Impact of Virtualization on Storage Performance Optimization Trends

Summary Results

May 2012

Observations and Conclusions

➢ *91% of responders use networks which are a mix of NAS and SAN. 49% have more than half of their NAS capacity as NFS.*

➢ *Responders manage a high level of data with 41% managing more than 500 terabytes.*

➢ *84% of responders have high performance storage requirements. Nearly half report that VMware, Oracle & financial analytics are the main sources of performance demand.*

➢ *Desktop virtualization is low with 97% of responders reporting that less than a quarter of their desktops are virtualized today. In two years, 35% project that more than a quarter of their desktops will be virtualized.*

➢ *By 2014, more than half of respondents will achieve 50% server virtualization.*

➢ *NAS Optimization tops the list of how to meet challenges posed by virtualization.*

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Program Overview

➢ *Between January 10 and May 2, 2012, Gatepoint Research invited 1,042 selected executives to participate in a survey themed **Impact of Virtualization on Storage Performance Optimization Trends.** Candidates were invited via email and 100 executives participated.*

➢ *45% of responders work at the Director Level or above; 23% work at the VP level or CxO level.*

➢ *70% of responders are employed by companies with annual revenues of at least $1.5 billion.*

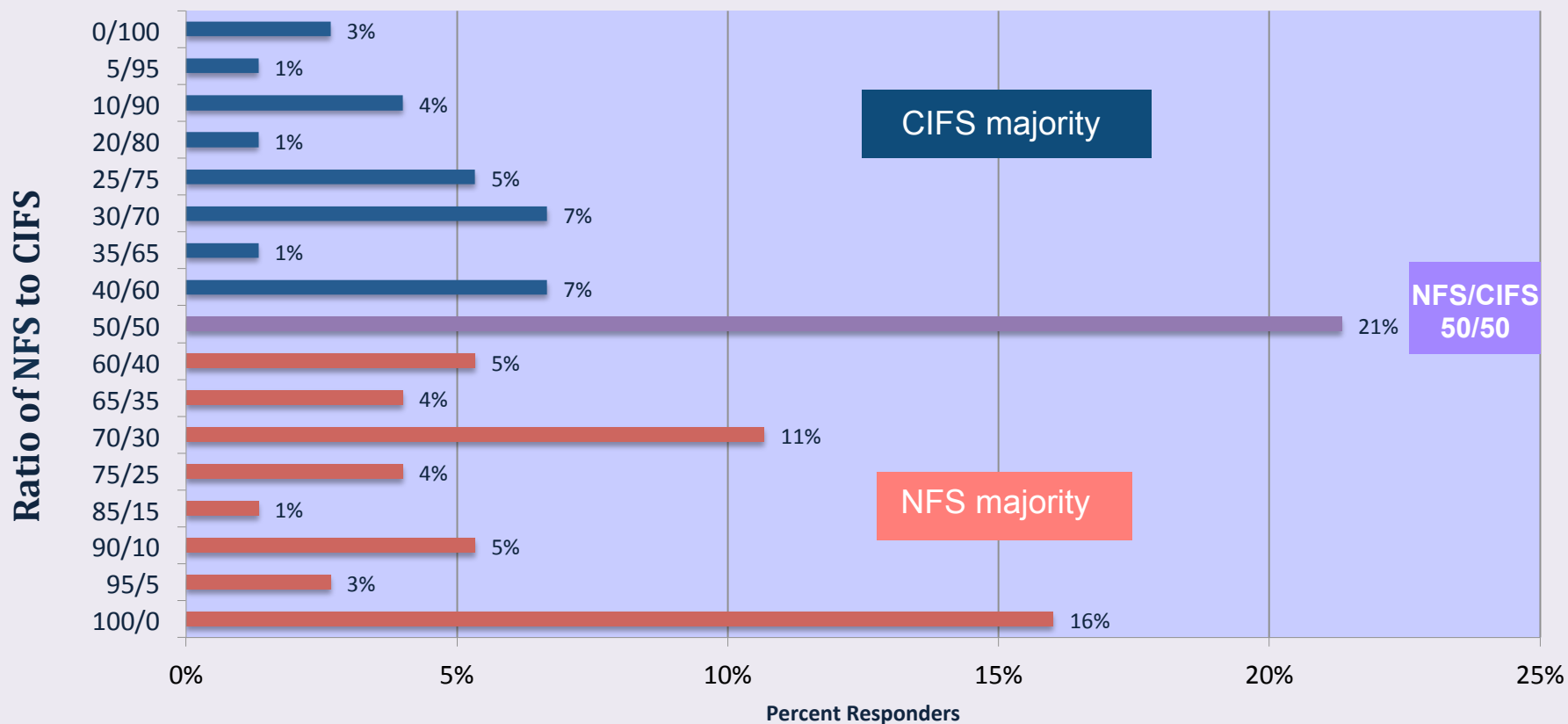➢ *100% of responders participated voluntarily; none were engaged using telemarketing.*

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What kind of storage network do you have?

