TechTarget Reveals All…About the Enterprise All-Flash Array Market

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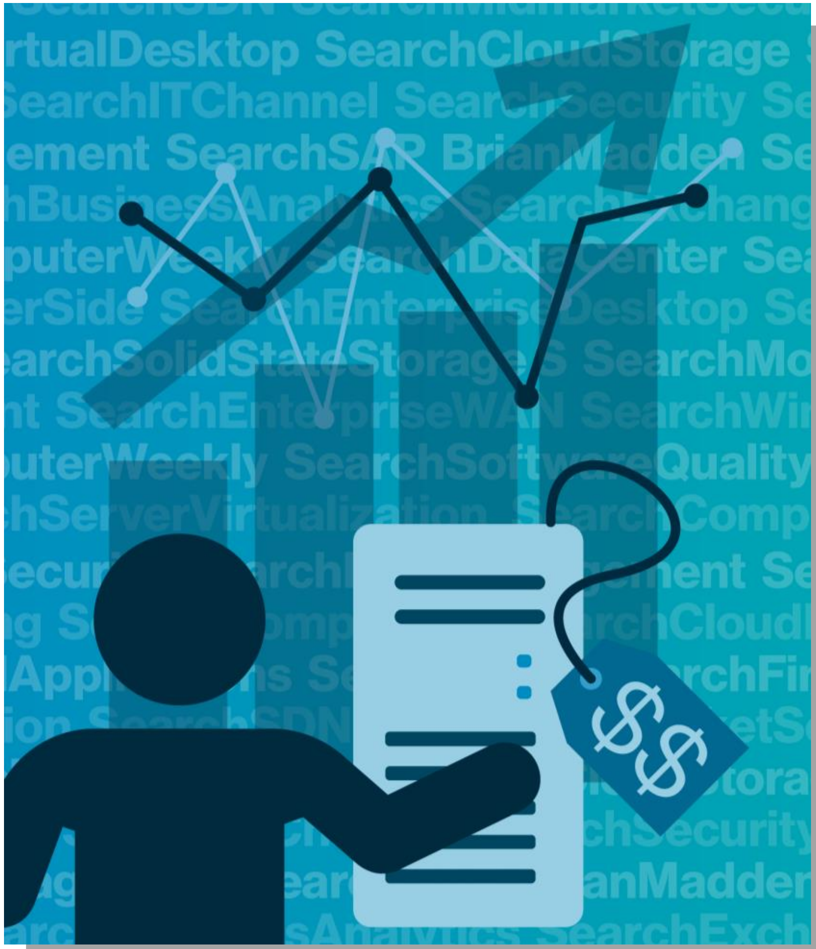
Session Description



- TechTarget has technology roadmap and quarterly purchase data from hundreds of pre-screened global storage professionals and casts light on the adoption status of all-flash arrays, the effects of hyperconverged infrastructure and software-defined technologies, and workloads being deployed.
- TechTarget's trademarked Technology Momentum Index™ and Spending Index™ provide unique insight into the scale of net new implementations, the allocation of spending by storage technology, and the intensity of interest in all-flash arrays.
- TechTarget has access to pre-deal data on approximately 60,000 enterprises and generates over 13,000 IT buyer survey responses monthly.

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Harvard Vanguard Medical Associates
Atrius Health

15 million buyers

140+ global sites

Relationships with the world's largest buyers and users of IT

TechTarget Research

Market Landscape Study

Semi-annual technology roadmap data overlaying the vendors in use and in plan

Post Purchase Reports

Quarterly intelligence from actual, recent purchases showing how well vendors are competing in specific technology markets

