




FY15 Data Center Update for APJ Analyst Community

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Tuesday 7th October, 2014

Today's Agenda

Data Center
Portfolio
Evolution

UCS 2.0 Powering
Applications At
Every Scale

ACI: Next
Generation
Networking

Applications,
Workloads, &
Ecosystem

Private
Cloud/Hybrid
Cloud

2HCY14 & FY15

Momentum in Data Center & Continued Innovation

The Data Center Is the Heart of IT Transformation Enabled By A Network-Centric Data Center Architecture



Pace of Change



Bookstore



Taxi



Music



Point-of-Sale



Print Advertising

Technology Is Enabling Innovation and Disruption
Like Never Before



Pace of Change

amazon.com

Bookstore

UBER
lyft

Taxi

Spotify
PANDORA

Music

Square

Point-of-Sale

Google
facebook

Print
Advertising

Technology Is Enabling Innovation and Disruption
Like Never Before



APJ Opportunities for Growth

The background of the slide is a photograph of a server room. It shows multiple rows of server racks filled with hardware. In the background, a person is walking through the aisle between the racks. The lighting is somewhat dim, with some yellow indicator lights visible on the server units.

Speed Transitions: 1G to 10G to 40G (DCS)

Transformational Operating Models (ACI, UCS-D)

Application Acceleration (Invicta)

DC Solutions for Enterprise Apps (UCS)

