



# The Real-World Value of **Hyperconverged Infrastructure**

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# Digital Economy Drives Data Center Changes

## Changing Business Environment

### Digital economy drives changes to:

- Business models & sources of revenue
- Products/services brought to market
- Partner & customer ecosystems
- Level of customer relationships
- Competitive landscape

## Changing Data Center Needs

### Data center infrastructure must:

- Scale on-demand with results
- Drive increased operational efficiencies
- Increase staff agility & credibility
- Reduce risks to the business
- Incorporate public clouds

## New Digital World

The booming digital economy fundamentally impacts all aspects of business and has become the source of innovation and creativity for new business models, enhanced customer experiences, and improved financial performance.



New data center infrastructure solutions are helping data center teams adjust to changing demands & priorities within this new digital world.

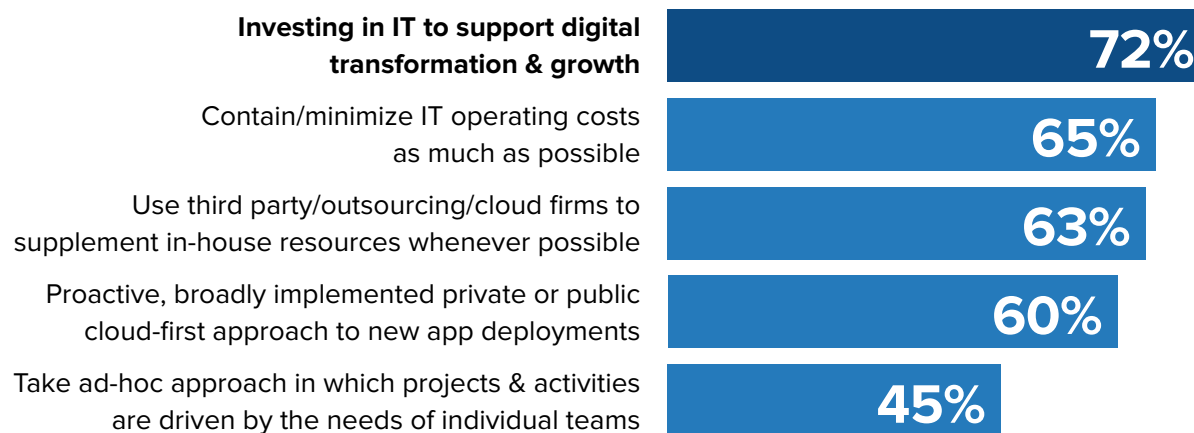


# Critical Factors Are Changing Infrastructure Needs in the Data Center

Organizations around the world are digitally transforming to create new value and competitive advantages through new offerings, business models, and customer relationships.

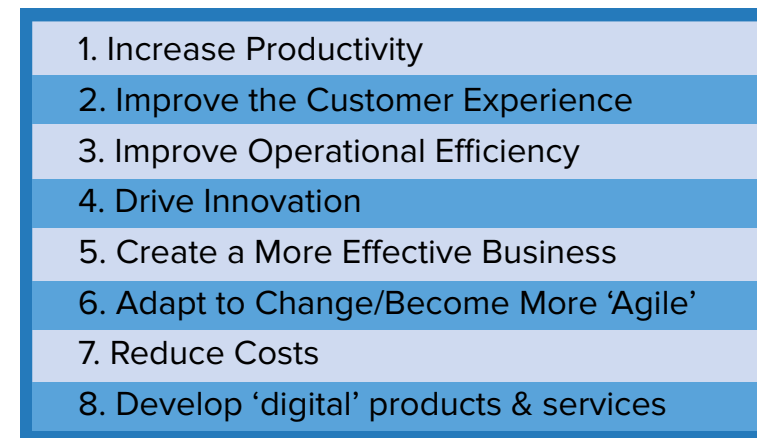
## Infrastructure investments are increasingly...

