

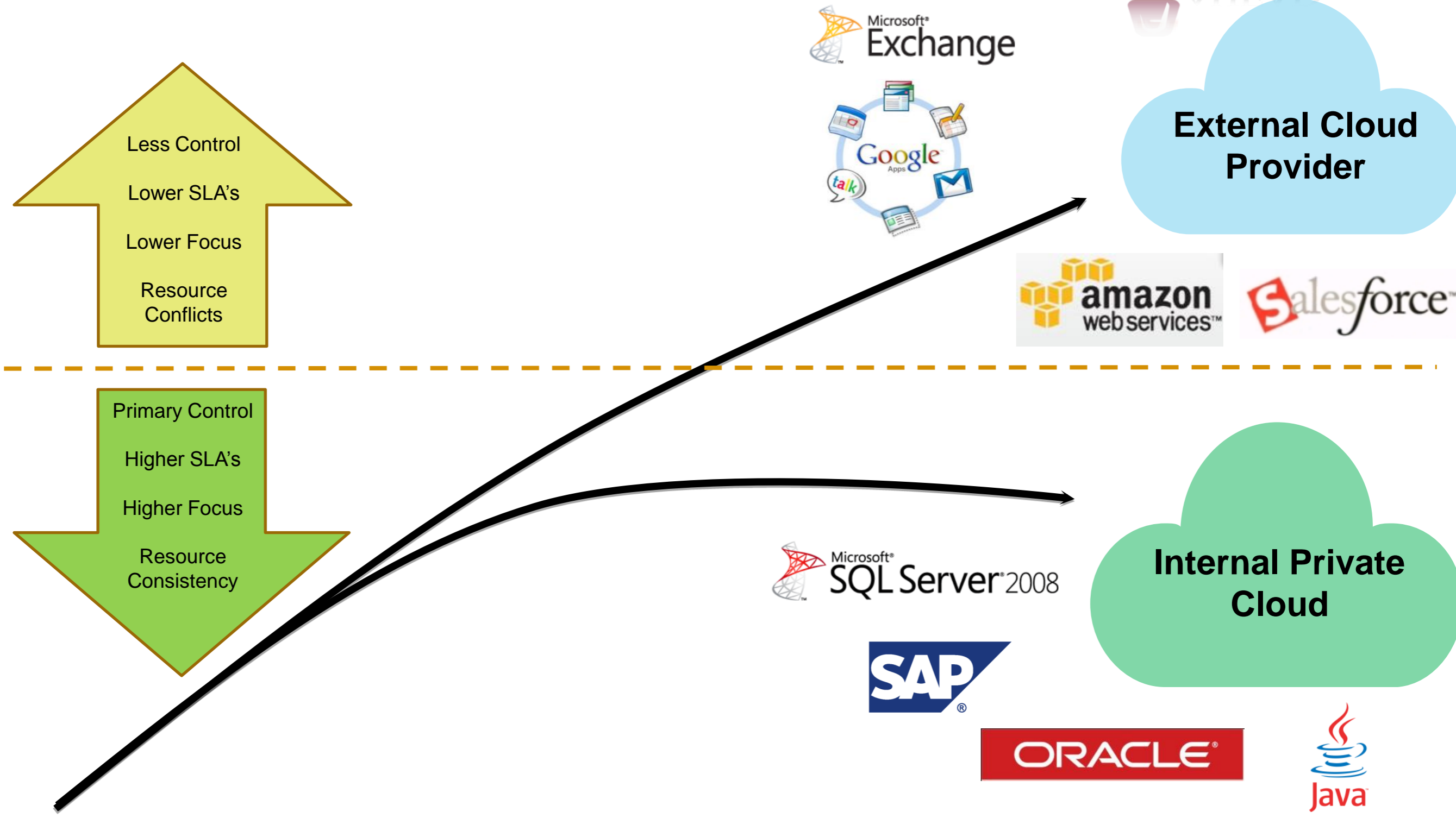


The Evolution of the Modern Datacenter

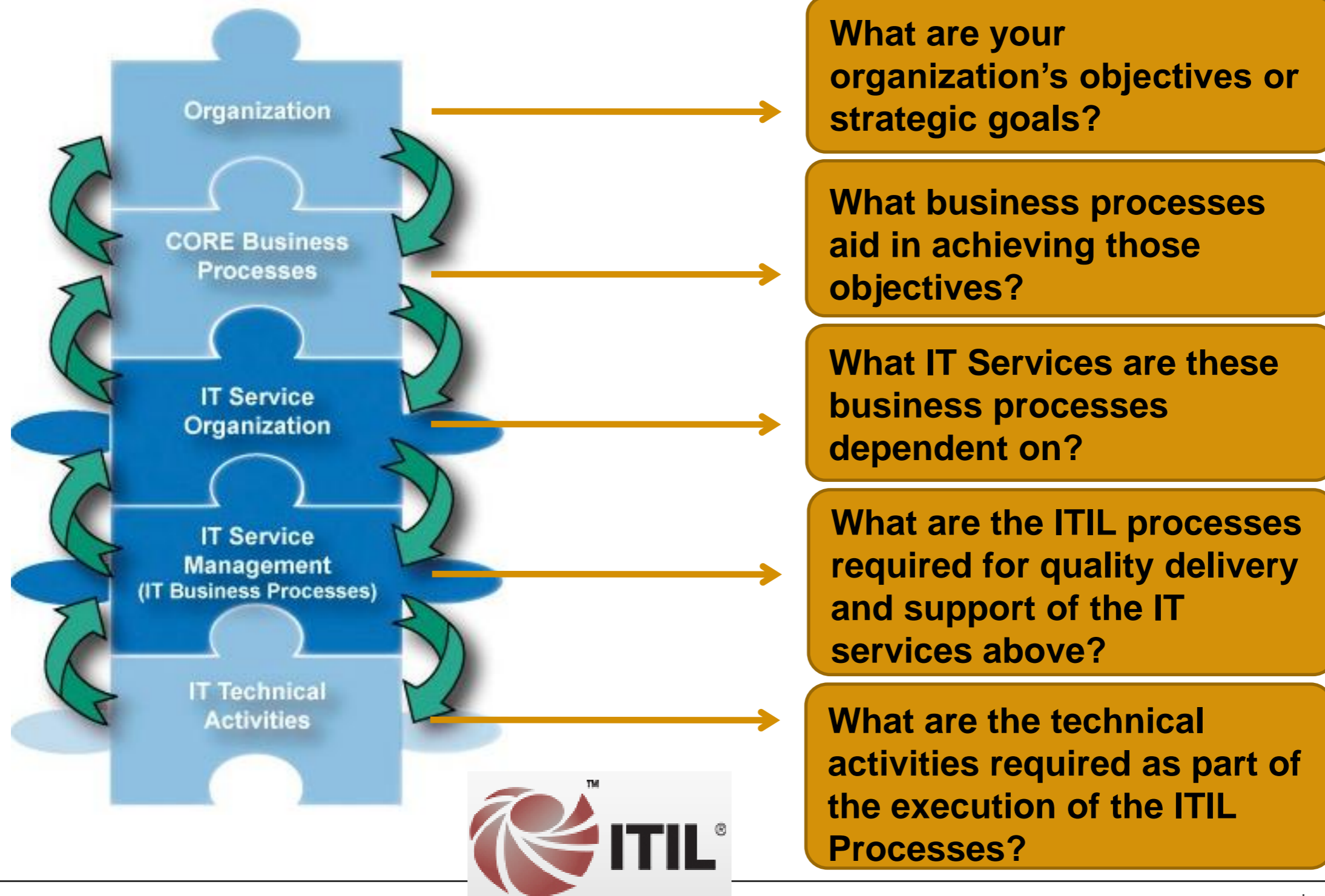
Eric Ledyard – CTO

Thursday, February 18, 2010

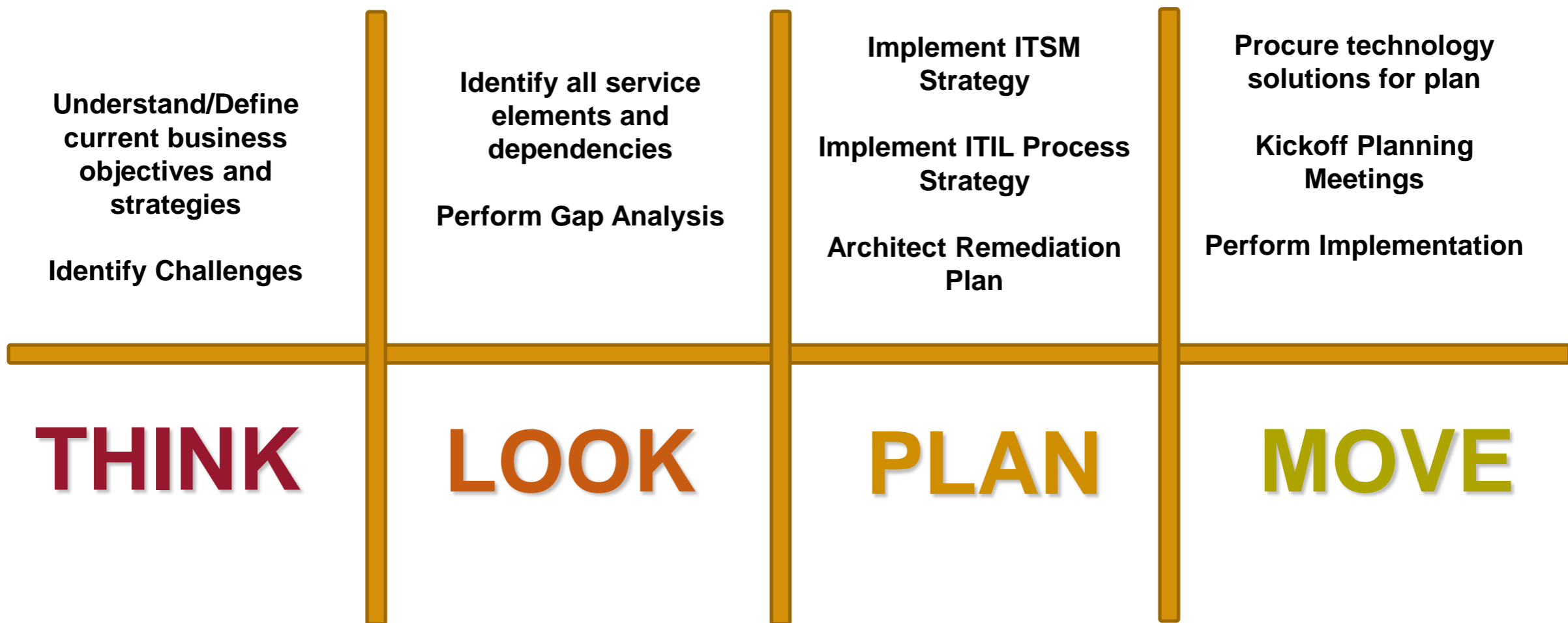
