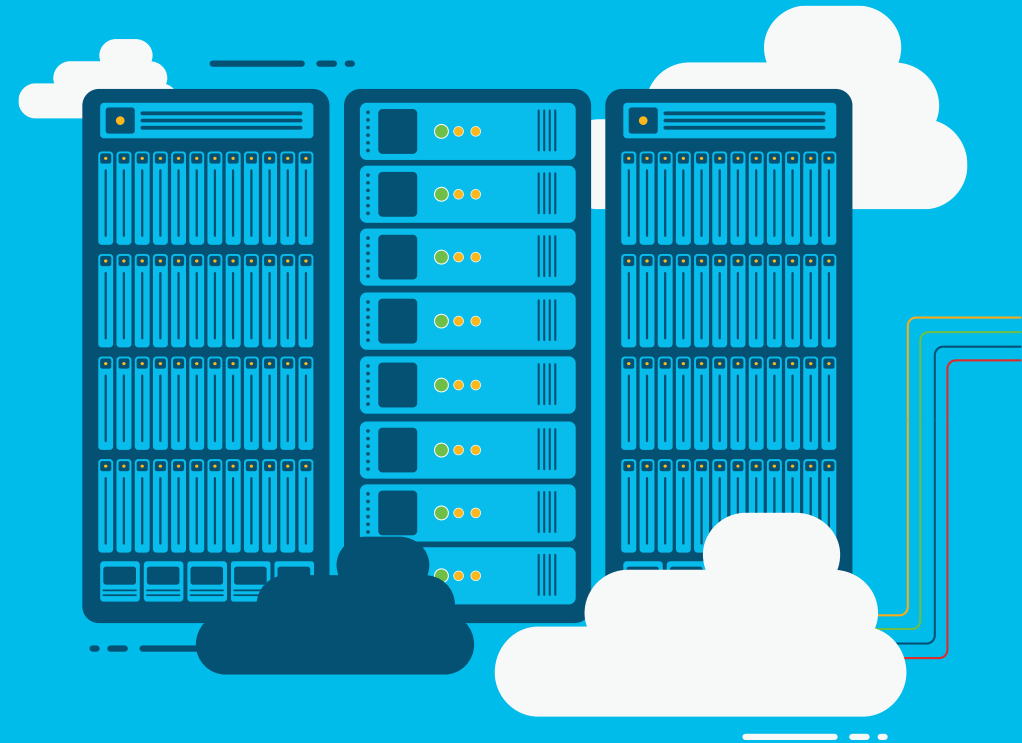




# Cisco Intent-Based Data Center Solution

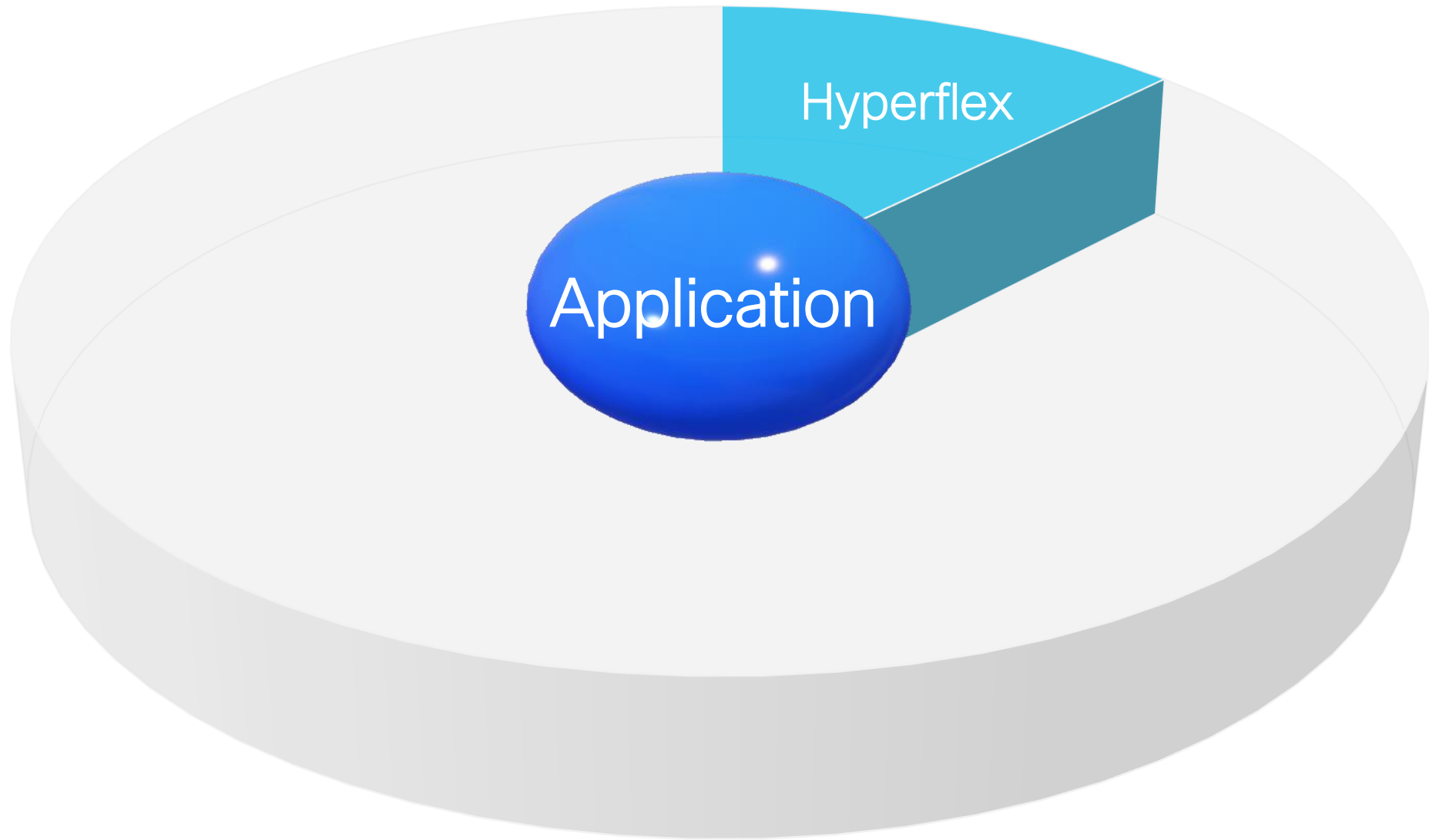
Miloš Pavlík  
Cisco Consulting System Engineer



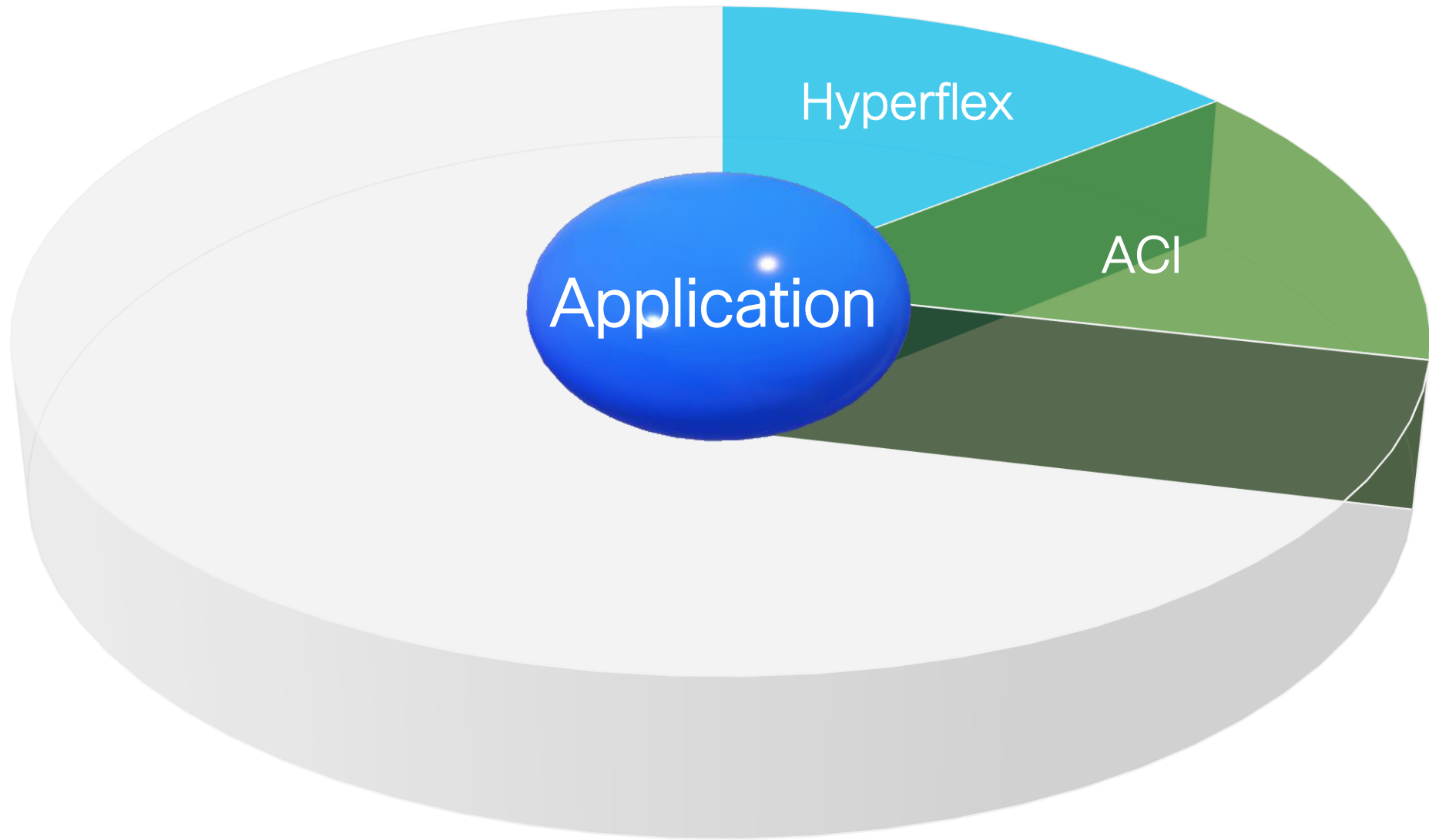


App is the new business  
Developer is the new Customer  
Multicloud is the new Data Center

