

# Customer Insight on Flash in the Data Center

Forum D-11: “Flash in Data Centers”

Marco Coulter – Vice President, 451 Research

## About the Speaker



Marco Coulter, a Vice-President at 451 Research where he manages the storage Voice of the Enterprise practice. His expertise include storage, internal and external cloud, data center operations, software/hardware purchasing, software development, marketing, and product programs.

Before joining 451 Research, he spent 12 twelve years in an IT department advisory role and as Vice-President of several divisions. He helped redesign the IT facility to a virtually-provisioned, automated, tiered model. His product line experience includes spurring revenue growth, directing remote teams, instituting project management methodology, improving product development delivery, optimizing customer support services, and defining business strategy to offer a complete end-to-end storage management platform. He presents at many conferences (including CA World and HP World) and executive events, and contributed quotes and research to articles in CIO Insight, ComputerWorld, Network Computing, and other media outlets. His years of experience on both the vendor and customer side of IT gives him a unique perspective on data center operations, software/hardware purchasing, software development, and storage system management.

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Read other research from Marco Coulter:

<https://451research.com/search?author=Marco+Coulter>

## Sampling of Our Membership

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Chief Information Officer

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Chief Information Security Officer

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Chief Technology Officer

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Data Center Manager

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Director of Enterprise Mobility

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Director of Information Security

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Director, Business Intelligence

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Director, IT - Global Strategy

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Global Information Security Program Director

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Global Manager, Enterprise Architecture & Delivery

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Infrastructure Integration Officer

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IT Senior Manager, Performance & Reporting Excellence

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Mgr. Global IT Facilities

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Senior Director Enterprise Architecture

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Sr. Manager, IT Vendor Management

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SVP Information Technology/CIO

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SVP, Global Head of Capacity Planning

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VP, IT Operations

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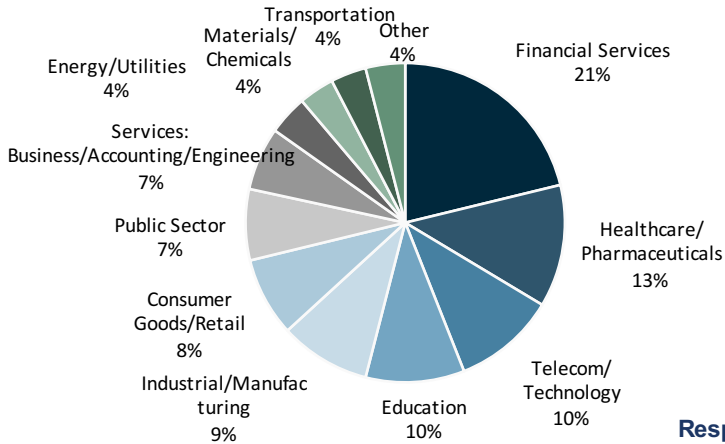
VP. IT Security

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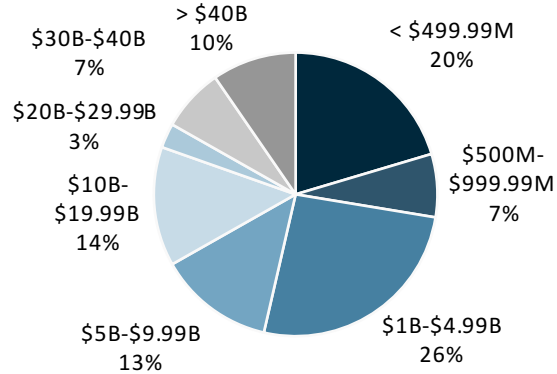