Unified Computing System - Achievements

36,500+

Unique UCS Customers

#2

Worldwide Revenue Share in x86 Blades

\$3B+

Data Center Annualized Revenue Run Rate

Top 5

Server Vendor

>75%

Of all Fortune 500 Customers Have Invested in UCS

3,650+

UCS Channel Partners

99
+

World-record Performance Benchmarks to Date



UCS 2.0: Powering Applications at Scale

Todd Brannon

Director, UCS Product Marketing

Tuesday 7th October, 2014

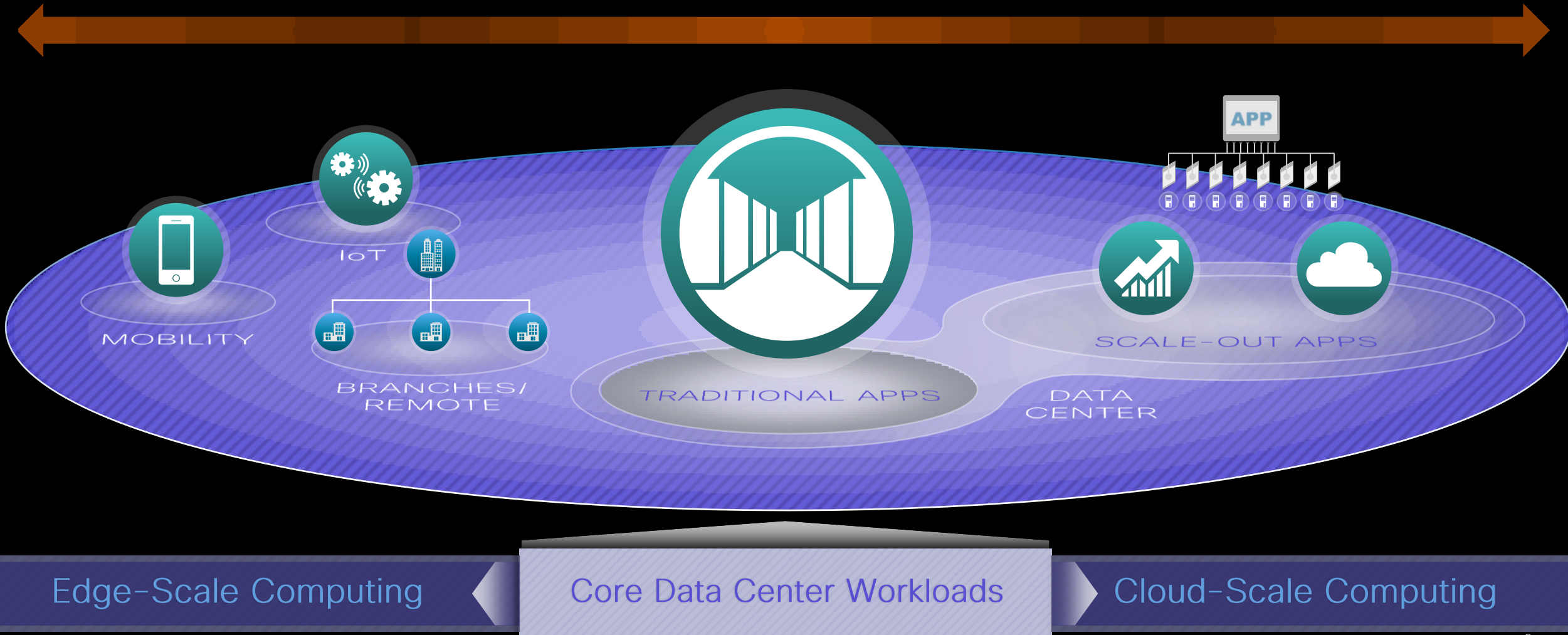


Applications Have Unique Requirements at Every Scale

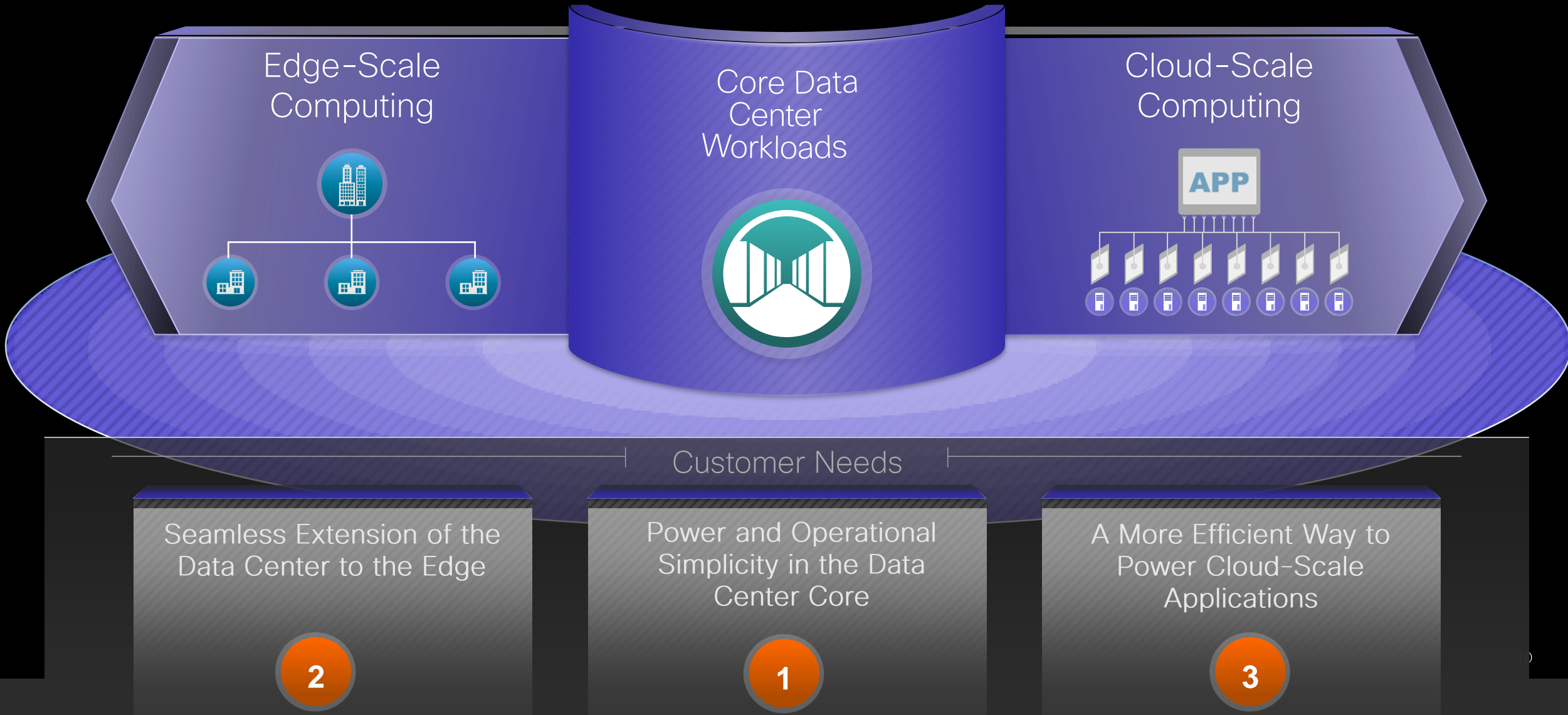
Connecting to Opportunity

Faster Decisions

Deeper Insight



Powering Applications at Every Scale



Powering Applications at Every Scale

Fourth Generation
UCS Servers



UCS Management
Innovation



UCS Mini



Edge-Scale Computing

Core Data Center
Workloads



UCS M-Series
Modular Servers



Cloud-Scale Computing



UCS Management

Compute • Network • Storage • Virtualization • Management and Automation

Large Retailer

UCS Mini



Business Objectives

Blended Physical + Digital
Customer Experience

Customer Insights

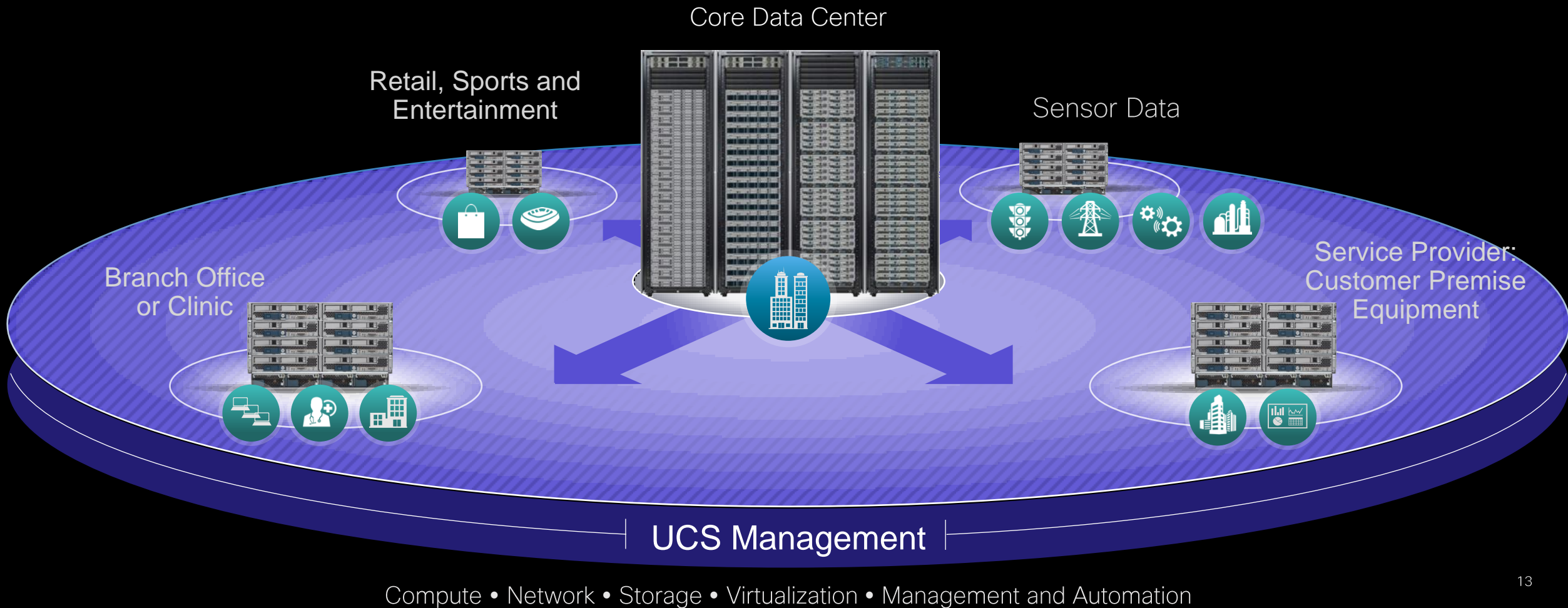
Employee / Store
Productivity

UCS Advantage

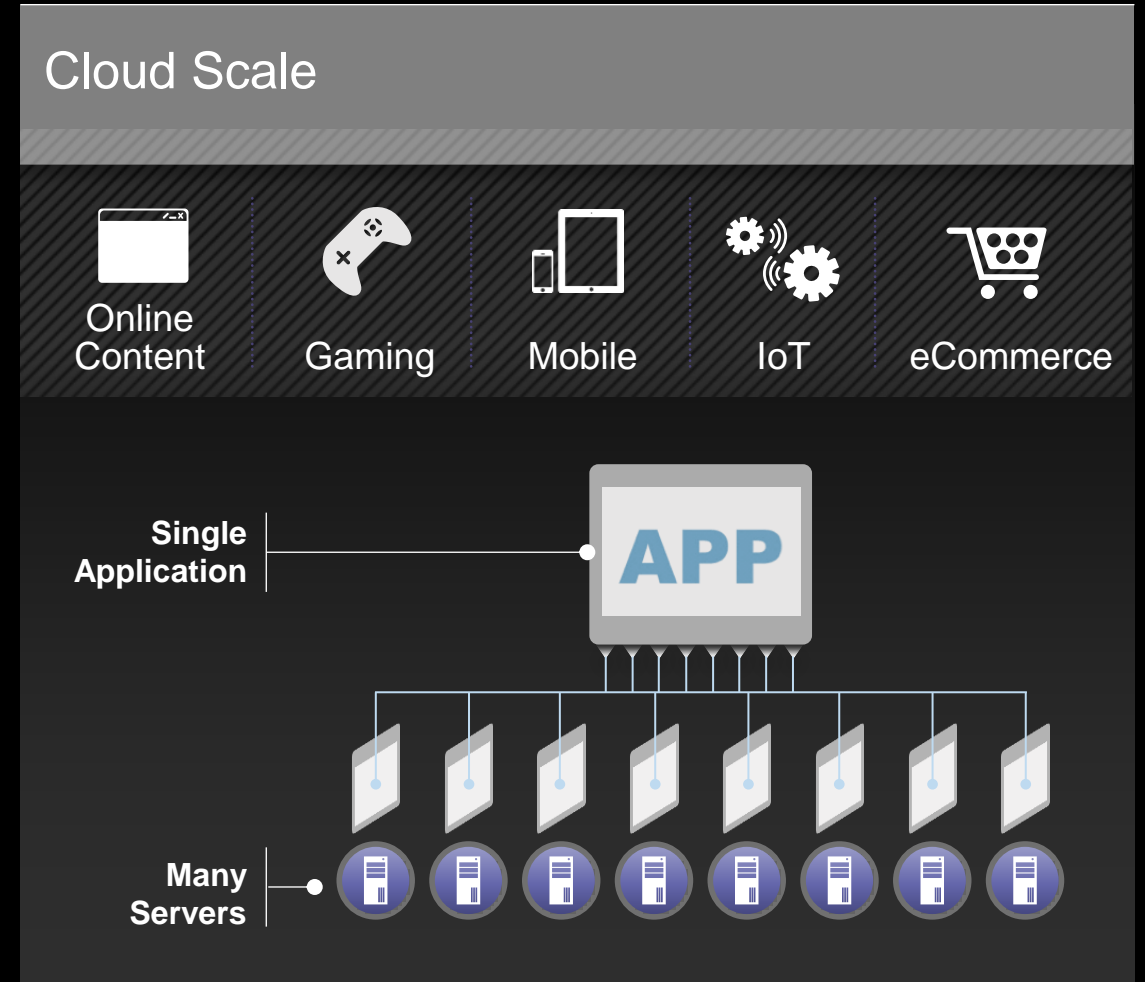
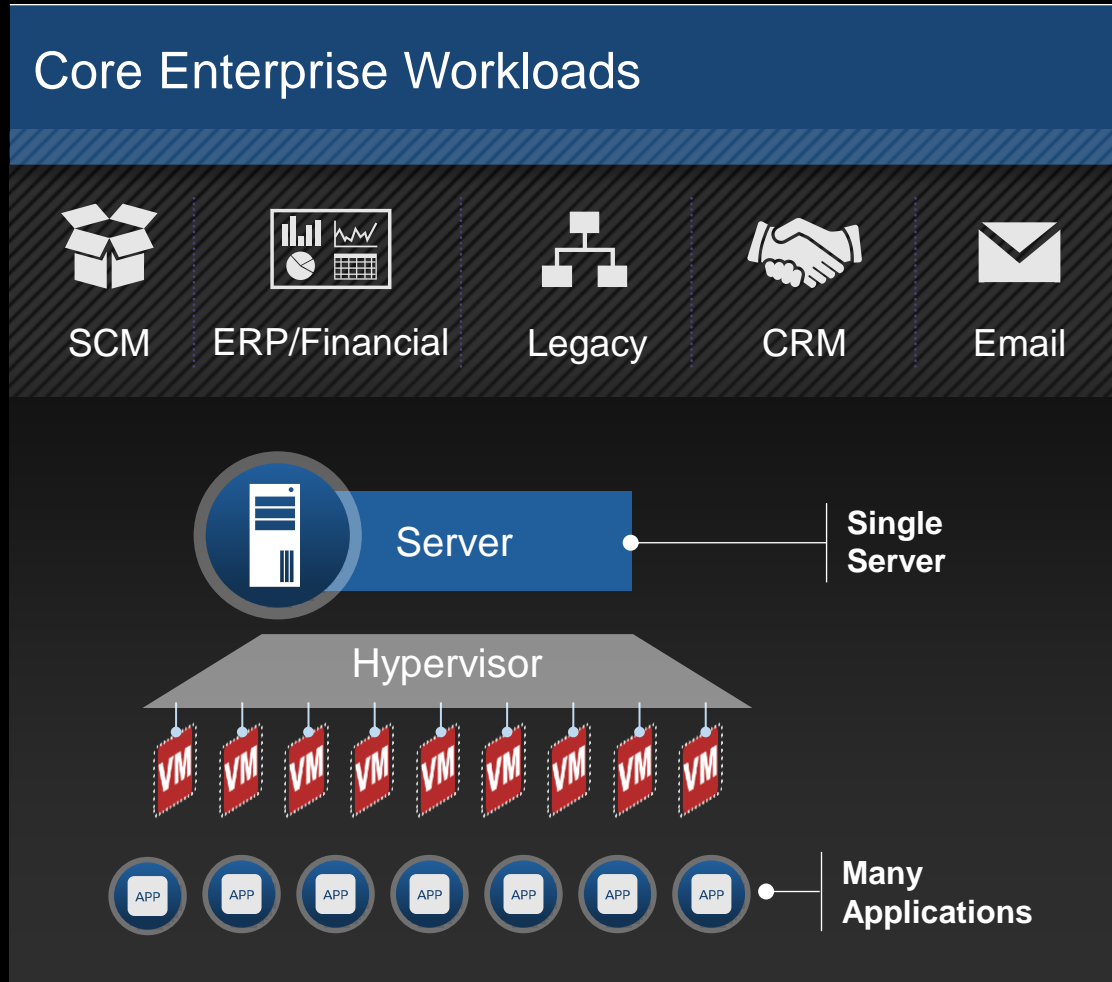
Power for local
applications:

- VDI for rich ERP apps
- Location based services & merchandizing
- Media streaming & recording
- Log data for traffic, density, dwell time patterns

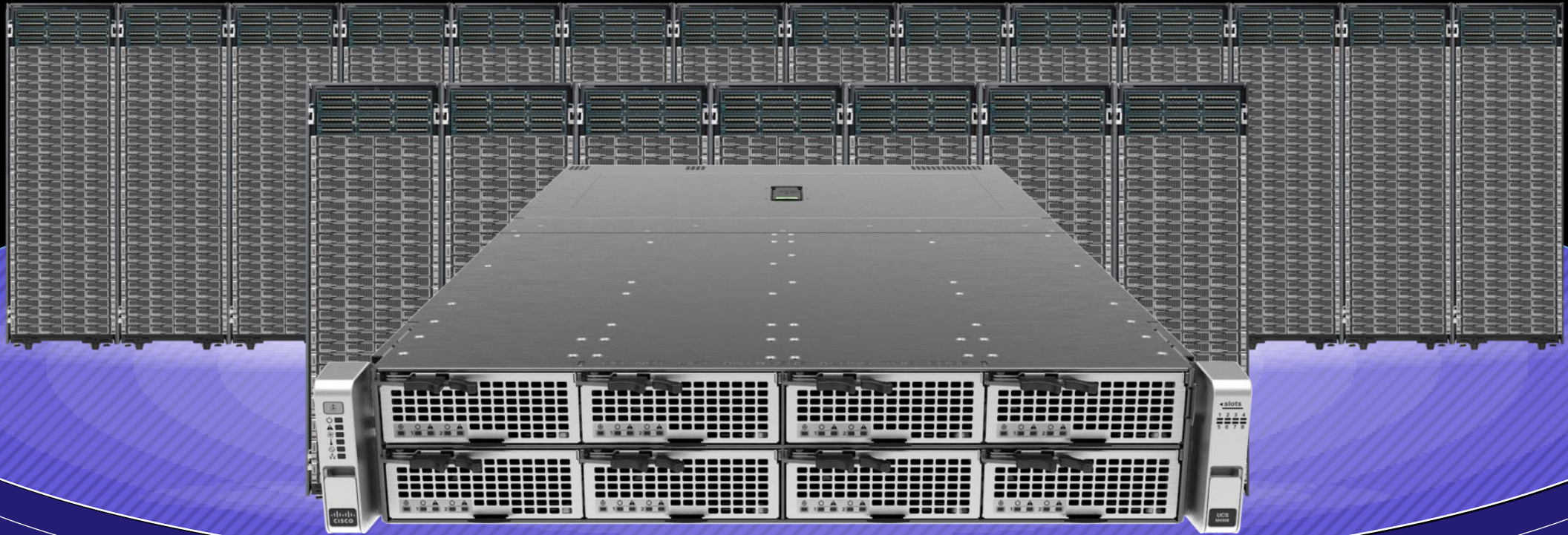
Placing Computing at the Source of Demand



Cloud-Scale Inverts Computing Architecture



UCS M-Series Modular Servers



UCS Management

UP TO
77% Faster
Provisioning

UP TO
8x Server
Density

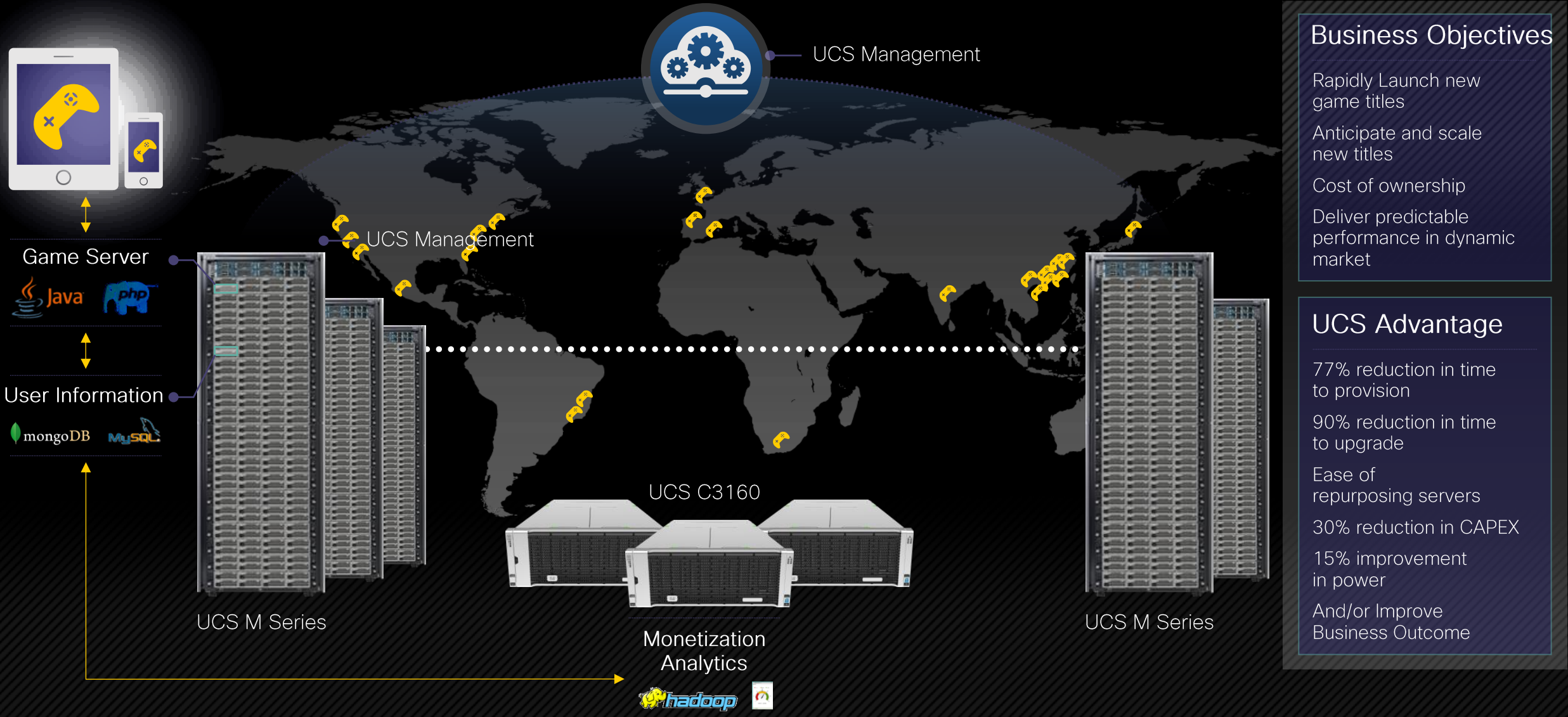
UP TO
95% Fewer
Peripherals

UP TO
38% TCO
Improvement

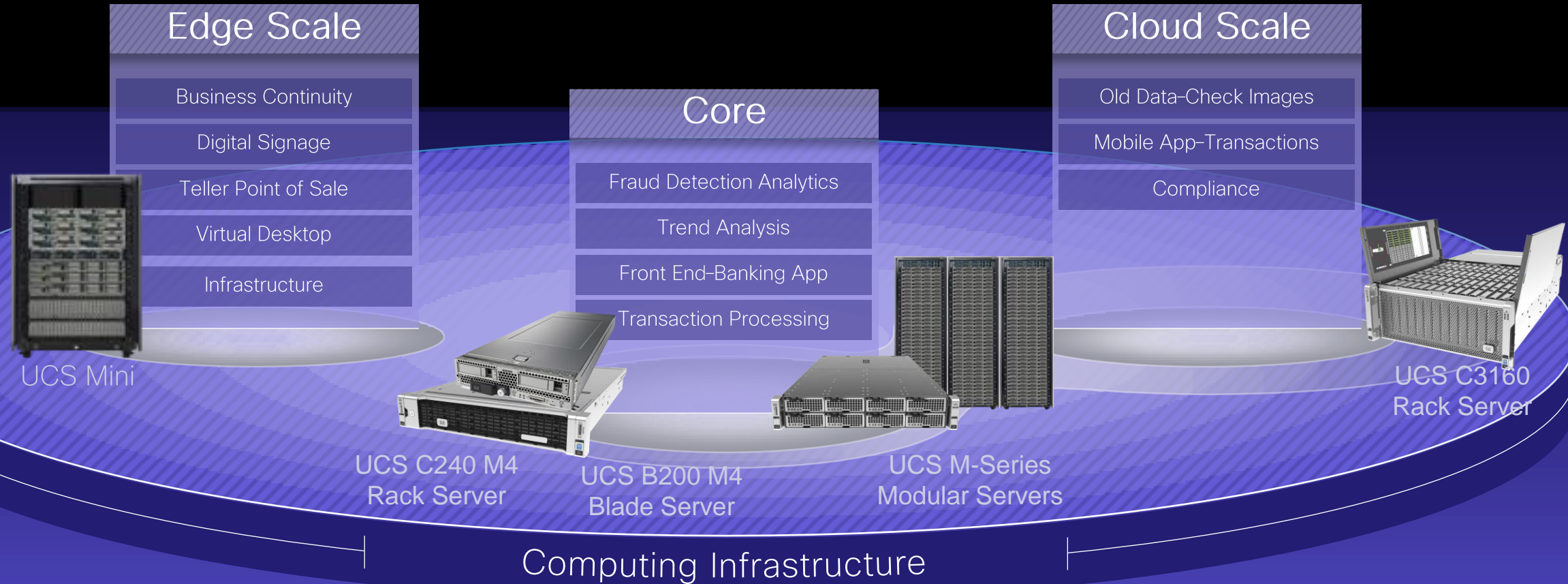
UP TO
22% Power
Efficiency

Mobile Gaming

UCS M-Series Modular Servers + UCS C3160 Rack Server



Banking



Unified Computing: Powering Applications at Every Scale



Innovation for a Changing
Application Landscape

Applying Cisco's Application
Centric Infrastructure strategy to
new infrastructure requirements
of location and scale.