# Cloud Formations



## I.T. Organizations must provide strategic alignment to the business.



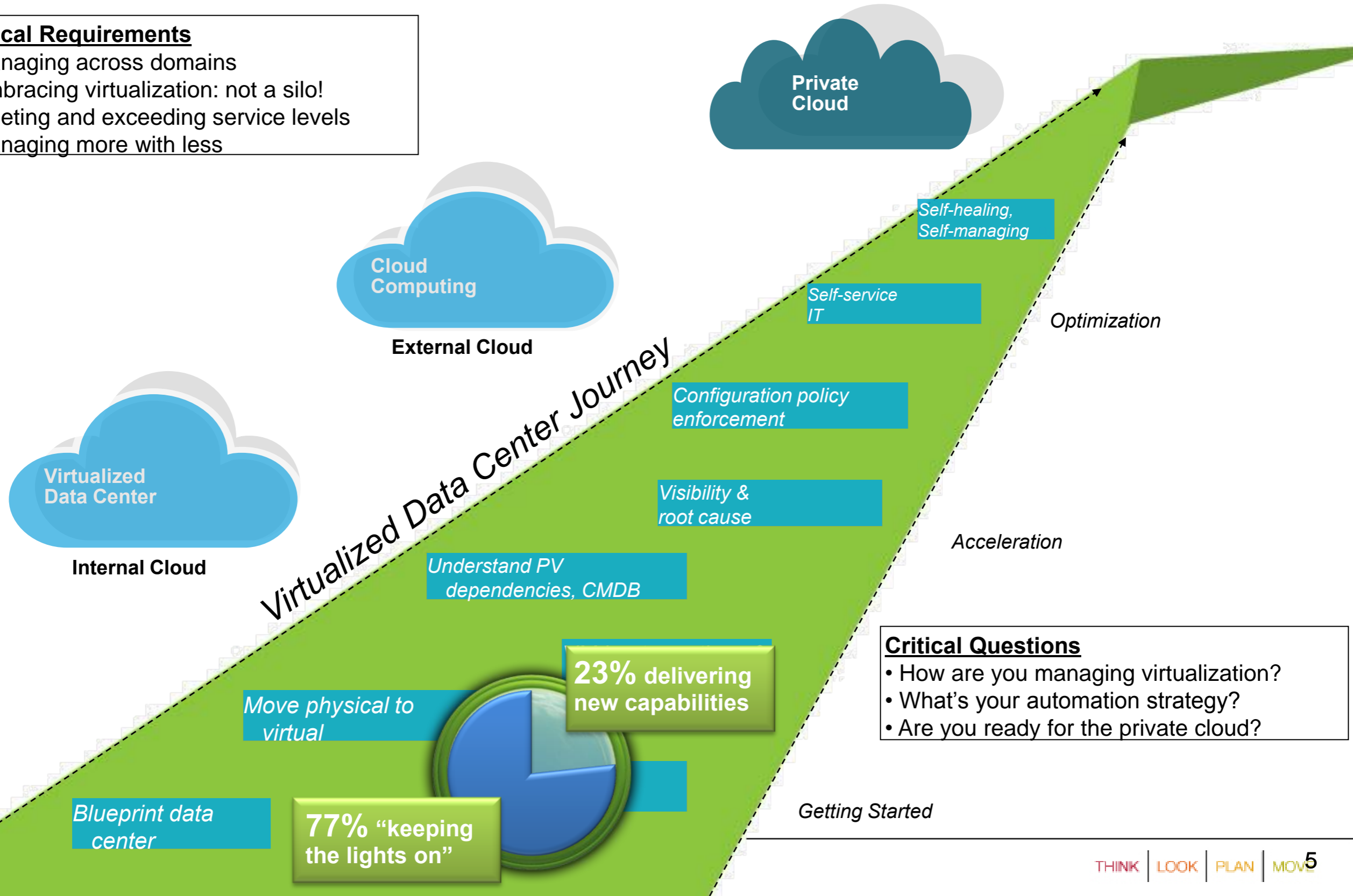
# The Ahead Methodology



# Journey to the Private Cloud

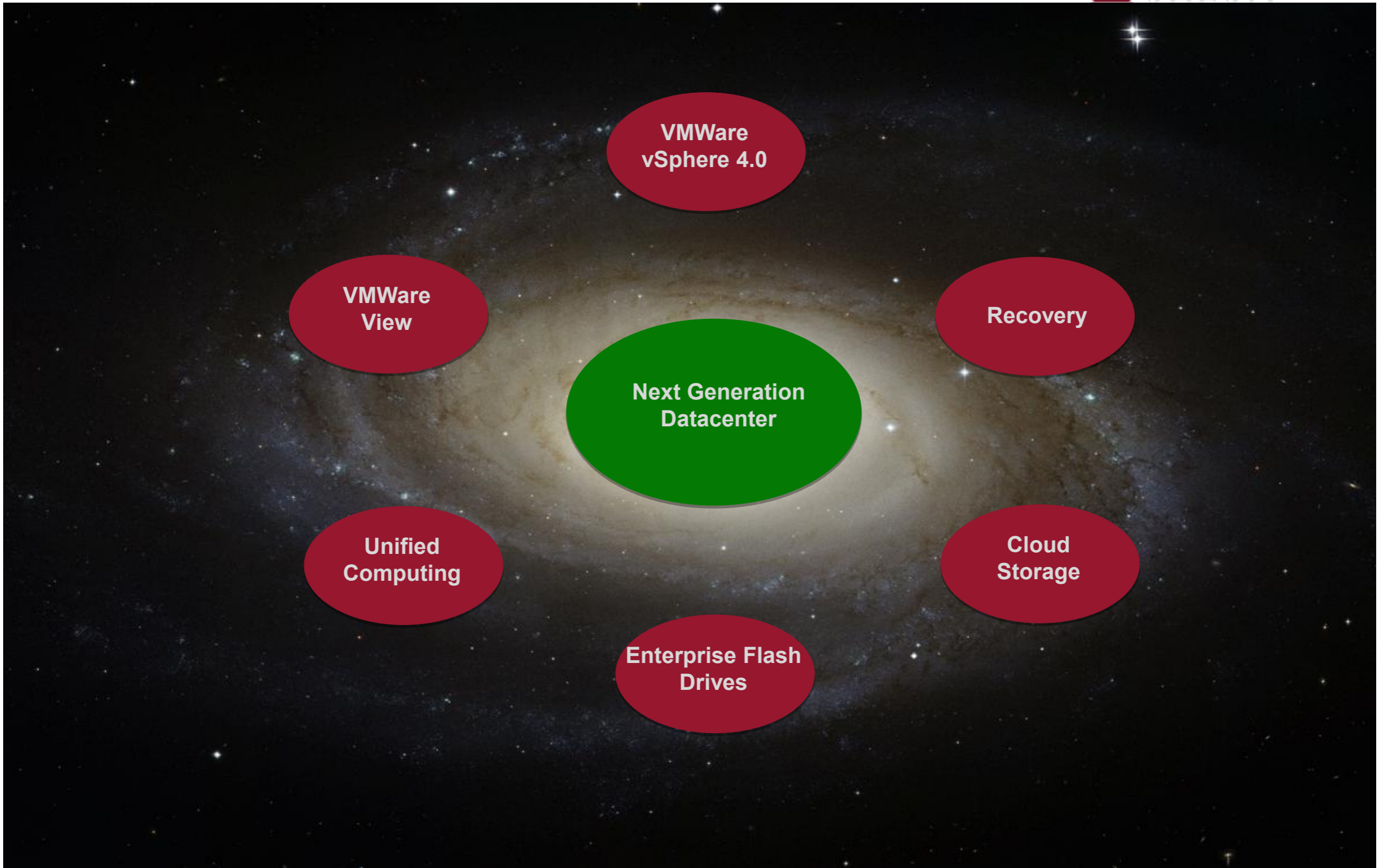
## Critical Requirements

- Managing across domains
- Embracing virtualization: not a silo!
- Meeting and exceeding service levels
- Managing more with less



## Critical Questions

- How are you managing virtualization?
- What's your automation strategy?
- Are you ready for the private cloud?