# Demographics – Storage Wave 19

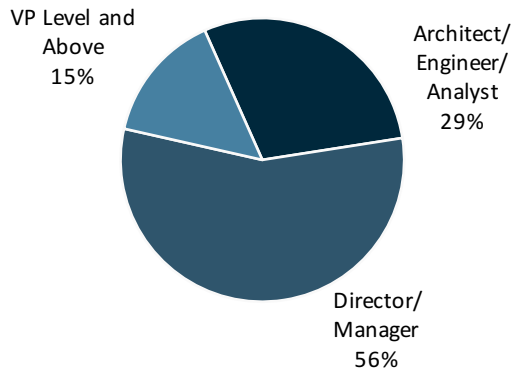
**Industry Verticals**



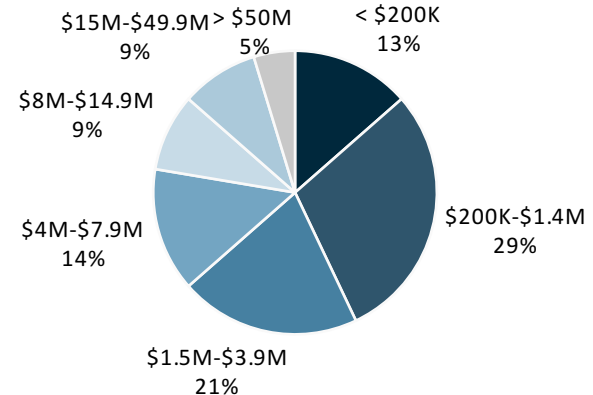
**Enterprise Revenue**



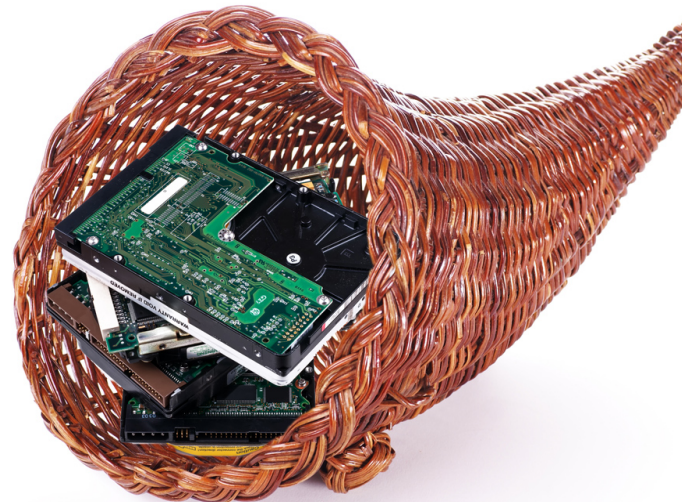
**Respondent's Title**



**Storage Budget Level**



the storage cornucopia



'Too many options to choose from  
– vendors, solutions, products  
within a particular vendor.' – MSE  
– Telecom/Technology

'[Pain Point] Pace of change  
within storage technology  
industry' – MSE – Public Sector

'Complexity of our current  
environment because  
we've got one of  
everything.' – LE –  
Consumer Goods/Retail

