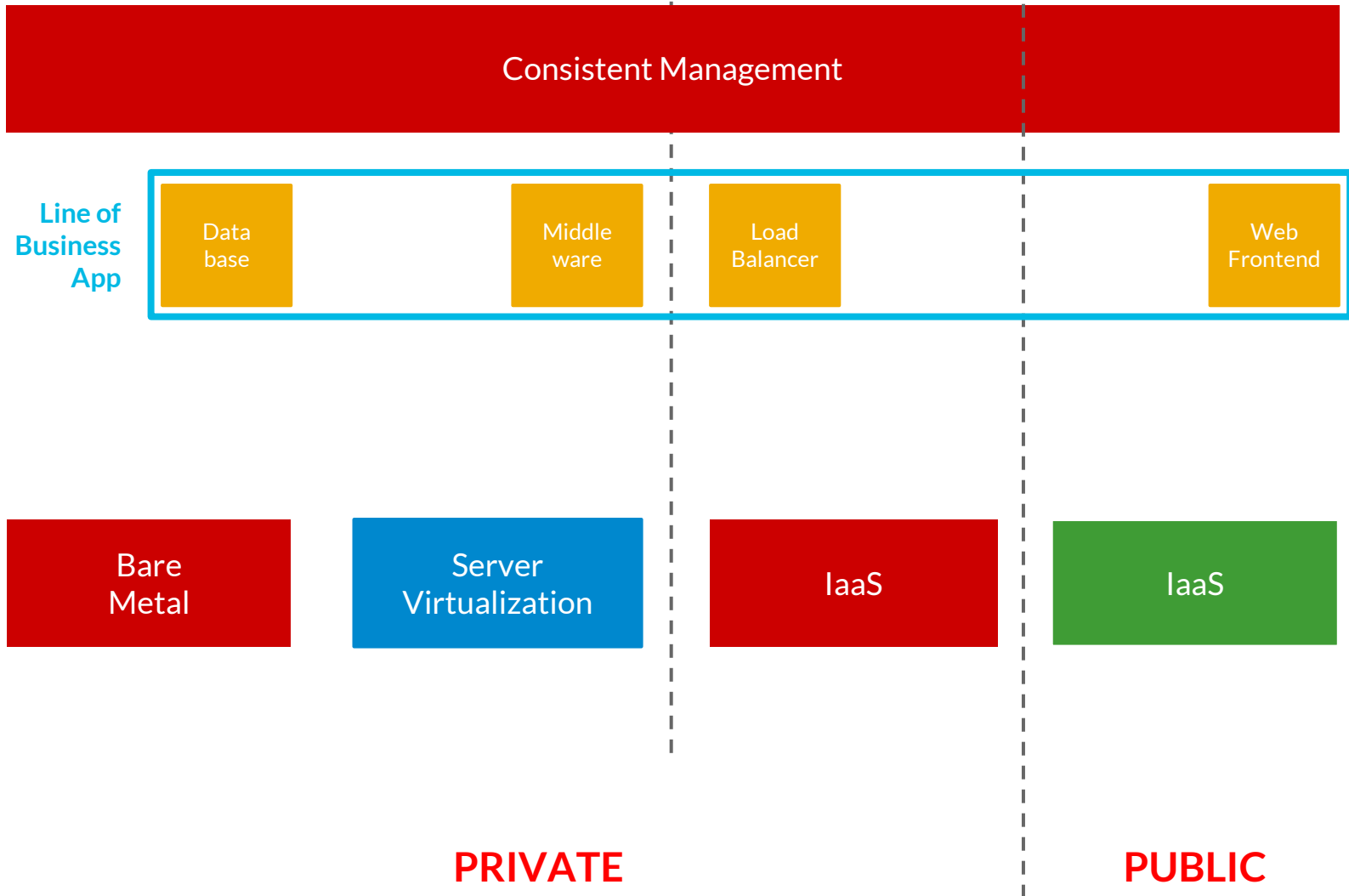
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS



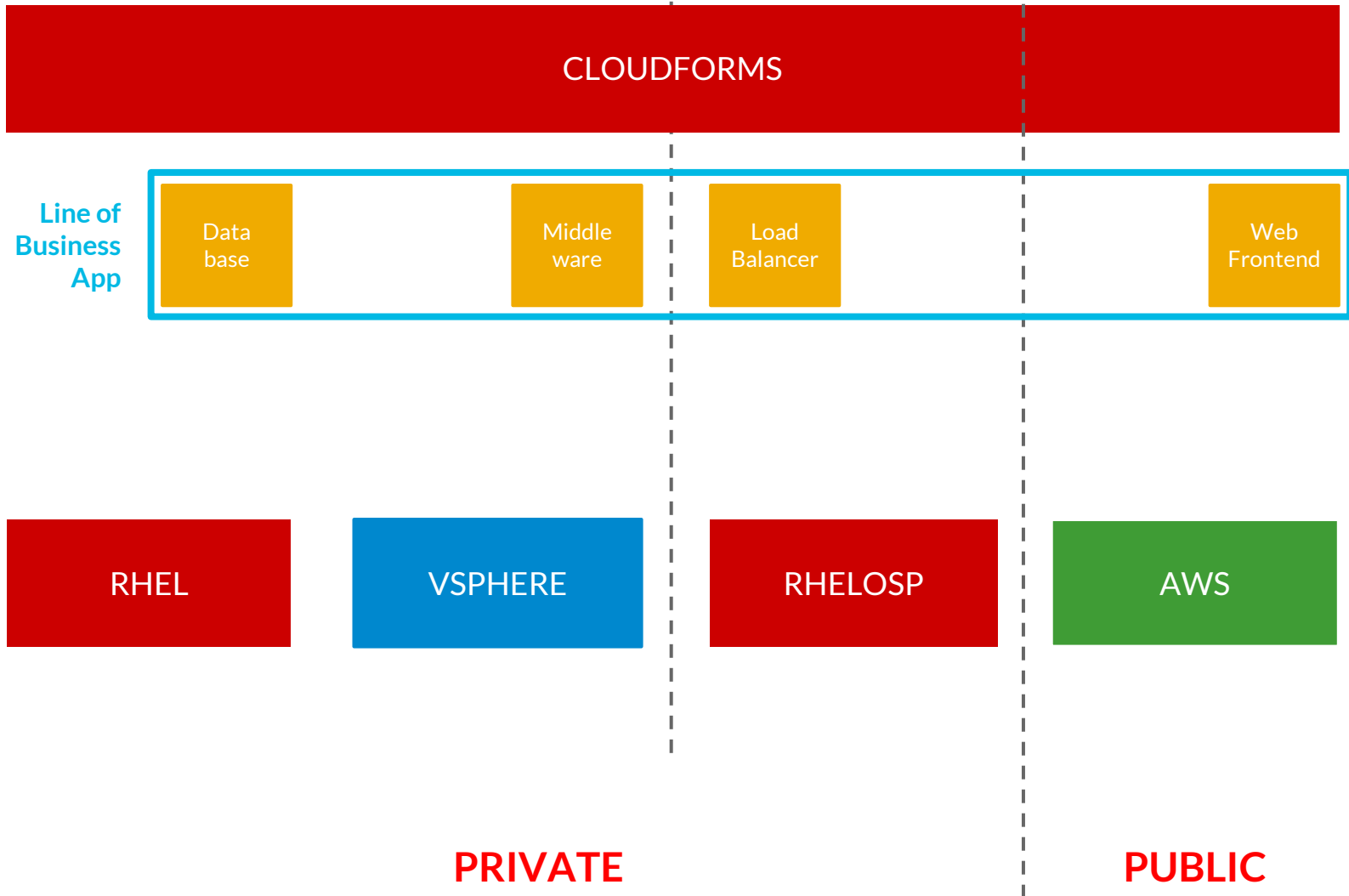
TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS

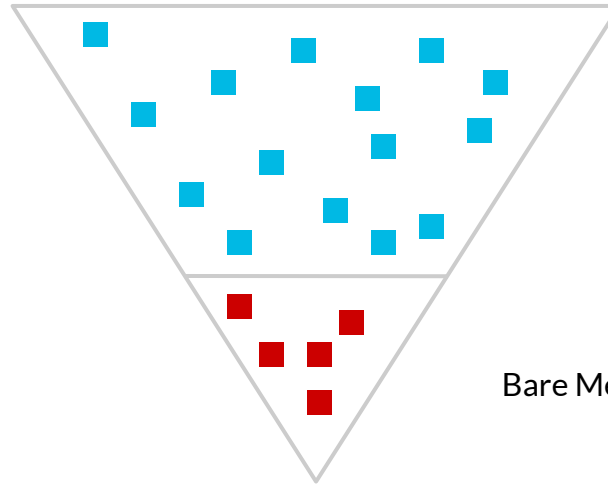


TRADITIONAL WORKLOADS

CLOUD-NATIVE WORKLOADS

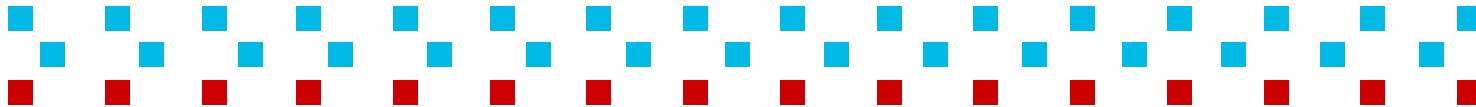


PRIVATE



Server
Virtualization

Bare Metal



ENTERPRISE
APPLICATION
PORTFOLIO

LoB

LoB

LoB

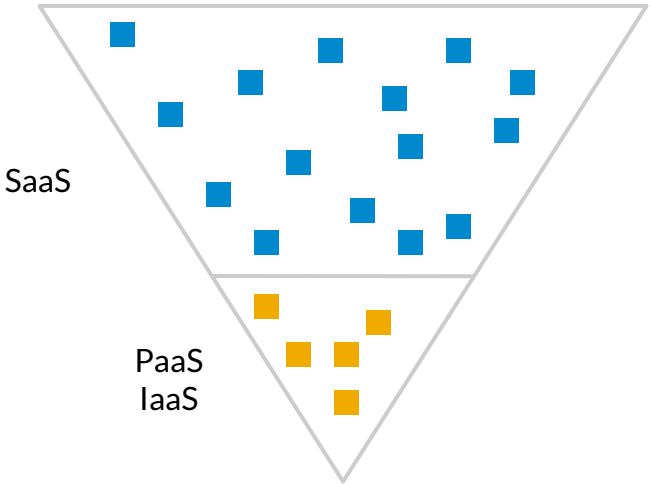
LoB

LoB

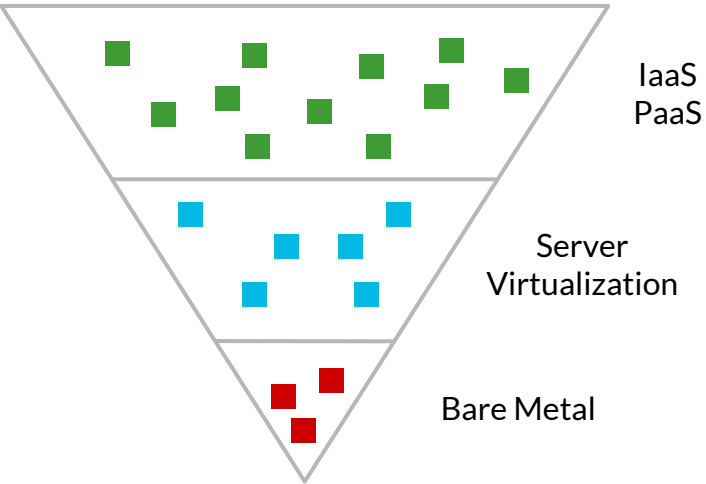
LoB

LoB

PUBLIC



PRIVATE



Diversity



ENTERPRISE
APPLICATION
PORTFOLIO

LoB

LoB

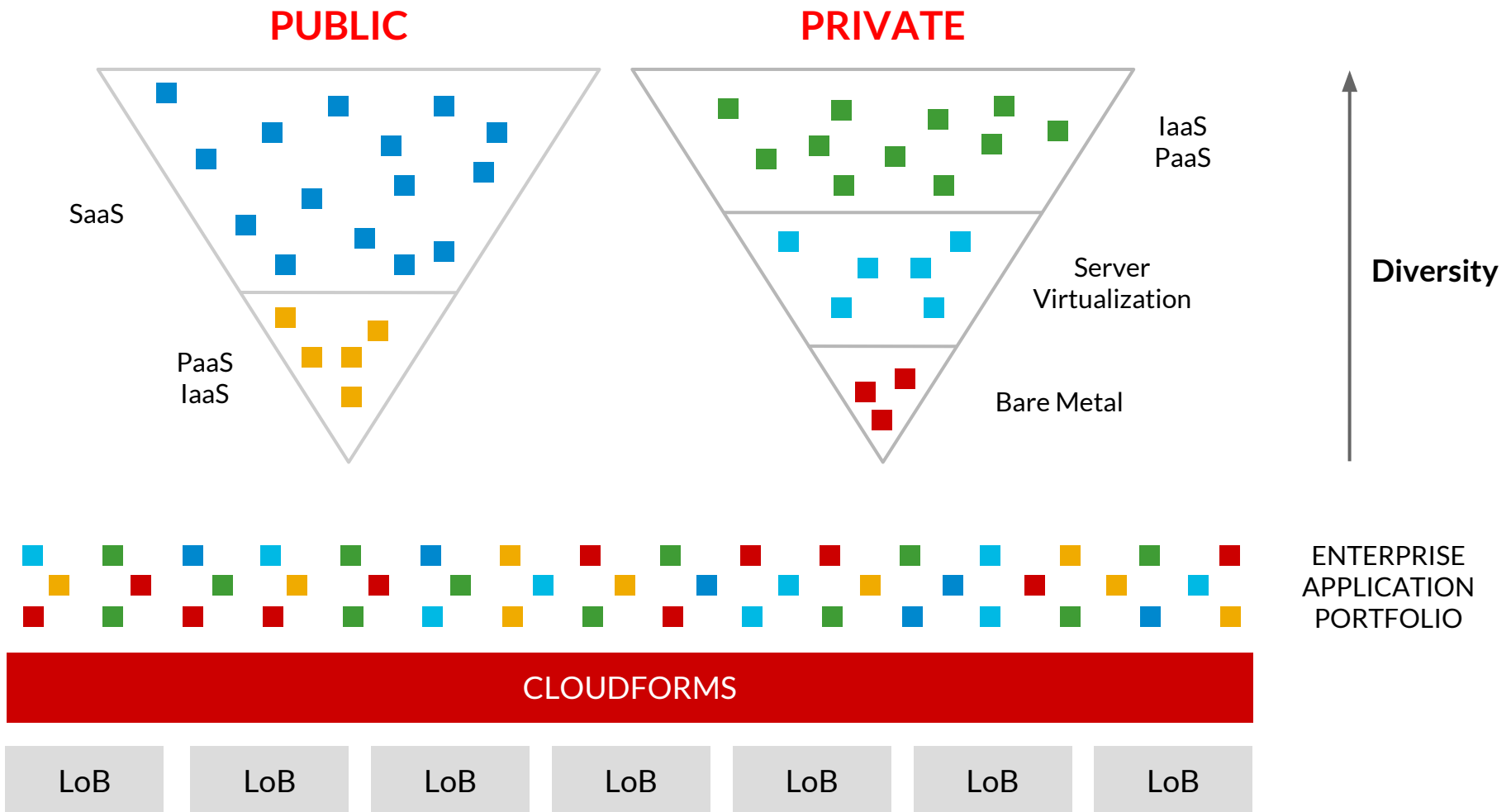
LoB

LoB

LoB

LoB

LoB



TOWARDS A PROGRAMMABLE IT

APIS EVERYWHERE



**INFRASTRUCTURE ABSTRACTION
APP INTEGRATION
DATA VIRTUALIZATION**



INFRASTRUCTURE ABSTRACTION

RED HAT SATELLITE

