



WE ~~MANAGE~~ AUTOMATE DATA CENTER

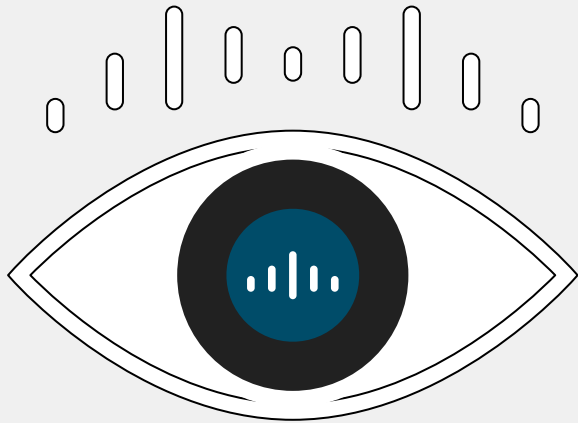
Cisco ACI and RH integrations

Alberto DEGRADI Cisco Italy DC Leader



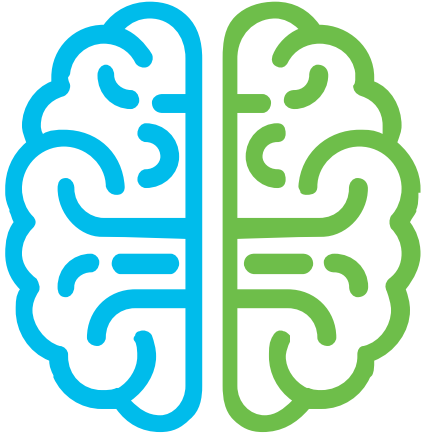
#RedHatOSD

Cisco Vision



For over 30 years,
we've focused on
helping to change the
way the world works,
lives, plays, and learns.

Cisco Strategy



We create solutions built on secure, intelligent networks that solve our customers' challenges.

Digital is transforming business.



#RedHatOSD



And Everything We Do...



- Transform processes and business models



- Empower workforce efficiency and innovation



- Personalize citizen/customer/employee experience

Secure, intelligent platform for digital business

Power a
Multicloud
world



Reinvent the
network



Unlock the
power of data



Security is
Foundational



Create
meaningful
experiences



Increased pace of innovation

Data Center Vision

Re-invent the DC

Delivering the best in class intent-aware secure platforms to modernize the Data Center



Unlock the Power of Data

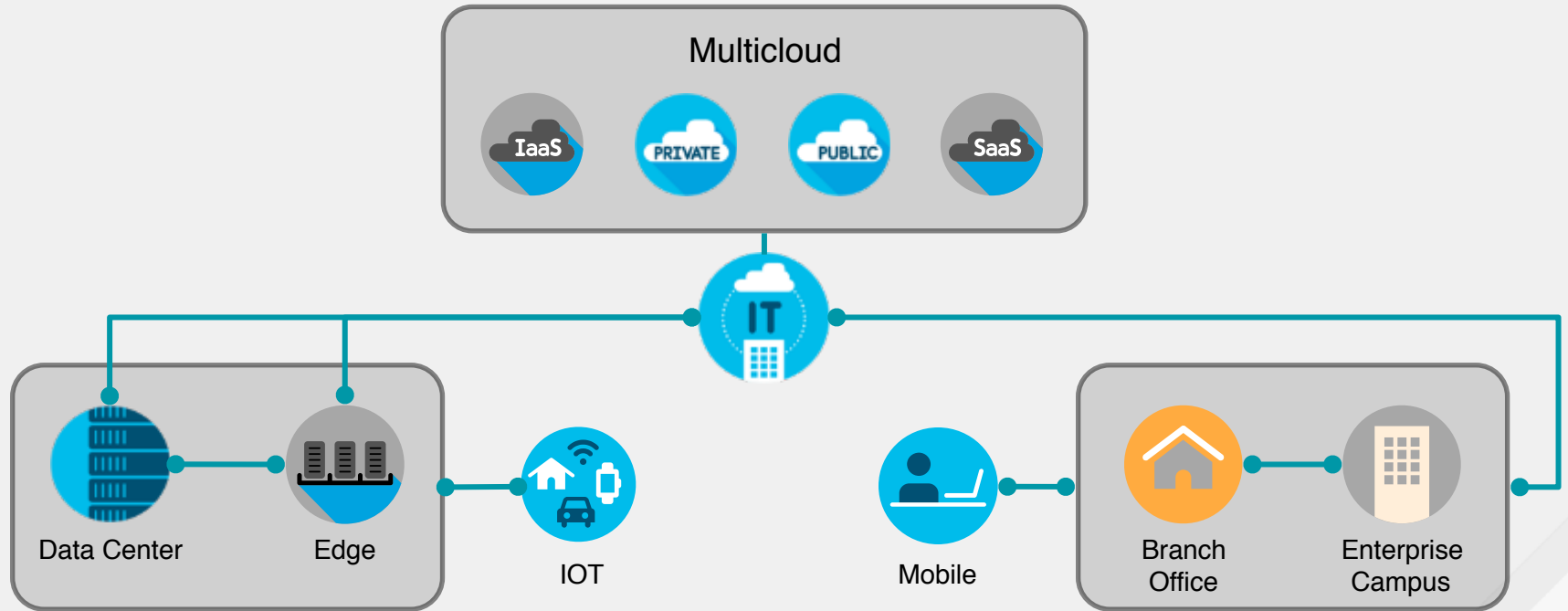
Harvesting data from the Network and Clouds to ensure a safe and enhanced customer experience