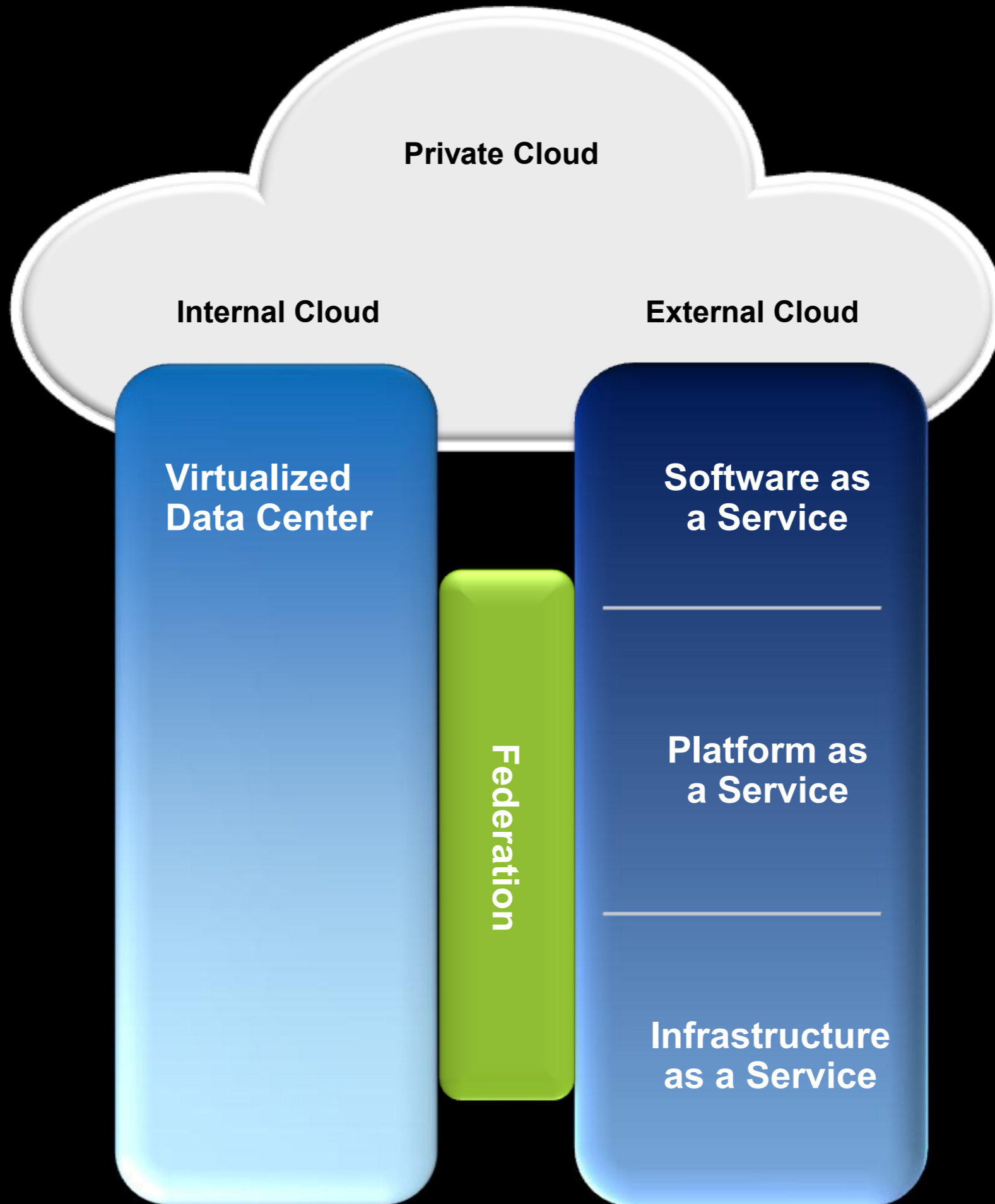
EMC<sup>2</sup>





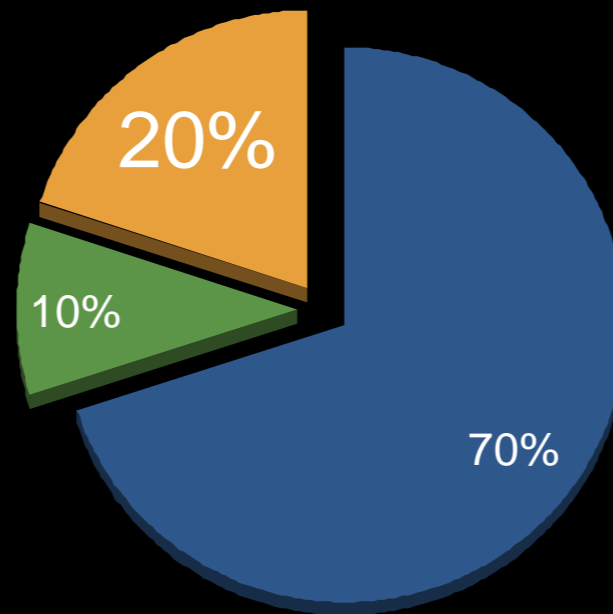
A collection of physical resources de-coupled from the application that allows dynamic allocation based on need.

The Cloud becomes a service to the business.



# What Service does IT Provide?

■ Lights On ■ Outages ■ Business



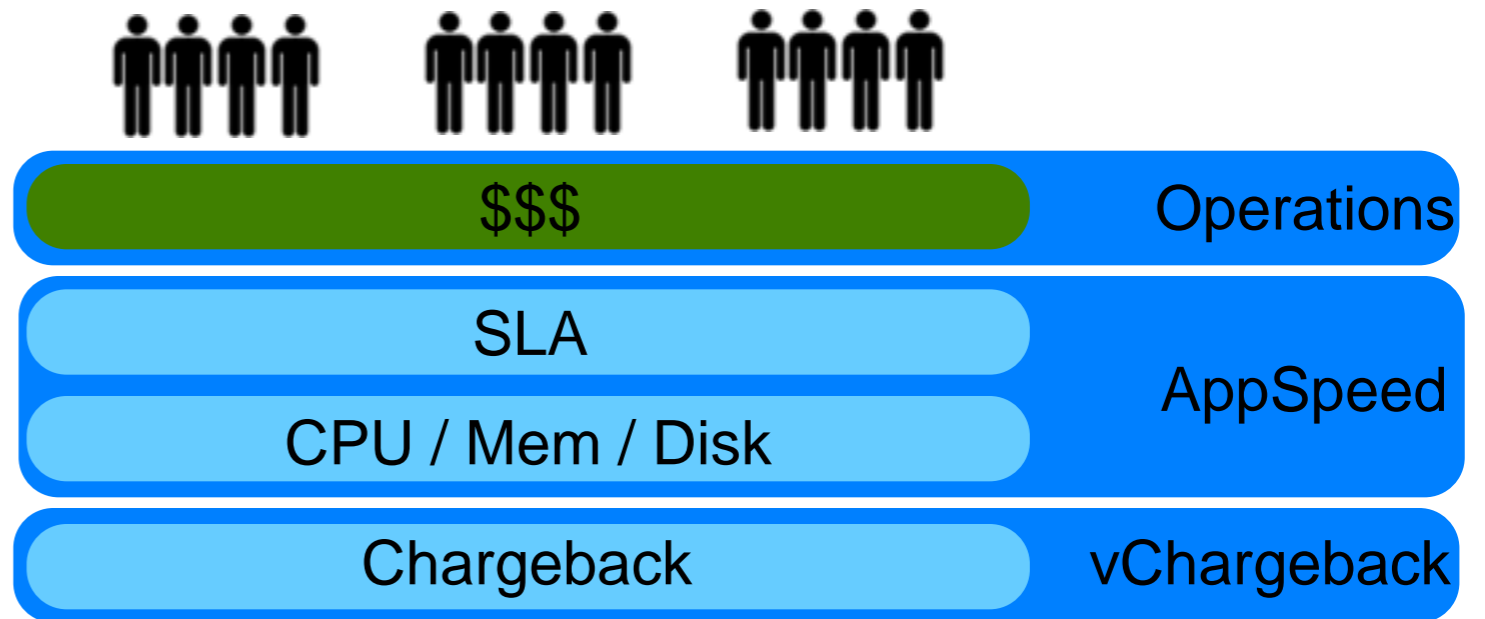
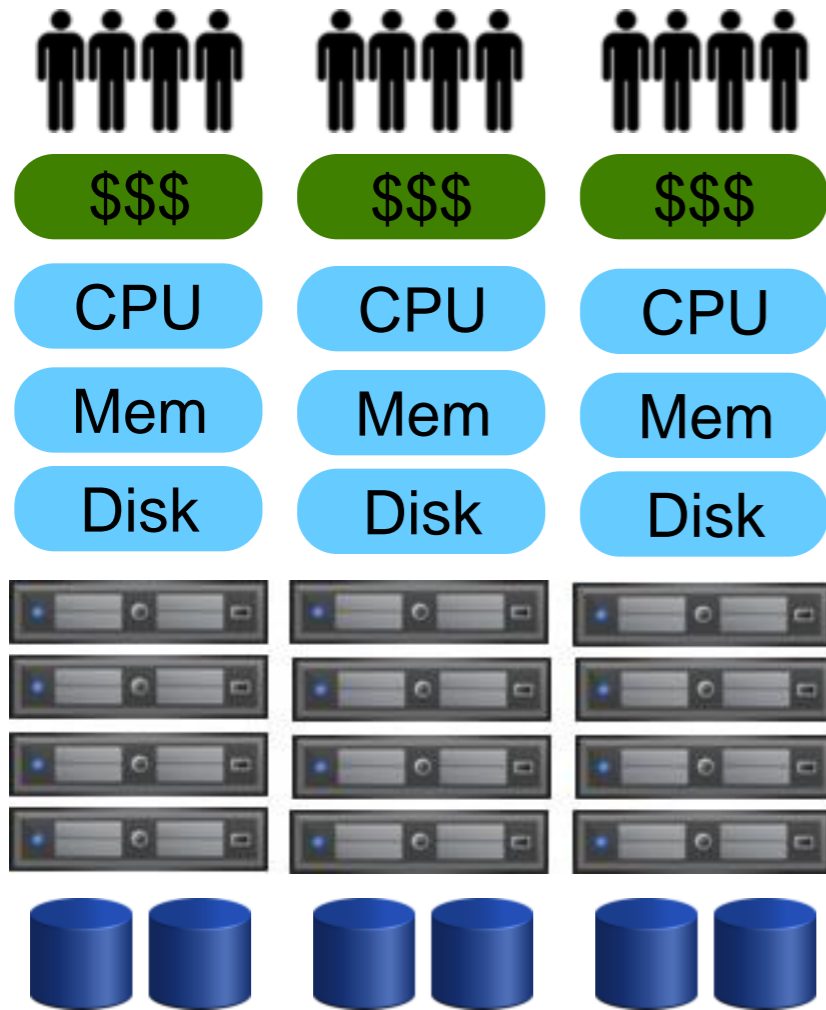