NAS only
9%
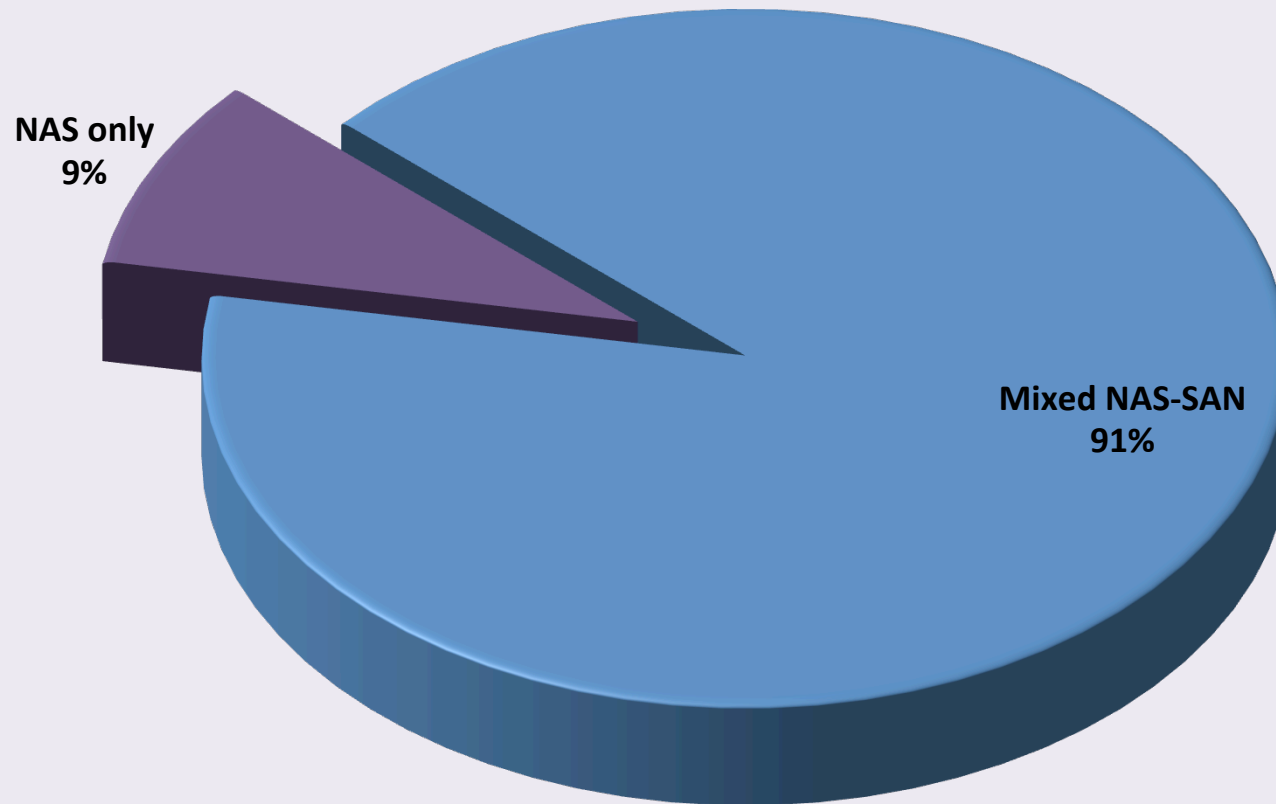
Mixed NAS-SAN
91%

91% of responders use mixed NAS-SAN networks.

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Regarding your NAS capacity, what is the proportion of NFS to CIFS?

Ratio of NFS to CIFS

Ratio	Percent Responders
0/100	3%
5/95	1%
10/90	4%
20/80	1%
25/75	5%
30/70	7%
35/65	1%
40/60	7%
50/50	21%
60/40	5%
65/35	4%
70/30	11%
75/25	4%
85/15	1%
90/10	5%
95/5	3%
100/0	16%

CIFS majority

NFS/CIFS 50/50

NFS majority

Percent Responders

49% of responders report that more than half of their NAS capacity is NFS.

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What is the total amount of storage capacity managed by you or your storage group?