Expanding to New
Customers and Workloads

Taking Unified Computing to
new use cases and to
customers in new market
segments.



Better Business Outcomes

Game-changing results for
customers fueled by industry-
leading technology and
partnerships



Application Centric Infrastructure

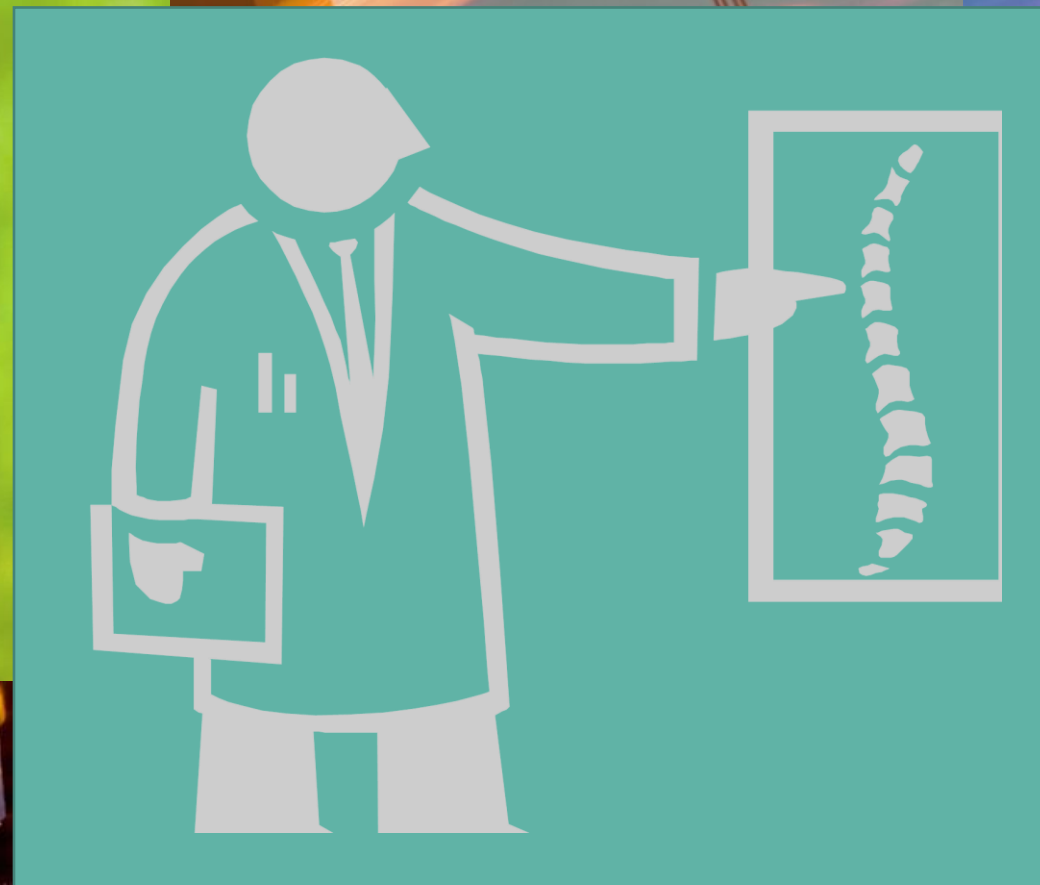
- Bring Together the Network & Applications

Ar

A



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What If...We could build infrastructure that speaks the language of applications?

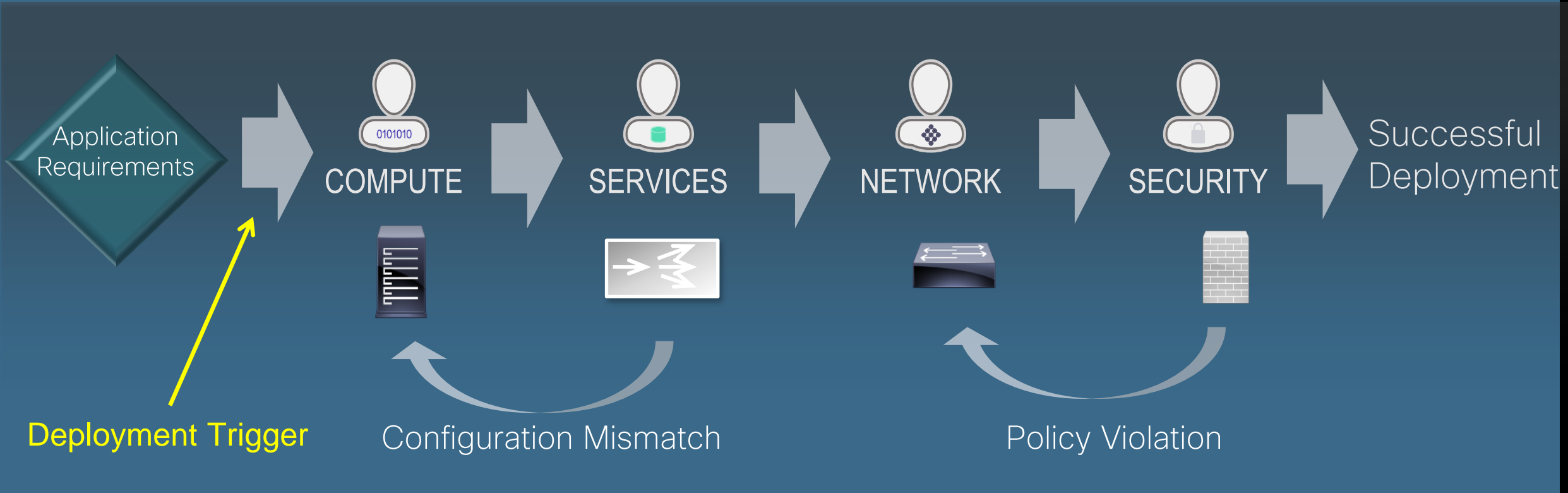
#1 – Centralised App Policy Model

#2 – Open Ecosystem

#3 – Single system across Physical, Virtual and Cloud

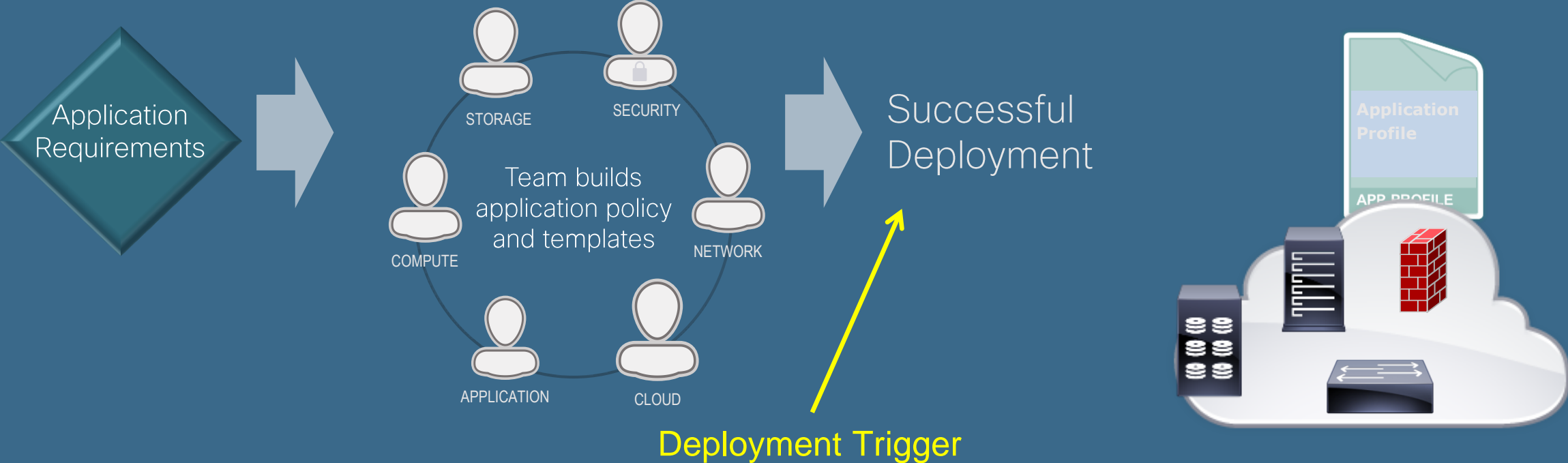
Mind The Gap

MANUAL PROCESS LEADS TO INCREASED DEPLOYMENT TIMES



Mind The Gap

APPLICATION CENTRIC PROCESS REDUCES DEPLOYMENT TIME, COST AND RISK



TIME

Mind The Gap

APPLICATION LANGUAGE

 Exchange  *hadoop*  SAP  SharePoint

- Application Tier Policy and Dependencies
- Security Requirements
- Service Level Agreement
- Application Performance
- Compliance
- Geo Dependencies
- Etc.