TechTarget's Storage search power

#1 Flash arrays

#1 Hybrid vs. all flash

#1 All-flash arrays

#1 Solid state storage

#1 Flash based storage

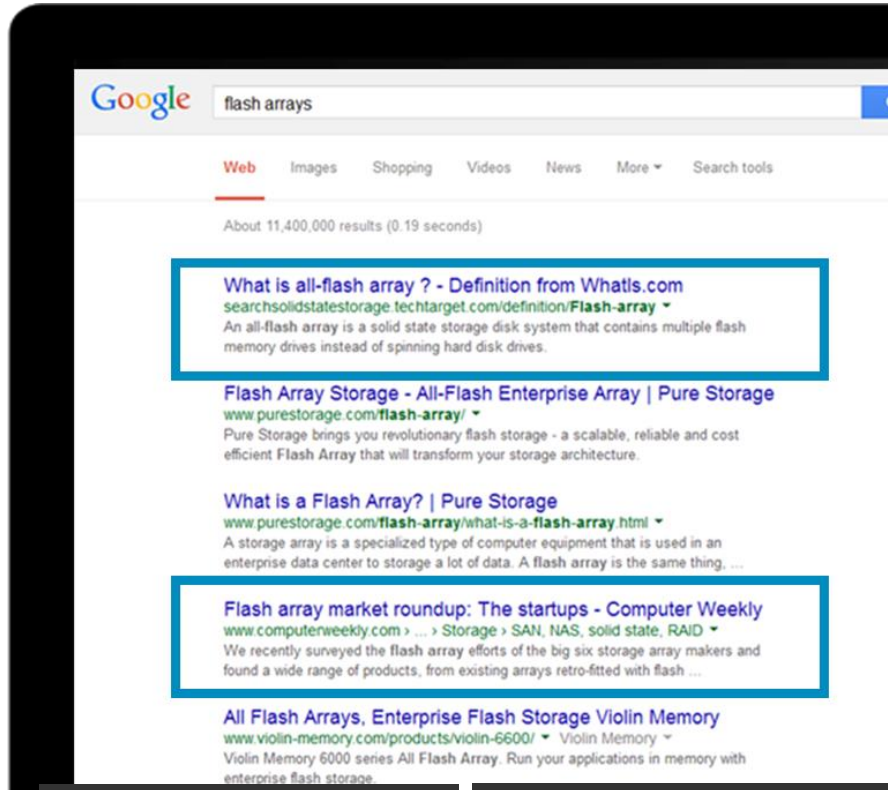
#1 All flash storage

#1 Enterprise flash storage

#2 Scale-out storage

#1 Flash storage array

#2 Storage QoS



4,432

terms ranked in Google's top 10

352

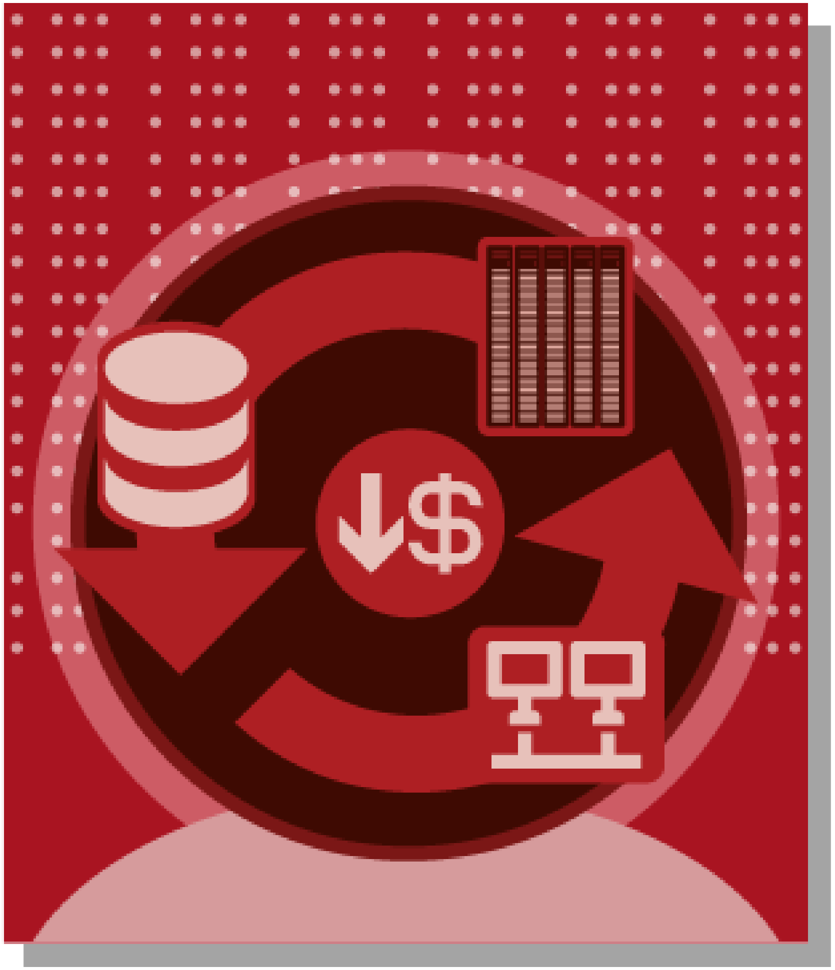
#1 Google ranked terms

TechTarget Research: Market Landscape research coverage (semi-annual)

Information Security	End User Computing	Cloud Computing	Data Center
Storage	Networking	BI & Big Data Analytics	

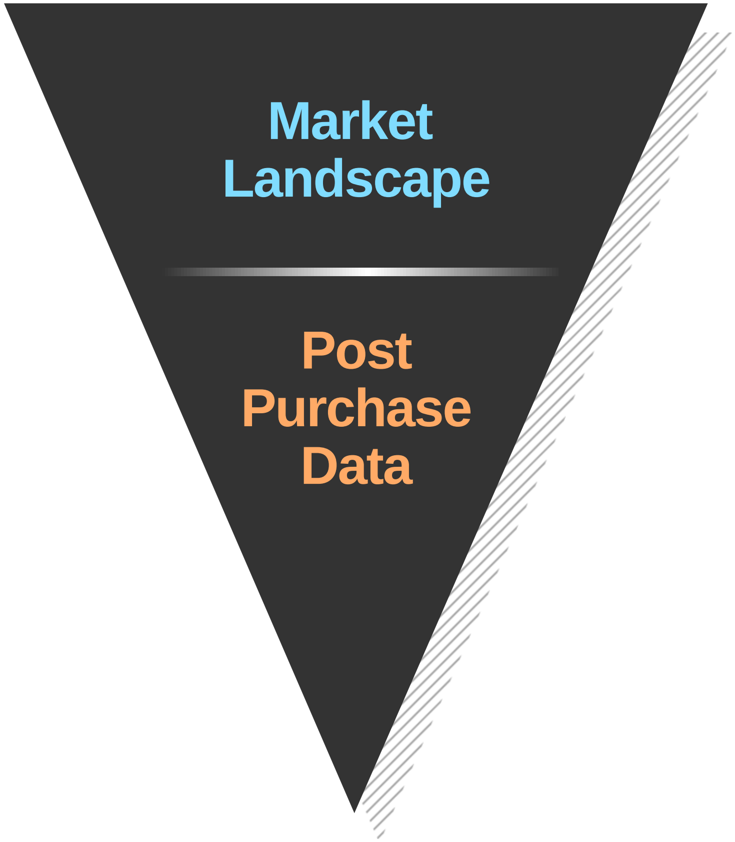
Post Purchase Data (quarterly) for the top 6-8 segments in each market

Secular Trends



- Enterprises Are "**Channeling Their Inner Service Provider**"
- **All Flash Array:** Still Reliant On A Proprietary Array Architecture >"Transitional" To Software Defined
- **HyperConverged Infrastructure:** 50% Of Those Using Are Replacing Their Existing Infrastructure
- **IaaS va Public Cloud:** Same Use Case Roll Out As Server Virtualization 10+ Years Ago
- **Workload** > Execution Venue

Research Instruments & Report Production



Market Landscape for 7 Overarching Tech Markets

- Overall spend & capacity w/ projections
- Technology Roadmap w/ vendors In use and in plan
- Spend plan for vendor & technology
- Exciting vendors and M&A
- Psychographics on timely topics