### 1. Strategic in Nature



Source: IDC Business Consulting Client Value Survey, 2017 N=1334

### 2. Aligning with Top Business Priorities To:



Source: IDC Business Consulting Client Value Survey, 2017 N=1334

# IT Departments Are Changing to Better Align with Shifting Business Needs

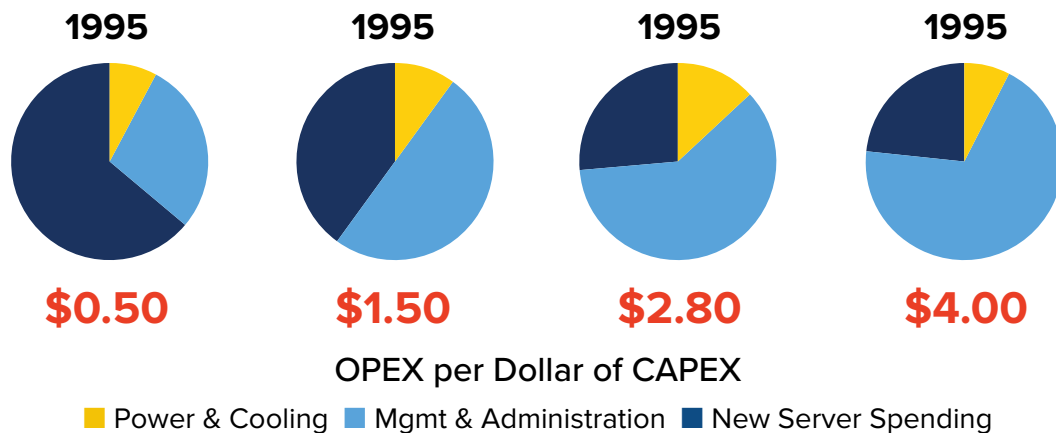
Investing in new types of infrastructure that drive down cost and time of managing infrastructure

**Two Critical Needs: Operational Simplicity & Agility**

## Steady Increase to the Cost of Managing Infrastructure

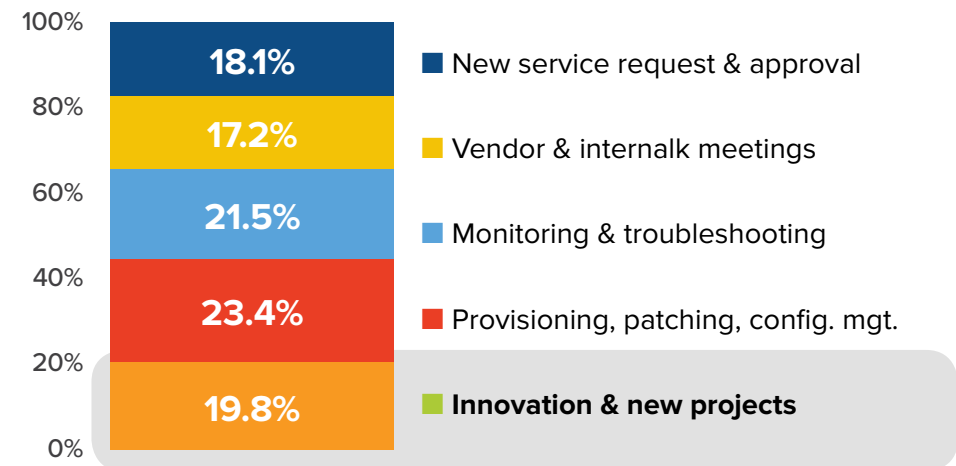
Every \$1 CAPEX for Physical Server Drives \$4 on OPEX