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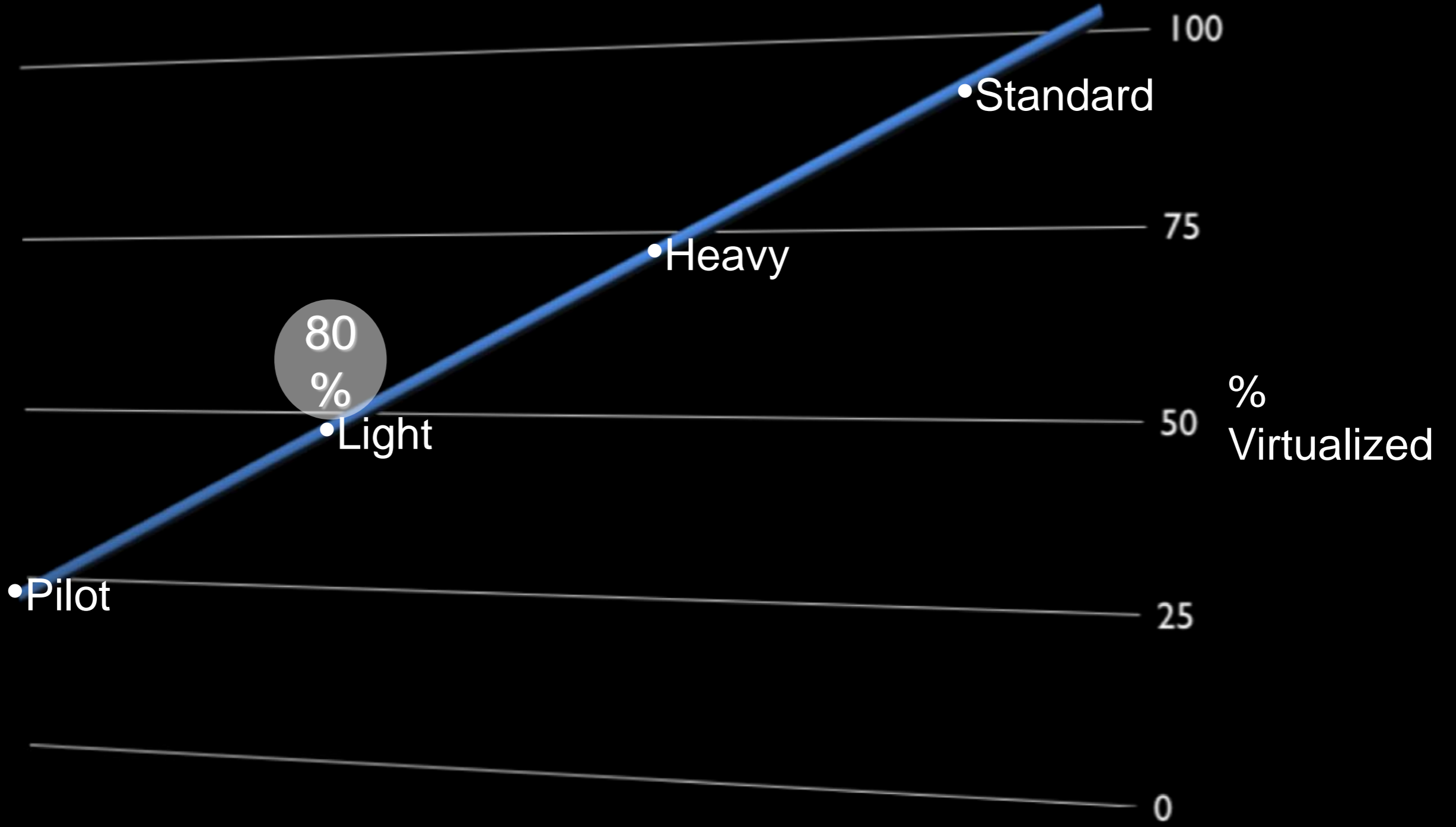