Percent Responders

- 1 TB-10 TB: 8%
- 11 TB-50 TB: 16%
- 50 TB-200 TB: 19%
- 201 TB-500 TB: 16%
- >500 TB: 41%
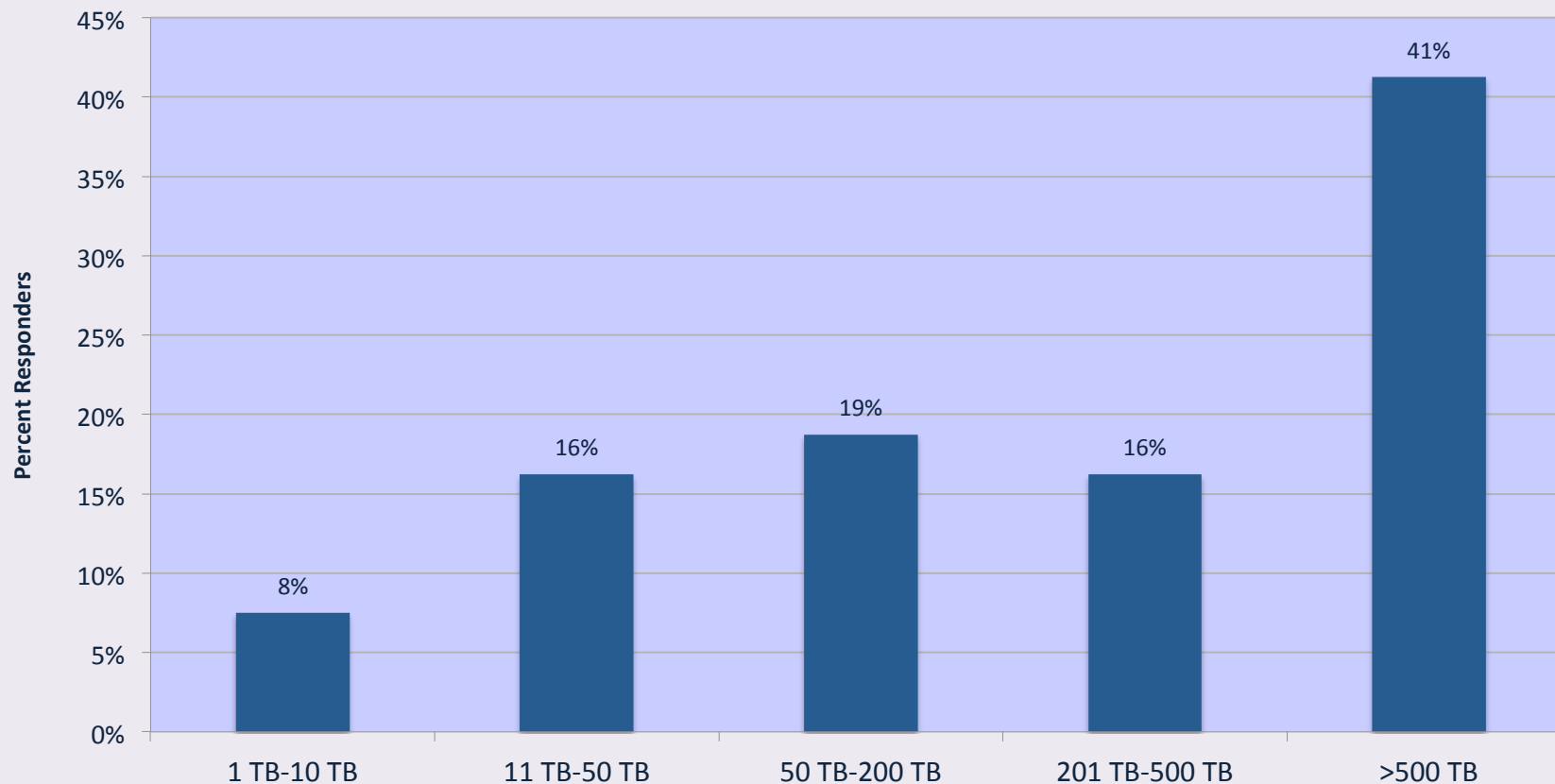
57% of responders manage 200 terabytes or more. 41% manage over 500 terabytes.
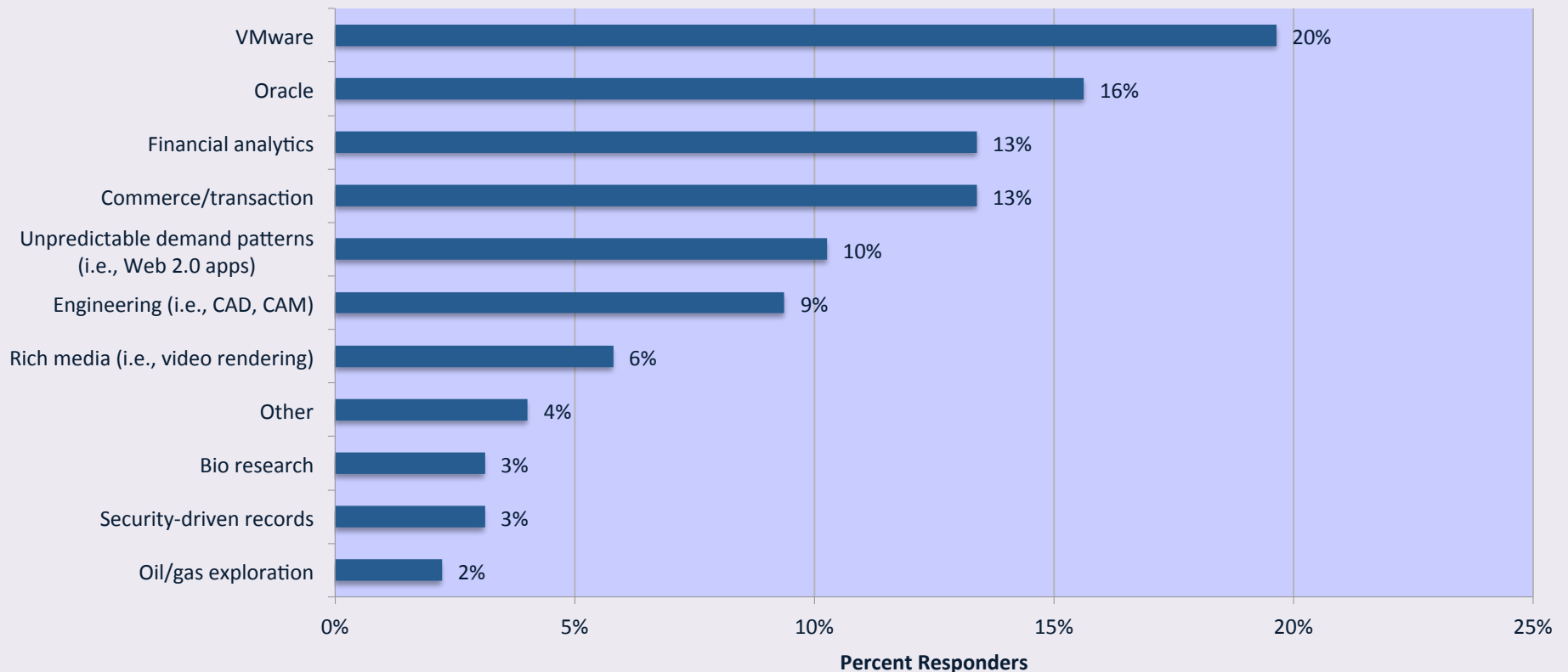
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Do you have applications that require high-performance from the storage network and/or applications where demand for files is unpredictable?