## the storage cornucopia

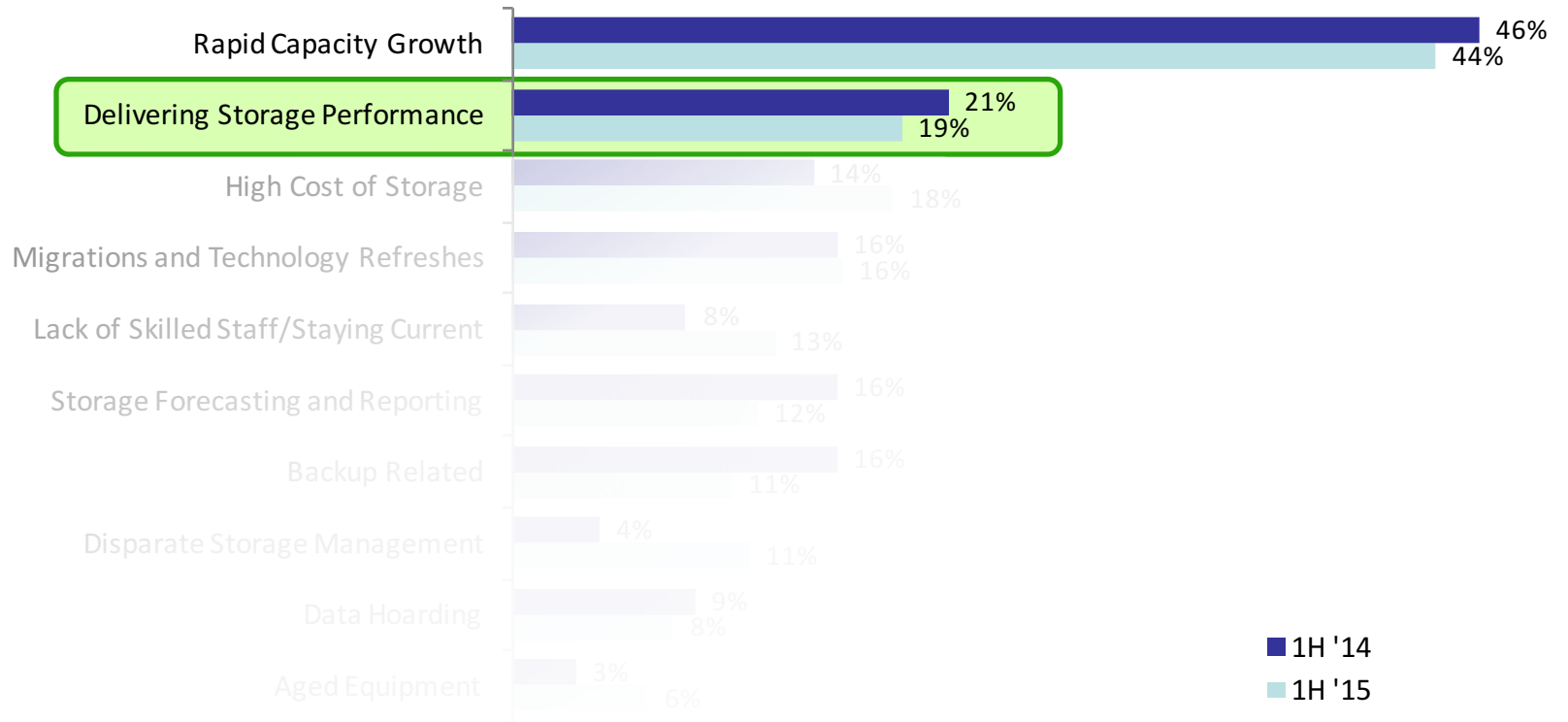
'Where to invest?  
Converged vs.  
conventional, separated  
storage, vs. distributed  
virtual solutions' – LE –  
Telecom/Technology

'So much going on within storage – server SANs, different kind of  
flash arrays, choosing the right solution moving forward. ... It's  
actually quite difficult to figure out. Things that look most interesting –  
new vendors, haven't been in the market for that long. Seeing  
whether, ... whether their solutions are viable on a long-term basis, I'm  
not convinced of it yet.  
Second thing is whether these kind of arrays are completely outdated  
and, because we're running VMware, I should be looking at an open  
source thing, such as CEPH' – MSE – Public Sector

'Too many storage vendors.  
There is no clear path for any  
technology' – LE –  
Healthcare/Pharmaceuticals