### WW Server, P&C and Administration Spending




## Data Center Teams Spend Little Time on Innovation

Only 20% of IT Staff Time Spent on Innovation

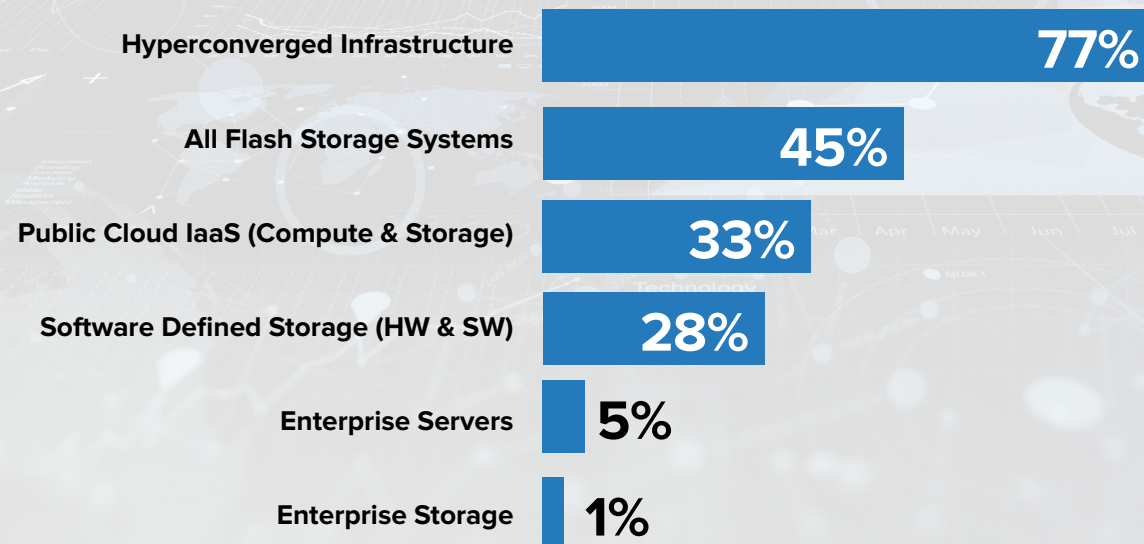


# New Investments Targeting Operational Efficiency

Flash-Based Media      Public & Private Cloud      Software Defined      Convergence



## 2015-2017 Compounded Annual Spending Growth





# HCI Represents a Natural Evolution of Convergence

## 1st Generation of Converged Systems

- Converging Discrete Systems Together
- Centralized Management & Support
- Improved Efficiency

## Hyperconverged Infrastructure

Providing Similar Benefits as 1st gen.

Convergence More Efficiently

- Storage systems & SAN replaced with SDS
- X86-based scale-out/clustered architecture
- All CPU, RAM & capacity pooled together
- Compute & data services run on common pool
- Improved Efficiency