# Virtualization Transformation





— Data Center Virtualization Adoption



80  
%

• Pilot

• Light

• Heavy

• Standard

%  
Virtualized

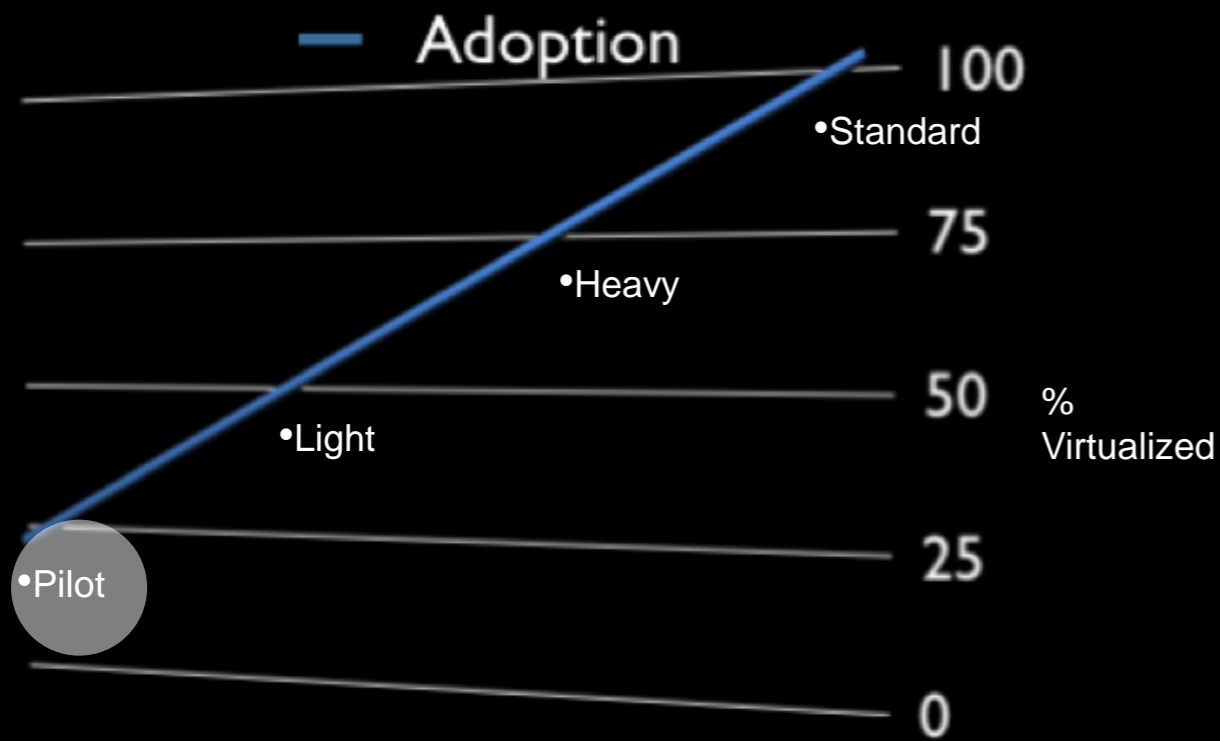
100

75

50

25

0



1. Capacity Planning

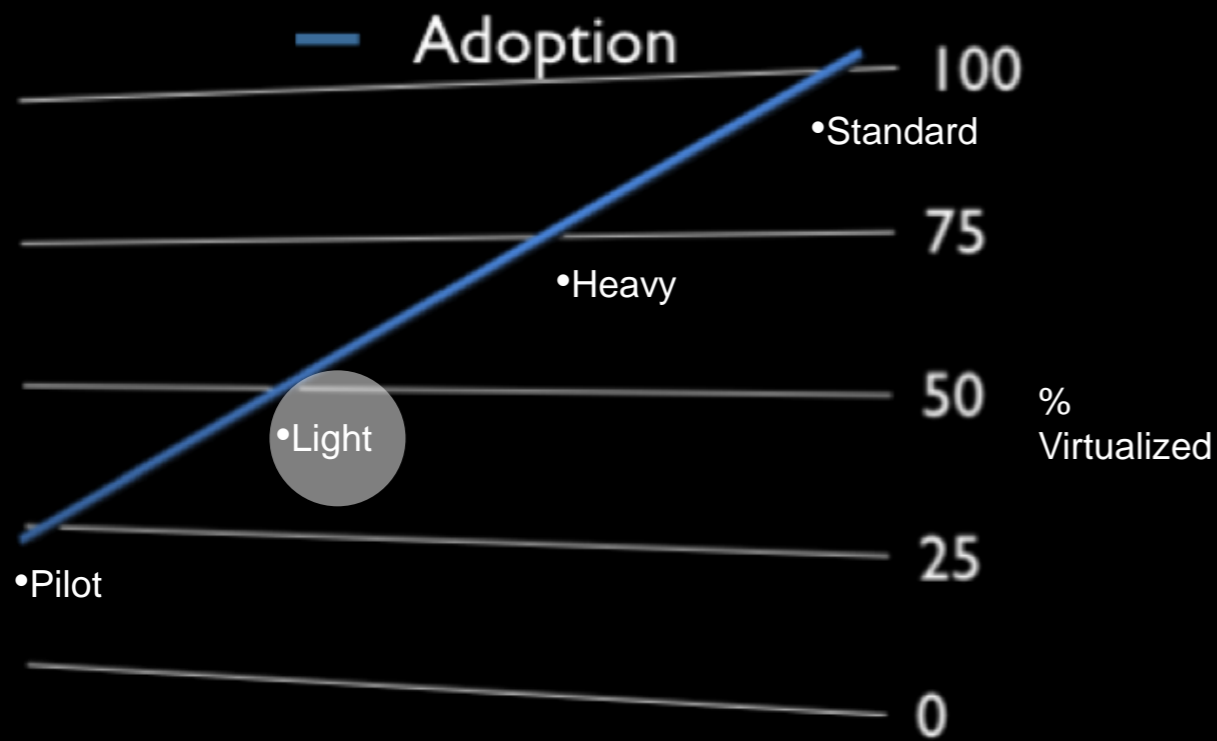
2. ROI / TCO

3. Training

## Capacity Planner for VMware

### ROI / TCO for VMware



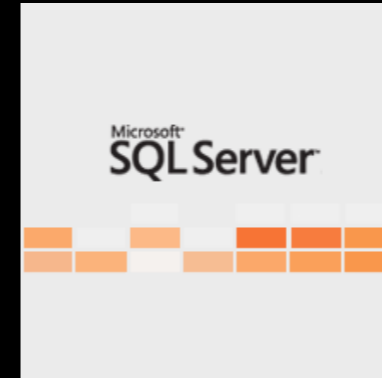
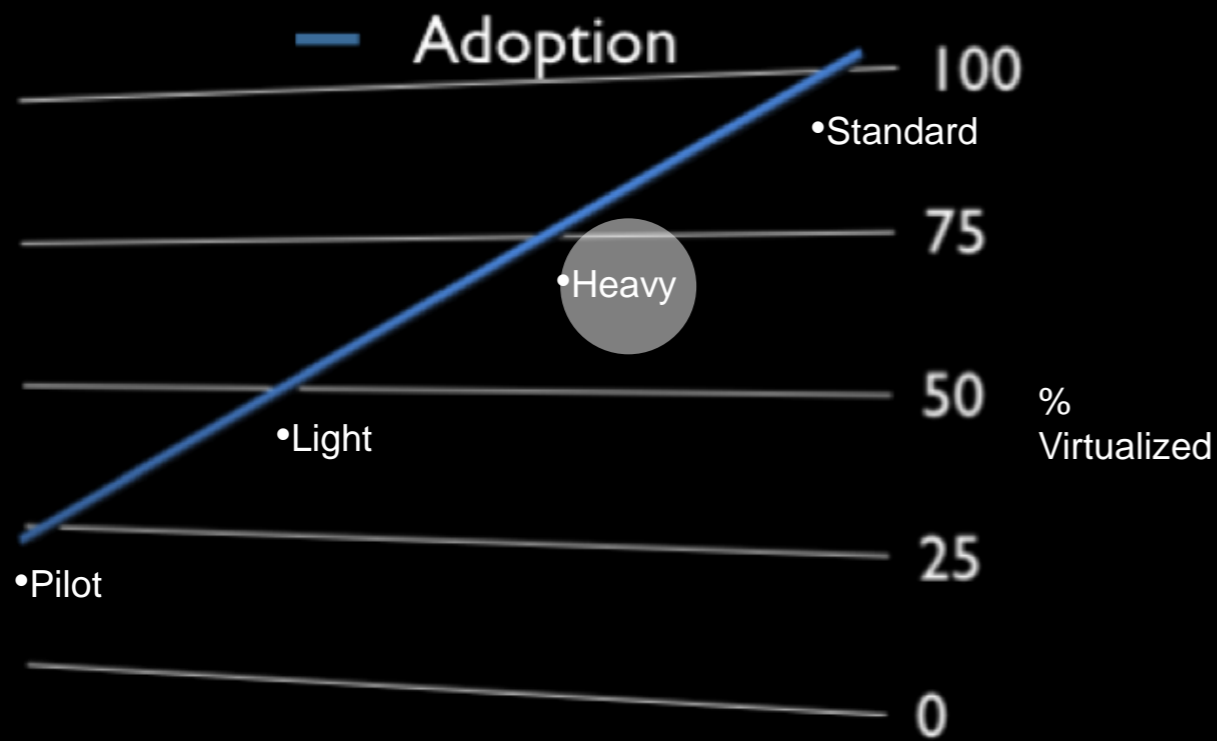