Embrace Multi-cloud

Providing the right software tools to embark on a secured and optimized Multi-Cloud journey

Today DC Complexity



Changing in workloads and consumption models are shaping IT Infrastructure



AI and ML



IoT



Blockchain



X-as-a-service
consumption



Multicloud and
Edge Computing



Containerization



Faster data access



Ubiquitous Security

DC Morphing (Yesterday and Today)



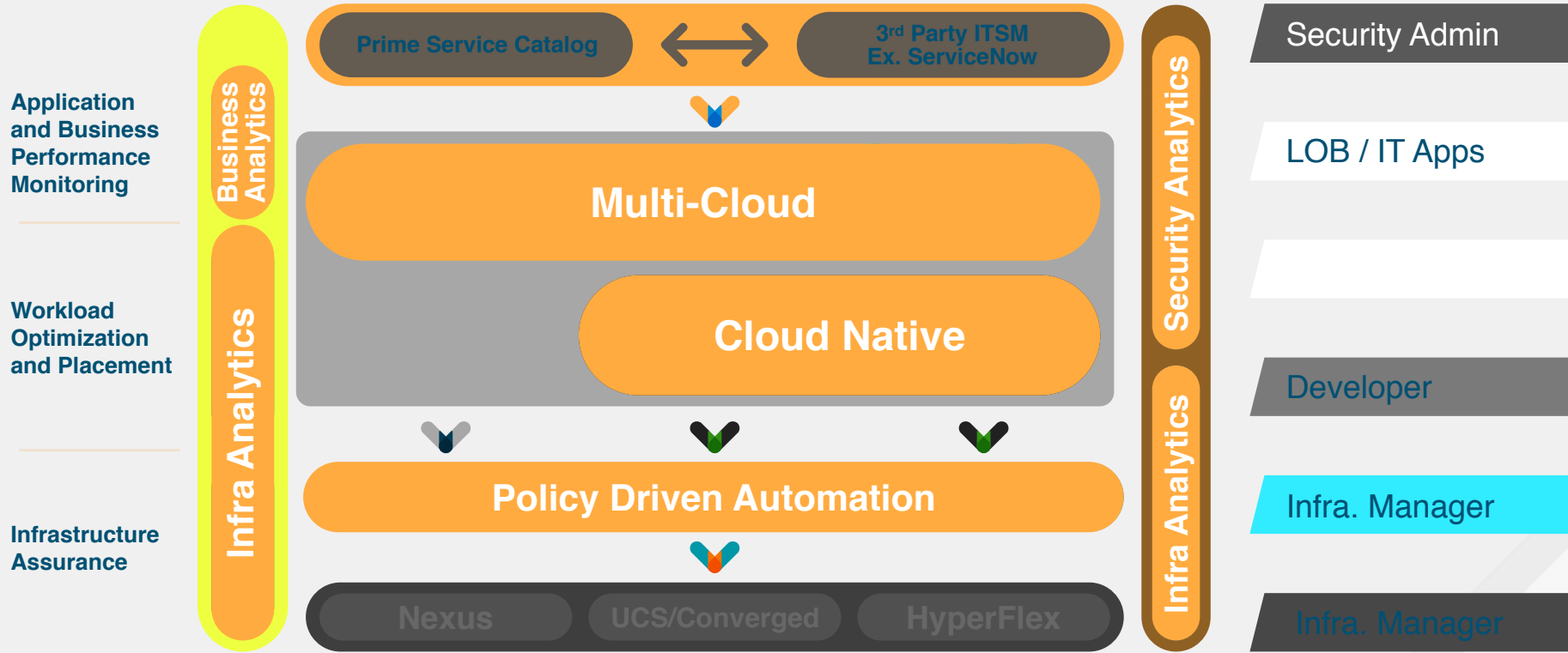
Simplification, Modernization
& Security