**1st Generation  
Converged**



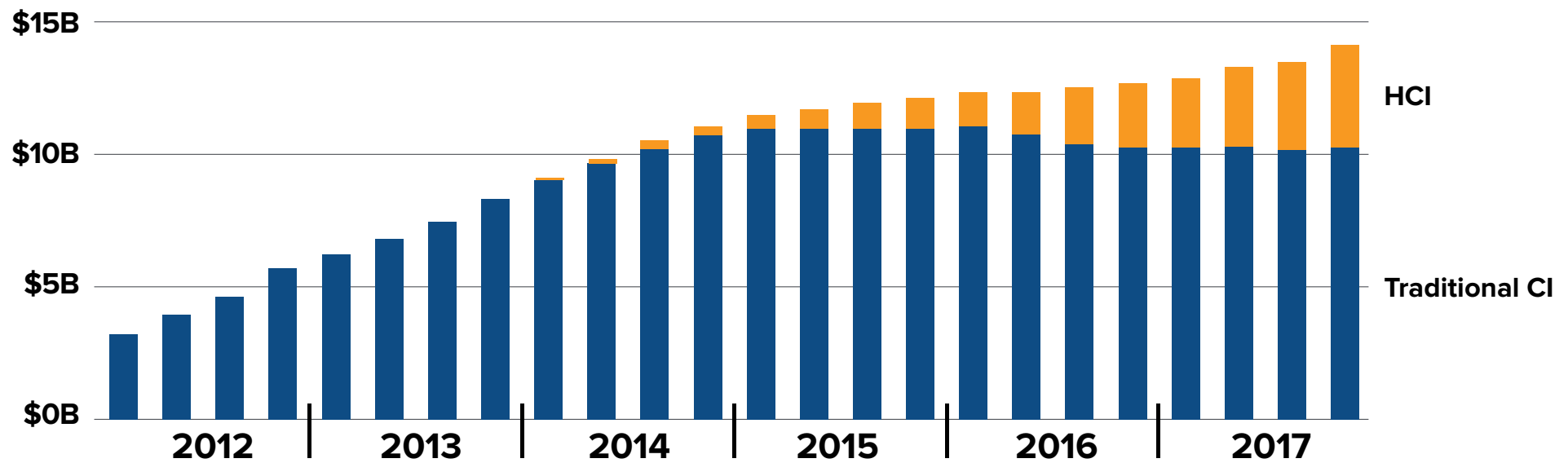
**Hyperconverged**

## Benefits: Better CapEx & OpEx Balance

- x86-base shared nothing architecture
- CapEx: No SAN, granular scale, COTS
- OpEx: Deploy, scale, provision, refresh
- Performance: SSDs, data/compute proximity

# Historical Converged Systems Spending & Top Challenges Driving Adoption

- Virtual Machine Sprawl
- DC Resource Utilization
- Simplify Purchase & Support
- Reduced Downtime
- Productivity & Agility
- Productivity & Agility
- IT Credibility/Biz Alignment
- Lower Cost DP & DR
- Productivity & Agility
- Standardization/SDI
- Automated Mgmt.



# Top Drivers of Hyperconvergence

## Efficiency



- VM-level management
- Reduced complexity
- Dedupe/compression

## Agility



- Alignment of skill-set to business needs
- Reduced data center silos
- Faster time to revenue

## Reduced Risk



- Improved lifecycle management
- No forklift upgrades/refresh
- Improved DR/HA

## Lower Costs



- Standardized x86 building blocks
- Reduced over provisioning
- Reduced facility costs



# Operational Benefits of Hyperconverged

## Improved utilization of systems resources lowers data center costs

- Elimination of shared storage & SAN switches
- Reduced spending on power, cooling, & data center floor space

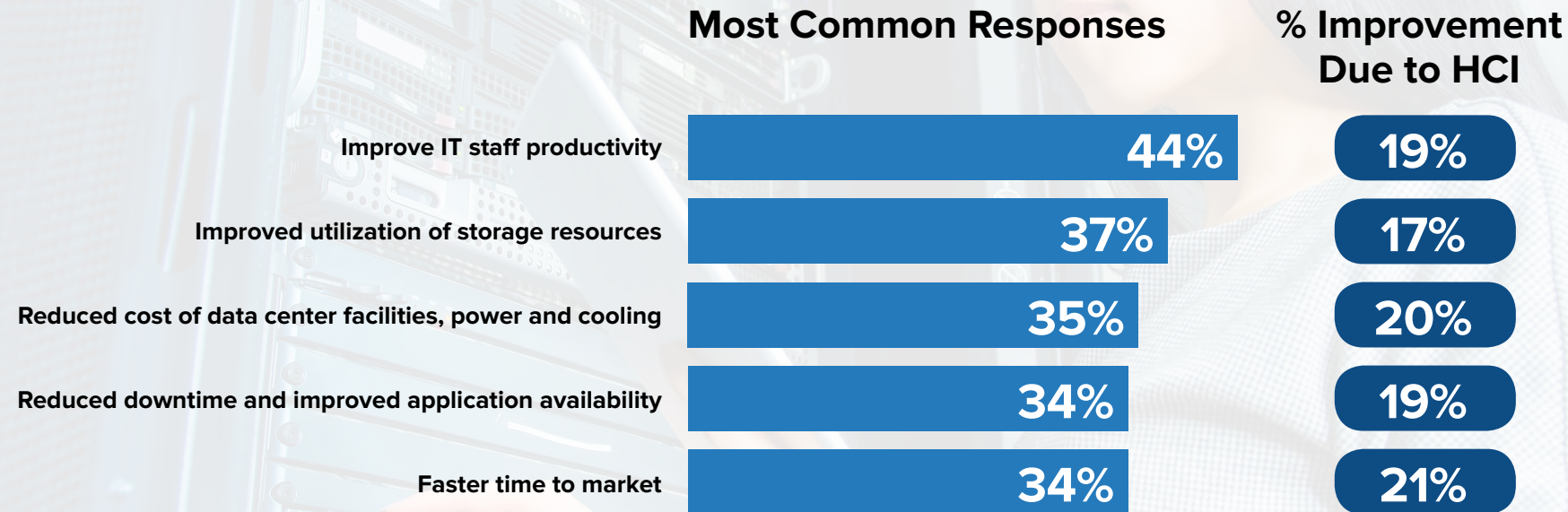
## Highly virtualized, clustered architecture