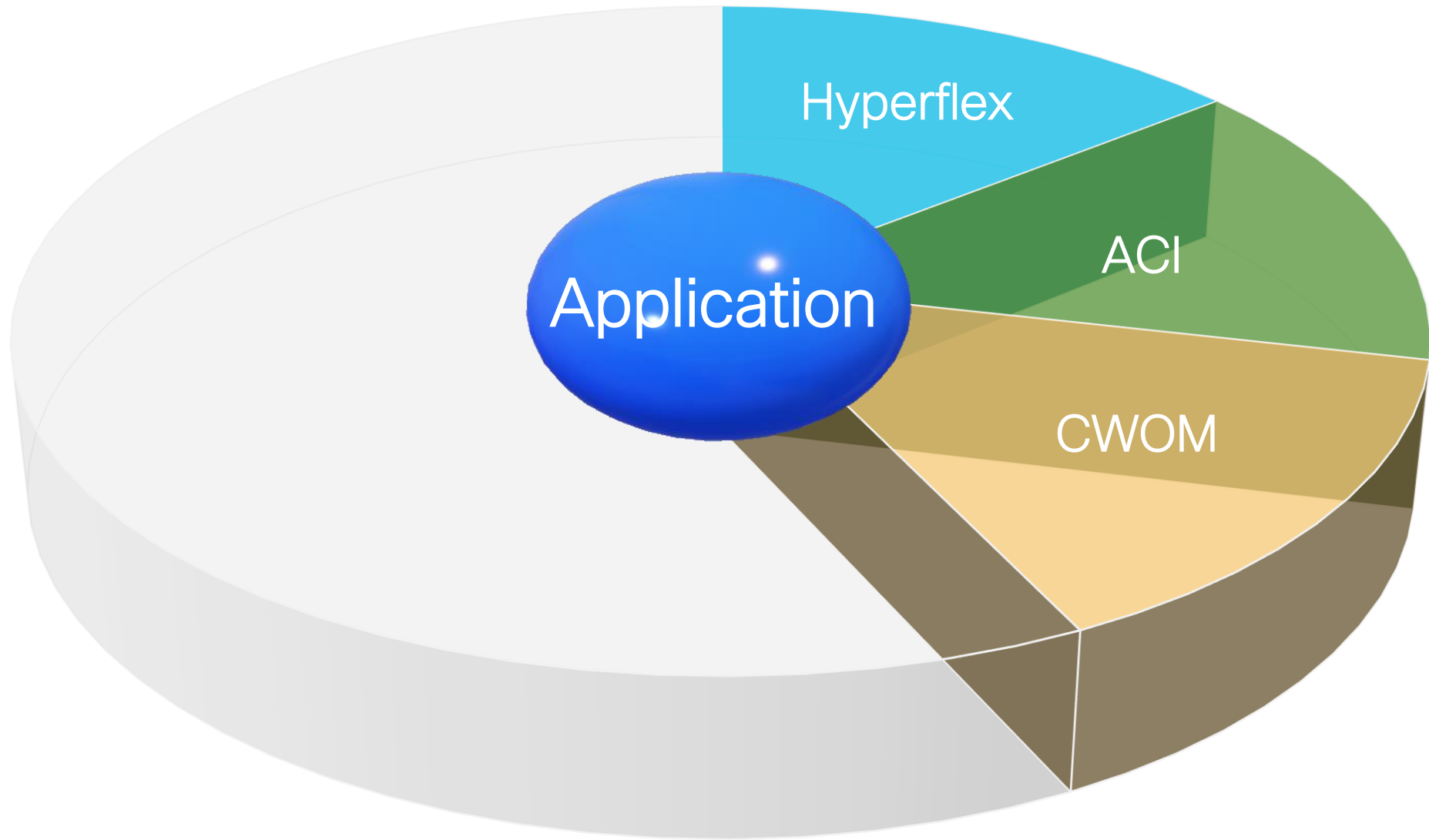
# Cisco DC Solution



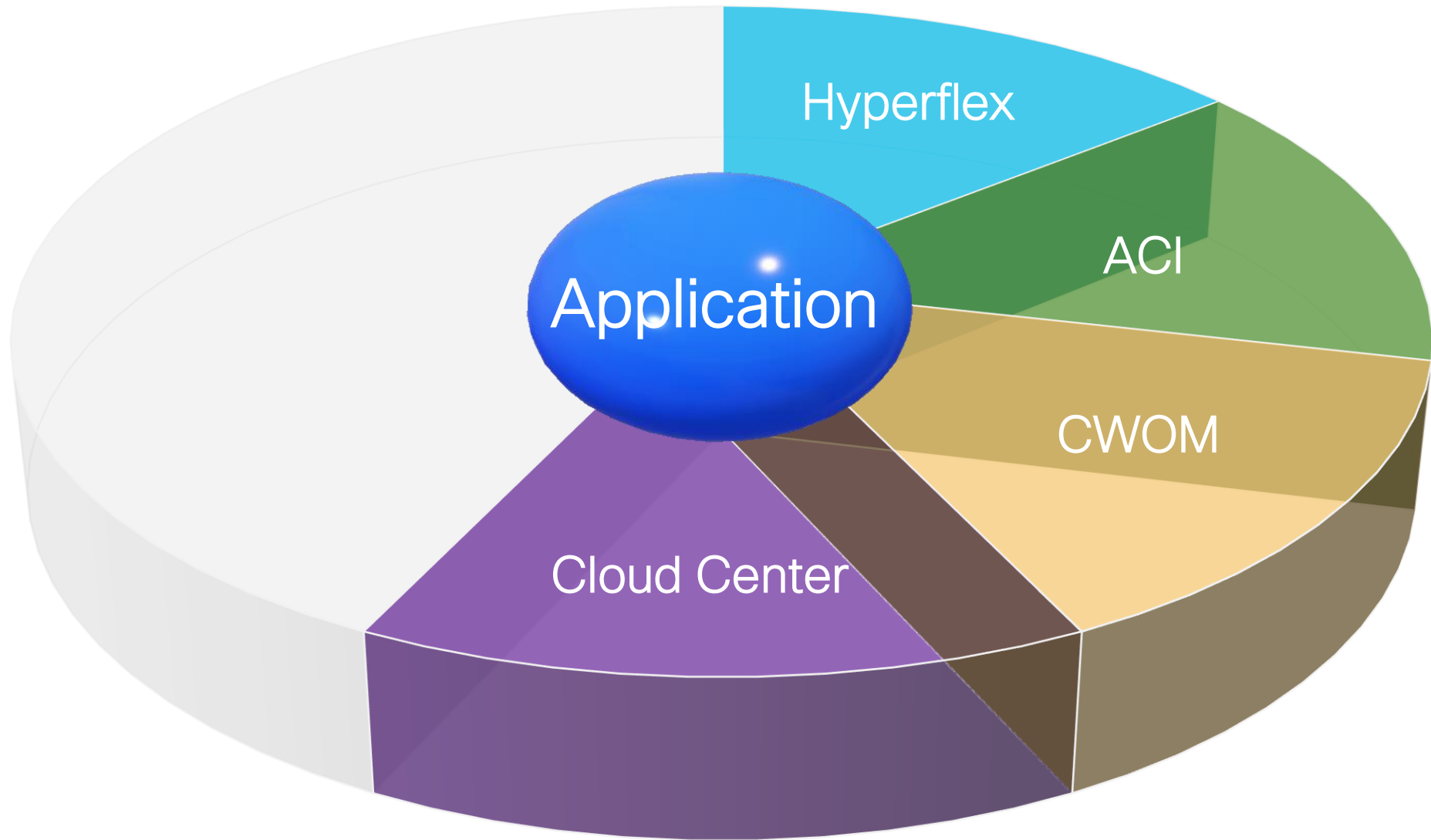
# Cisco DC Solution



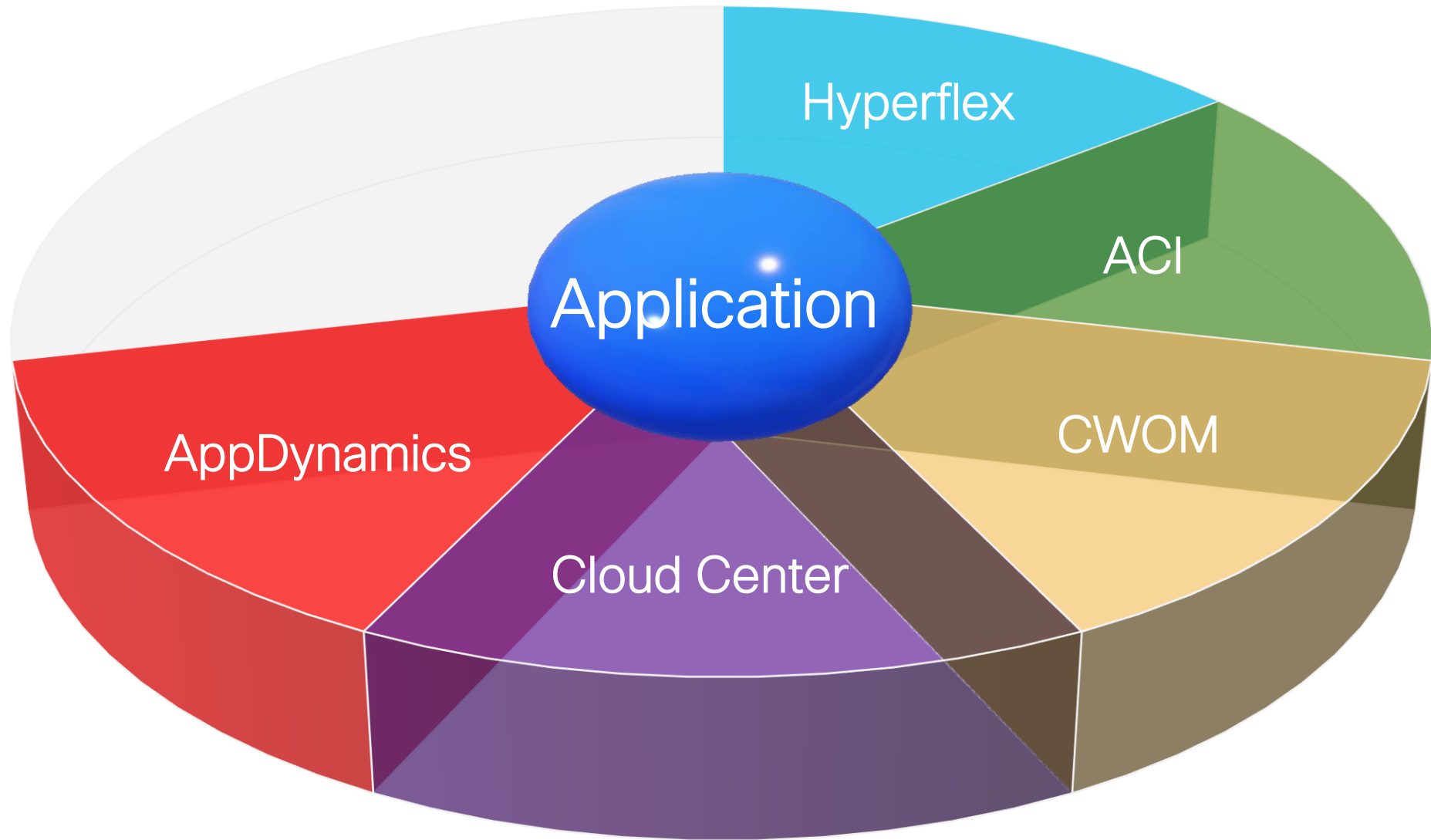
# Cisco DC Solution



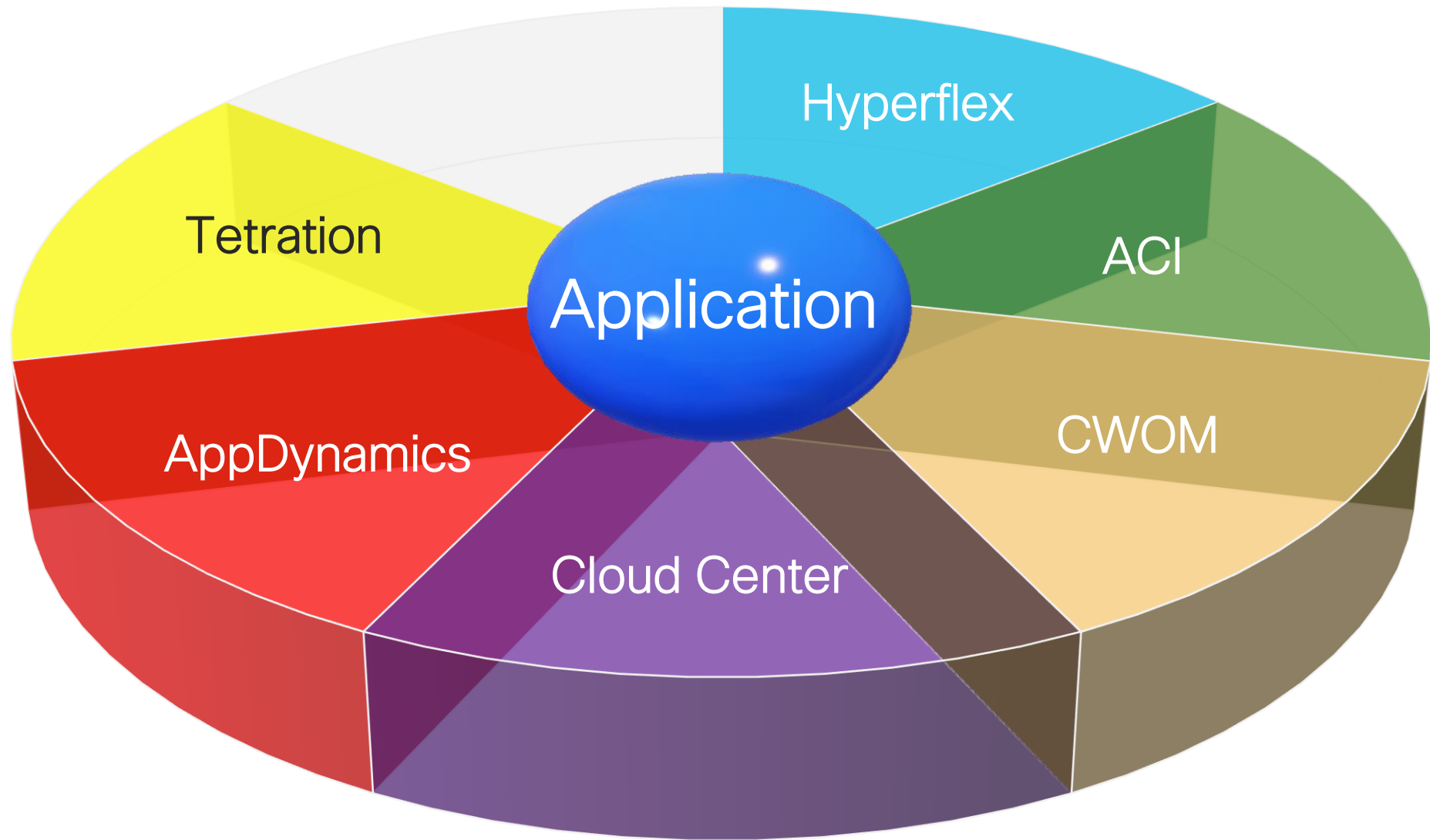
# Cisco DC Solution



# Cisco DC Solution

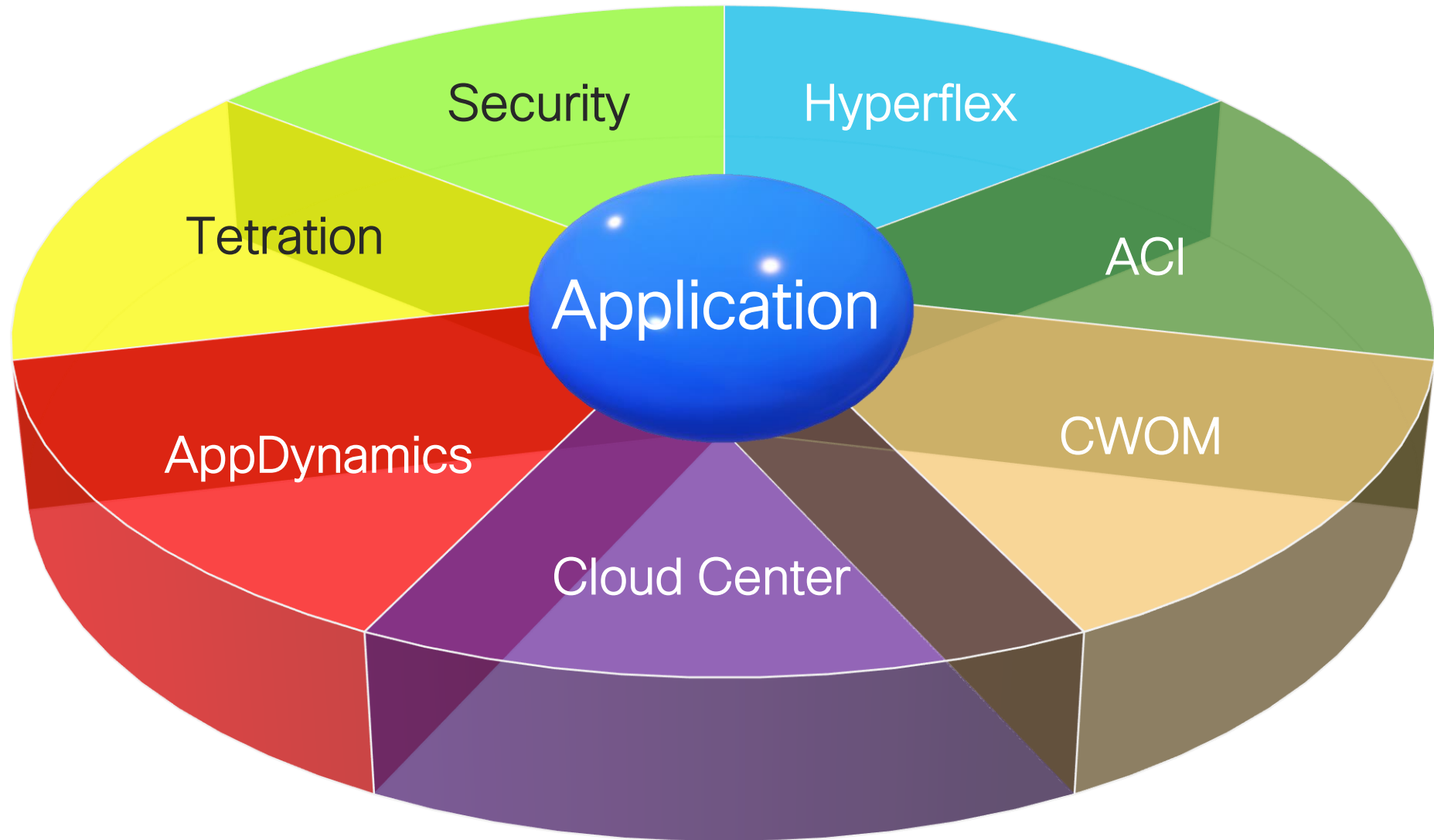


# Cisco DC Solution





# Cisco DC Solution





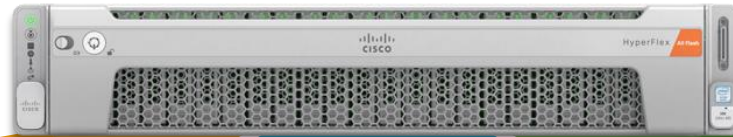
*Cisco HyperFlex Anywhere*

# What is HyperFlex?

## Engineered and Optimized HCI

Performance and Scalability to Power

Any App, Any Cloud, Anywhere