Automation, Software-Defined,
Programmability

Multicloud

Applications and Analytics

DC Architecture E2E



Automation with ACI Anywhere

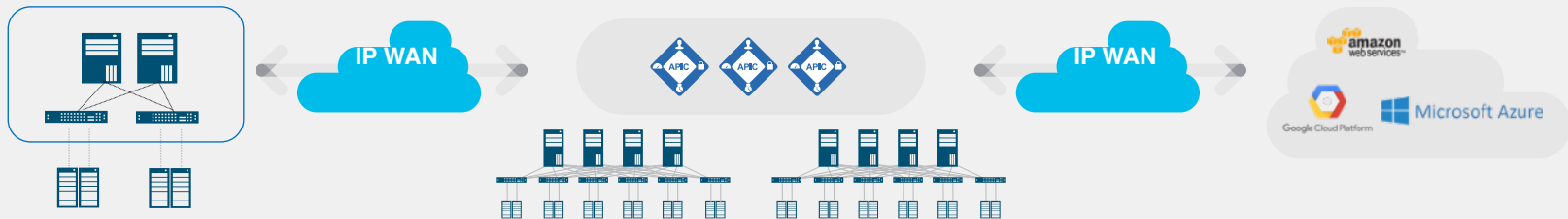
Any Workload, Any Location, Any Cloud



Remote Leaf / Virtual PoD

APIC / Multi-Site

Multi-Cloud Extensions



Remote Location

On Premise

Public Cloud

Security Everywhere



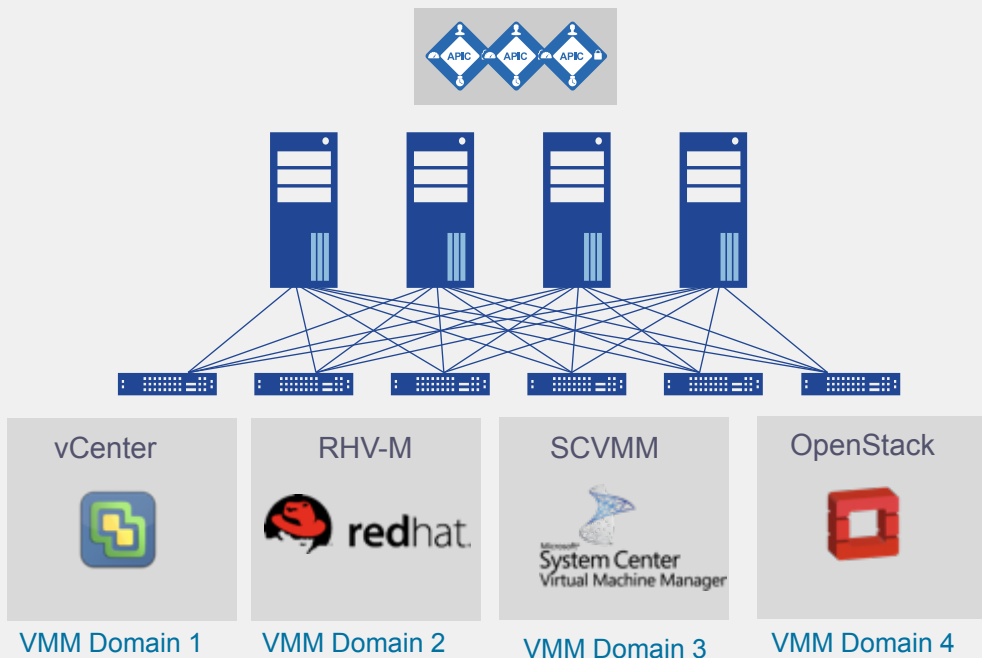
Analytics Everywhere



Policy Everywhere



Hypervisor Integration with ACI

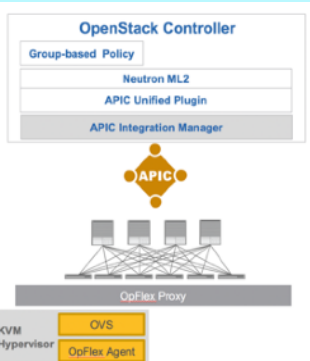
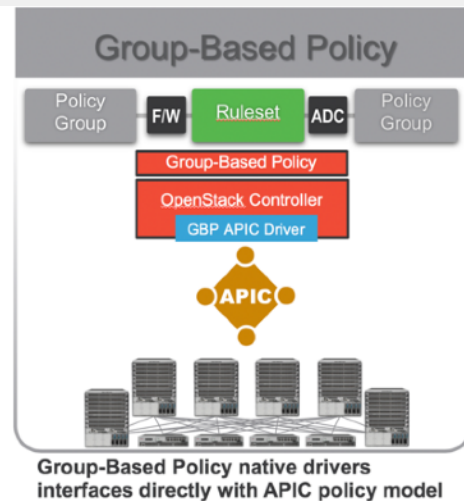
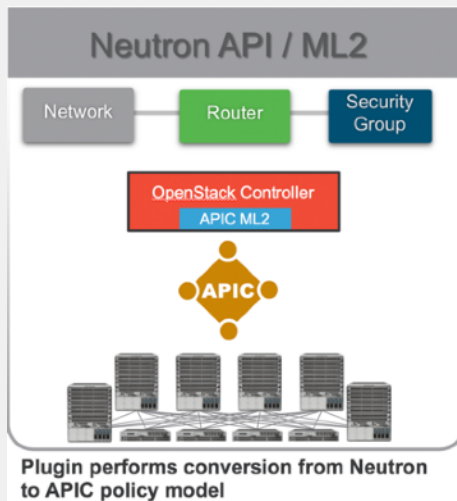