YES 84%

NO 16%
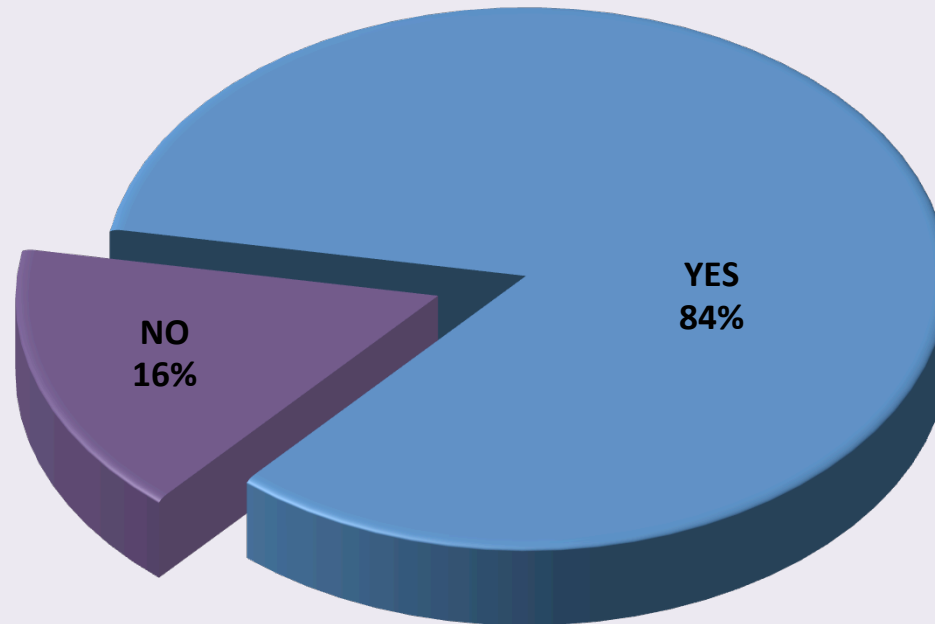
84% of responders have high performance storage requirements and/or run applications with unpredictable file access demands.

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What applications or usage areas are the sources of performance demand?

Percent Responders

- VMware — 20%
- Oracle — 16%
- Financial analytics — 13%
- Commerce/transaction — 13%
- Unpredictable demand patterns (i.e., Web 2.0 apps) — 10%
- Engineering (i.e., CAD, CAM) — 9%
- Rich media (i.e., video rendering) — 6%
- Other — 4%
- Bio research — 3%
- Security-driven records — 3%
- Oil/gas exploration — 2%

49% of responders report that VMware, Oracle & financial analytics are the primary sources of performance demand.

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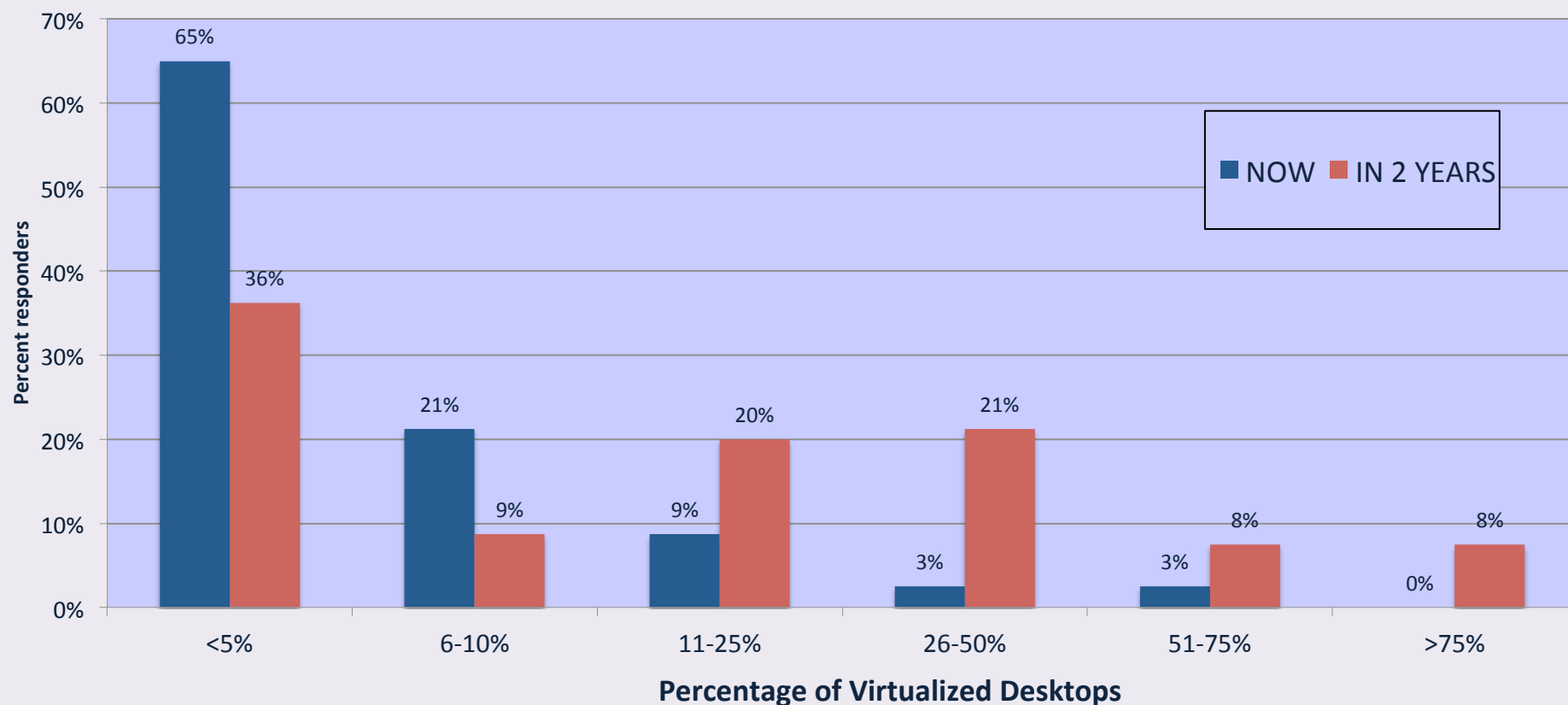GATEPOINT RESEARCH

Does your company have a virtualization strategy and if so, do you have virtual servers?

Virtualization Strategy?