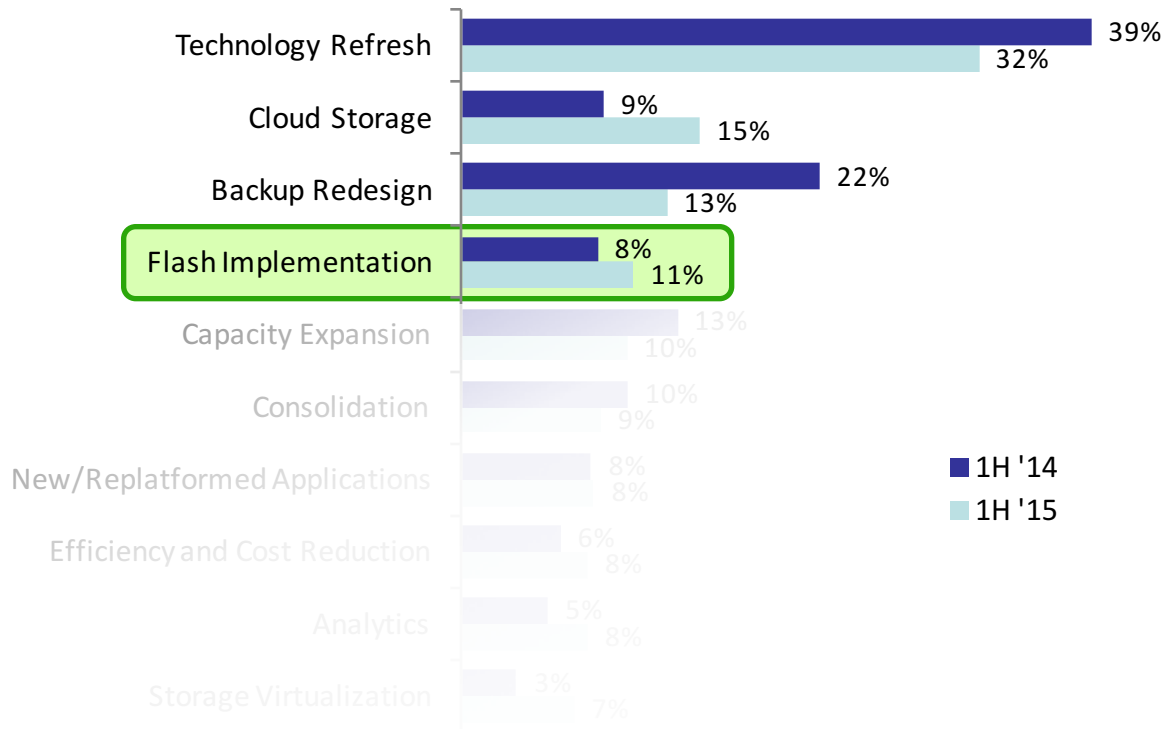
## Storage Pain Points – Time Series of Top Categories

*Performance second commonest pain point*



## Storage Projects – Time Series of Top Categories

### *Flash a top-five project*

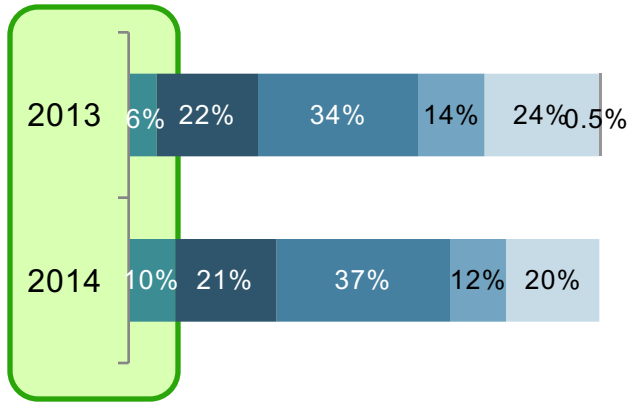




# Capacity by Drive Type – Time Series

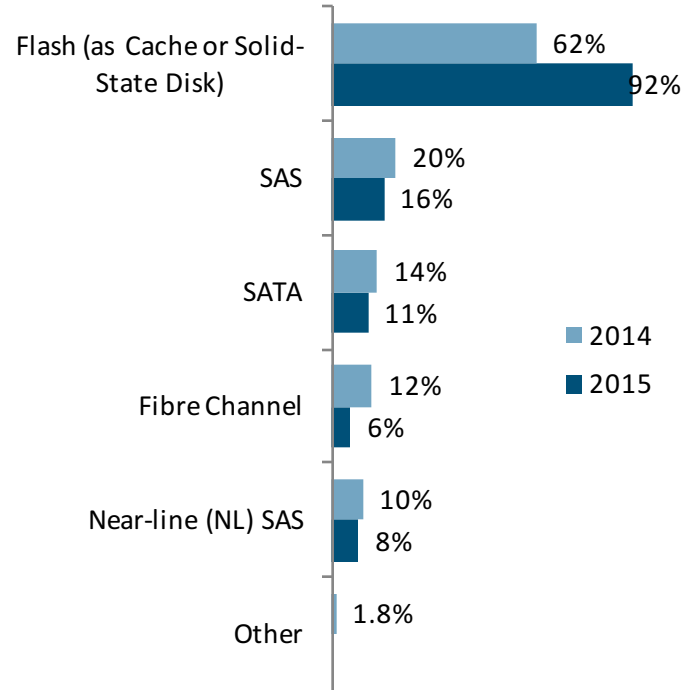
## *Unprecedented growth for flash drives*