### HX Data Platform

- Purpose Built for HCI
- Fast and Flexible
- Enterprise Grade Storage

### Cloud Platform

- Cisco Intersight
- Cisco CloudCenter
- Cisco Workload Optimization Mgr.

### UCS Foundations

- Software Defined Compute
- Fabric Centric
- Intent-Based

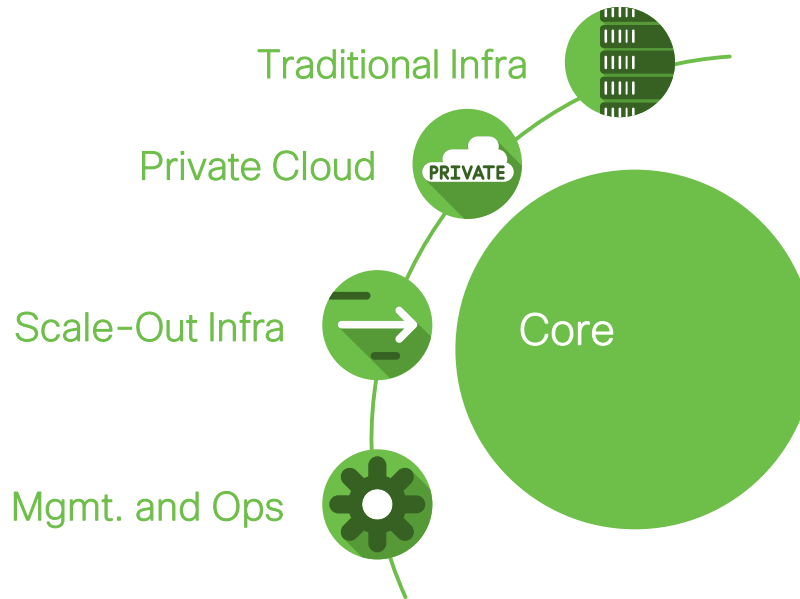
# What does the future look like?

## #1 Initiative Is to Reduce Operations and Capital in the Core

“Over the Last Two Years, IT Organizations Spent **70%** on “Run the Business” IT Spending, up from 67% in 2013 to 2014, and 65% in 2012”