- Relationship is formed between APIC and Virtual Machine Manager (VMM)
- Provides APIC with virtualized inventory
- APIC has visibility of virtualized hosts, Virtual Machines, vNICs and more.
- APIC manages the hypervisor virtual switch (VDS, OVS, AVE, etc ...)
- Multiple VMMs supported on a single ACI Fabric simultaneously

ACI Unified Plugin for Open Stack

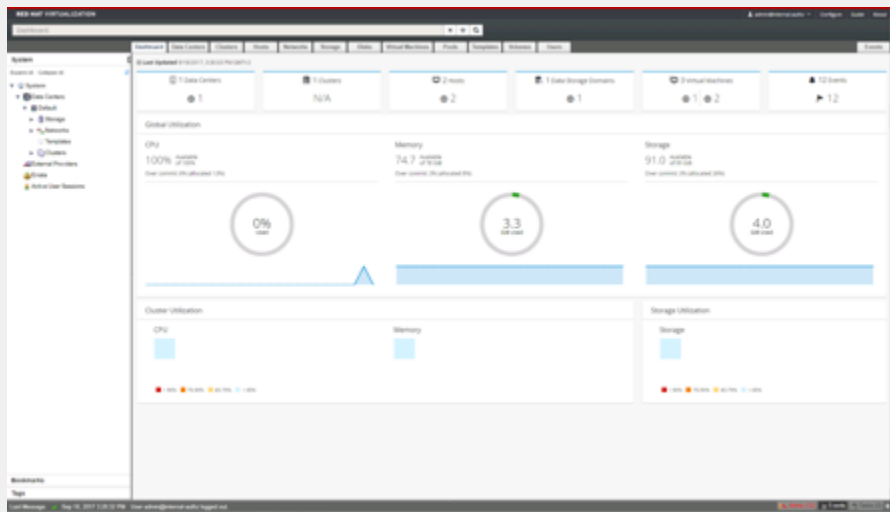
Unified Plugin

- Single Plugin for Group-Based Policy API and standard Neutron API
- *No longer need to choose GBP vs Neutron API at setup time. Both can be used simultaneously.*