Semi-Annual Delivery

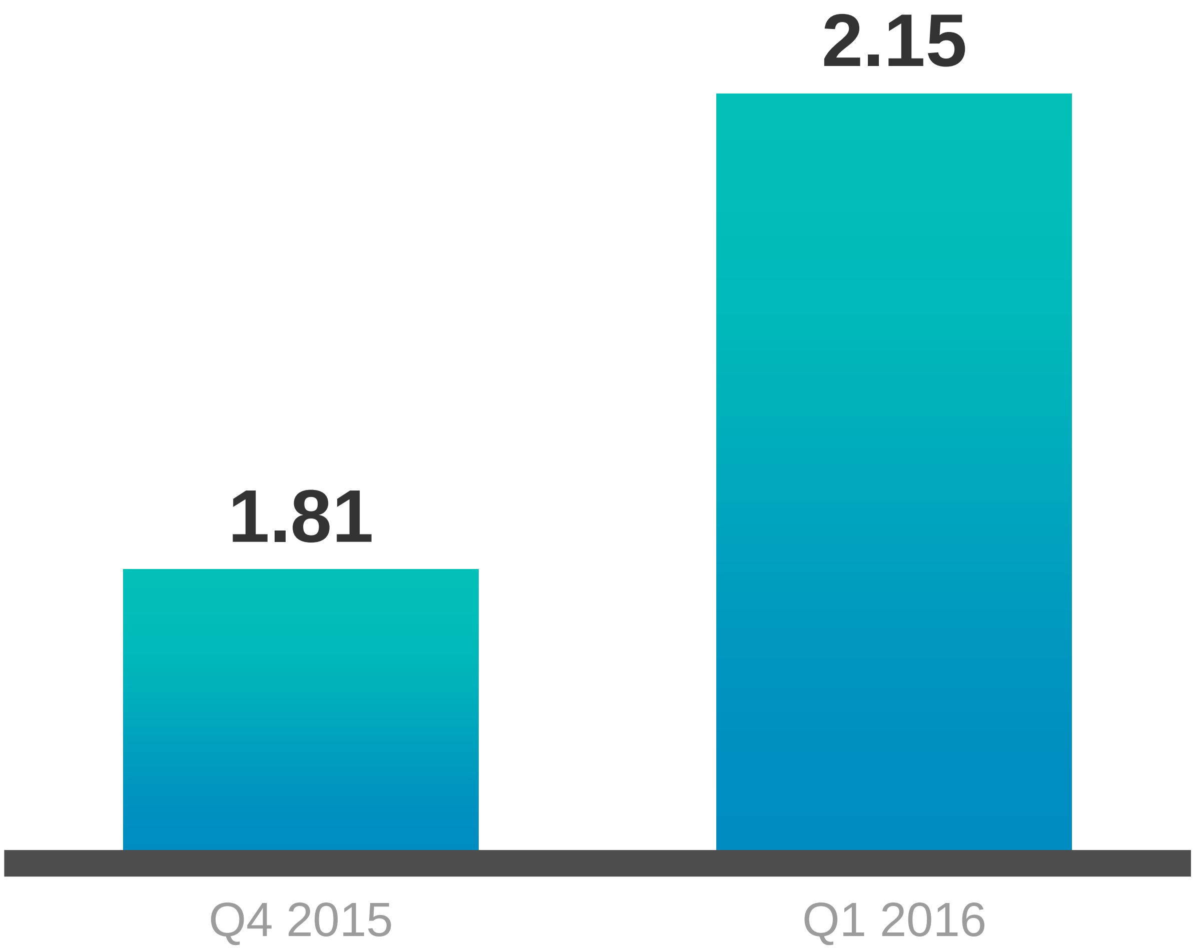
Post Purchase Data for 50+ segments

- Winning vendor & short list
- Investment amount
- Who was displaced
- Net new spend or add on
- Discounts & concessions
- How purchased
- Buying criteria
- Ratings on the winning vendor
- Why shortlisted vendors lose

Quarterly Delivery

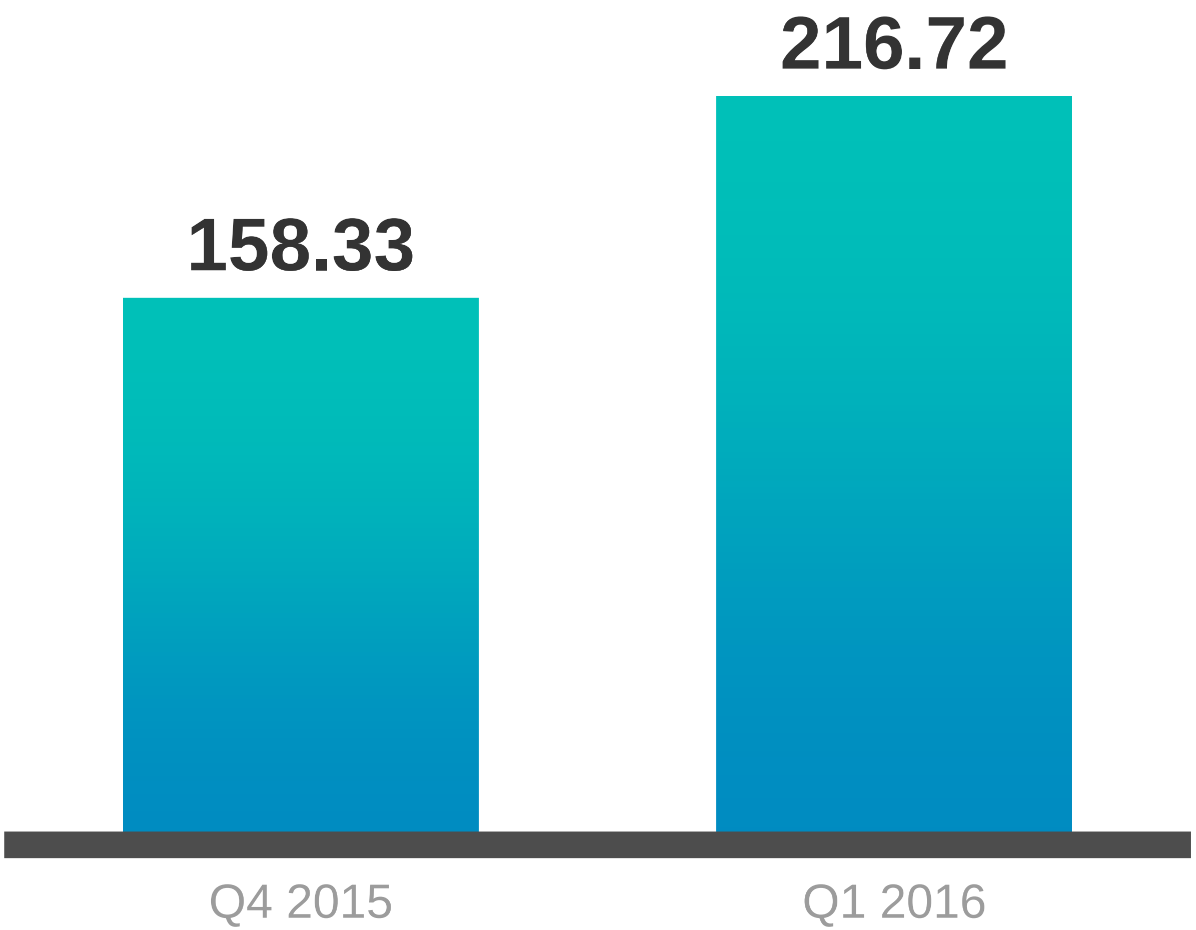
Storage Post Purchase

All Flash Array: Mean Vendors on Shortlist Per Deal



19%
increase from Q4 2015 to Q1 2016

All Flash Array:
Mean Capacity Purchased (TB)