Configuration
Automation



Repository
Management



Content LifeCycle
Management



Subscription
Management

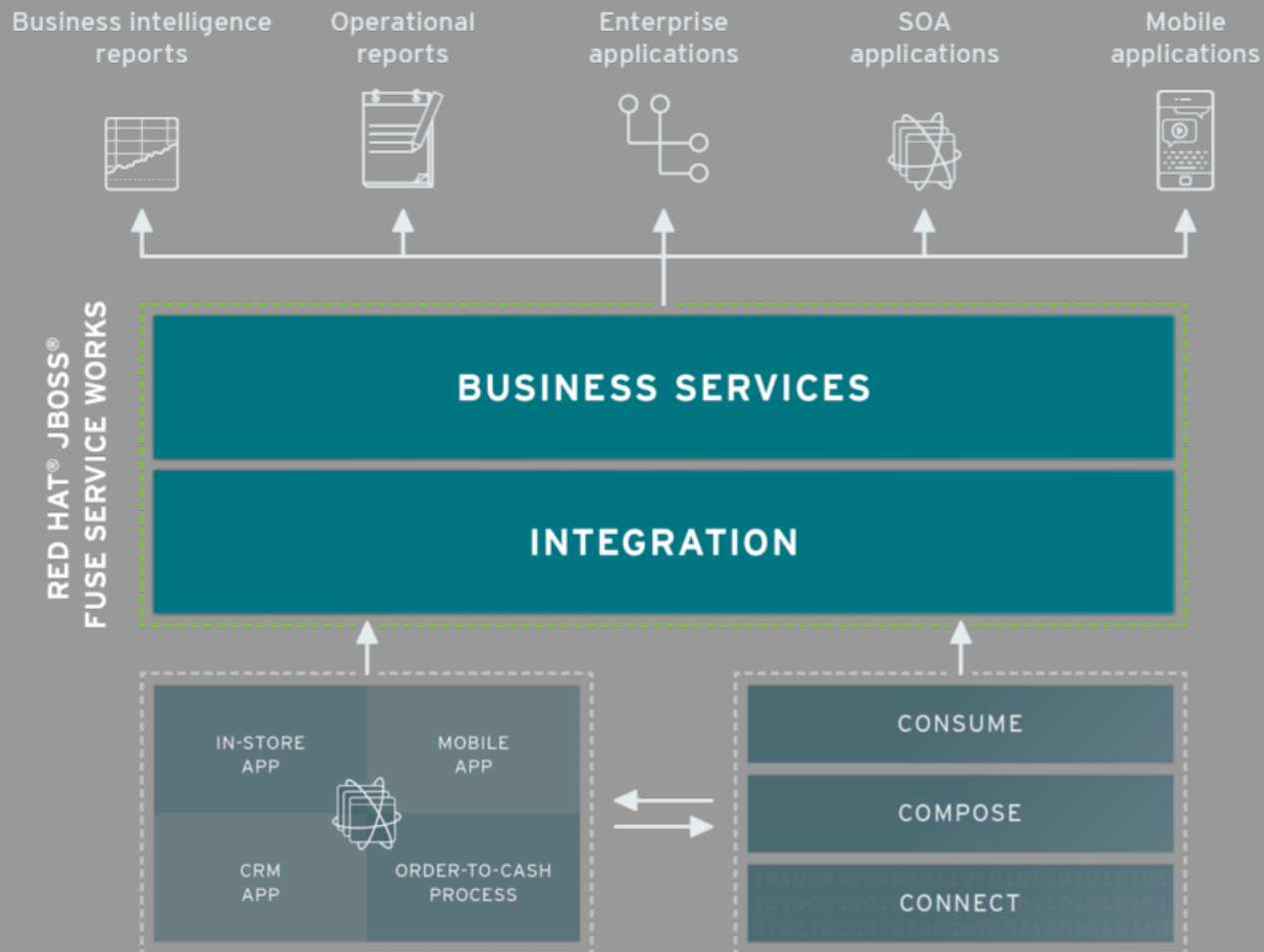


Provisioning

APP INTEGRATION



photo credit: flickr.com/photos/crystalflickr





DATA VIRTUALIZATION



RED HAT® JBOSS®
DATA VIRTUALIZATION

CONSUME

Standards-based data provisioning

COMPOSE

Unified virtual database/Common data model

CONNECT

Standards-based data connectivity



Hadoop



NoSQL



SaaS and cloud
applications



Data warehouse
and databases



Mainframe



XML, CSV, and
Excel files



Enterprise
applications



HOW ALL OF THIS COMES
TOGETHER?