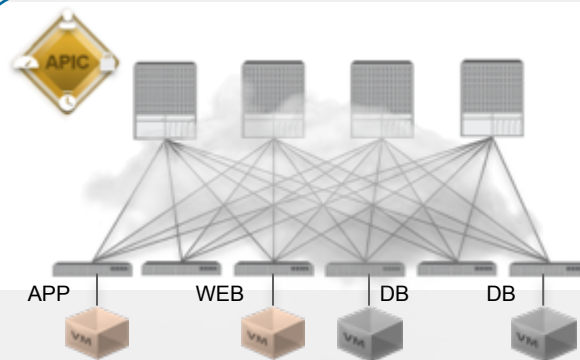


Red Hat Virtualization

VMM Domain with APIC 3.1

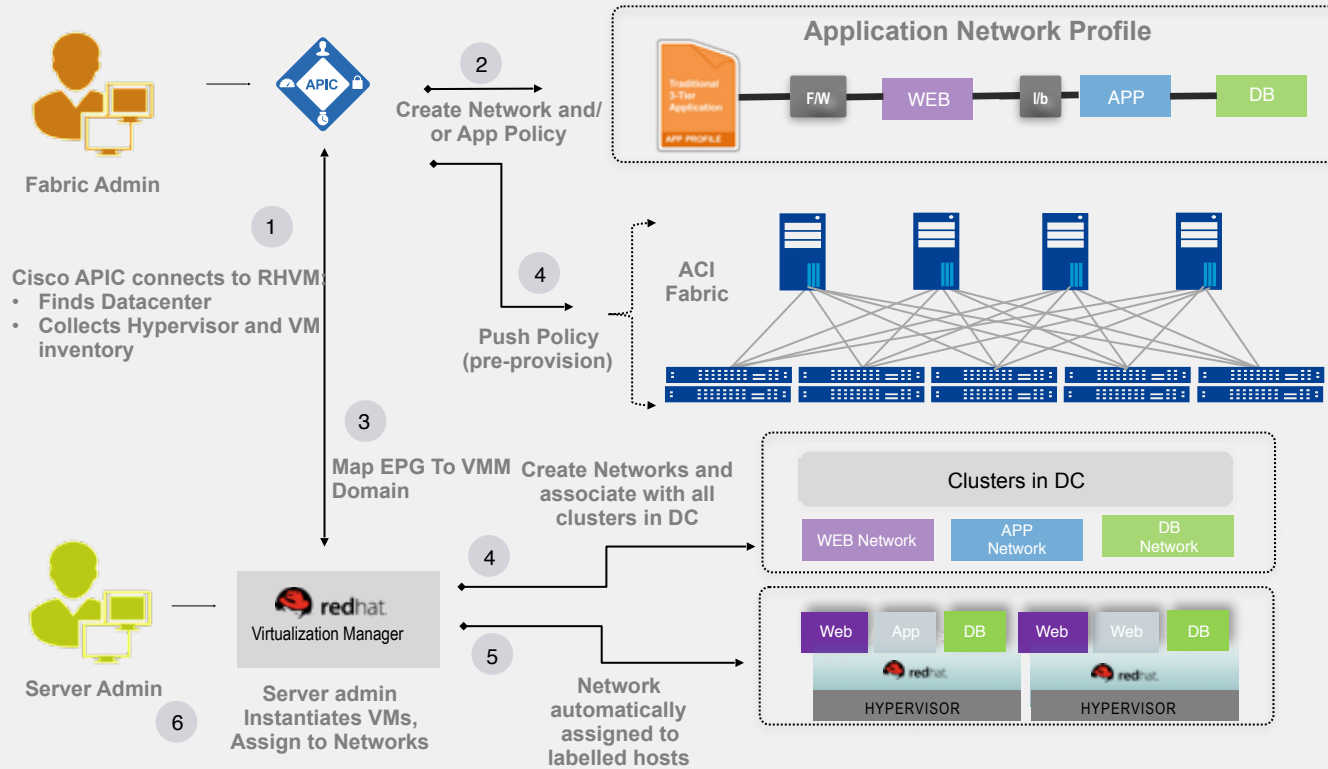


Integrated Mode (VMM Domain)