### Disk Storage Purchased

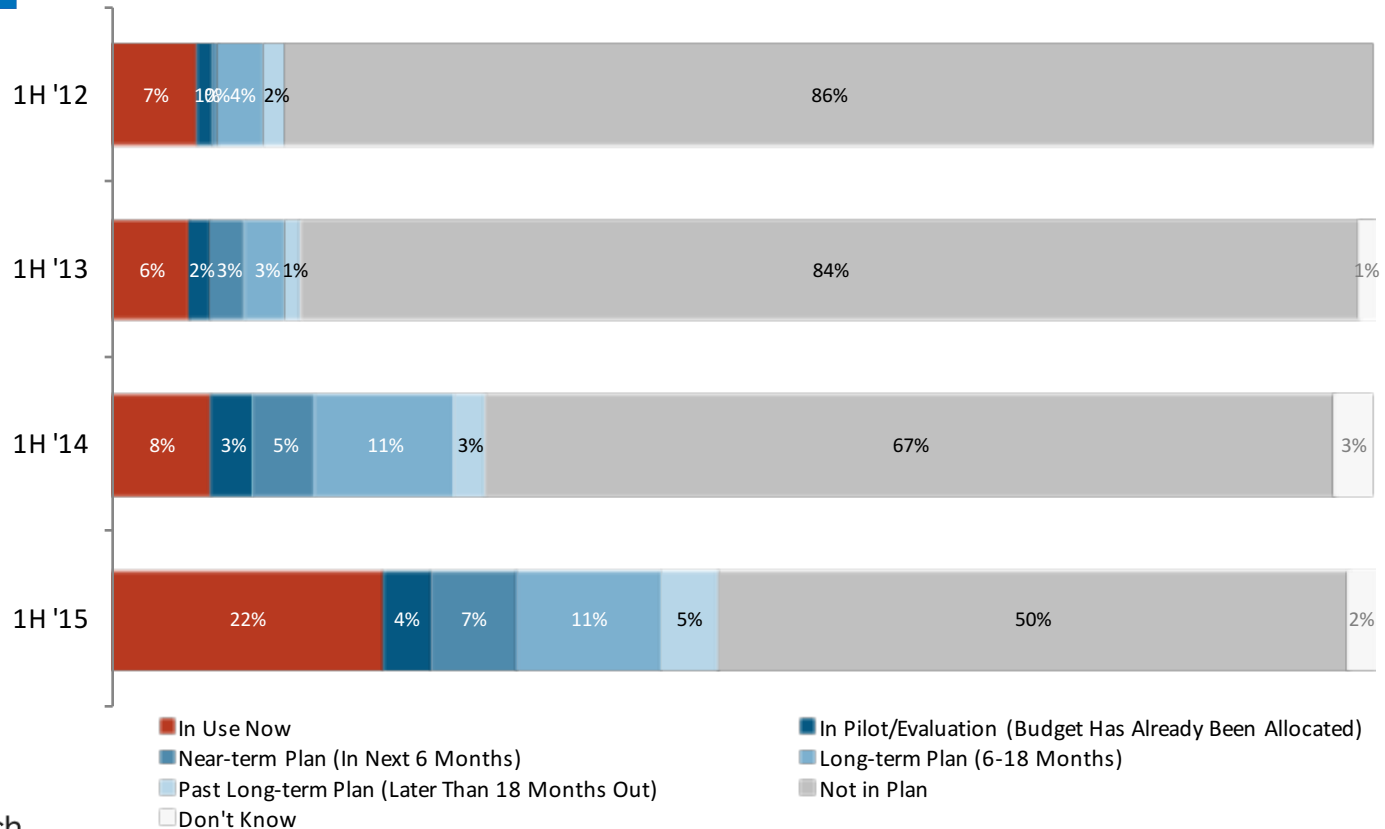


- Flash (as Cache or Solid-State Disk)
- Fibre Channel
- SAS
- Near-line (NL) SAS