NO
6%

YES
94%

Virtual Servers

NO
4%

YES
96%
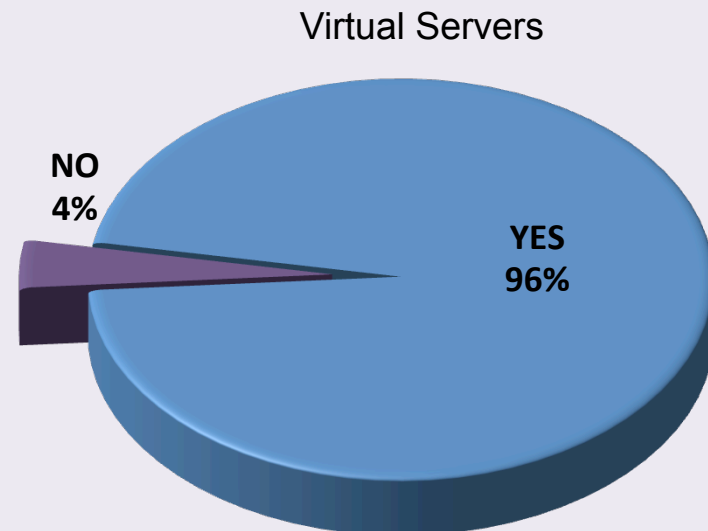
The vast majority of responders have a virtualization strategy and of those, 96% also have virtual servers.

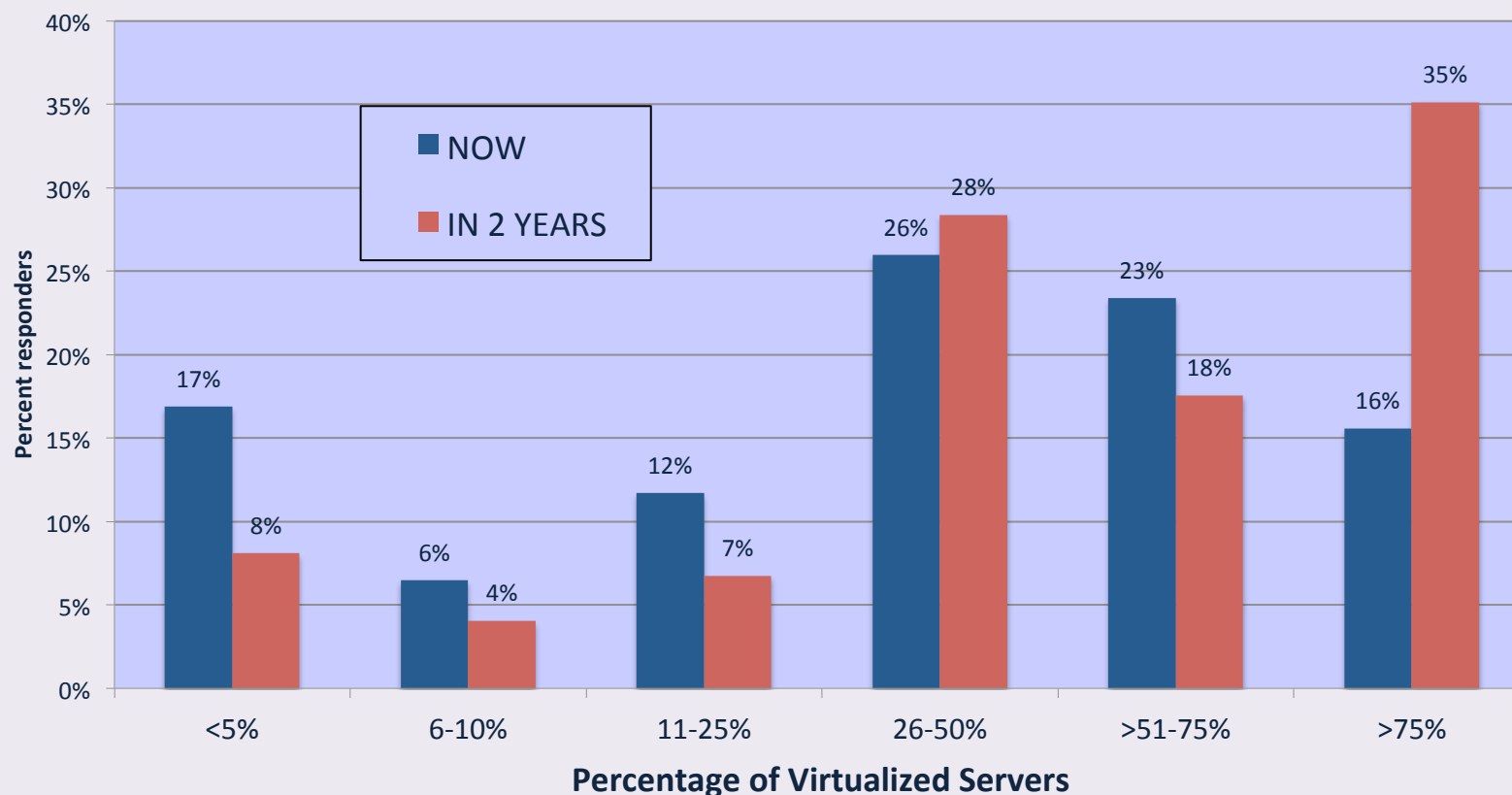**PulseReport**
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What percent of your desktops are virtualized?