- Jump off of the system refresh “hamster wheel”
- Reduce human error associated with lifecycle management
- Rapid application deployment & continuous availability drives BU productivity

## Convergence, virtualization & automation increases IT staff productivity

- Address the 80/20 rule of IT staff
- Simplifies management and deployment of IT infrastructure

# Real-World Benefits of Hyperconverged



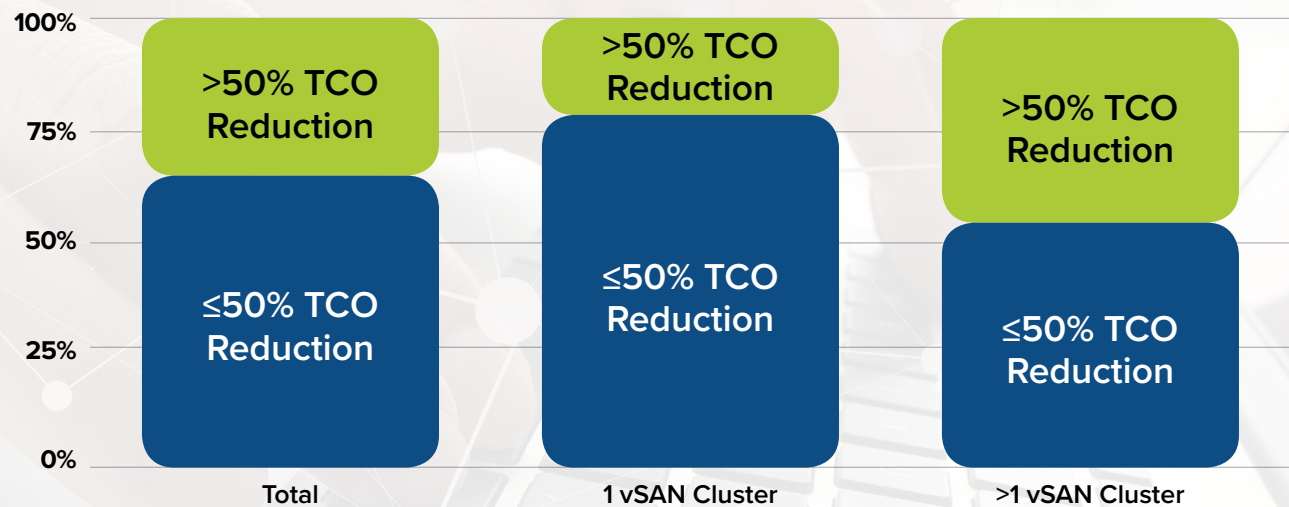
**Q1. Which of the following best describes how your organization has benefitted (or expects to benefit) from the use of hyperconverged systems?**