1. Plan & Design
2. Health Check
3. Build

## Plan & Design for vSphere

## vSphere Health Check





1. Applications, Applications, Applications!

2. UNIX

# Application Based Solutions

Plan & Design for Exchange with VMware



Plan & Design for SQL with VMware



Plan & Design for SAP with VMware



Plan & Design for Oracle with VMware



# UNIX



**ORACLE**  
SOLARIS

HP-*ux*11i v3

1. Performance
  2. Applications
- vSphere & EMC  
8 vCPU  
256GB  
300,000 I/OPS

# UNIX

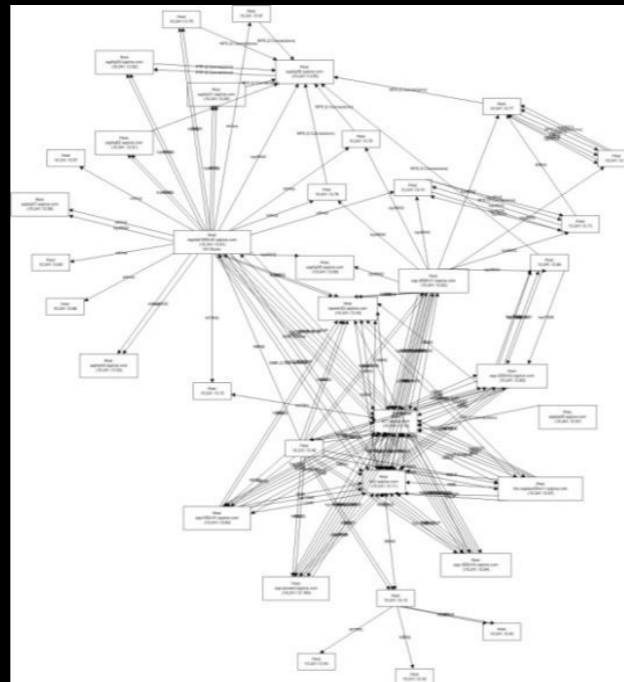
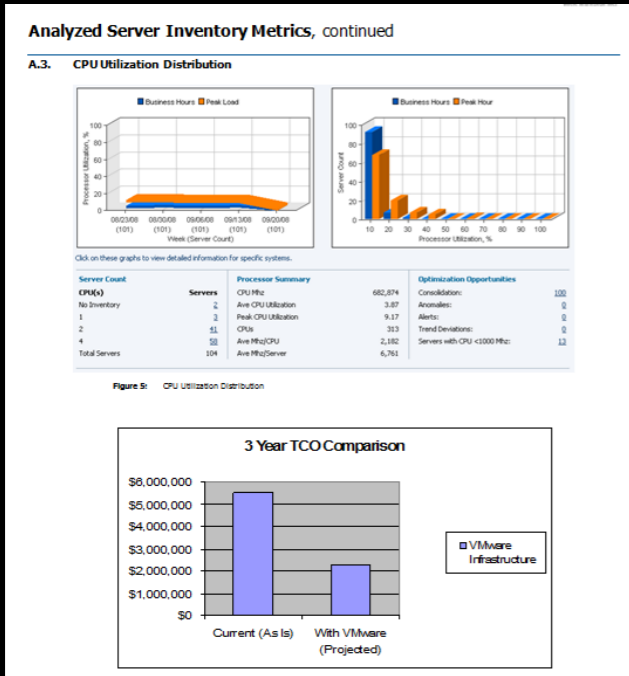


1. Performance
2. Applications

**ORACLE**  
SOLARIS

HP-*ux*11i v3

# UNIX Migration Assessment for VMware



## Enhanced Candidate Selection for VMware VMware Migration Plan



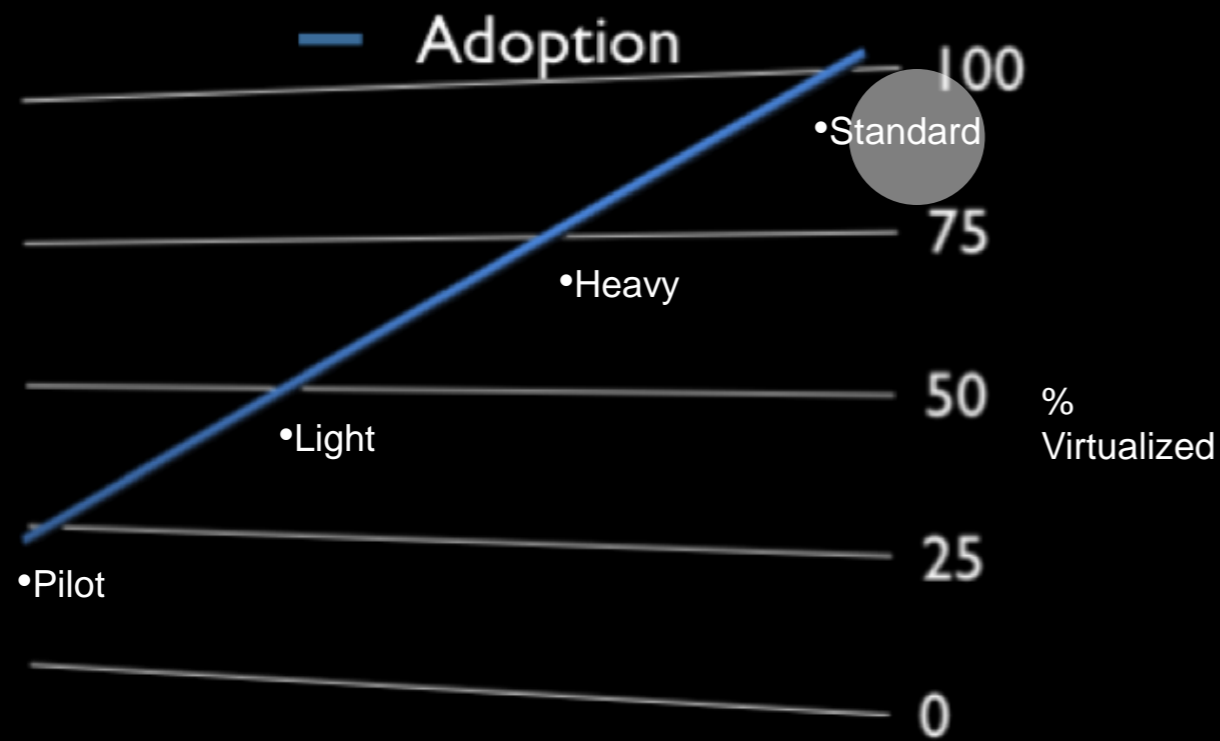
Sample migration plan, customized for your enterprise...