37%
increase from Q4 2015 to Q1 2016

The Forensics of an Actual Deal:

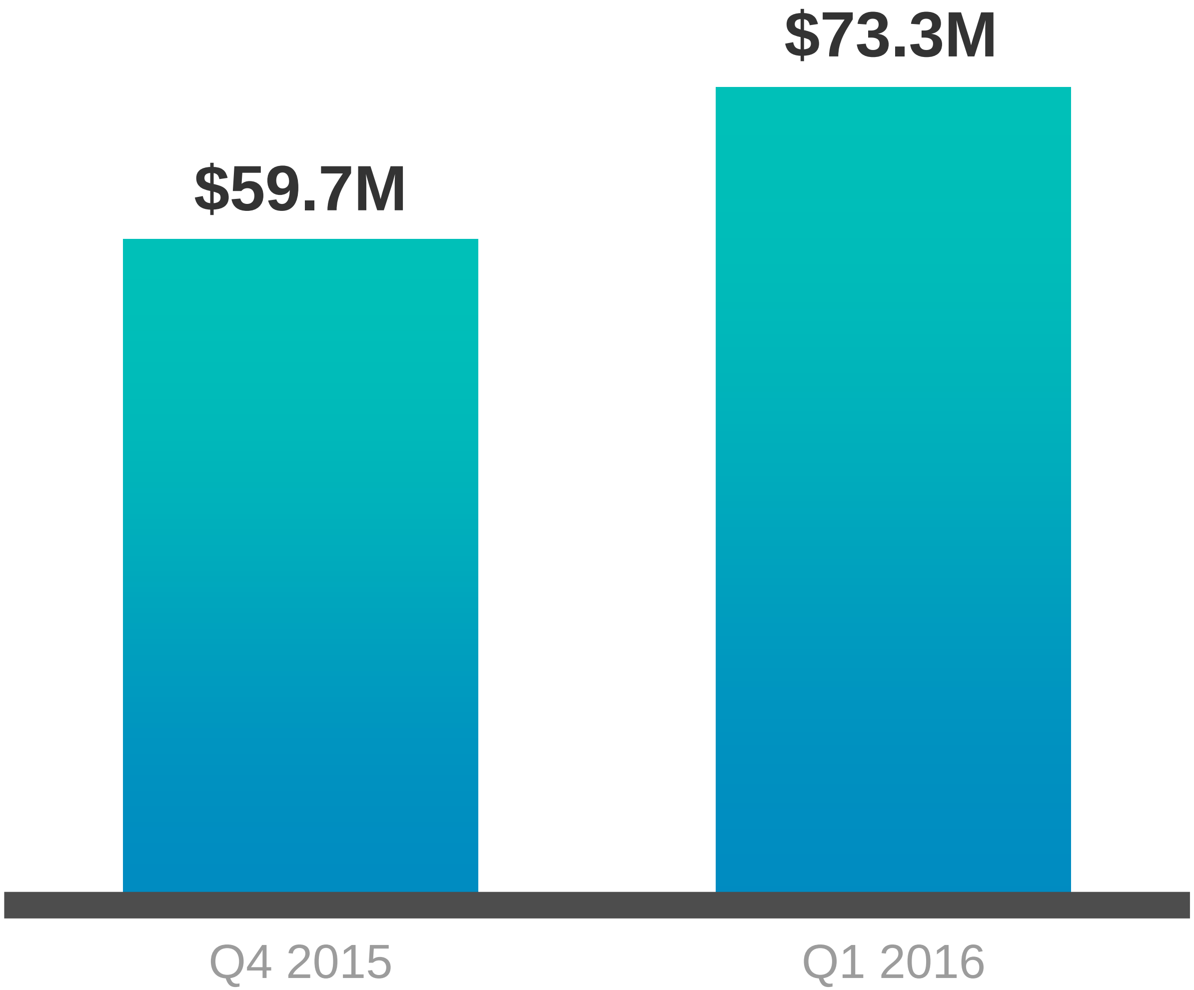
Win Loss Intelligence and more via raw data analysis

Shortlist	Vendor Chosen	Vendors Installed	Concession	% Discount	Brand & Reputation	Product Feat
HPE|Pure St	EMC	EMC	Extra discount i	11%-24%	5	4
NetApp|Nim	Nimble	Nimble	More product a	11%-24%	4	5
SolidFire	SolidFire	[illegible]	[illegible]	5%-49%	4	5
EMC|Pure St	Nimble	[illegible]	[illegible]	1%-24%	4	5
EMC|Pure St	Pure Storage	[illegible]	[illegible]	0%+	4	5
HPE|Pure St	NetApp	[illegible]	[illegible]	1%-24%	4	4
HPE|Nimble	NetApp	[illegible]	[illegible]	0%+	4	5
Tintri	Tintri	[illegible]	[illegible]	1%-24%	4	5
EMC	EMC	[illegible]	[illegible]	5%-49%	5	5
NetApp	NetApp	[illegible]	[illegible]	%-10%	5	4
IBM	IBM	[illegible]	[illegible]	%-10%	3	4
HPE	HPE	[illegible]	[illegible]	1%-24%	5	5
HDS	HDS	[illegible]	[illegible]	11%-24%	5	5
Pure Storage	Pure Storage	Dell|Pure Storage	Creative payme	11%-24%	5	5
Pure Storage	EMC	EMC	Extra year of m	25%-49%	4	4
Pure Storage	Pure Storage	HPE|Pure Storage	Extra discount i	1%-10%	4	5
EMC	NetApp	Dell|EMC|NetApp	Extra discount i	11%-24%	4	5
X-IO	Pure Storage	HPE|Pure Storage|	Enhance servic	50%+	5	5
Pure Storage	Pure Storage	Pure Storage	Extra discount i	11%-24%	3	3
EMC|HDS|P	EMC	HDS|EMC|HPE	More product a	11%-24%	4	4
NetApp|Pur	Nimble	Nimble	More product a	25%-49%	5	5
IBM	HPE	Nexenta|HPE|IBM	Added more pr	25%-49%	4	4