**Q2. Please provide an approximate percent improvement over the previous environment, for each description chosen.**



# Real-World Benefits of VMware vSAN-Based HCI

**Percent of TCO Reduction by Number of Clusters Deployed**  
 Mean TCO Reduction: 40%



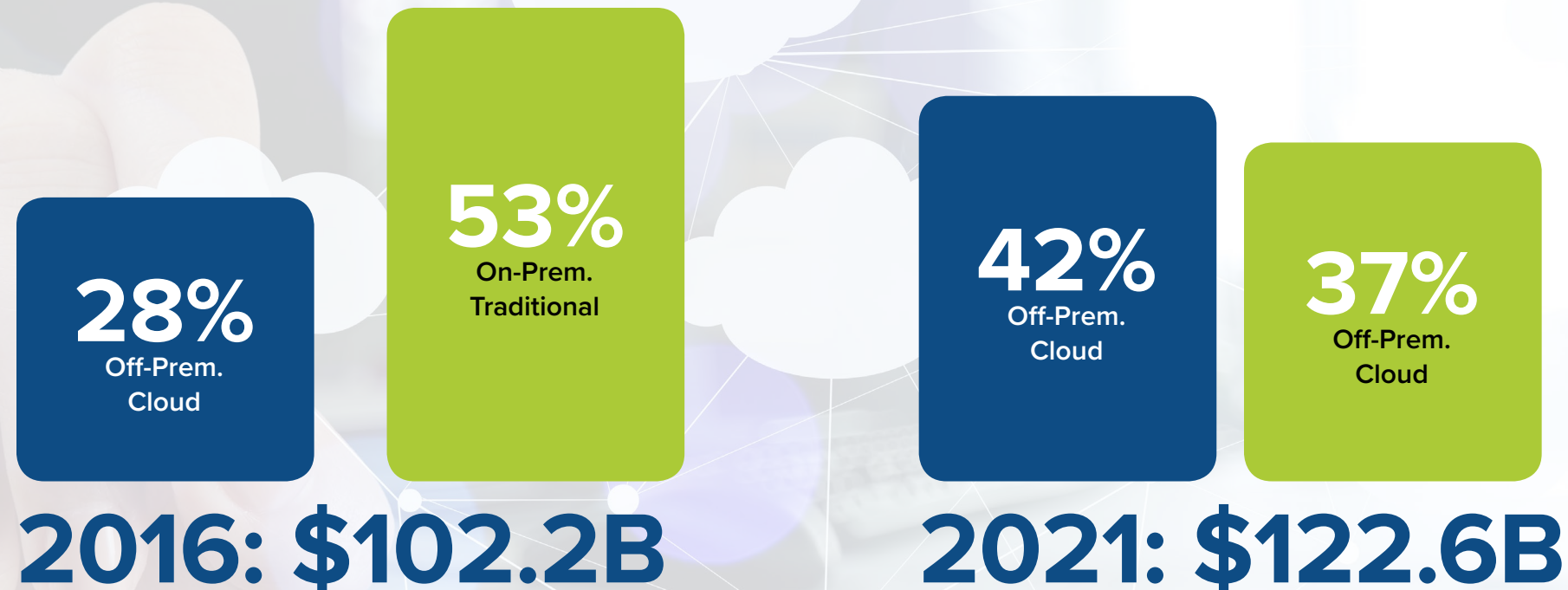
**Q. By what percentage has your TCO been reduced as a result of vSAN?**

■ ≤ 50% TCO Reduction   ■ > 50% TCO Reduction



# HCI as a Hybrid Cloud Platform

Those looking to better leverage hybrid clouds will find the fluid nature of HCI a good platform for the on-premises portion of their hybrid cloud designs.



# Optimize Hyperconverged Infrastructure in 4 Steps

## Focus on aligning HCI with strategic business imperatives

- Define standard tiers of services
- Establish a consistent chargeback system for provided services

## Realign IT responsibilities to create dedicated teams for implanting and administering infrastructure

- Reorganize teams to focus on overarching (non-siloed) activities

## Leverage suppliers' experience to effectively implement and manage

- Ensure they have a holistic view of business objectives and the specific requirements of the many stakeholders impacted by HCI deployments

## Use HCI as a platform & architecture for your hybrid cloud deployments

- The software-defined, server architecture brings benefits of public cloud to your data center
- Look for solutions that tie to public cloud to create a seamless hybrid cloud environment