04/18 Gartner,

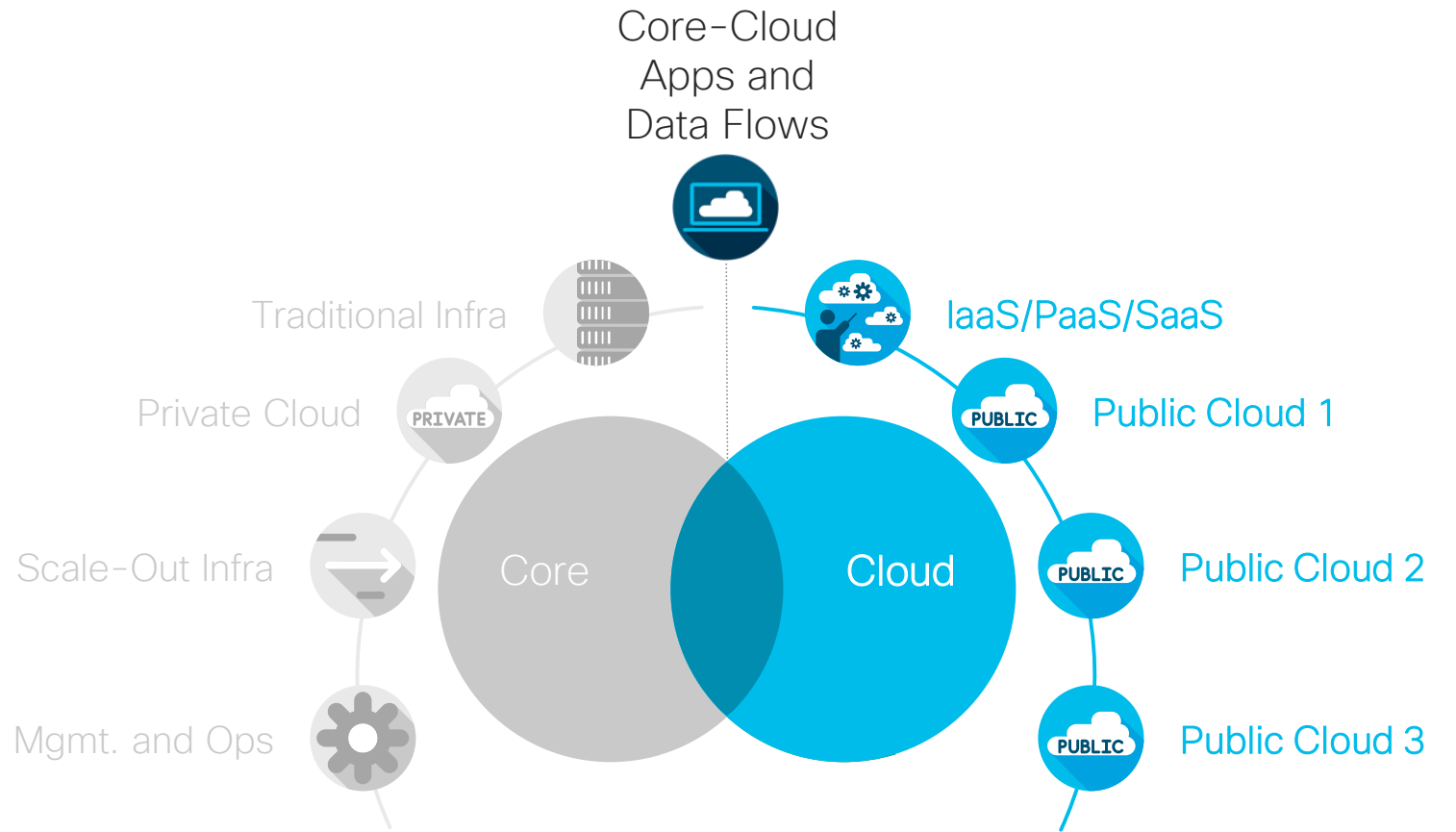
2018 Strategic roadmap for compute infrastructure, Chirag Dekate, Daniel Bowers, et al., 10 April 2018.



# What does the future look like?

By 2020, Over 90% of Enterprises Will Use Multiple Cloud Services and Platforms

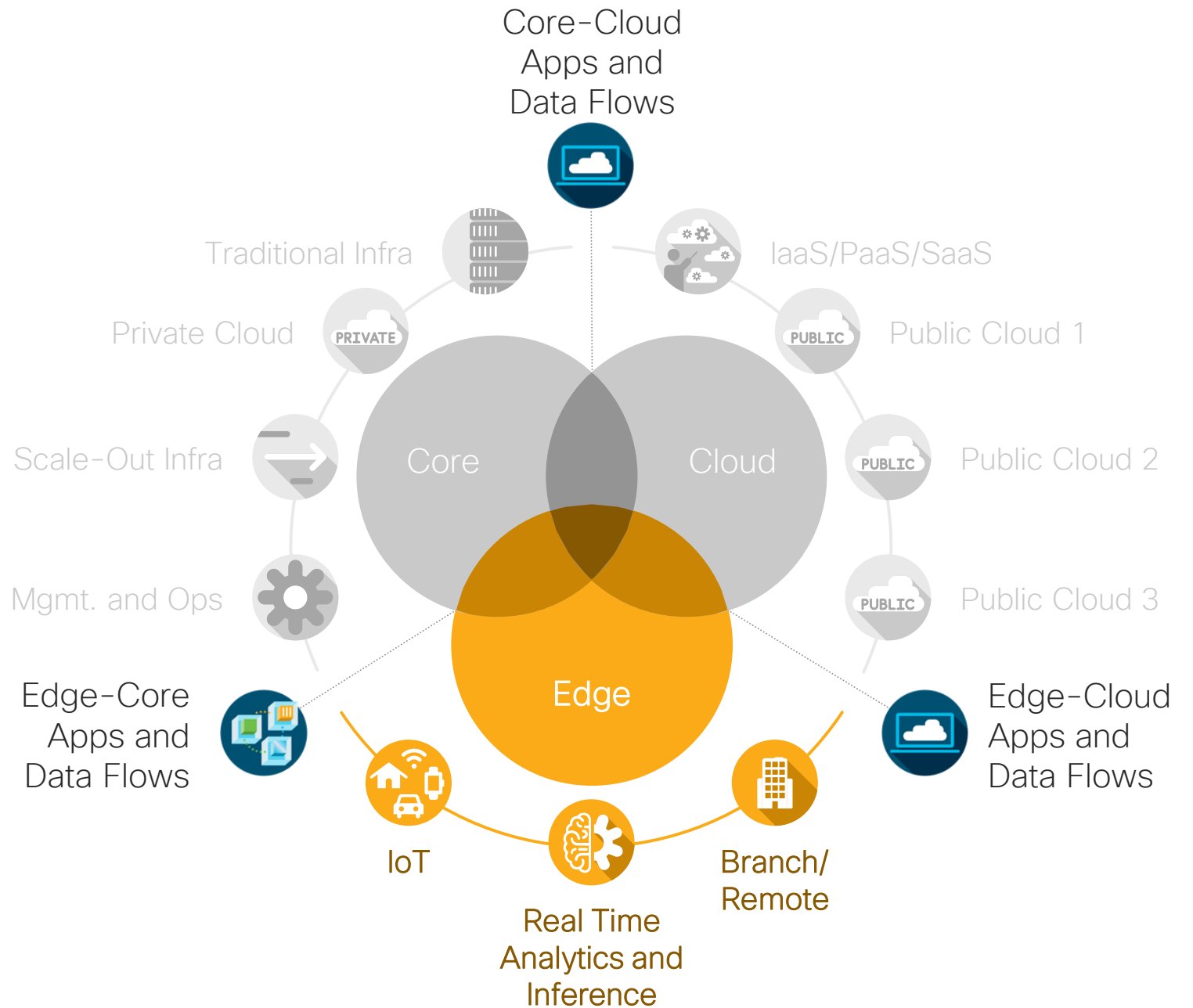
2018 IDC,  
IDC FutureScape:  
Worldwide IT Industry 2018 Predictions



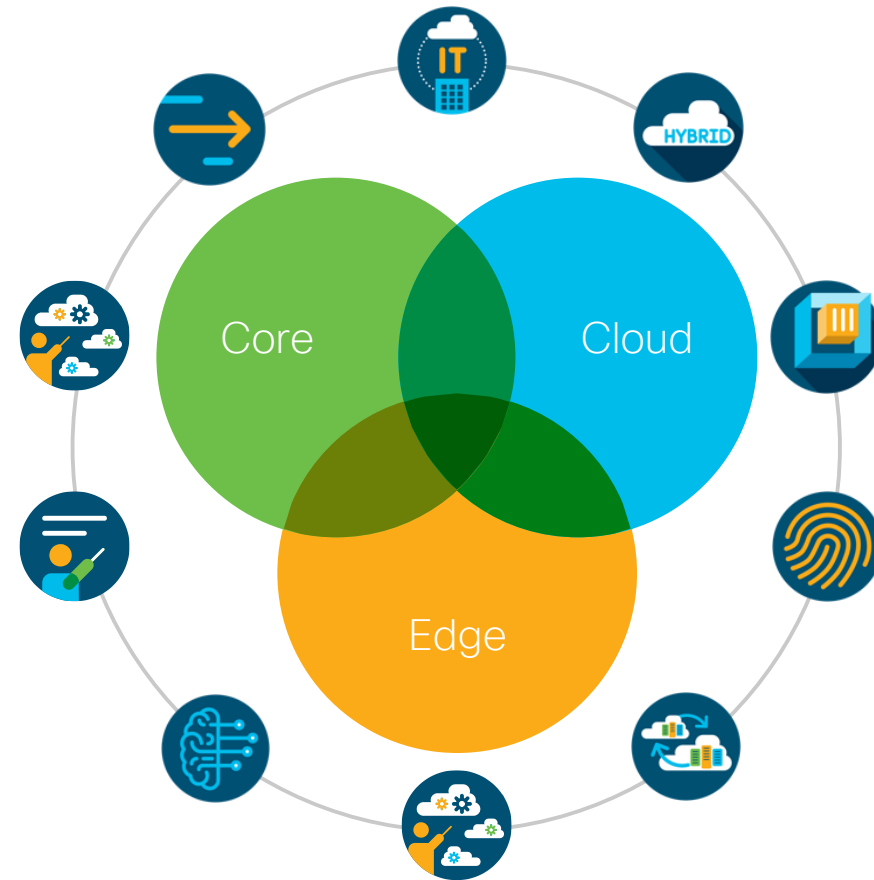
# What does the future look like?

“By 2022, more than 50% of enterprise-generated data will be created and processed outside [of] the core data center or cloud”

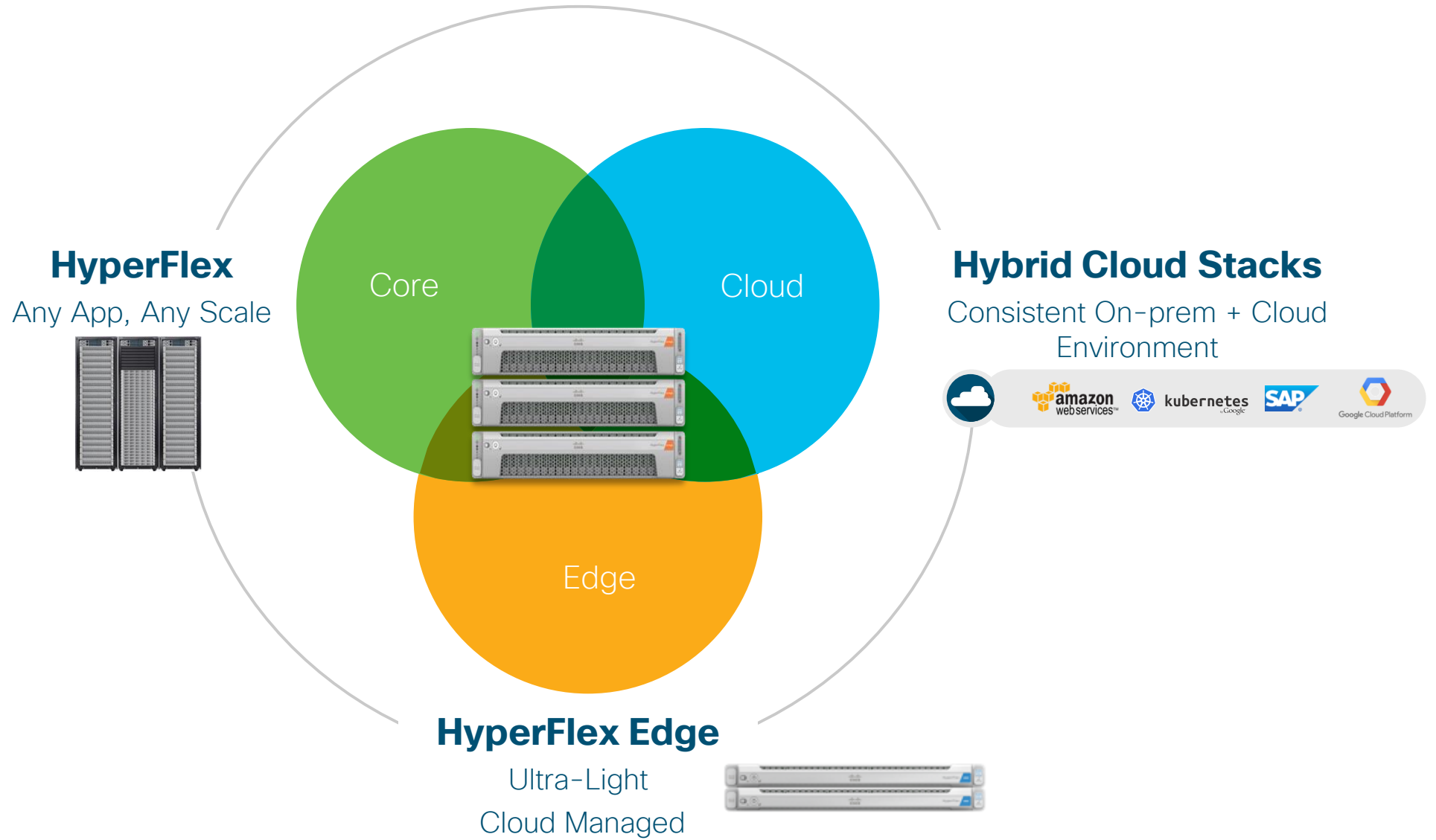
12/18 Gartner,  
Gartner IT Infrastructure, Operations & Cloud Strategies Conference Event Presentation,  
The Future of IT Infrastructures: Always On, Always Available, Everywhere, David J. Cappuccio, Bob Gill, et al., 3-6 December 2018