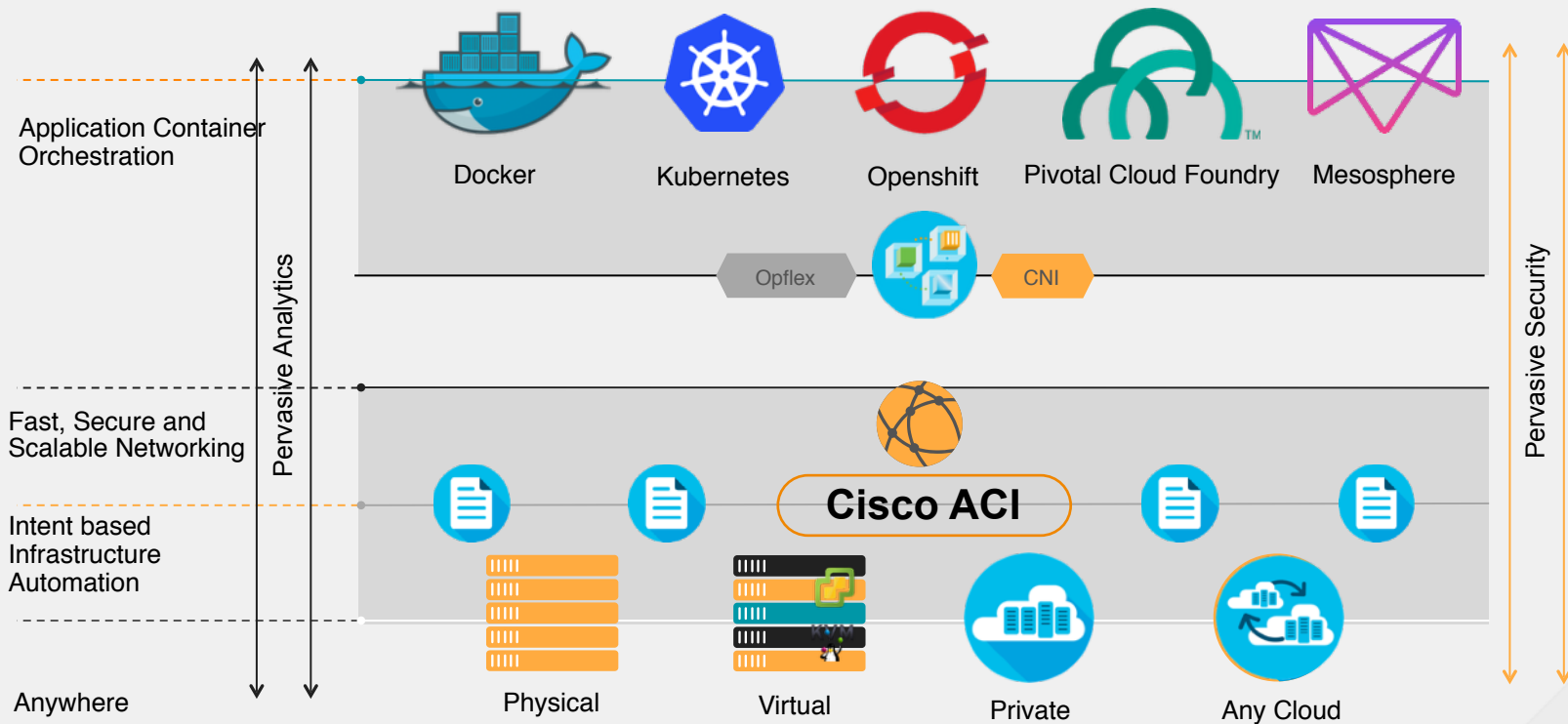


- ACI Fabric as a Policy Authority
- Dynamic Physical and Virtual Network Provisioning and Operations
- Integrated Policy domains across Physical and Virtual