Deal Metrics

1. Shortlisted
2. Winner
3. Installed
4. Concession
5. Discount

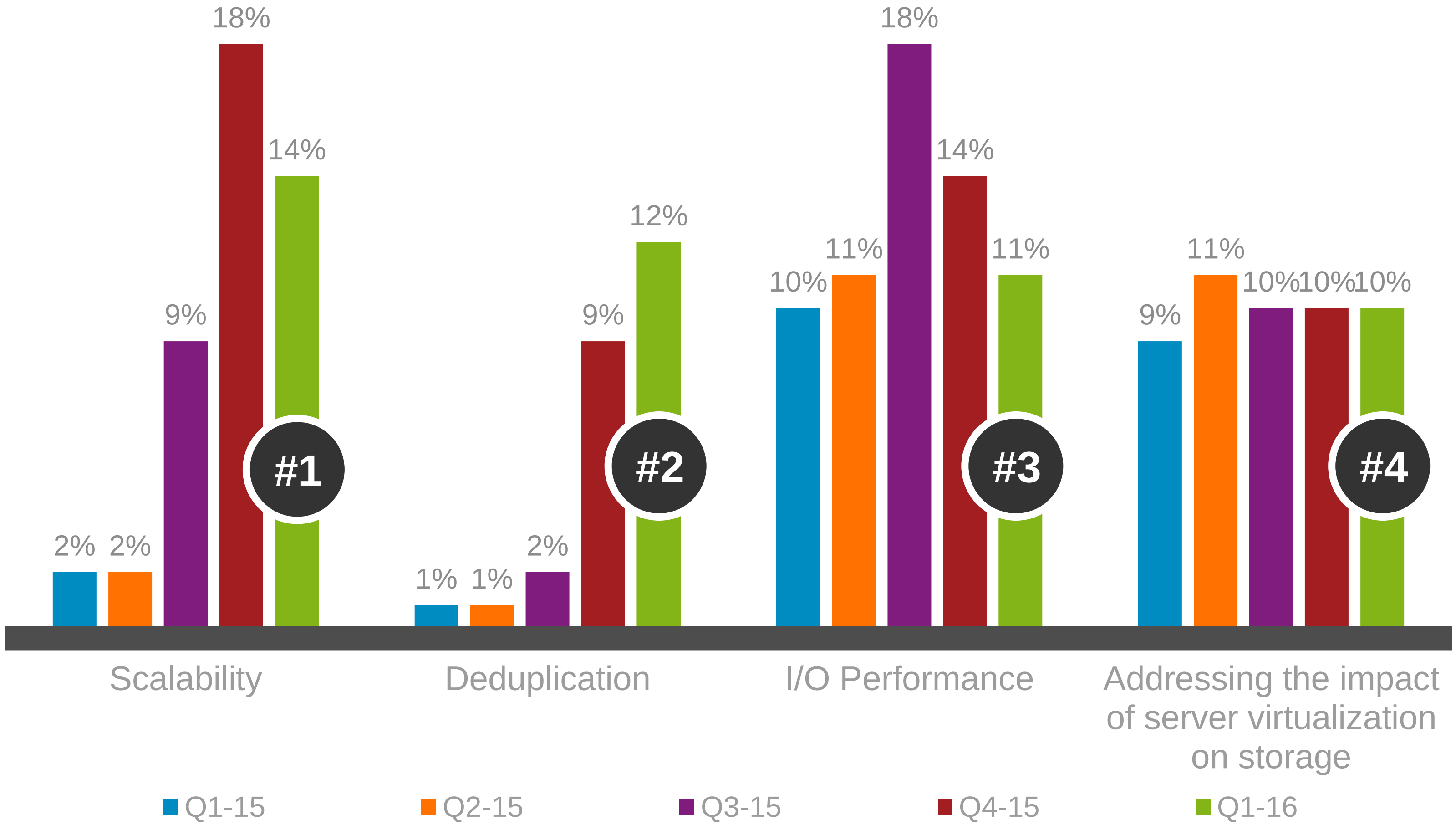
All Flash Array: Wallet Share



23%

increase from Q4 2015 to Q1 2016

Top drivers for purchase changes quarter over quarter



Started using AFA for a specific, directed purpose – VDI – it is easy to forecast demand and capacity for 'predictable' workloads. Now bringing in a new configuration for Tier 1 capacity – challenge is ability to plan for undefined, organic growth as AFA moves to general purpose. Need help in understanding how it treats data- the way we capacity planned for spinning disk is different now.

- MSE Logistics

Making move to All Flash Data Center, will take 4-5 years. The challenge with move to AFA is around the Tech Refresh – it was a challenge to move to an AFA vendor that they were not using for traditional FC SAN with spinning drives. 'Greenfield' is a no brainer- but for core Storage in place decided go with the AFAs from our FC SAN providers. The migration of 'embedded workloads' was too hard to a 'net new' vendor.

- F100 Financial Services

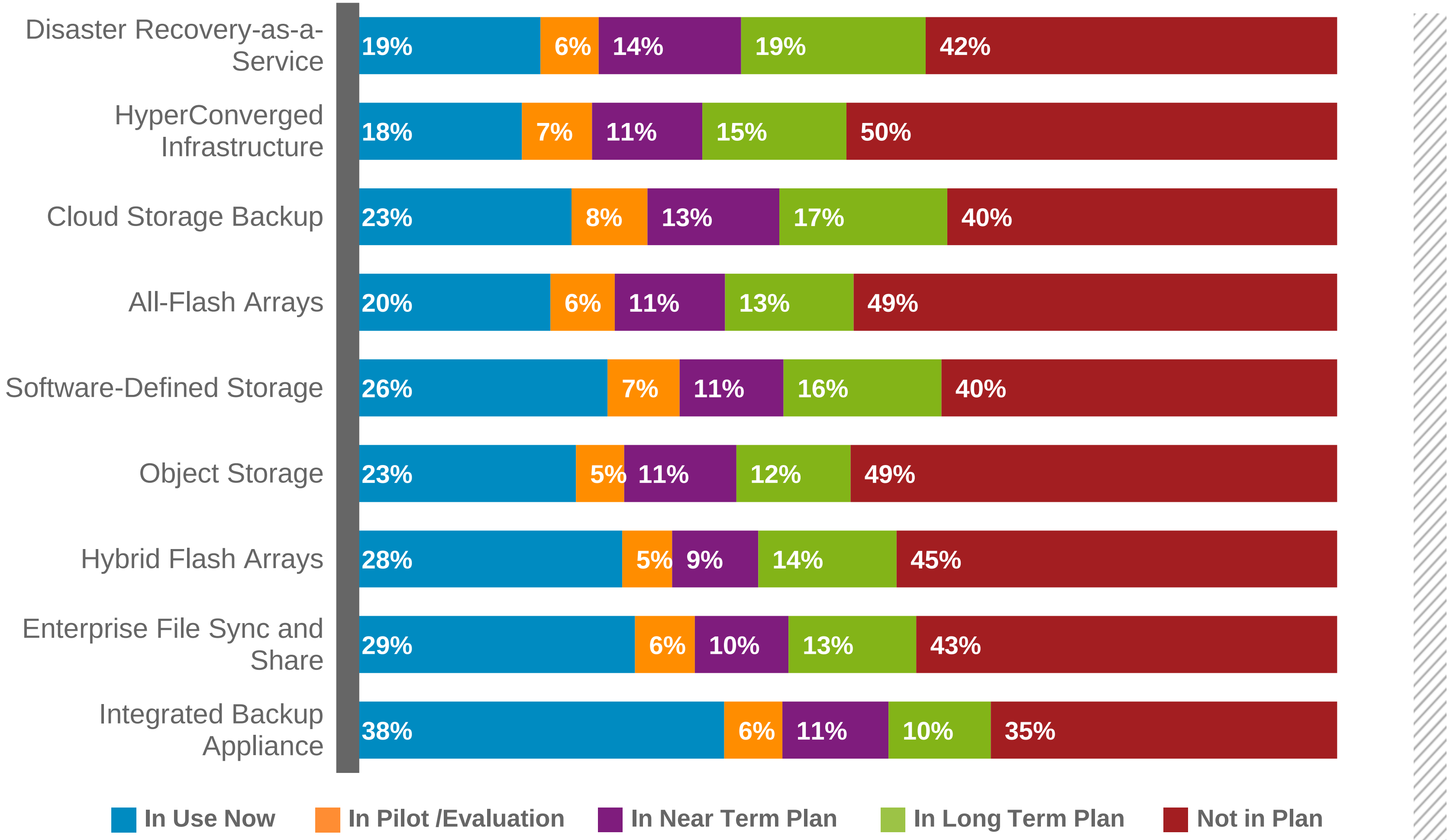
All Flash Arrays Vendor Transaction Ratings: Motivators and Inhibitors