Activity	Schedule								
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9
<b>Preparation and Planning</b>									
Baseline Physical Environment									
Analyze Results									
Determine P2V Migration Candidates and Tiers									
Create Master Virtualization Plan									
Refine Value Proposition									
Educate Key Application and Business Stakeholders									
<b>Design and Build Virtual Infrastructure</b>									
Design Virtual Infrastructure									
Build and Deploy Tiered Infrastructure									
Deploy Management Tools									
Validate Infrastructure and Interoperability									
<b>Migrate Candidate Systems</b>									
Establish Environment and Perform Initial Testing									
Coordinate and Schedule Applications for Migration									
Configure Virtual Infrastructure Network and Storage									
Migrate Application 1									
Migrate Application 2									
Migrate Application 3									
Test, Stabilize, and Support									

### Customer specific migration plan

- Virtualization Candidate Report helps you determine order of the migration candidates
- Plan and Strategy based on VMware and Storage best practices

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1. Disaster Recovery
2. Life Cycle

## SRM Design for vSphere



## Life Cycle Manager Design for vSphere

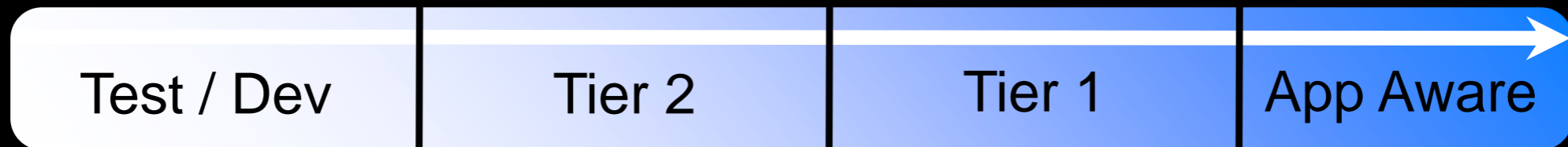




## Governance



## Applications



## Infrastructure

Compute



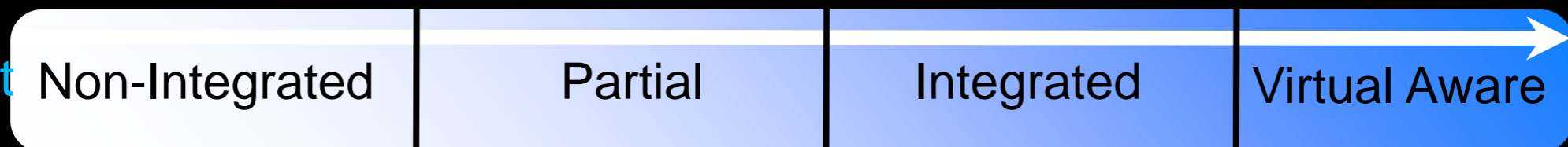
Network



Storage



Management



What if?



Up to 1,000 Songs



Up to 4,000 Songs



Up to 40,000 Songs



## Vblock 0

TBD

Available Mid 2010

**Supports up to 800 VM's**

## Vblock 1

Cisco UCS B-series

Cisco Nexus 1000v

Cisco MDS 9506

EMC CLARiiON CX4

VMware vSphere 4

VMware vCenter

EMC Ionix UIS

EMC NaviSphere

EMC PowerPath

Cisco UCS Manager

Cisco Fabric Manager

**Supports up to 3,000 VM's**

## Vblock 2

Cisco UCS B-series

Cisco Nexus 1000v

Cisco MDS 9506

EMC Symmetrix V-MAX

VMware vSphere 4

VMware vCenter

EMC Ionix UIS

EMC SMC

EMC PowerPath

Cisco UCS Manager

Cisco Fabric Manager

**Supports up to 6,000 VM's**



**VBlock 0**

**Single 800#  
Fully Integrated  
Pre-configured**

**VBlock 1**

**Single 800#  
Fully Integrated  
Pre-configured**

**VBlock 0**

**Single 800#  
Fully Integrated  
Pre-configured**

## Governance



## Applications



## Infrastructure

Compute



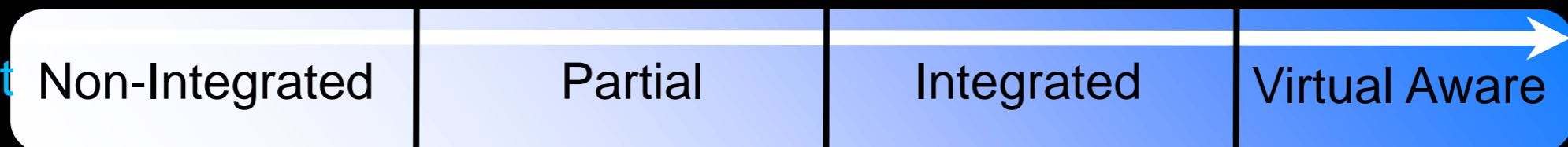
Network



Storage



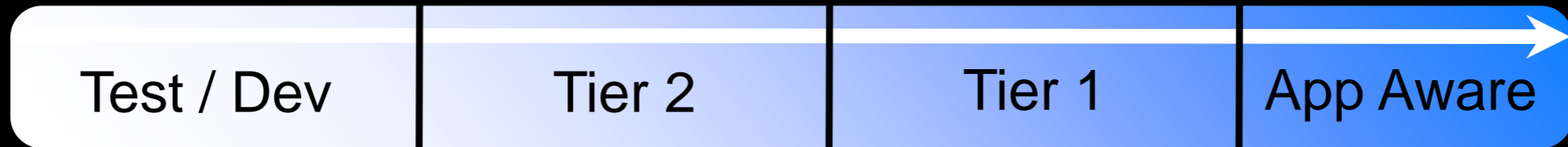
Management



## Governance



## Applications



## Infrastructure



# Why EMC?

1. Time to Market

2. Our Customer Base

3. Our Commitment to VMware

4. Our Portfolio and Integration

*(You haven't seen anything yet!!)*

EMC<sup>2</sup>