# The Future is the Distributed Datacenter

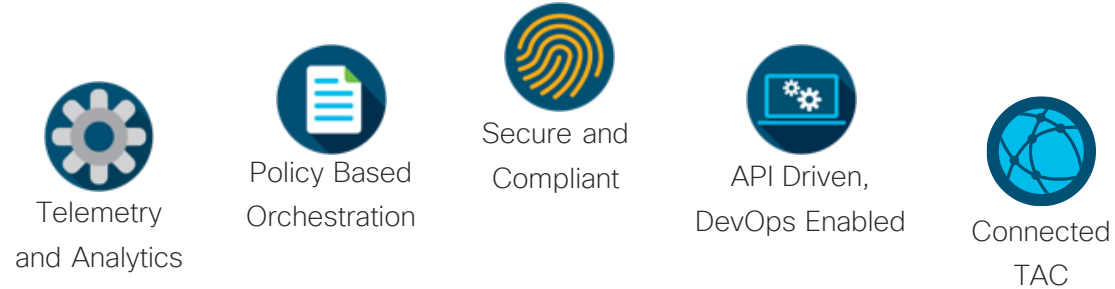


# Cisco HyperFlex Anywhere



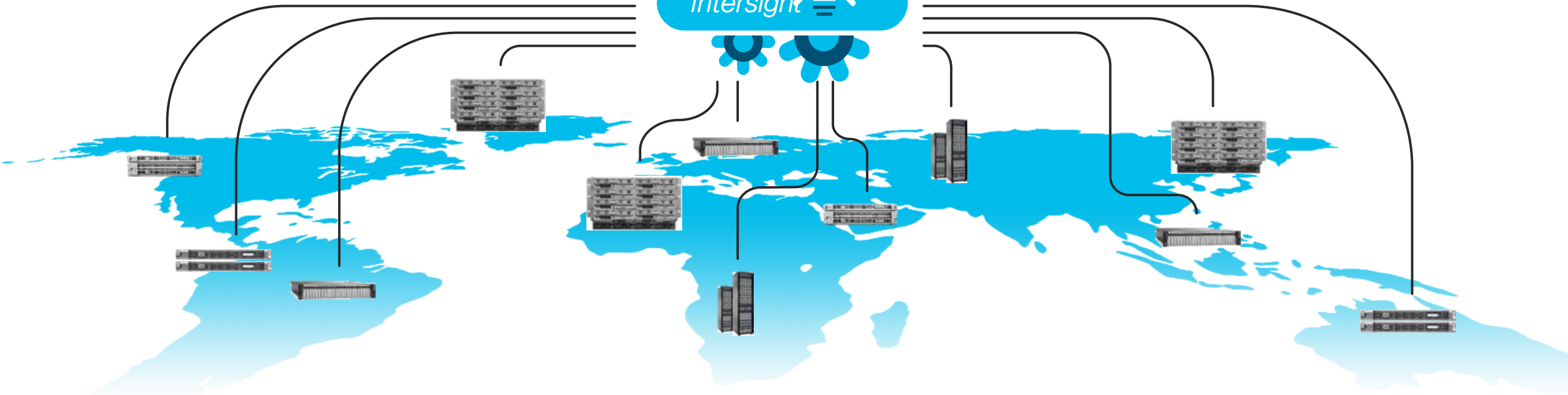


# Cisco Intersight Intelligent Centralized Management



SaaS  
Simplicity

Actionable  
Intelligence

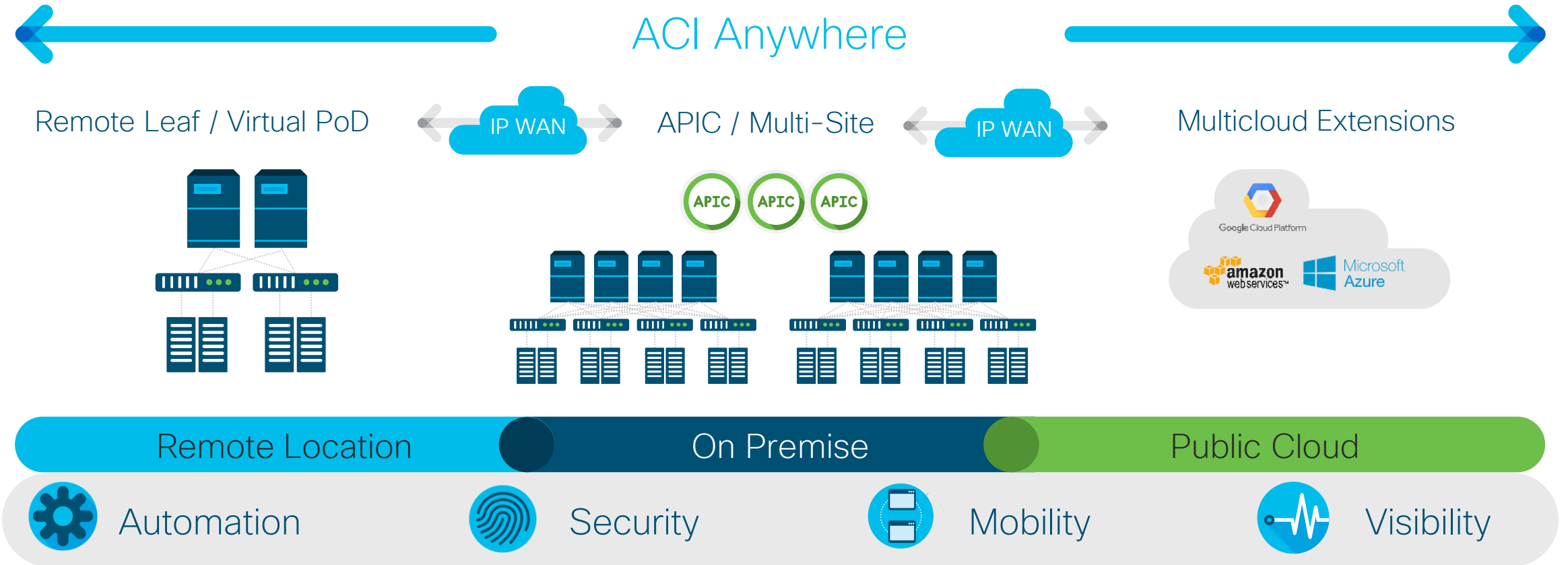




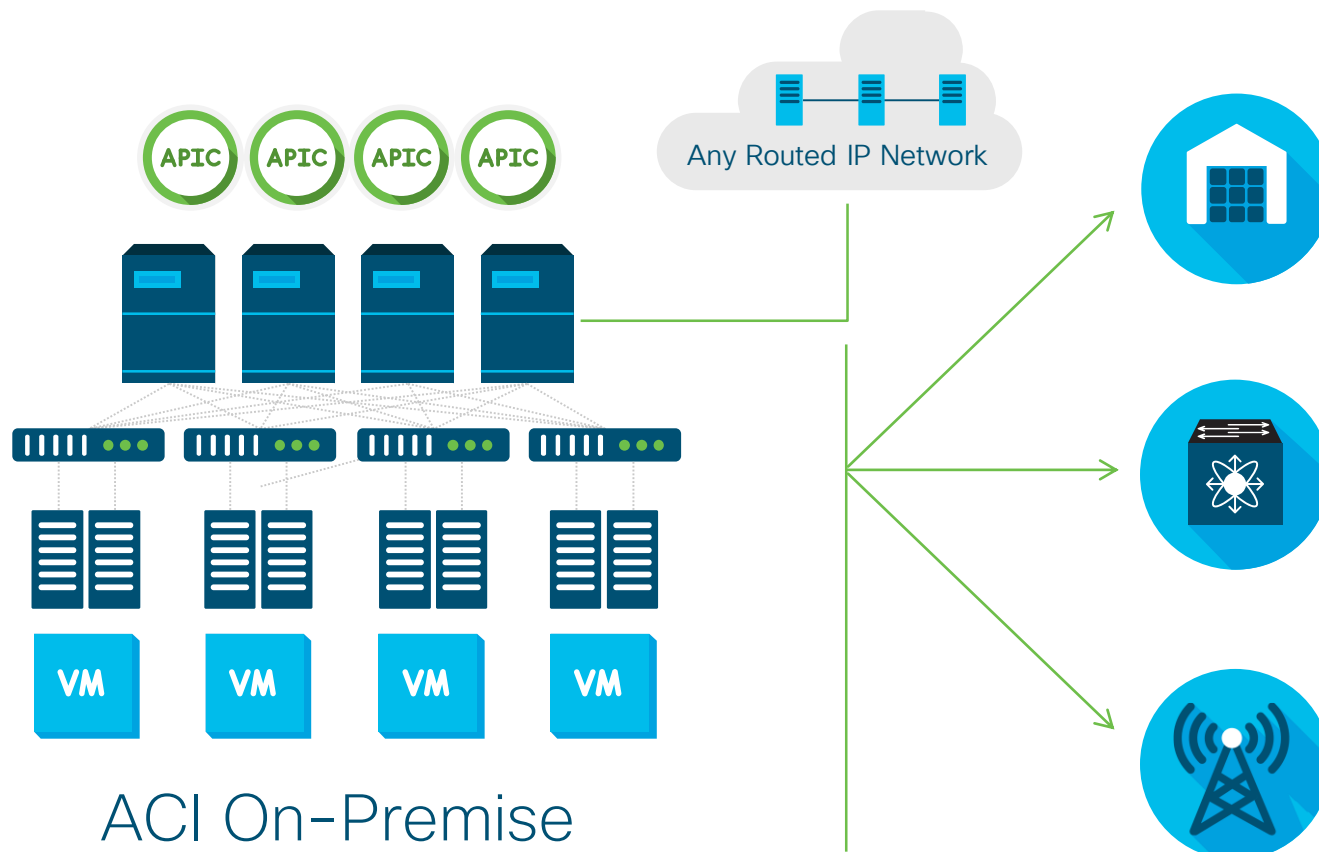
*Cisco ACI Anywhere*

# ACI | Architecture

Any Cloud, Any Application, Any Platform, Anywhere



# Extending ACI into Virtual Environments with ACI Virtual Edge



## Physical Remote Leaf


- Satellite/Remote locations deployment
- Leverage Nexus 9K hardware capabilities
- Extend ACI policy