Buyers were asked to rate their vendor selection based on six dimensions that were specific to their recent transaction, **1 being a "strong inhibitor" and 5 being a "strong motivator".**

Dimension	Mean Rating
Minimal disruption to our architecture	3.9
Ease of implementation	3.8
Product Features Set	4.3
Brand and Reputation	4.2
Pricing Practices	3.9
Sales Force Quality	3.7

Storage Market Landscape

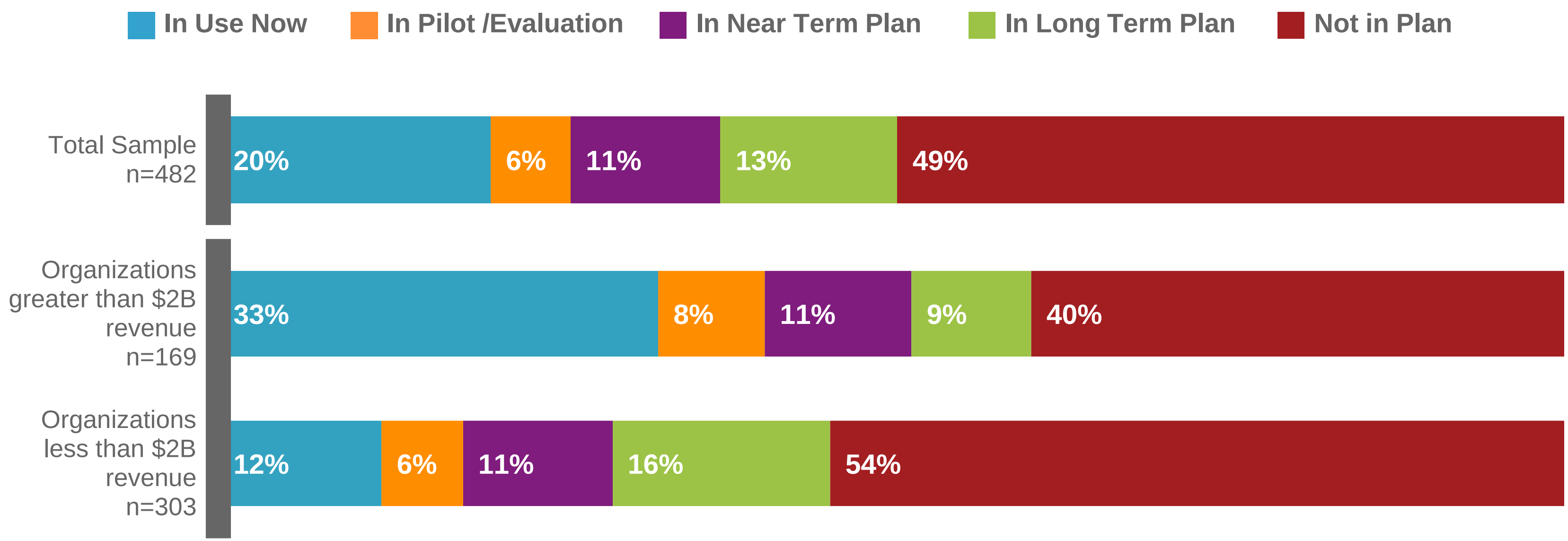
Storage Technology Roadmap—Total Sample



All-Flash Arrays Roadmap

#4 Momentum Rank

#1 Spend Rank



Q: Please indicate the status of the following storage technologies in your organization today.

Storage Momentum Index™ and Spending Index™—Bi-Annual Ranking Comparison

Momentum Index™ 2H 2015	Momentum Index™ 1H 2016	Market Segment	Spending Index™ 2H 2015	Spending Index™ 1H 2016
4	2	HyperConverged Infrastructure	13	6 ↑
8	3	Cloud Storage Backup	8	2 ↑
3	4 ↓	All-Flash Arrays	6	1 ↑
1	5	Software-defined Storage	11	5 ↑
9	6 ↑	Object Storage	10	3 ↑
6	7	Hybrid Flash Arrays	9	4 ↑