### Growth Rate

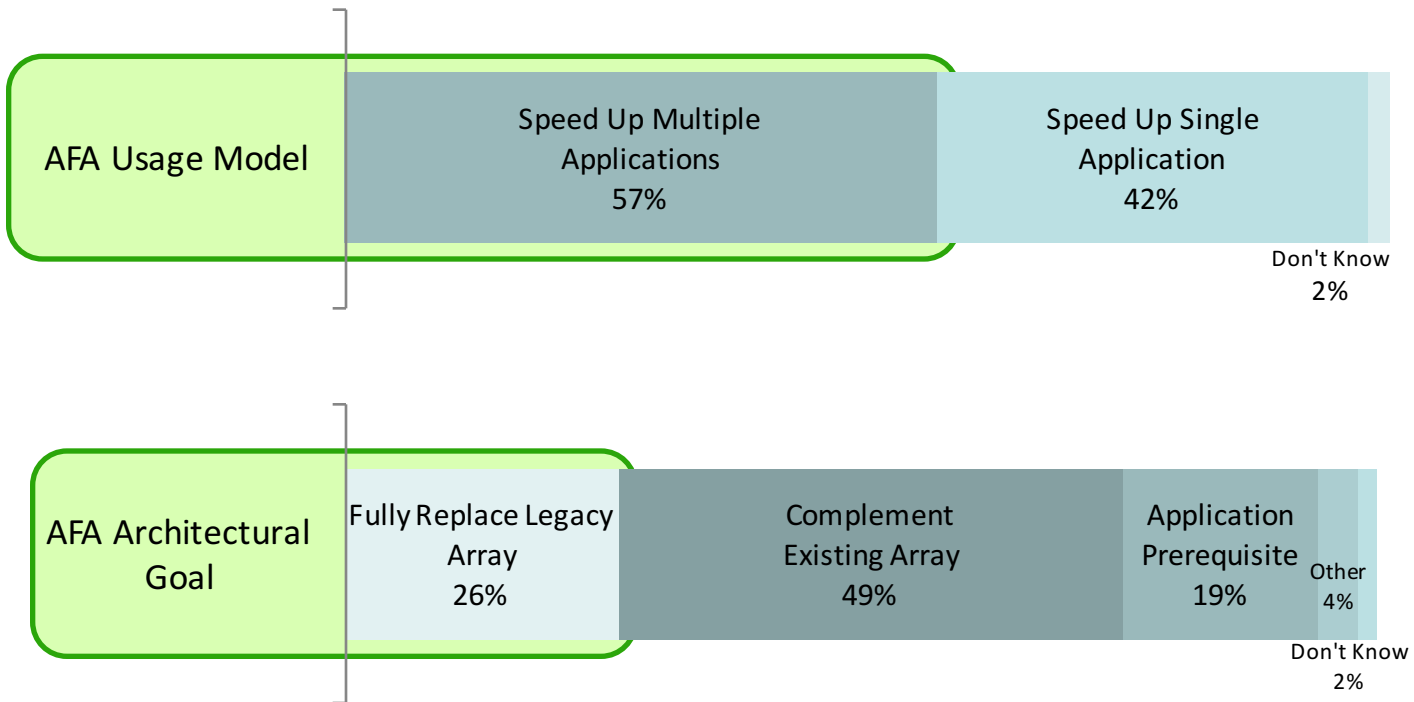


## All-Flash Arrays – Implementation Roadmap



## All-flash Array: Usage and Architectural Models

### *AFA moving from niche to general replacement usage*



## Upcoming Events

- Marco is speaking at the Flash Memory Summit, Santa Clara Convention Center:
  - Wed Aug 12 3:10-4:15pm  
Session 203-D: Flash Storage Outlook (Storage Wars)  
Why enterprises choose or reject AFA's; which workloads go to flash; storage budget trends; architecture trends.



Each individual report summarizes interesting portions of TheInfoPro's Wave 19 Storage Study and does not comprehensively review the hundreds of pages of research that form the full study. **For access to TheInfoPro's reports and services, please contact [sales@451research.com](mailto:sales@451research.com).** Methodology questions may be addressed to [client.services@451research.com](mailto:client.services@451research.com).

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