## ACI Virtual Pod

- Extend ACI Policy w/o H/W
- Virtualized Spine, Leaf and APIC
- Bare-metal providers, co-location providers, legacy networks

## ACI Mini Fabric

- Small scale and cost optimized deployments
- 5RU: Ideal for space, power and cooling restrictions
- Telco DC, small to midsize business

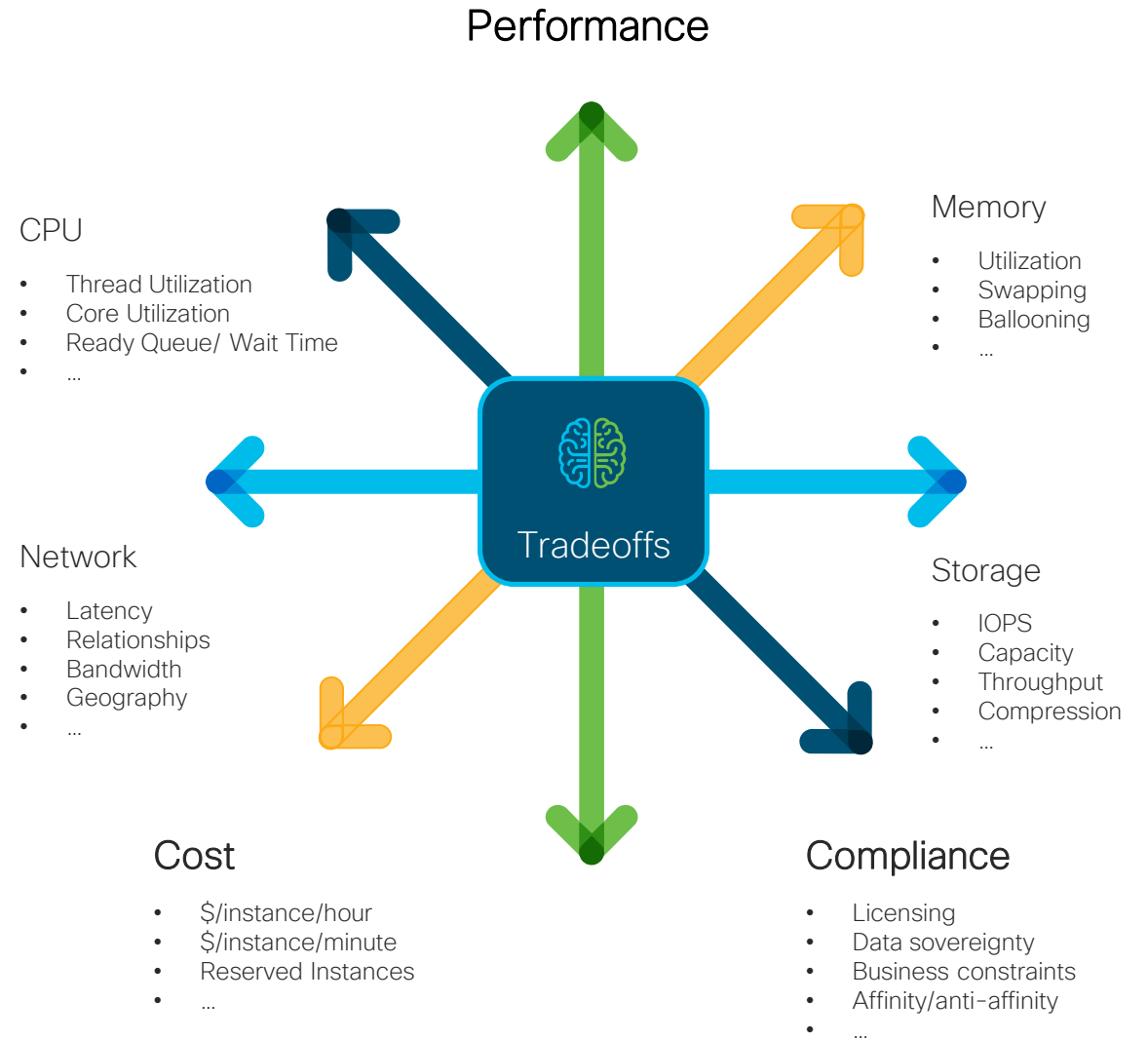


*Cisco Workload Optimization  
Manager (CWOM)*

# Dynamic Adjustment

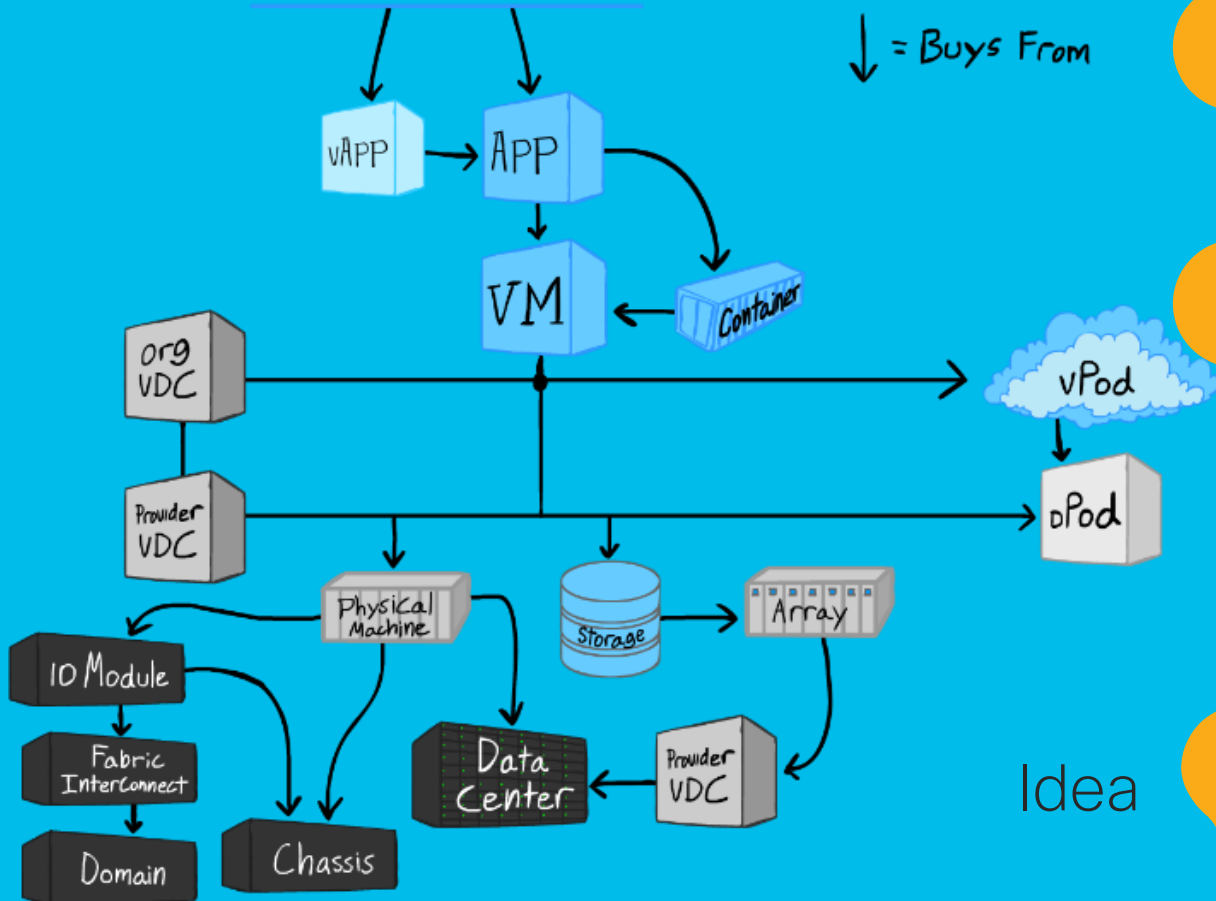
- Navigate multiple tradeoffs
- Operate in real time
- Self-managing

- Initial Workload Placement
- Increase Resources
- Decrease Resources
- Move Workload
- Retire Resources