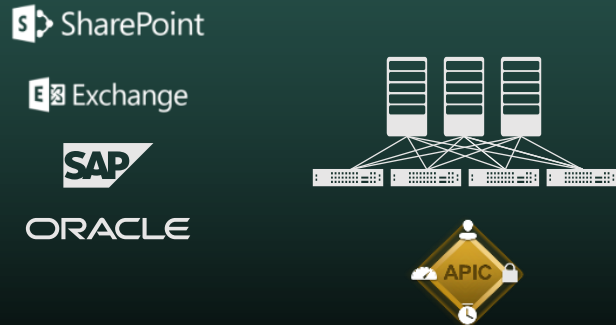
INFRASTRUCTURE LANGUAGE



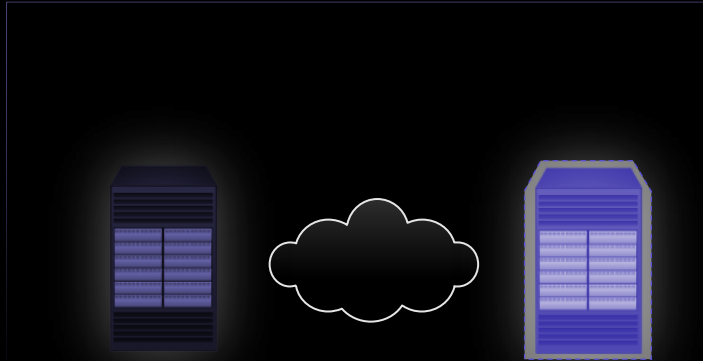
- VLAN
- IP Address
- Subnets
- Firewalls
- Quality of Service
- Load Balancer
- Access Lists

Application Centric Infrastructure – 3 Key Elements

ACI Policy Model



Physical - Virtual



Open - Secure

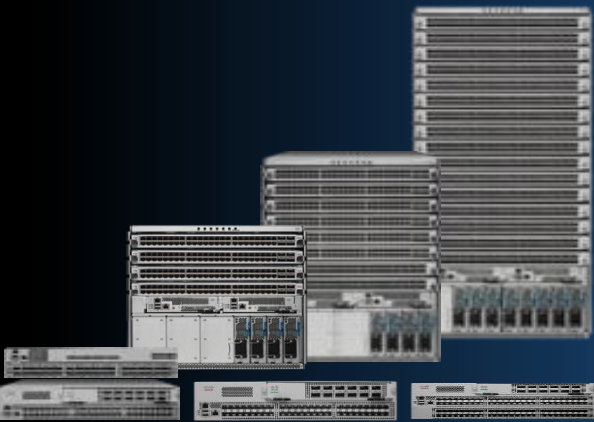


Policy: Operational Simplicity with Investment Protection

Modernizing the Data Center with Nexus 9000



Open NXOS
Nexus 9000 & 3000
1G / 10G / 25G / 40G / 100G



MERCHANT OR CISCO : White Box Economics De-Risked



HW & SW: Cisco SDK



OPEN NXOS: LINUX / Puppet / Chef / Python



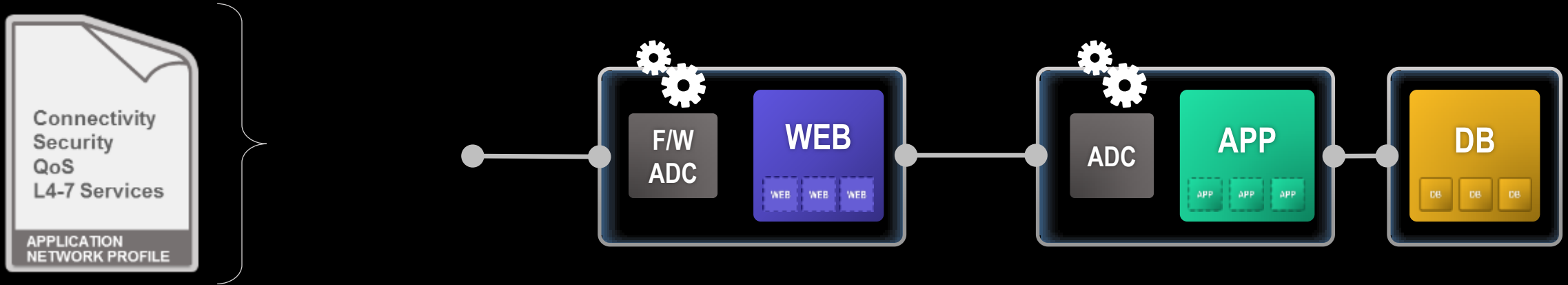
SECURE: LXC Containers for 3rd Party Apps



ADAPTABLE : NX-API / Object Model / Packages & RPM

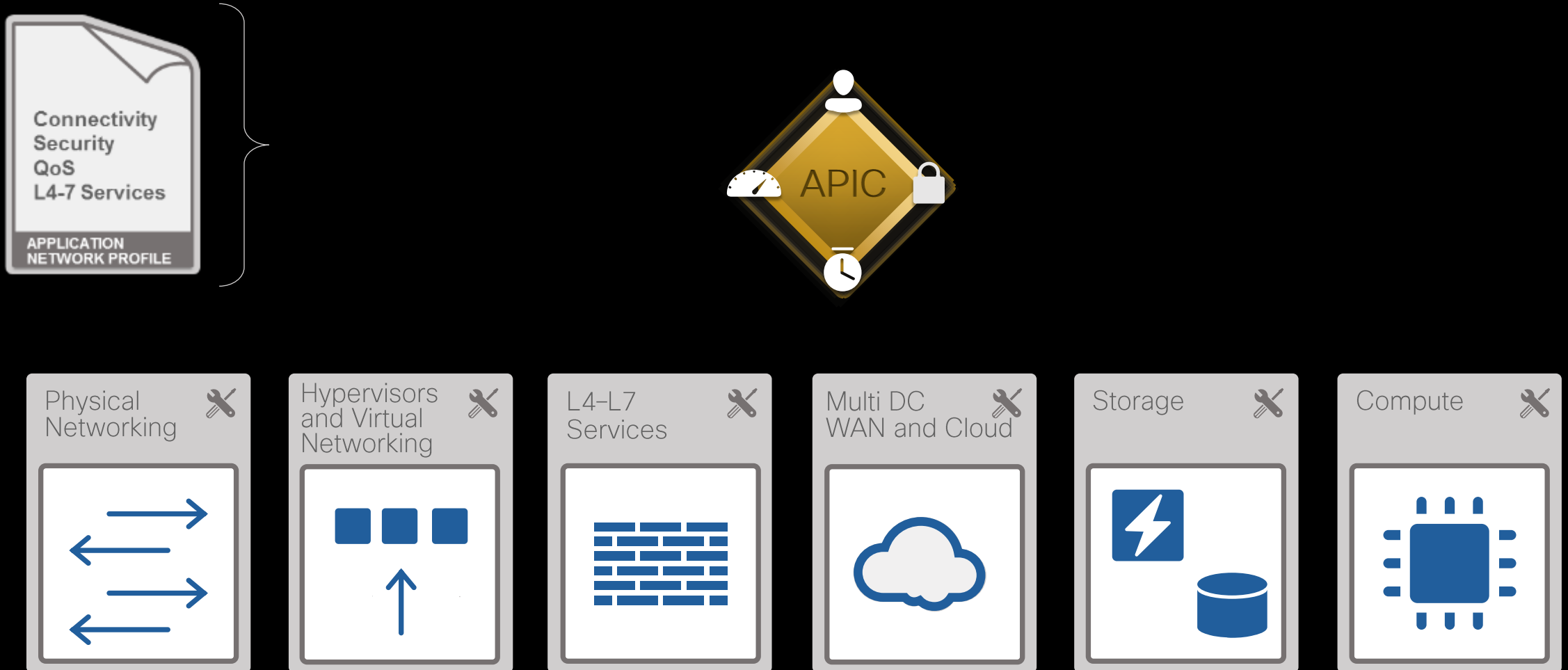
Application Policy Infrastructure Controller (APIC)

Network Automation



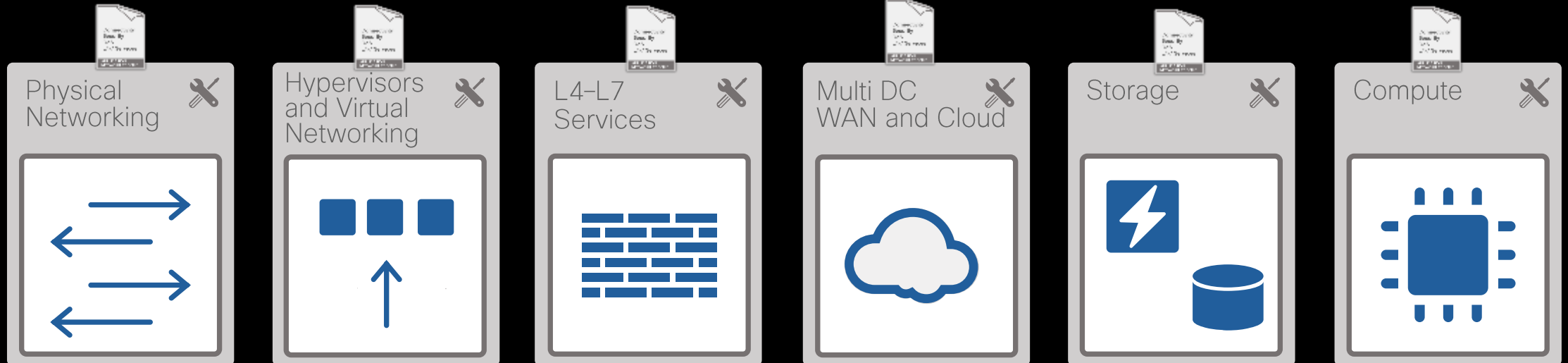
Application Policy Infrastructure Controller (APIC)

Network Automation



Application Policy Infrastructure Controller (APIC)