RED HAT CLOUD



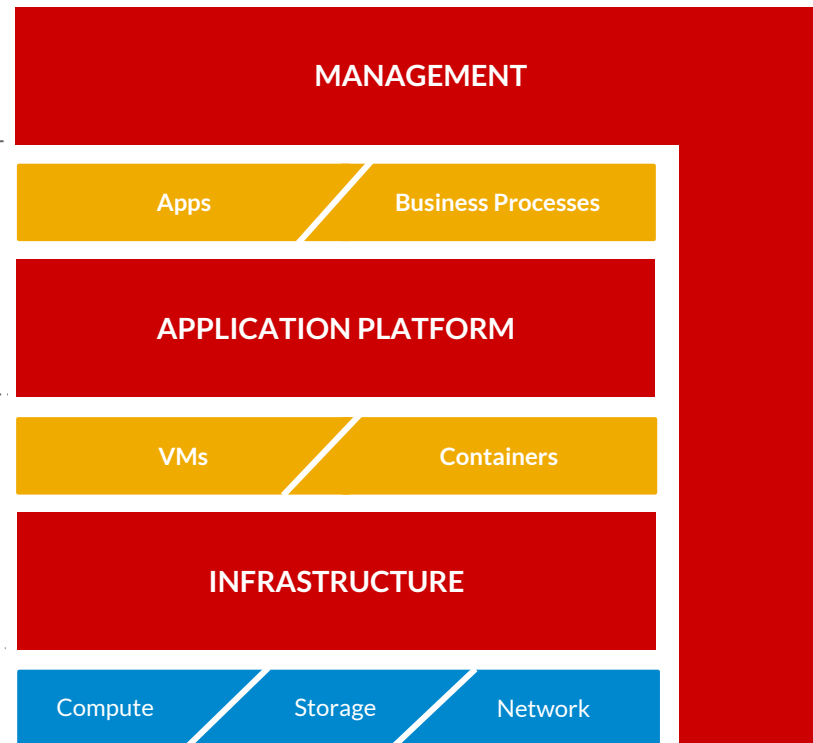
**OPERATIONS
TEAM**



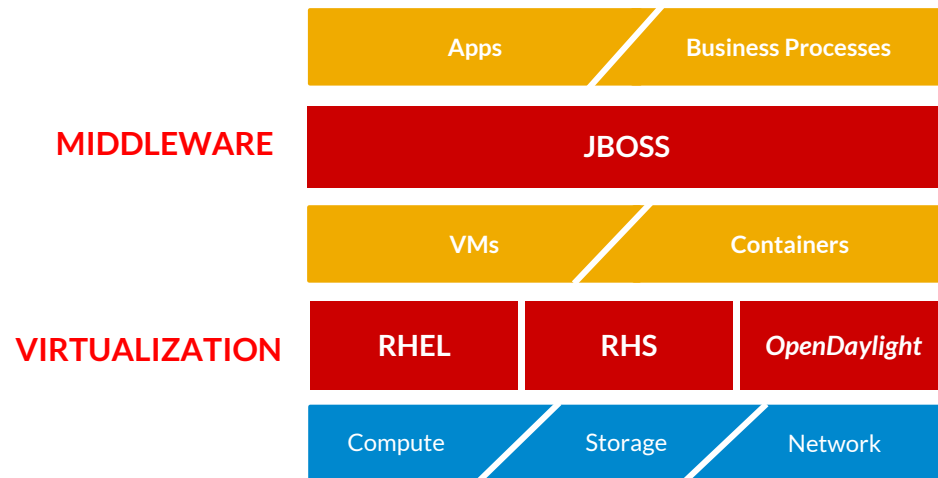
**APPLICATION DEVELOPMENT
TEAM**



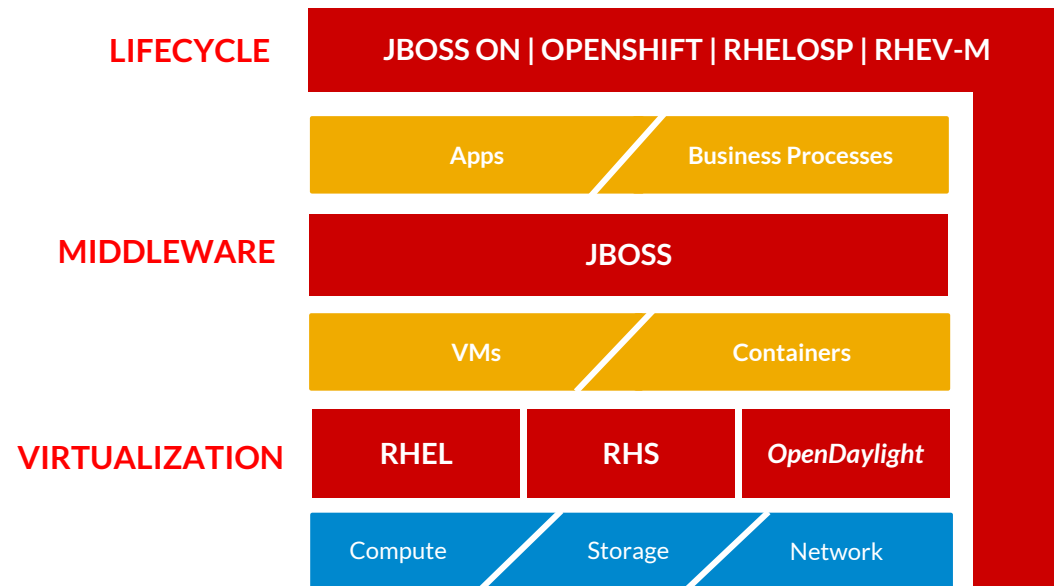
**INFRASTRUCTURE
TEAM**



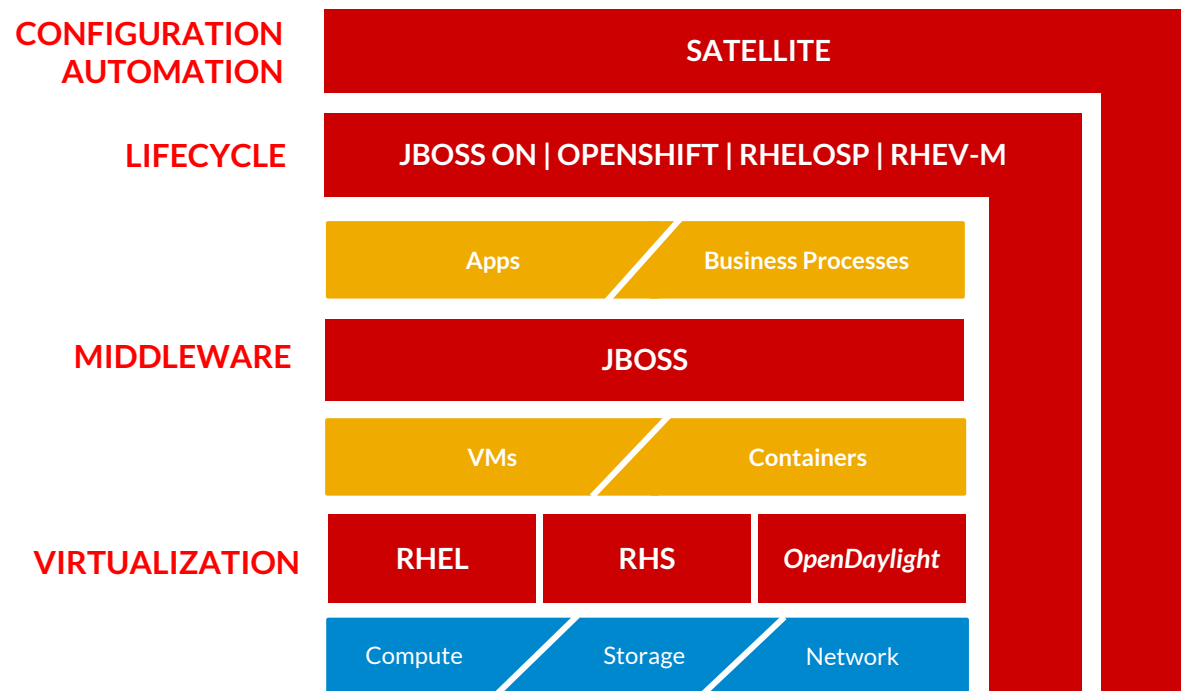
RED HAT CLOUD INFRASTRUCTURE