# How does WOM automate decision-making?

## The Business



1

Abstraction:  
Supply Chain

2

Analytics:  
Supply, Demand, Price

3

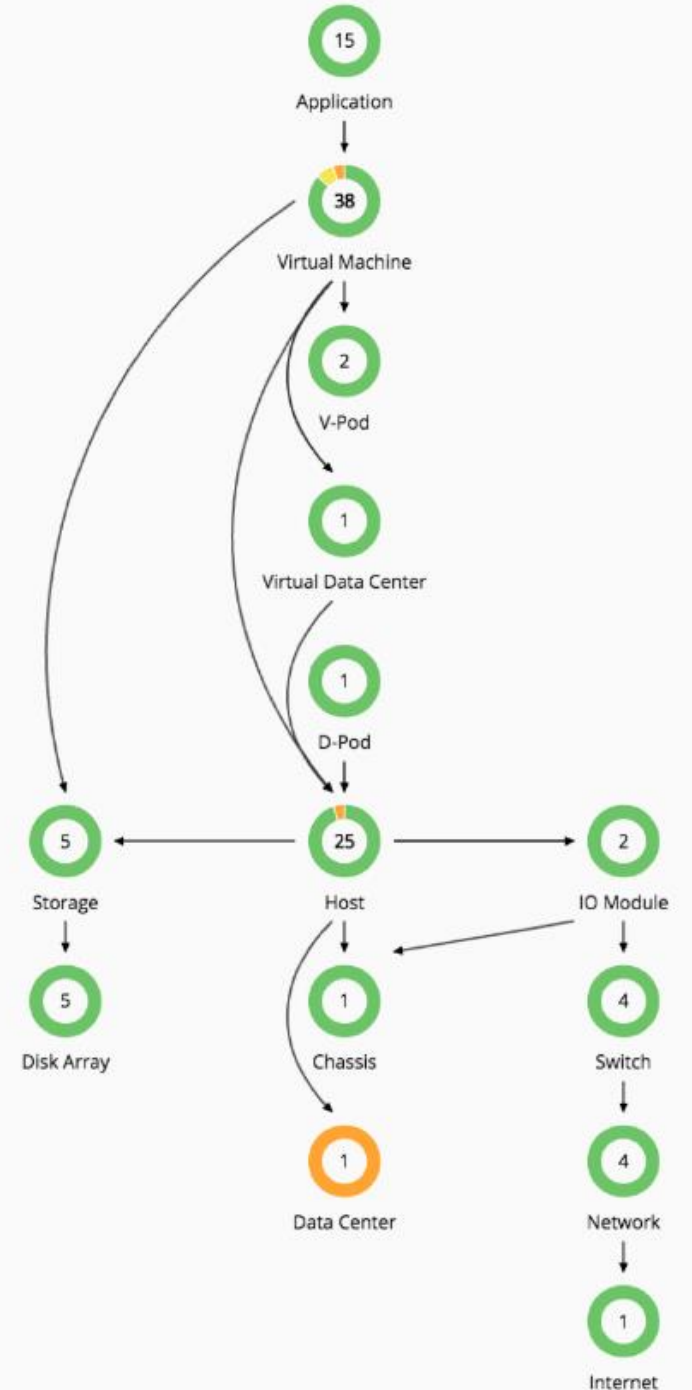
Automation:  
Real-time action

- Placement
- Scaling
- Capacity

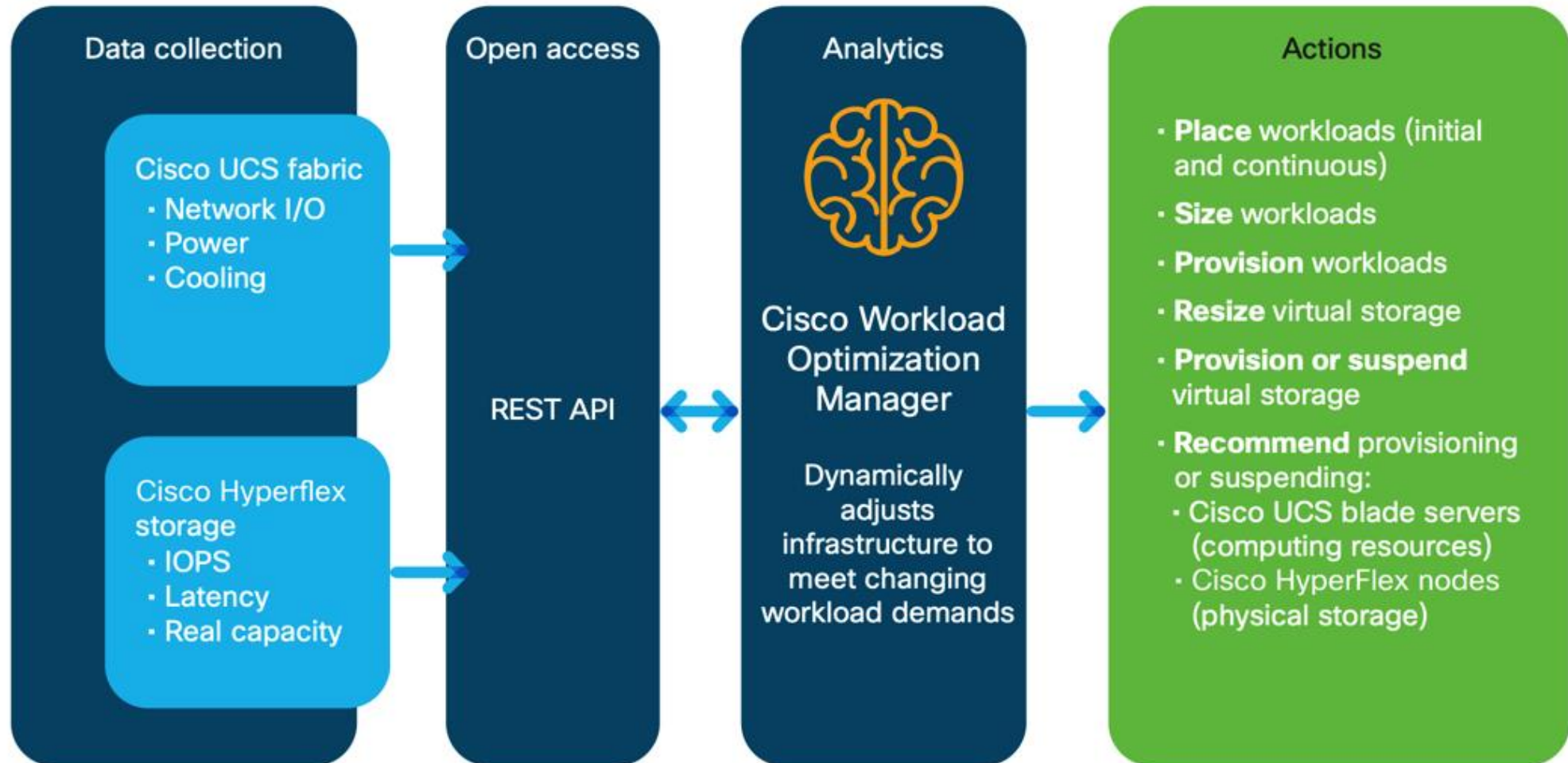
Idea



Solution



# CWOM and UCS/Hyperflex



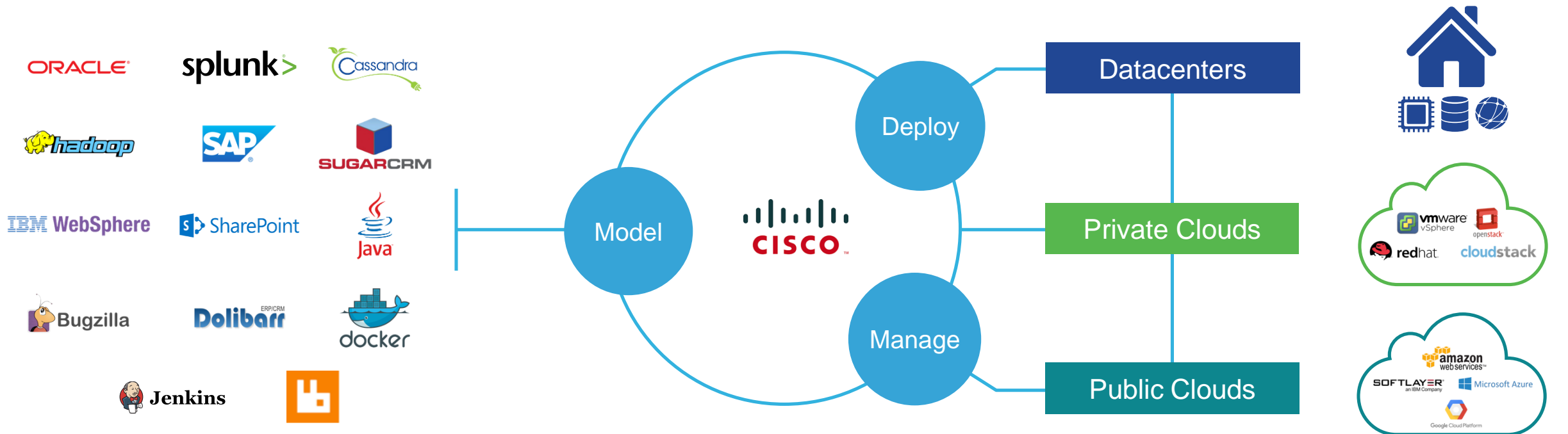




*Cisco Cloud Center*

# Cisco CloudCenter

Any Application. Any Cloud. One Platform.



Single Integrated Management Platform

Full Application Lifecycle Management

Enterprise-Ready

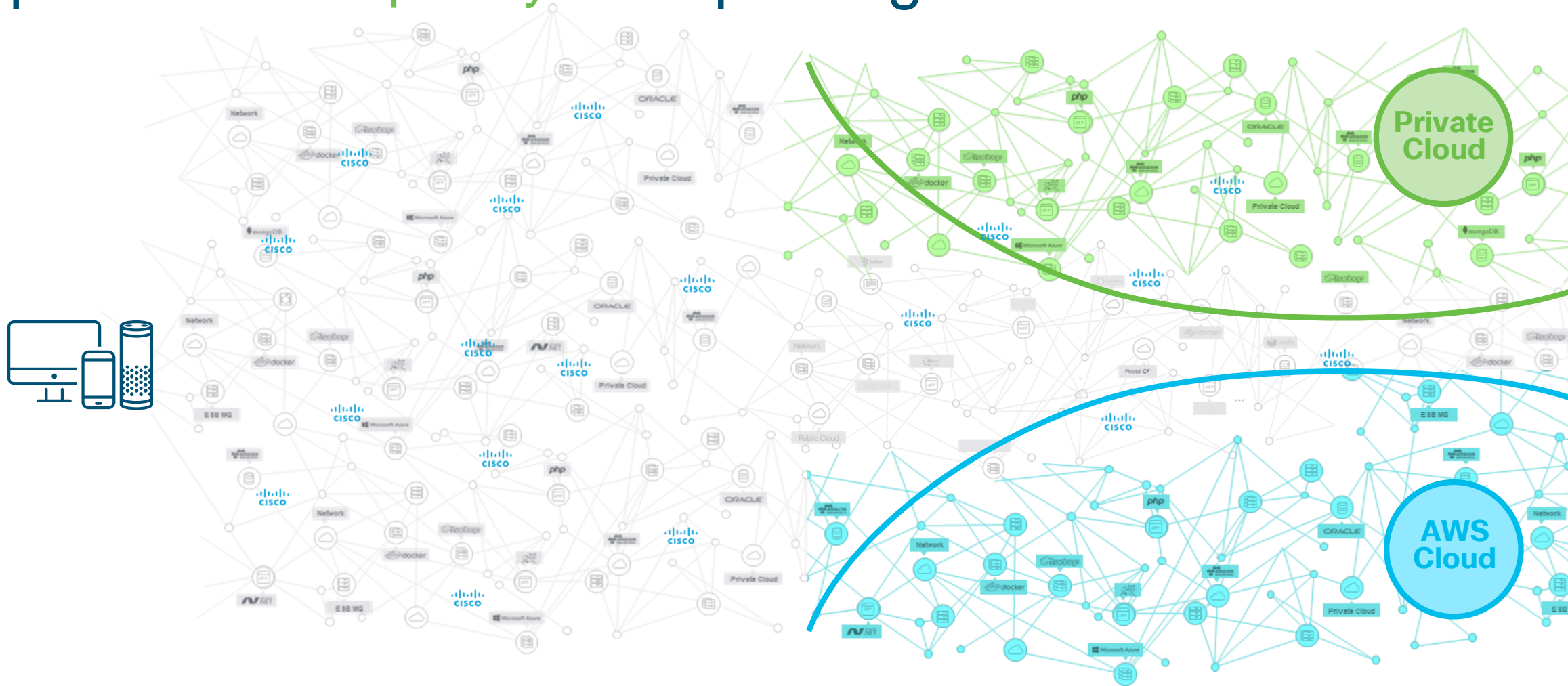
Scalable

Secure



*AppDynamics*

# Application Complexity Is Exploding



1 More Complexity  
More Components

2 More Dependencies  
More Distributed

3 Release Apps faster  
Faster Cycles

# AppDynamics

Real-time, end-to-end performance management of complex, distributed applications across private and public cloud environments.