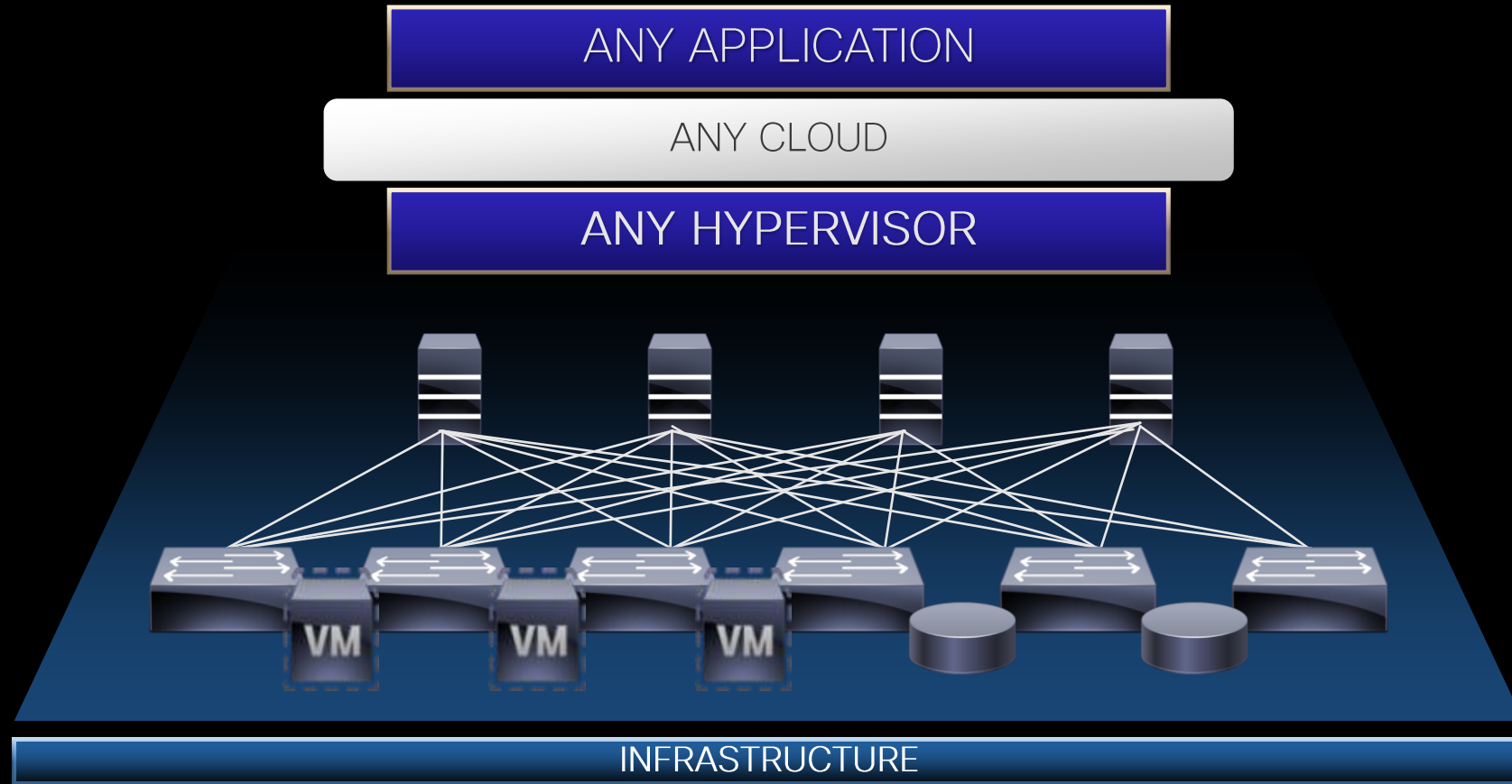
Network Automation



Common Network – Physical, Virtual, Cloud

Flexibility, Performance & Visibility

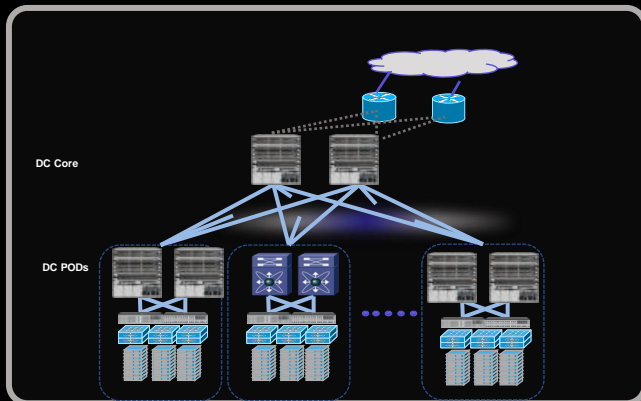
- Systems Approach for delivery of
 - Resiliency
 - Security
 - Mobility
 - Performance
- Hypervisor- agnostic
- Consistent Policy
- Converged
- Real-time End-To-End visibility of the application



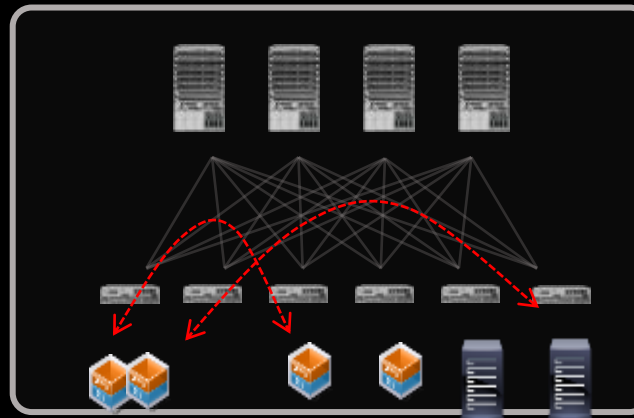
Nexus 9000 & ACI – Multi-Domain Controller Use Cases

	Nexus 9k / Ships in the Night	Nexus 9k / Integration	ACI
OpenFlow	Supported	Supported	Integration via API
3 rd Party Controllers / Orchestration	Any Overlay Supported	VMware NSX L2VXLAN GW (Q1CY15) & Others	Cloudstack, vCenter, VCAC (Q1CY15) – OPEN API
OpenStack	Neutron	Neutron	Neutron & Group Policy Model

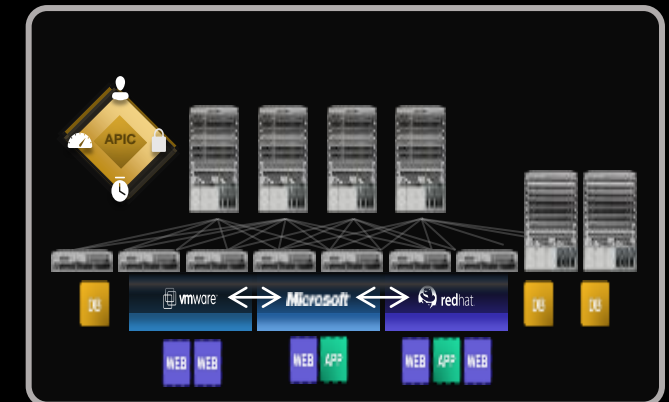
Existing 3-TIER DESIGNS



PROGRAMMABLE SDN OVERLAY



APPLICATION CENTRIC INFRASTRUCTURE



ACI Momentum is Strong

Nexus 9000/ACI

580+ Customers...

- Customers Across Different Geos + Segments
- Rapid Channel Partner Scale

APIC

60+ Customers in 30 Days!



Open ACI Ecosystem

33 Ecosystem Partners and Counting!



UCS Integrated Infrastructure

Cisco is #1 and a partner in ~69% of all Integrated Infrastructure* Exclusive in the top 2 solutions (FlexPod and Vblock) and ~50% in the #3 solution (VSPEX)*

*IDC Worldwide Integrated Infrastructure & Platforms Tracker, April 29, 2014

FLEXPOD



VBLOCK



VSPEX



HDS UCP Select



Cisco
UCS



UCS Director



Cisco
Nexus

UCS Integrated Infrastructure

Data Center Solutions for Growth

A nighttime photograph of a city, likely Dubai, featuring a prominent skyscraper (Burj Khalifa) and a complex highway interchange with long-exposure light trails from cars. The image is overlaid with three semi-transparent yellow horizontal bands containing white text.