97% of responders have less than half their desktops virtualized. On the two year horizon, most expect an increase in virtualization.
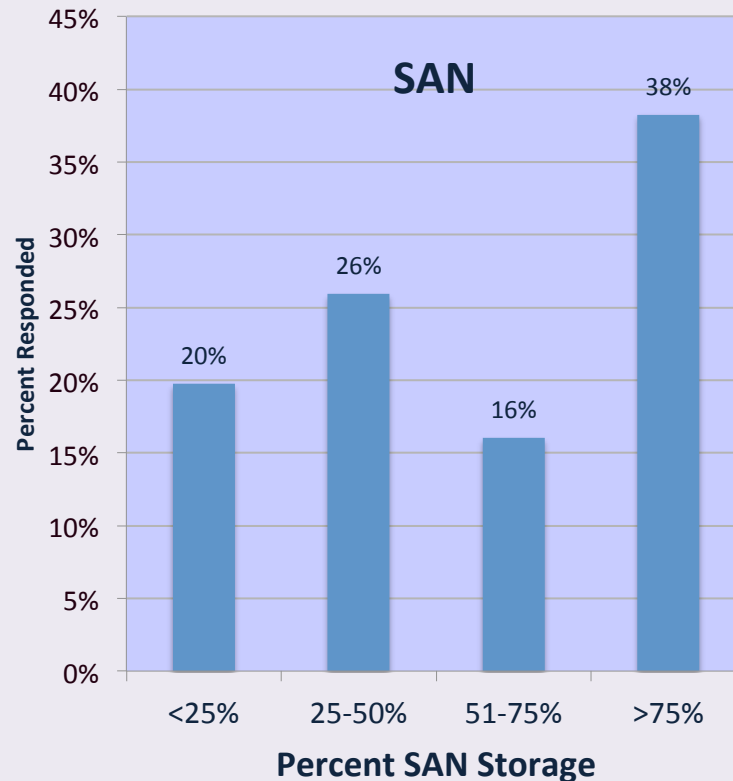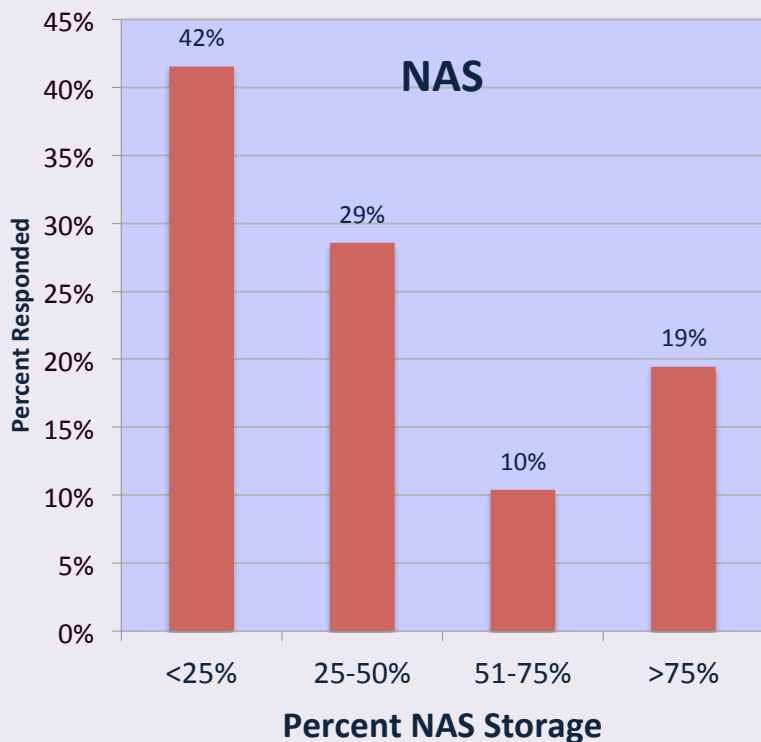
What percent of your servers are virtualized?

39% of responders have more than half their servers virtualized.
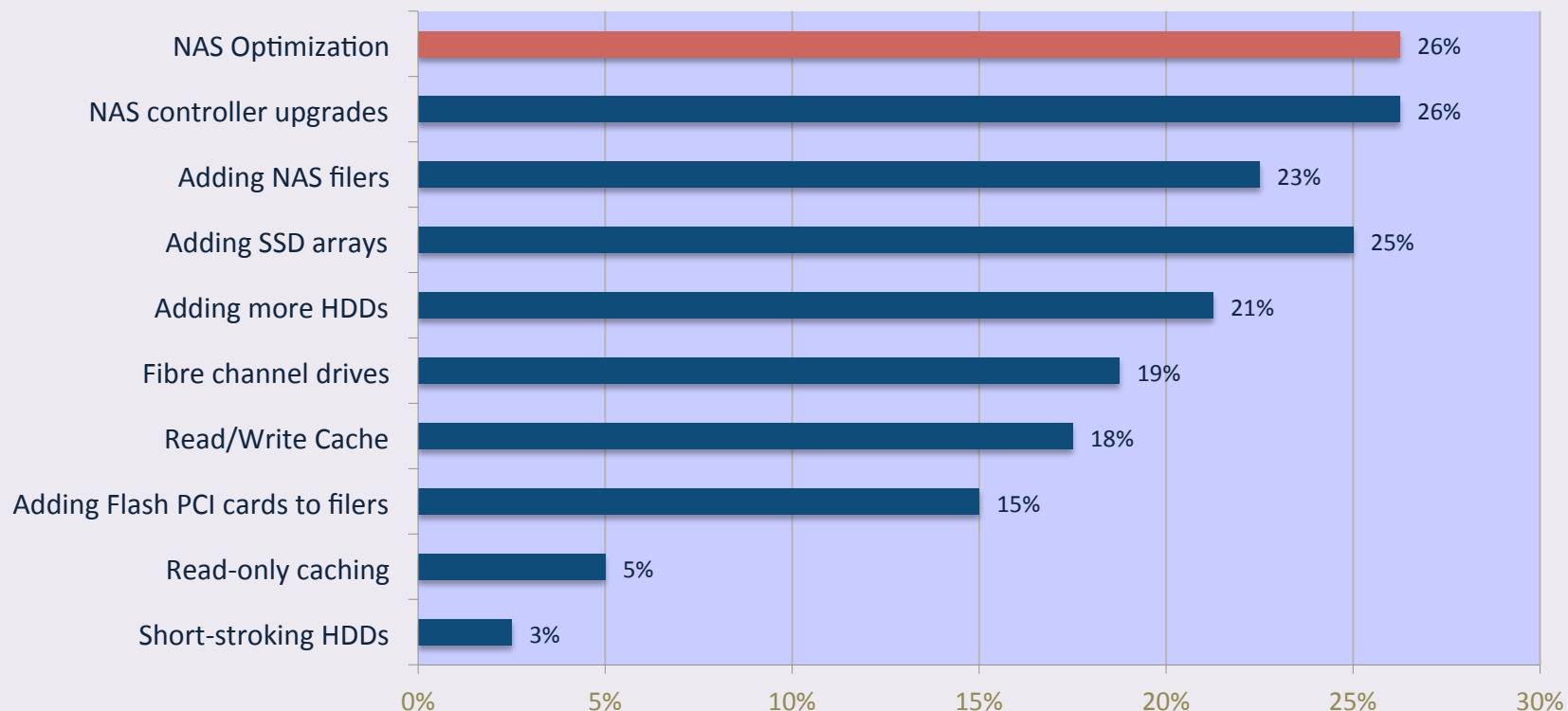**Most see that number increasing within two years.**