**Visualize** – All application components, dependencies and connections instantly, in one user interface

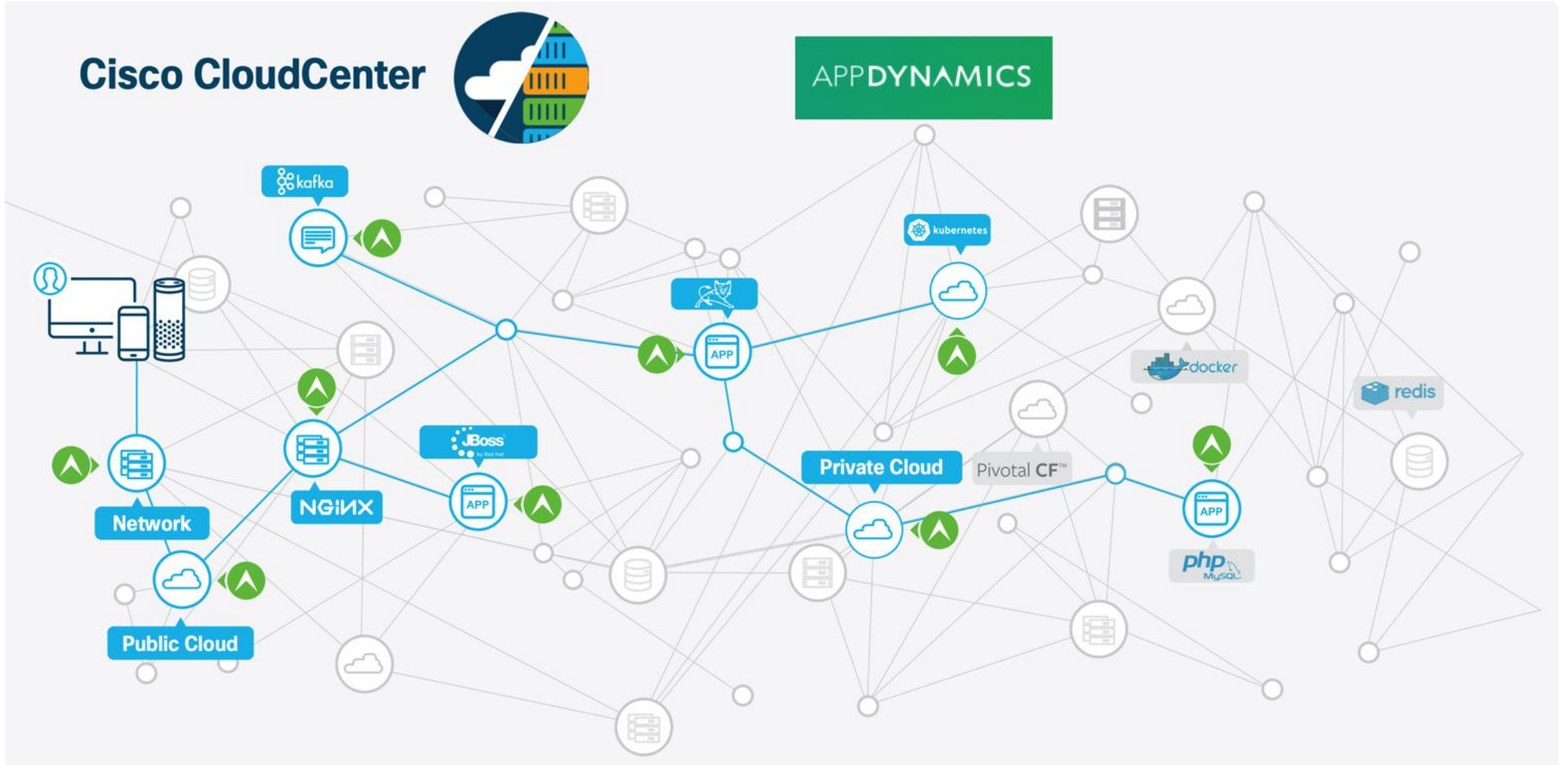
**Focus** – On making sure that applications meet user experience needs with the automatic monitoring of Business Transactions

**Know** – That every alert is business relevant and needs to be acted upon

**Understand** – The root-cause of application performance issues down to the code level



# AppDynamics and Cloud Center



# AppDynamics and CWOM

AppDynamics understands the business application topology



Application and development

Workload Optimization Manager drives the infrastructure so that applications get the resources they need



Infrastructure and operations





# *Cisco Tetration*



# Cisco Tetration

Understand what's running in your datacenter



Cisco Tetration



Visibility and forensics

East-west communication, users and user groups accessing application, location information, etc.,



Process and software inventory

Process information, installed software inventory, etc.,



Application insight

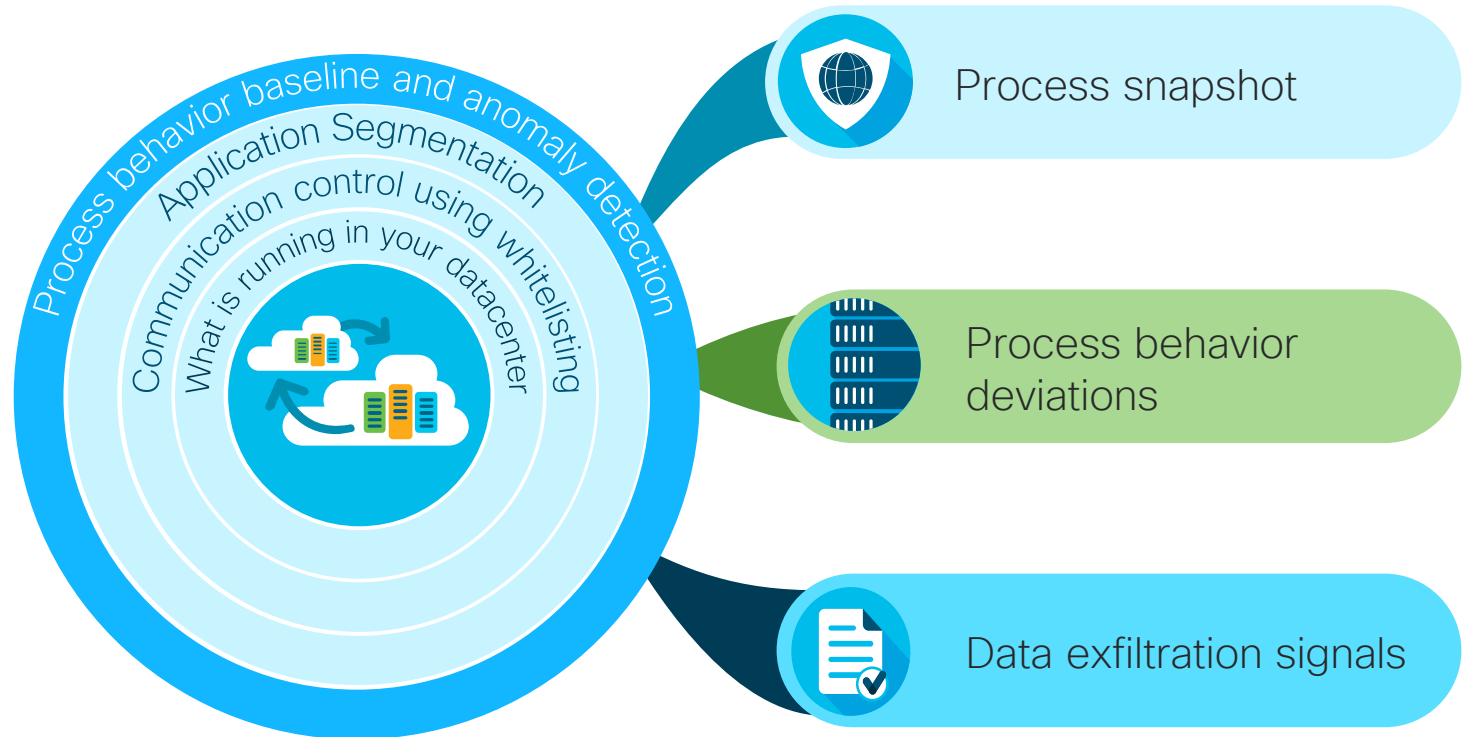
Application dependency maps

# Cisco Tetration

Identify anomalous behavior deviations



Cisco Tetration





*Cisco Security*



Protect the  
workload  
everywhere



On prem



Public



Private

# Cisco Data Center Security



**Visibility**  
“See Everything”

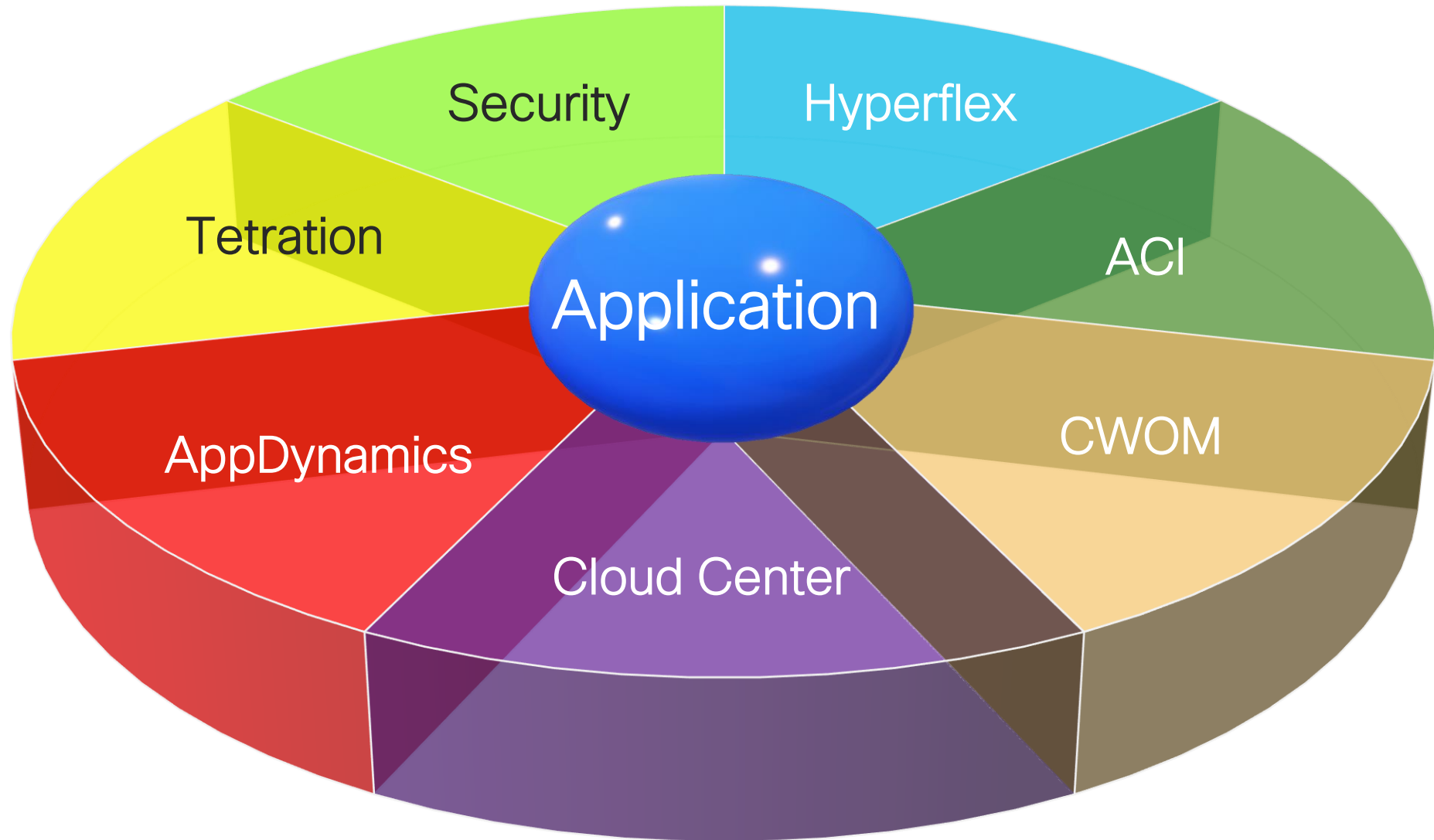


**Segmentation**  
“Reduce the  
Attack Surface”



**Threat Protection**  
“Stop the Breach”

# Cisco DC Solution



Constantly  
learning

Intent-based  
data center

Constantly  
protecting

Constantly  
adapting





THANK YOU