Microsoft

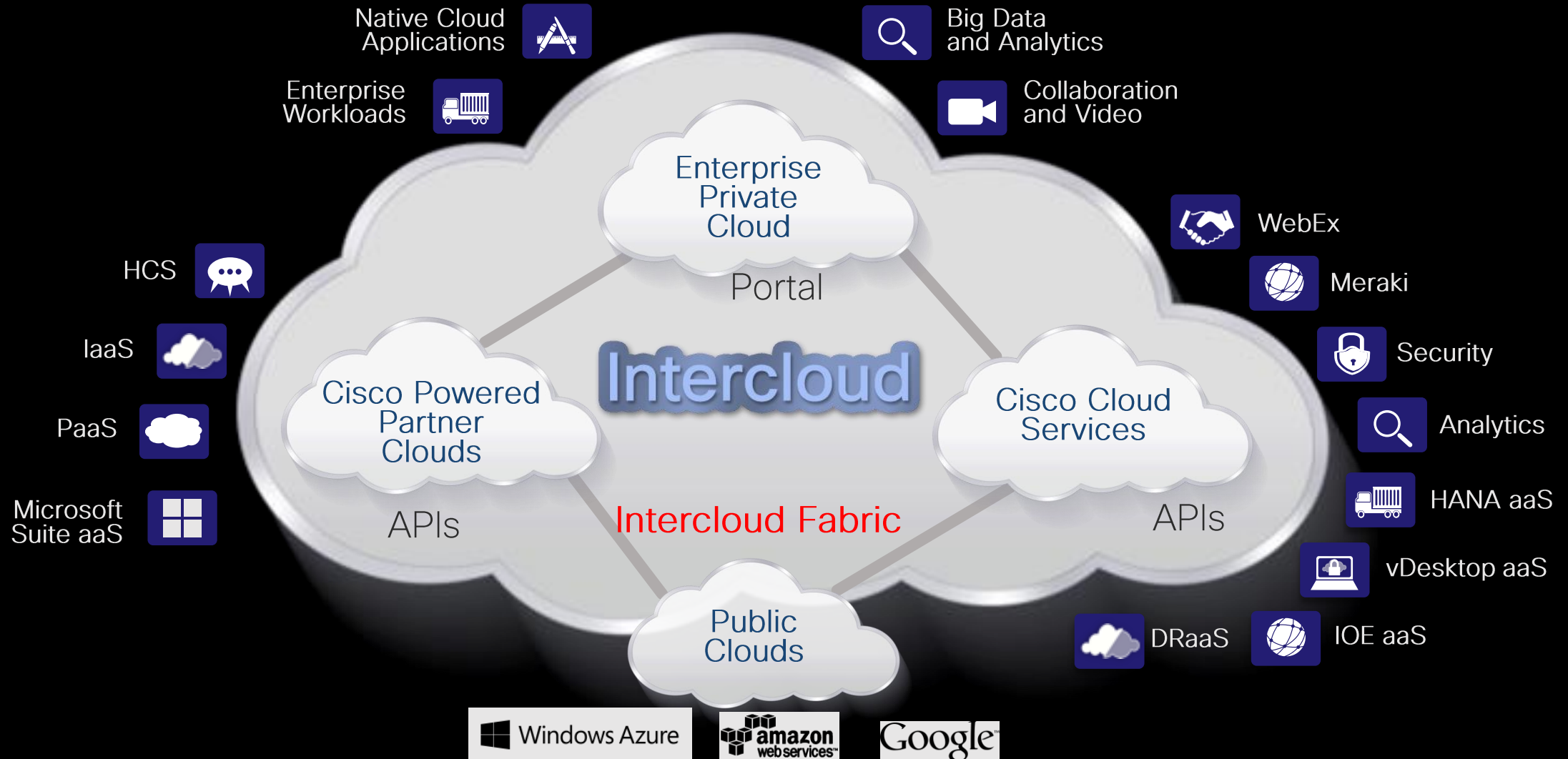
SAP Applications and HANA

Big Data Solutions

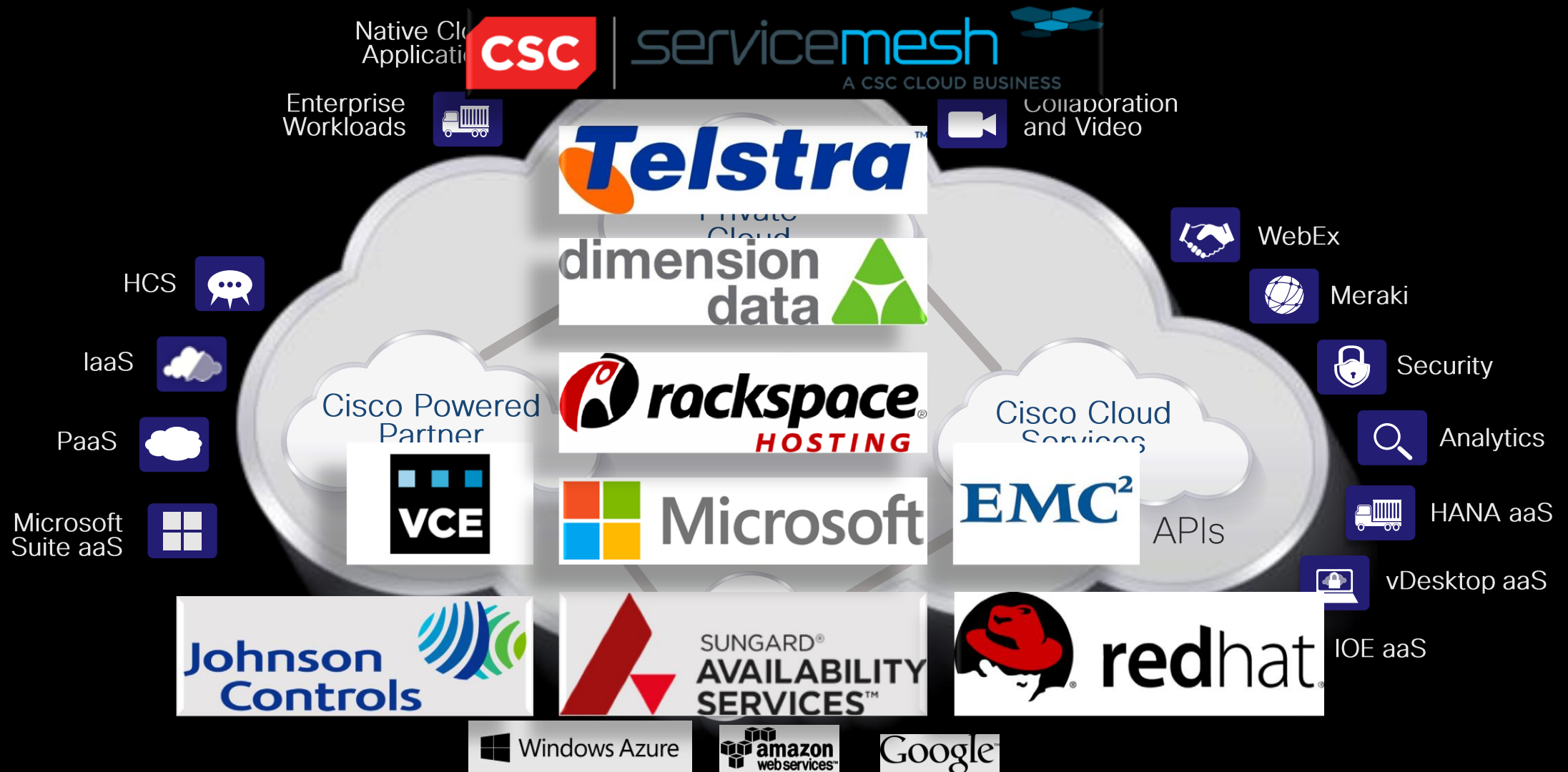


Private Cloud/ Data Center Automation

Cisco Global Intercloud and Intercloud Fabric



Cisco Global Intercloud and Intercloud Fabric



It All Starts With Private Cloud

Converged Infrastructure

Vblock, Flexpod,
VSPEX



Programmable
Scalable
Flexible
Market leading

Intelligent Network Fabric

Cisco ACI



Application Aware
Open Standards
L4-7 automation

Automation & Orchestration

UCS Director



Infrastructure Automation
Self Service
Rapid provisioning
Chargeback/Showback

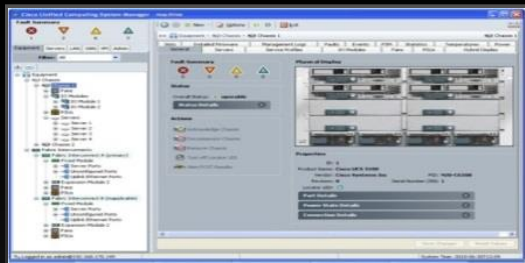
Unified Management & Automation

Physical Infrastructure & Multi-Hypervisors Management Across Private & Hybrid Cloud