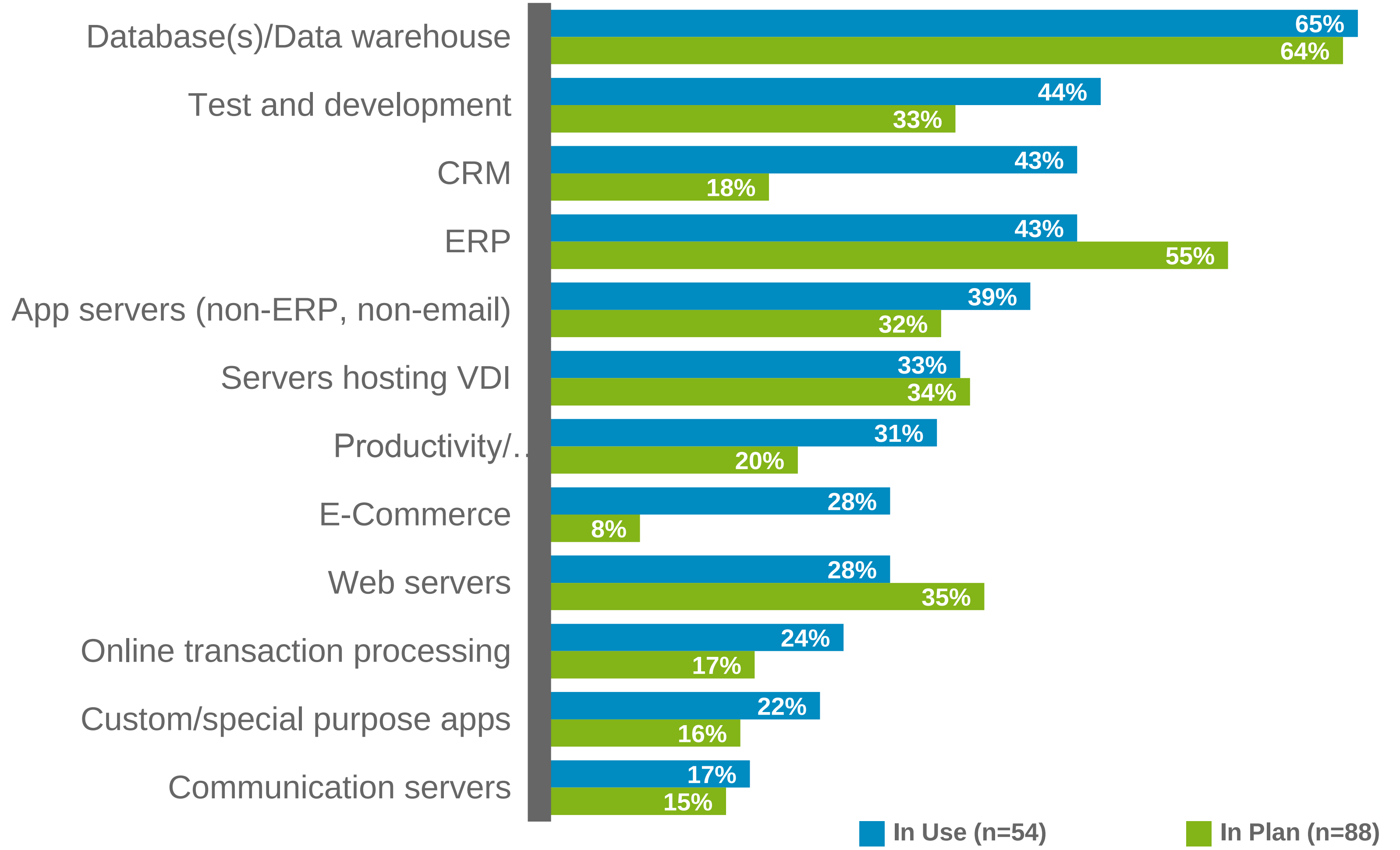
We like a Software Defined strategy a lot we can use x86 horizontally and break from traditional array platforms . Looking at the commodity x86 plays vs Hyper-Converged type technologies.

- F1000 Financial Services

AFA may be a transitional technology not sure it will be long term since still locked into a proprietary array product from a vendor. Our end state is to move to Software Defined that would eliminate lock in and enable the move to leveraging external Cloud where the initial move would be non-production workloads.

- F500 Manufacturer

Spotlight: All-Flash Array Workloads



Challenge now is the Network – CPUs and Storage are so fast – see migrating super critical workloads to a co-located Storage and CPU box to mitigate the Networking issues - "back to the future" like the old DAS days. Hard code the array to the system for certain workloads.

- F1000 Pharma

The move to AFA causes more focus on the SAN – used to be time allocation was:

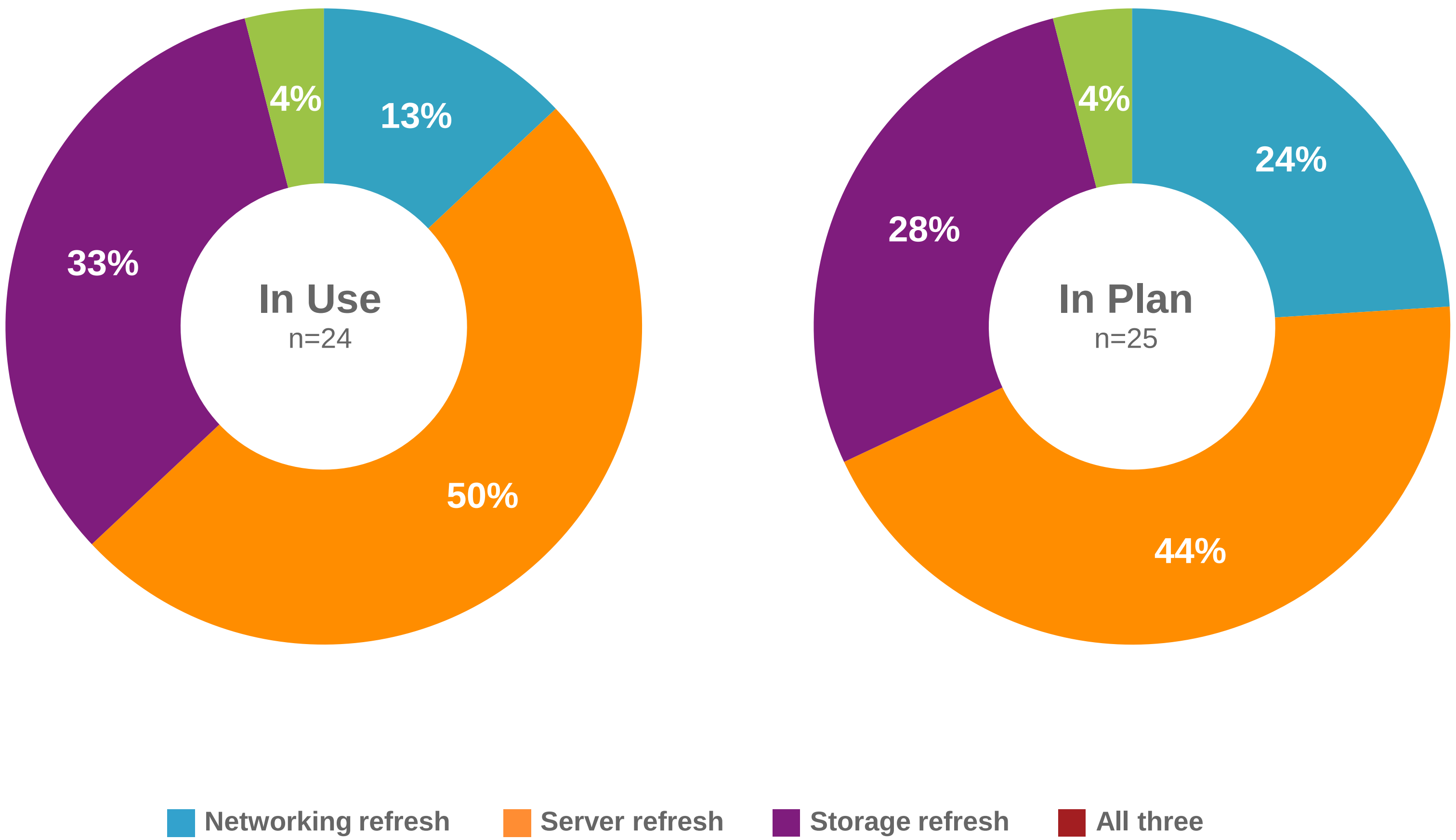
- ***80% Storage***
- ***15% SAN***
- ***5% Back up***