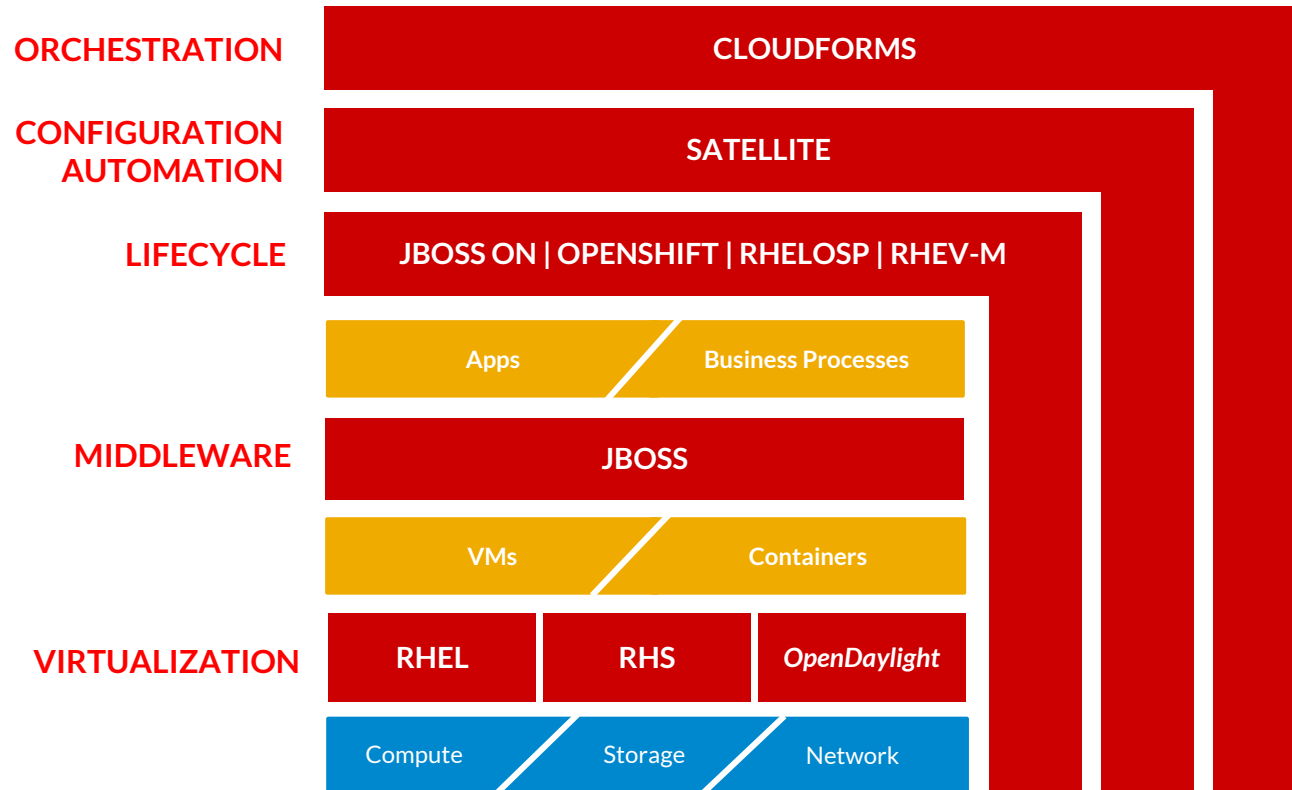
RED HAT CLOUD MANAGEMENT

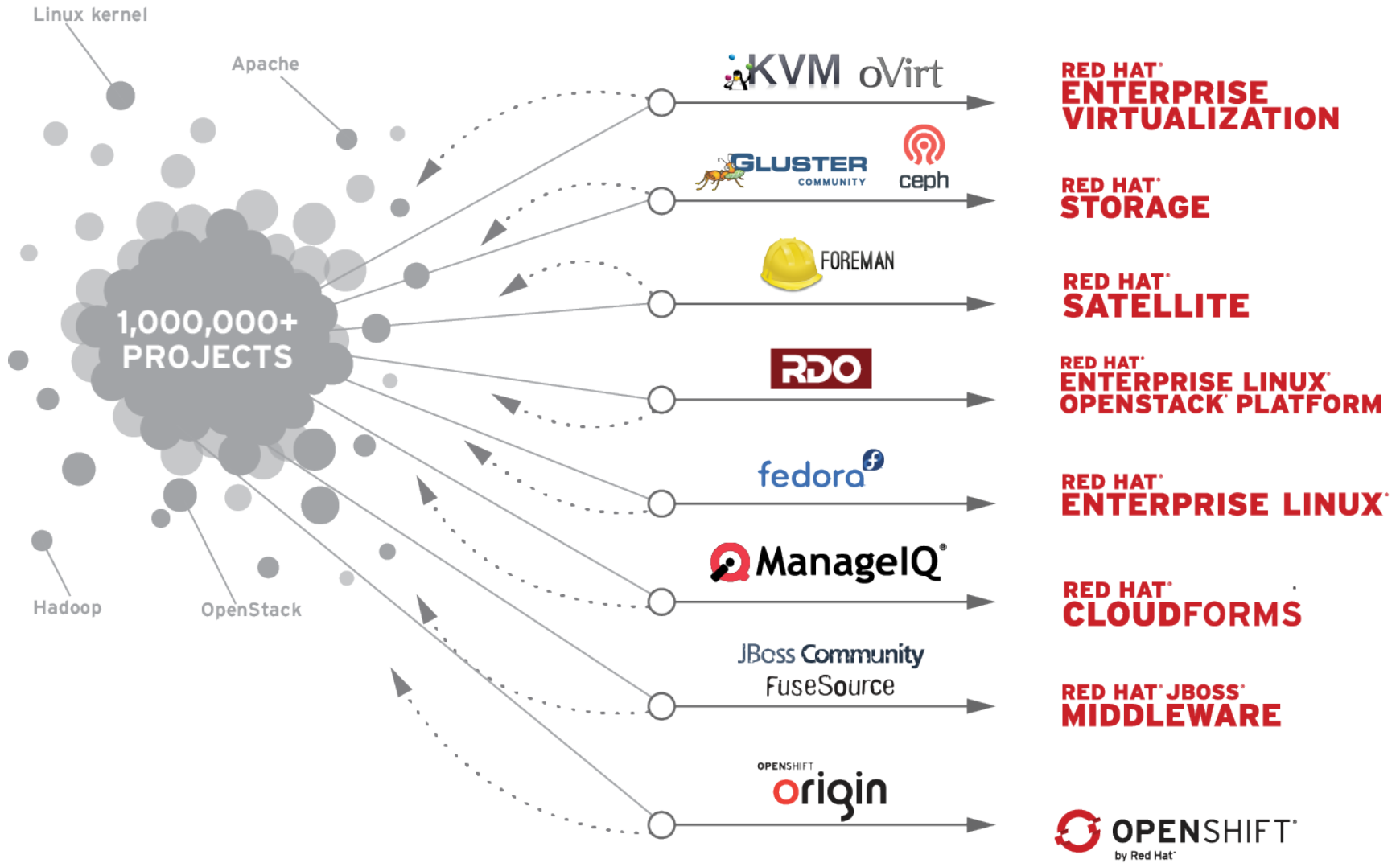


RED HAT CLOUD MANAGEMENT

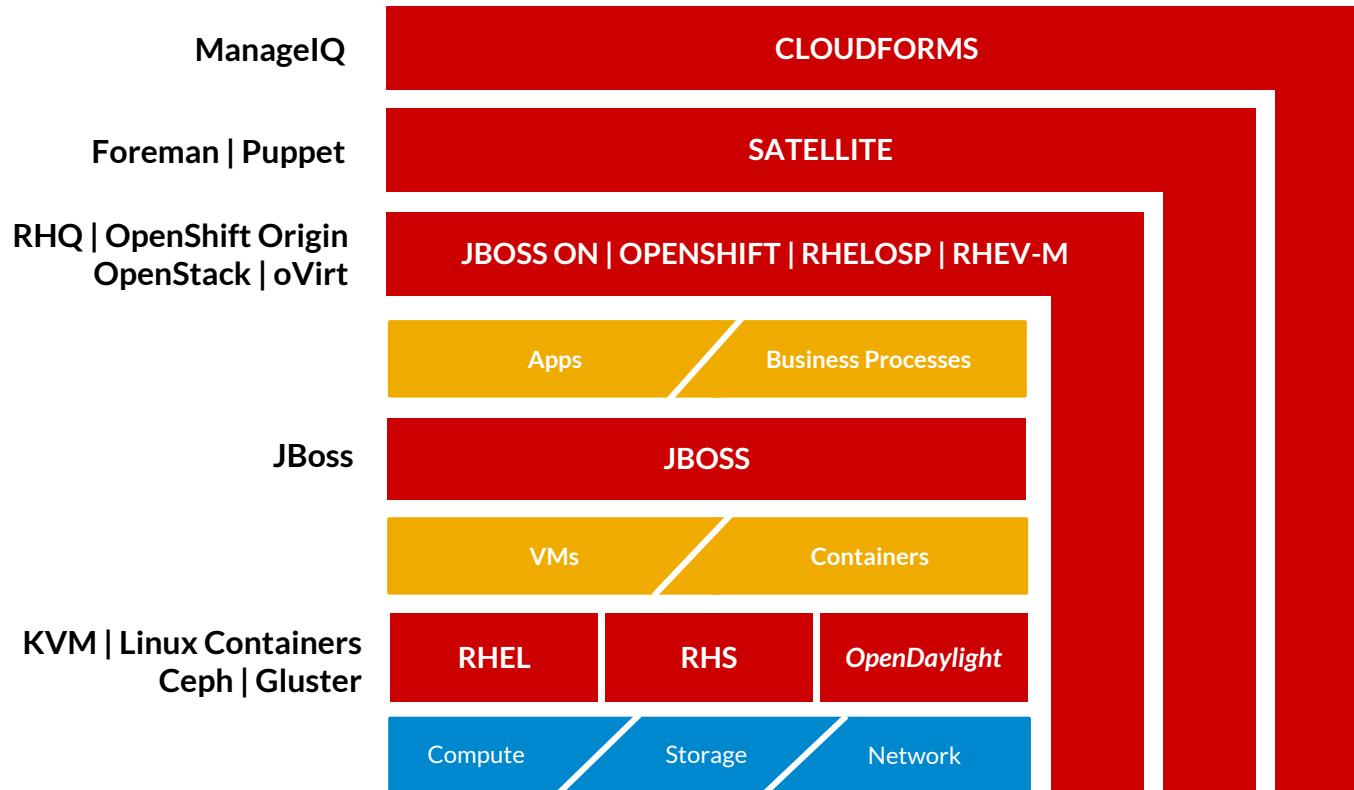


RED HAT CLOUD MANAGEMENT

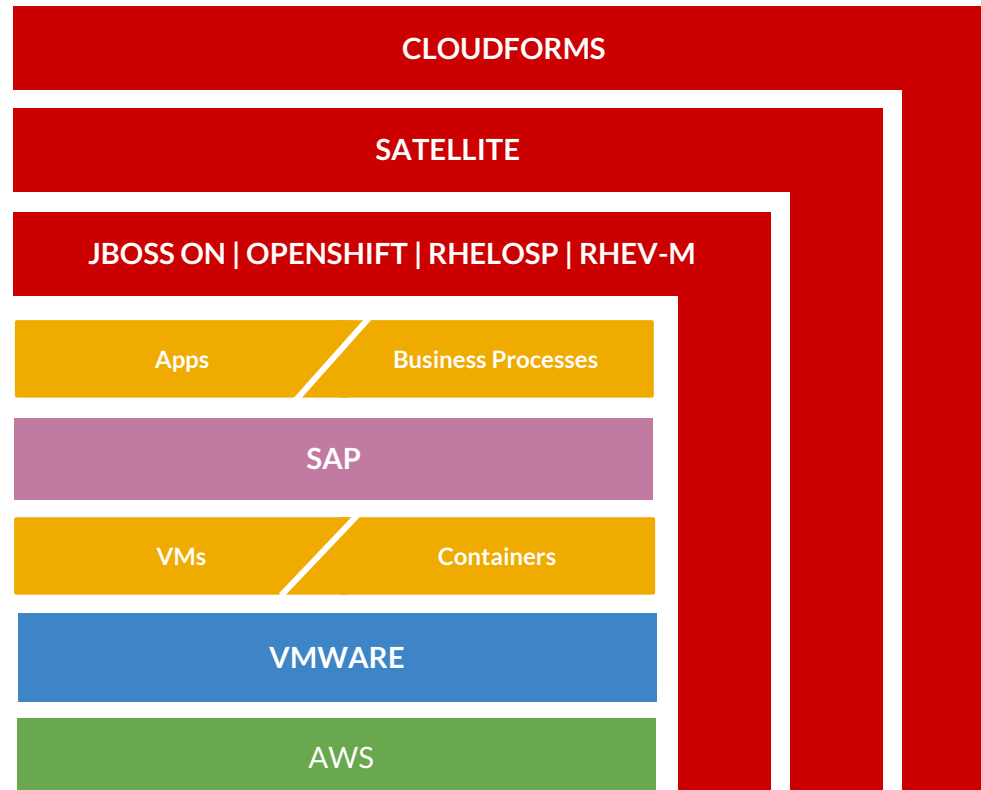




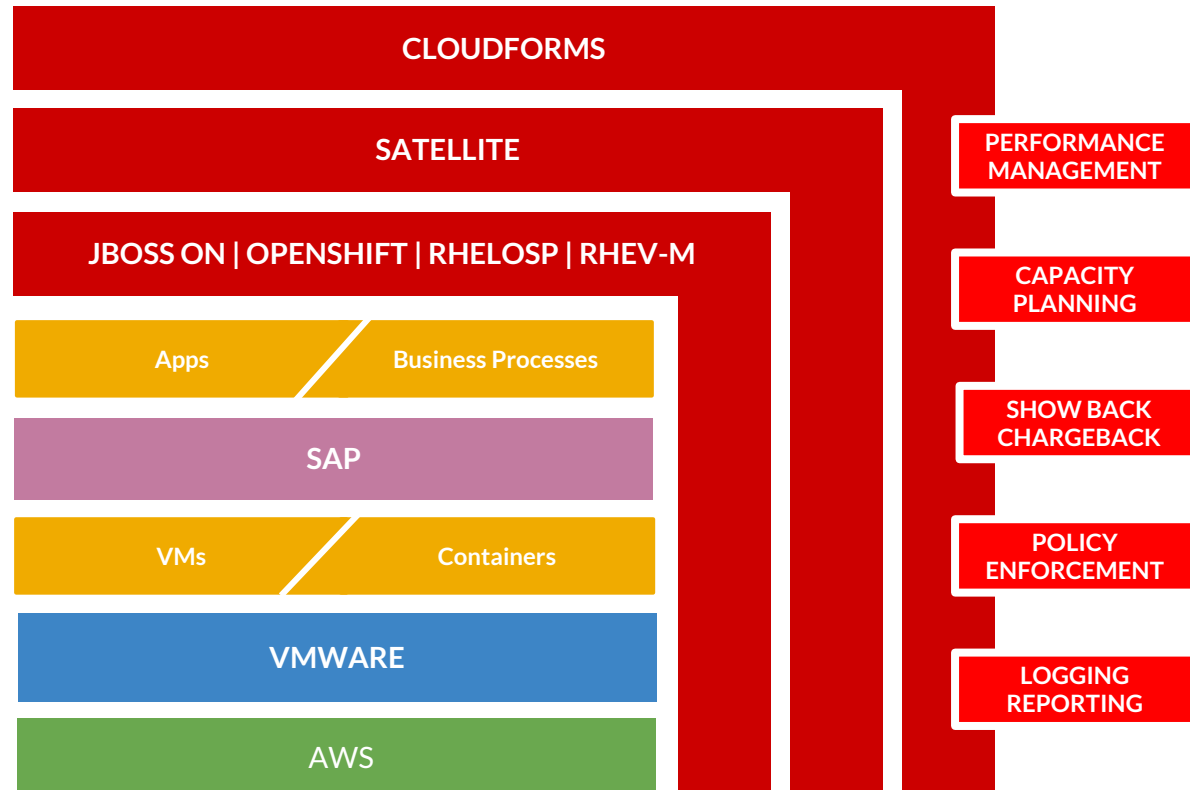
RED HAT OPEN MANAGEMENT PLATFORM



RED HAT OPEN MANAGEMENT PLATFORM



RED HAT OPEN MANAGEMENT PLATFORM



10
YEARS
SUPPORT

RED HAT®
**ENTERPRISE
LINUX® 7**

5
YEARS
SUPPORT

RED HAT®
**ENTERPRISE
VIRTUALIZATION**

3
YEARS
SUPPORT

RED HAT®
**ENTERPRISE LINUX®
OPENSTACK® PLATFORM 6**

230+
CERTIFIED
PARTNERS

RED HAT OPEN STACK
CLOUD INFRASTRUCTURE
PARTNER NETWORK

1K+
CONSULTANTS

INFRASTRUCTURE
MIDDLEWARE
CLOUD
OPEN SOURCE GOVERNANCE

SERVING AND PROTECTING THE BUSINESS



photo credit: flickr.com/photos/cosmonautirussi



MORE THAN JUST LINUX.