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In your virtualized storage environment, what percent is SAN and NAS?

NAS chart (Percent Responded vs Percent NAS Storage):
- <25%: 42%
- 25-50%: 29%
- 51-75%: 10%
- >75%: 19%

SAN chart (Percent Responded vs Percent SAN Storage):
- <25%: 20%
- 25-50%: 26%
- 51-75%: 16%
- >75%: 38%

42% of responders have less than 25% of their virtualized storage as NAS.
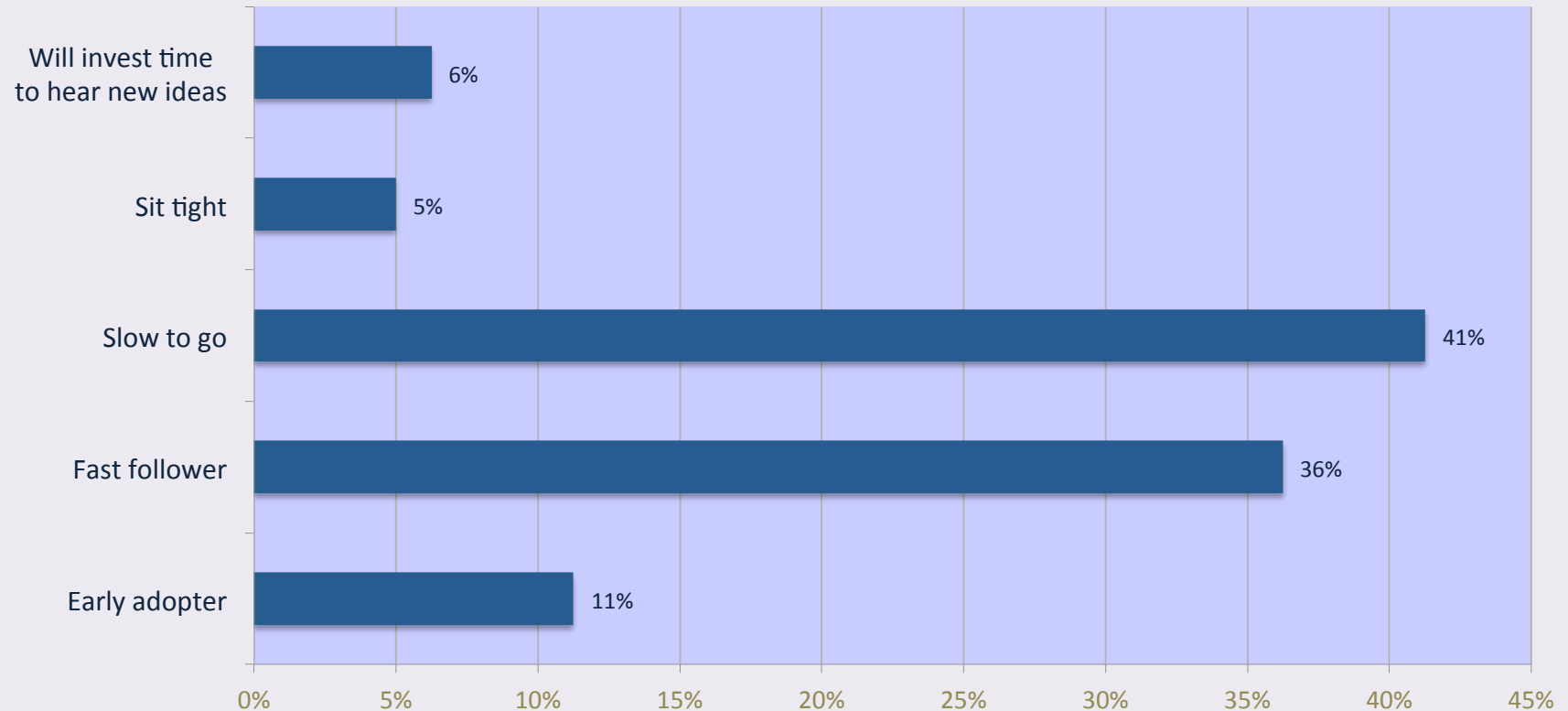*38% have more than 75% as SAN*

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What solutions are you considering to meet the challenges to storage performance posed by virtualization?