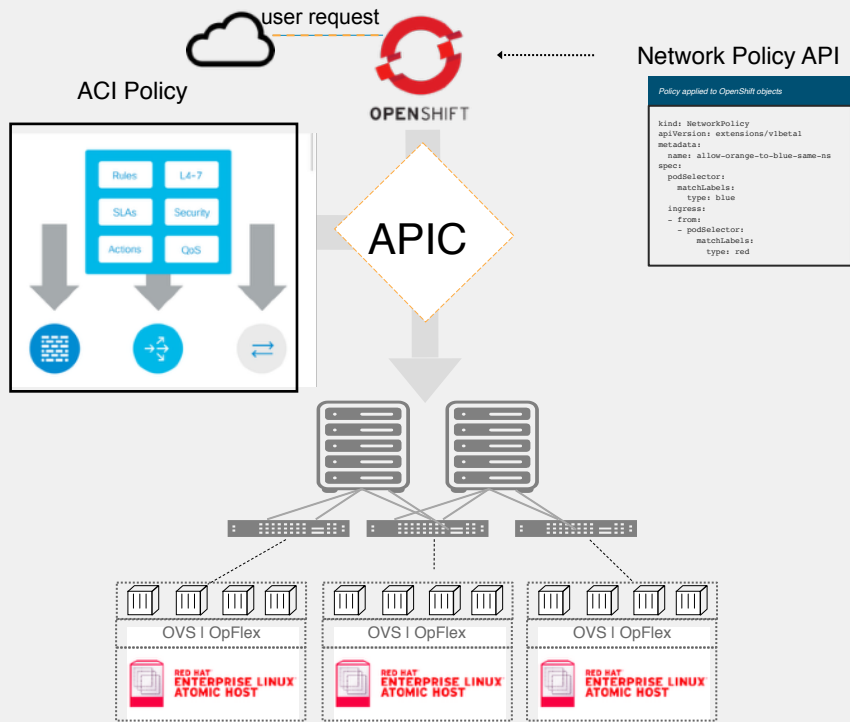
ACI and RHV VMM Integration Workflow



Native Support for Container Application Platform

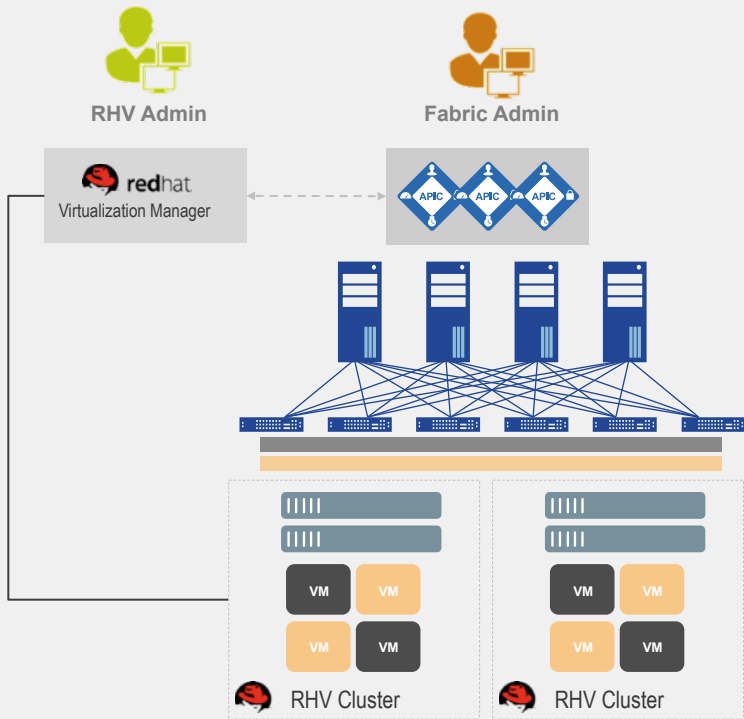


OpenShift Networking and Security with ACI



- Network policies supported using standard upstream format but enforced through OpFlex / OVS using APIC Host Protection Profiles.
- Openshift apps can be moved without modification to/from ACI and non-ACI environments.
- Embedded fabric and virtual switch load balancing:
 - PBR in fabric for external service load balancing
 - OVS used for internal service load balancing
- VMM Domain for Openshift:
 - Stats per namespace, deployment, service, pod
 - Physical to container correlation

The relevance of RHV and OpenStack with ACI for BBVA



Automate and accelerate provisioning:
ACI to provision the Logical Networks

Operations:
ACI visibility into RHV domains

Security:
Leverage ACI for distributed security and segmentation

Migrate:
Simplify Migration from other hypervisors



GRAZIE PER L'ATTENZIONE

Alberto DEGRADI - DC Sales Leader



#RedHatOSD