UCS DIRECTOR Centralized infrastructure automation for data center

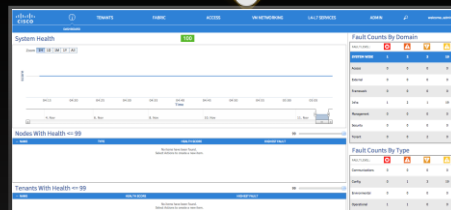
INTERCLOUD FABRIC

UCS MANAGER & CENTRAL

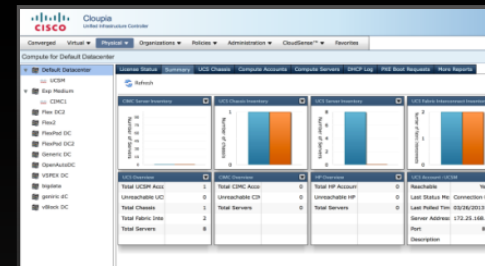


Manages single and multiple UCS and Invicta domains

APIC



Controller for network automation



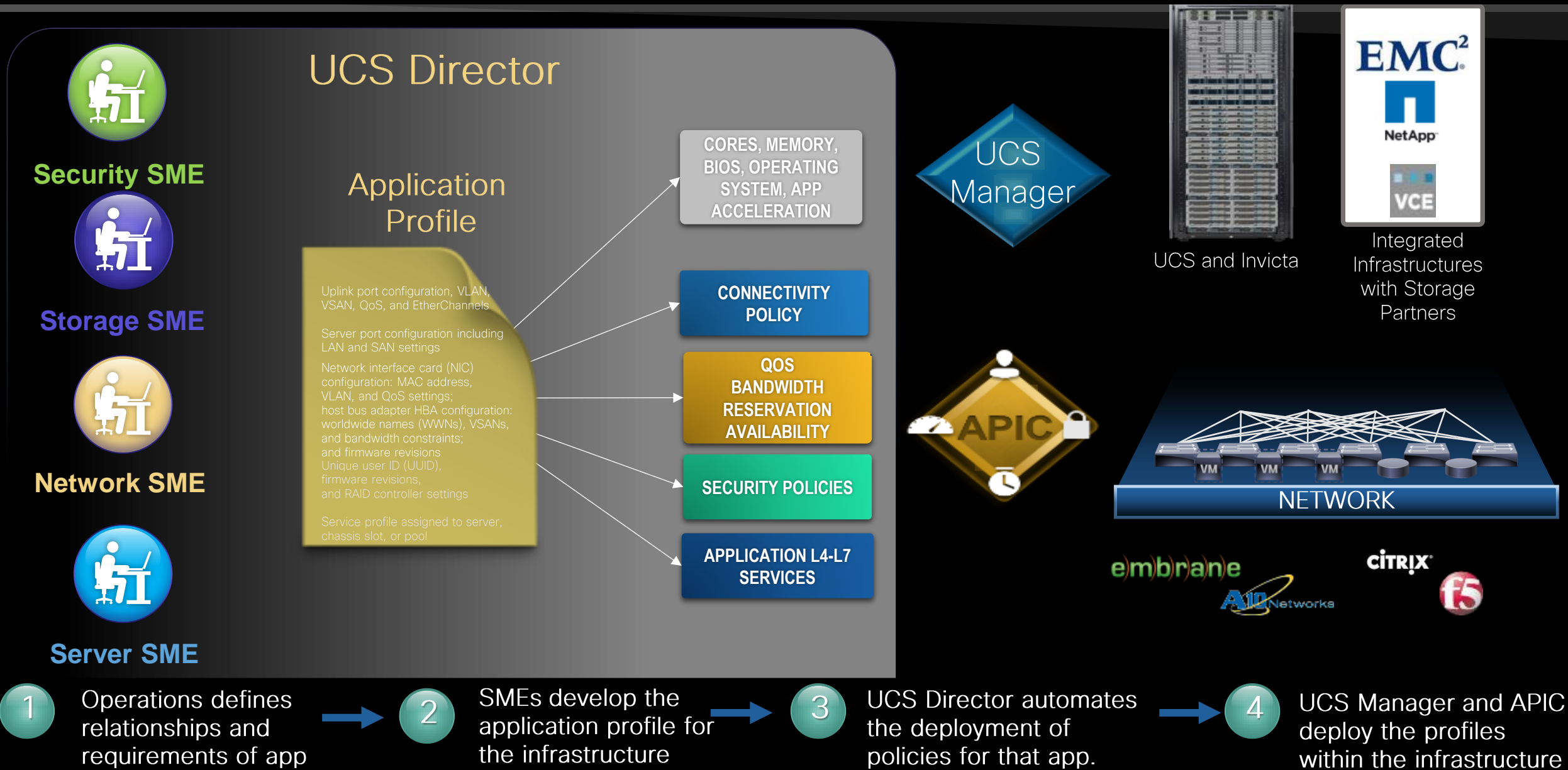
Unifies multi-hypervisor heterogeneous data centers infrastructure



Secure Hybrid Cloud with Enterprise Controls & VM mobility

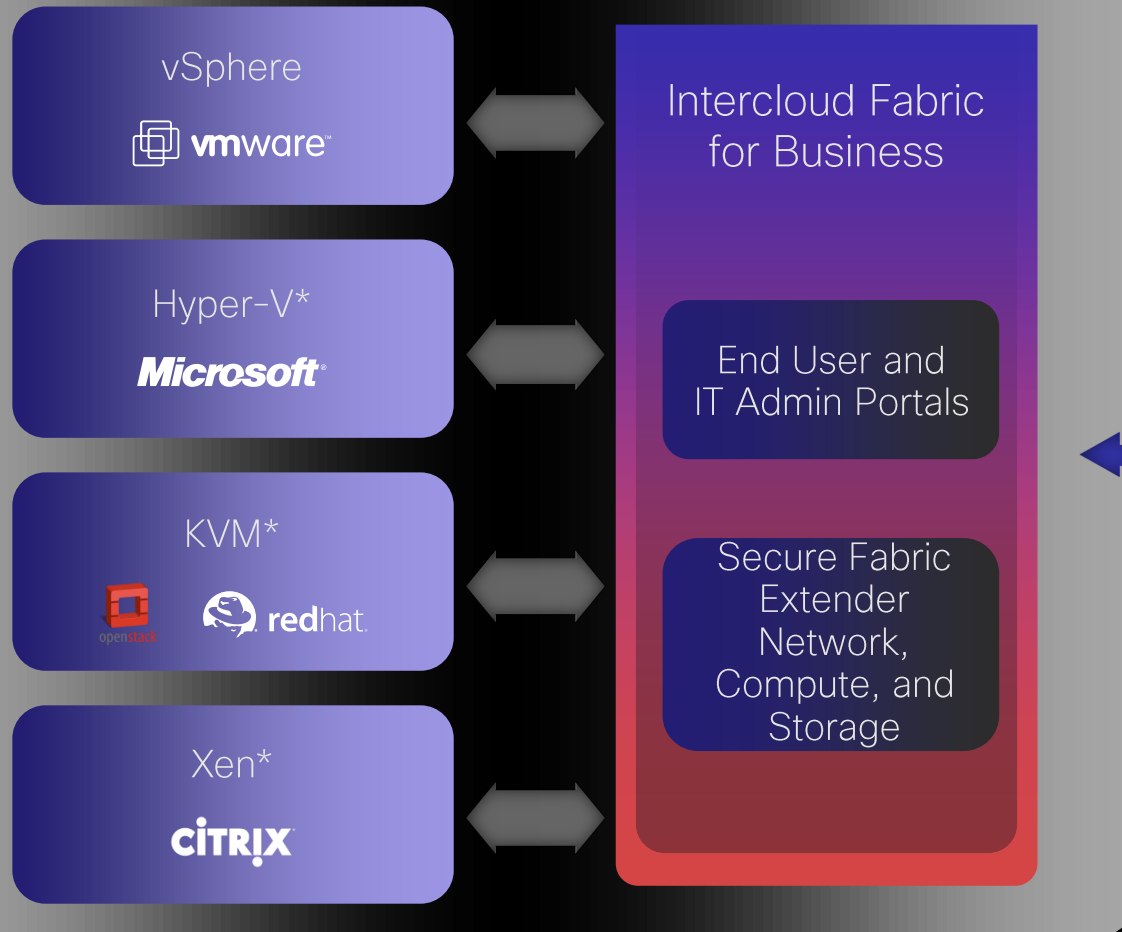


Deploying A Private Cloud

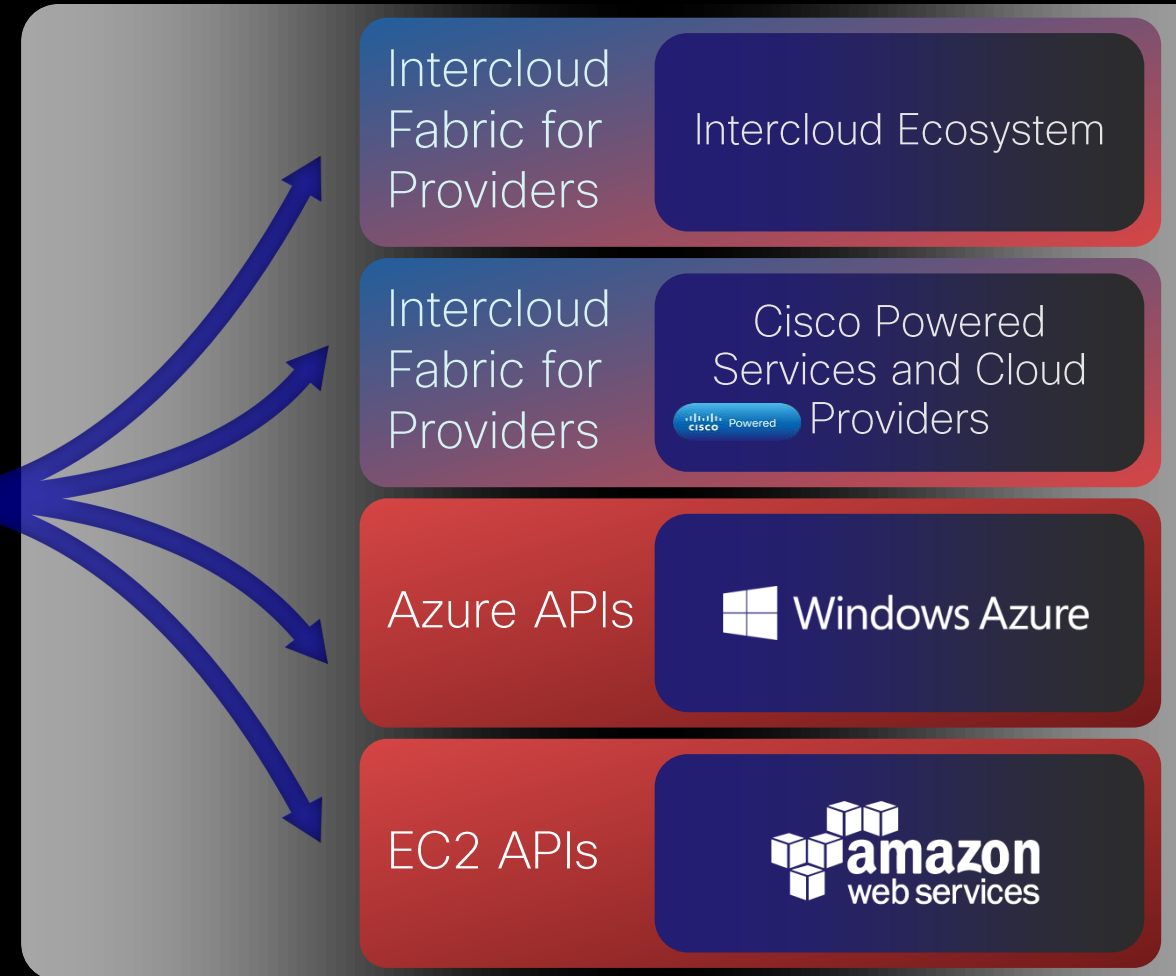


Private Cloud & InterCloud Integration

DC/Private Cloud



Provider Clouds



* Available in subsequent releases

Key Take-Aways

Cisco is Disrupting
Again with UCS:
Powering Applications
at Every Scale

Cisco is modernizing
the Data Center for the
next generation of
networks – both
capacity and
integration

Cisco is building out
Integrated
Infrastructure, DC
Solutions, Private
Cloud & InterCloud
capabilities

Questions & Answers






Thank You!

Darryl McKinnon

Managing Director, Data Center Sales

Asia Pacific & Japan

 @dc_darryl

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