Solution	Percentage
NAS Optimization	26%
NAS controller upgrades	26%
Adding NAS filers	23%
Adding SSD arrays	25%
Adding more HDDs	21%
Fibre channel drives	19%
Read/Write Cache	18%
Adding Flash PCI cards to filers	15%
Read-only caching	5%
Short-stroking HDDs	3%

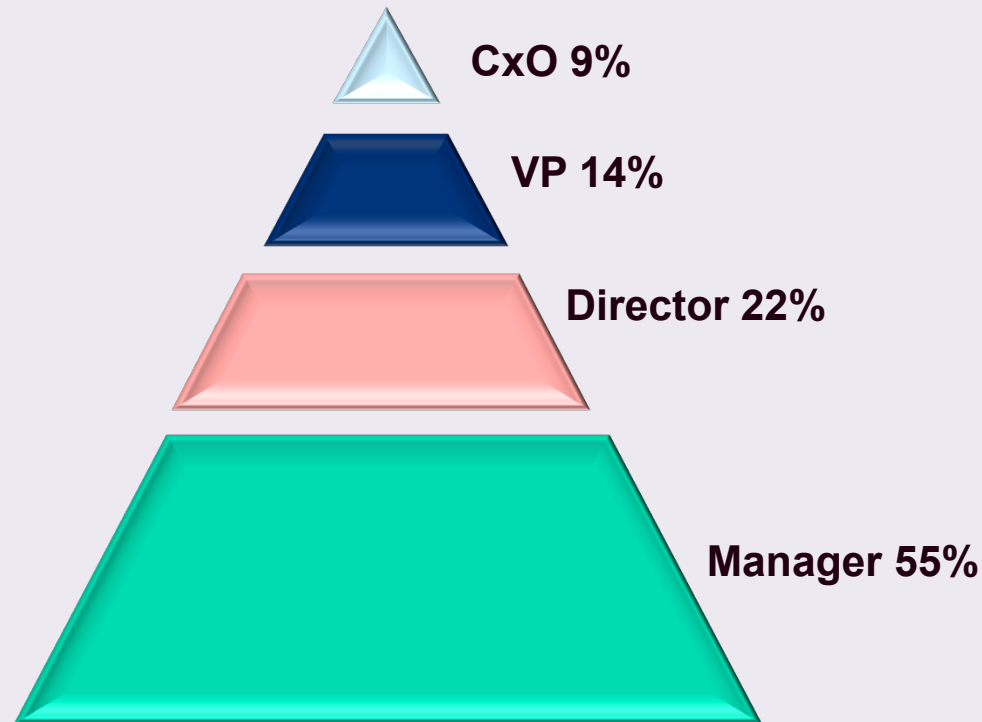*NAS Optimization* **tops the list of respondents' choices for meeting the storage challenges posed by virtualization.**

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How would you characterize your organization's propensity to try new approaches?

Category	Percentage
Will invest time to hear new ideas	6%
Sit tight	5%
Slow to go	41%
Fast follower	36%
Early adopter	11%

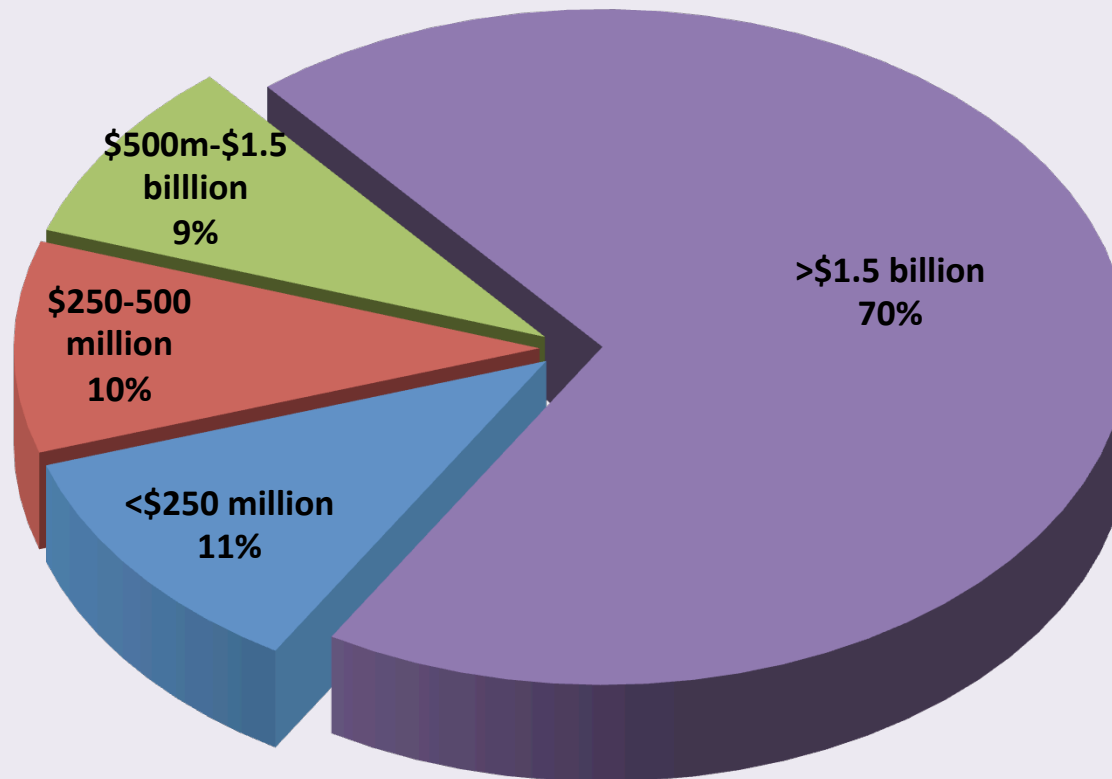*47% of responders consider their organization to be fast followers or early adopters when considering new approaches.*

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Profile of Responders: Job Level

CxO 9%

VP 14%

Director 22%

Manager 55%

45% of responders work at the Director level or above.

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Profile of Responders: Company Revenue

$500m-$1.5 billion
9%

$250-500 million
10%

<$250 million
11%

>$1.5 billion
70%

70% of responders are employed by companies with annual revenues exceeding $1.5 billion.

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About AVERE

 Avere Systems provides NAS optimization appliances that deliver unprecedented performance acceleration, cost savings and operational visibility, proven in real-world VMware deployments.

When compared to traditional NAS, the FXT Series provides optimized performance scaling through clustering, deeper insight into VMware operations, and a 5:1 reduction in disks, power, and space.

For more information, visit **www.averesystems.com**

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