We need to optimize SAN – less than 20% of the workloads cause 80% of the traffic. We are trying to right size, high I/O goes to FC SAN the rest goes to IP Network.

- F500 Telco

Data Center Market Landscape

Type of Refresh when introducing Hyper-converged Infrastructure



Hyperconverged Infrastructure Purchase Factors

Factor	In Use % of Respondents	In Plan % of Respondents
Reduced cost	47%	37%
Increased performance	26%	26%
Consolidation	24%	23%
Reduced configuration/integration problems	21%	41%
Increased scalability	15%	22%
Increased reliability	13%	17%
Better support	13%	7%
Remote access	6%	4%
Rapid implementation	6%	1%
Reduction of staff	6%	-
Authorization grants	-	10%
	n=72	n=103

Hyperconverged Infrastructure Workloads

Workload	In Use % of Respondents	In Plan % of Respondents
ERP	64%	57%
Databases/data warehouse	50%	66%
Test and development	46%	57%
CRM	42%	56%
Productivity/collaboration	39%	53%
App servers	38%	22%
Web servers	38%	54%
Virtual desktop	33%	20%
Communication servers	18%	39%
Custom-built/special purpose applications	36%	20%
E-commerce	10%	37%
Online transaction processing (OLTP)	8%	7%
	n=72	n=106

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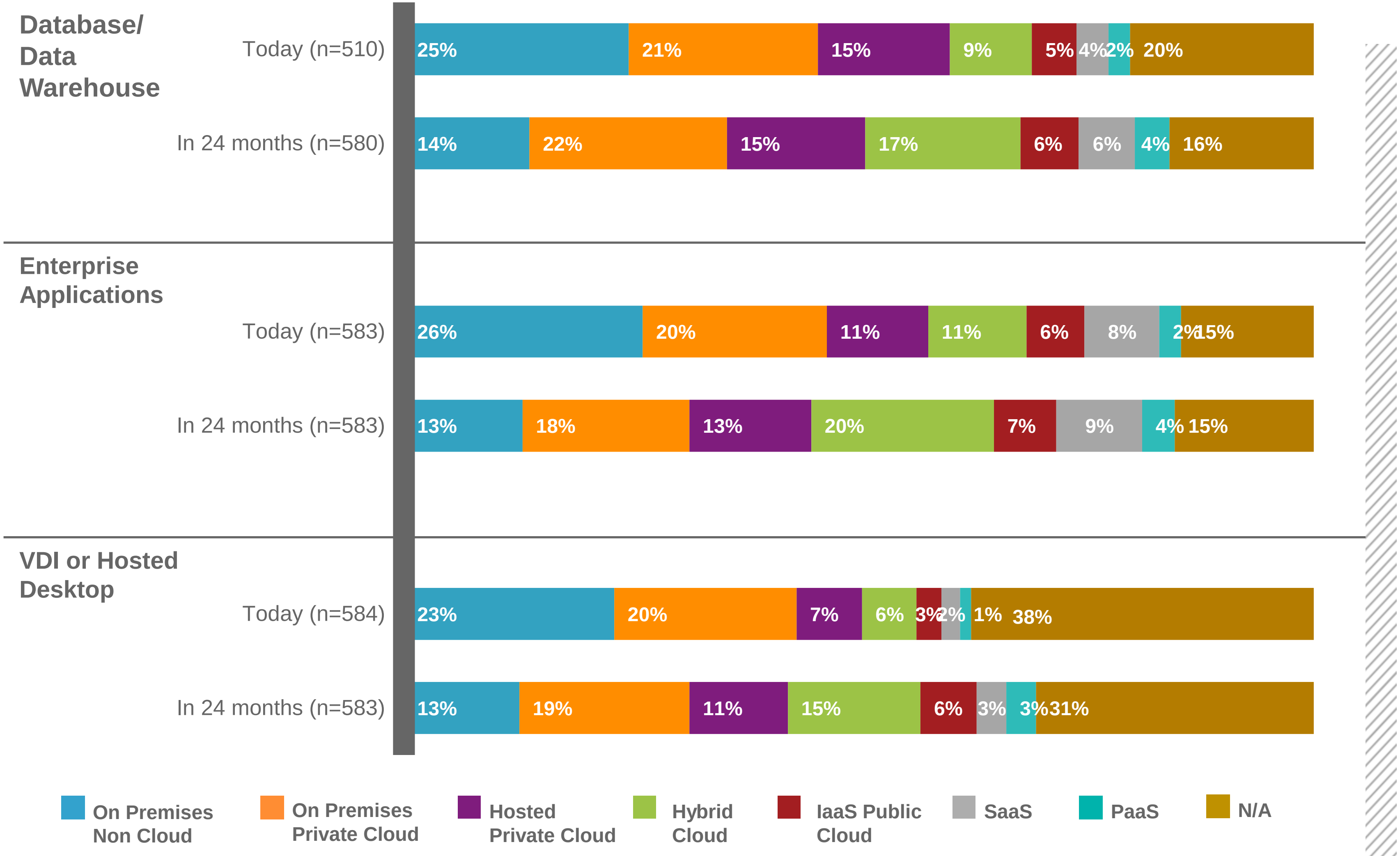
Cloud Market Landscape

Execution Venue: Today and In 24 Months



Thank you!

Questions, copies and to join the Peer Network

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