



# Cloud Storage Adoption Trends, Barriers and Expectations

## A Survey



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## Summary

In the fall of 2009, a survey of more than 400 IT professionals probed their status and plans for cloud storage as a means of handling unstructured data. A broad spectrum of industries was included in the survey with software and technology, government, education and financial services being the most prevalent.

The bulk of the survey respondents (68 percent) stored more than five terabytes of unstructured data. 29 percent of the respondents stored more than 50 terabytes. Unstructured data included email, archives, media files, collaboration files and backups.

The most often-cited issues with current storage for unstructured data were limited scalability (53 percent) and limited flexibility (50 percent). Data integrity (43 percent) and data protection (41 percent) were other top concerns.

Security and privacy were most often mentioned by the IT professionals as a barrier to cloud storage adoption (47 percent). On the other hand, ***in spite of its relatively new standing in the market, nearly half of the respondents (47 percent) either already were or were planning to use cloud storage.***

Applications most often planned for the cloud included backup (38 percent) and archive (37 percent). Primary file storage was cited by 25 percent of the respondents.

Expected benefits of cloud storage included lower storage costs (64 percent) and the ability to support dynamic growth and contraction (61 percent).

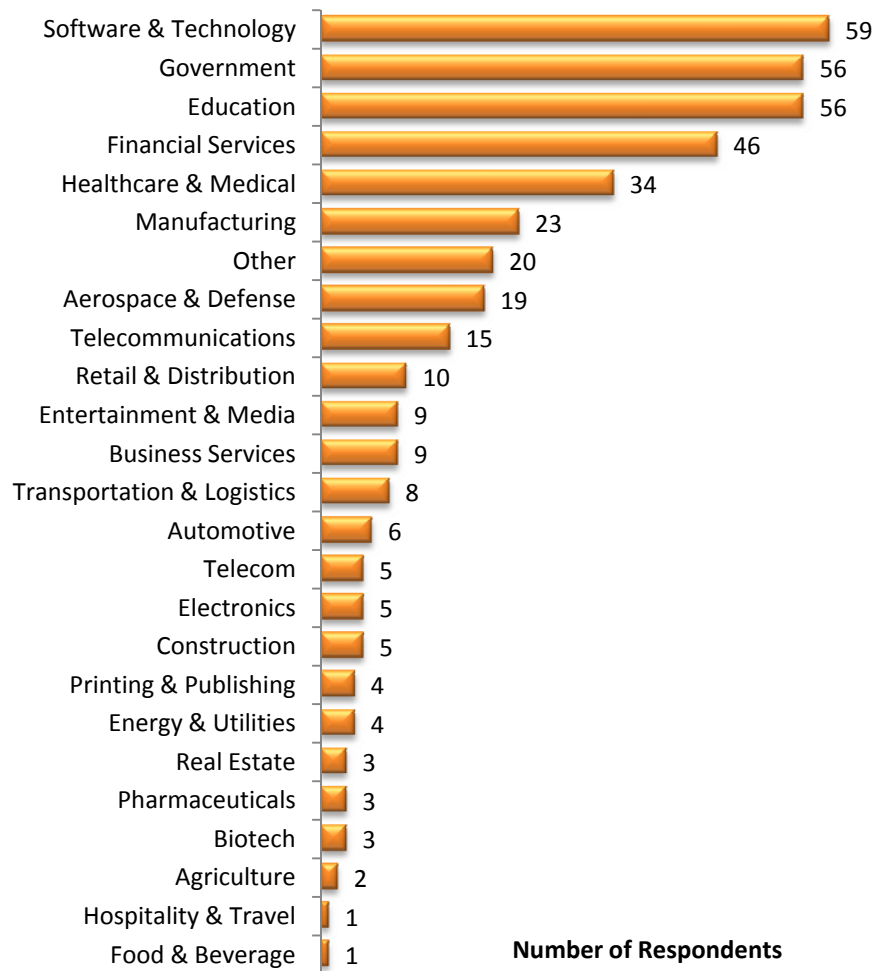
Enterprise interest and need are high, with a reasonable set of concerns. Zetta Enterprise Cloud Storage is a solution built to meet these needs and address the enterprise concerns.

## Introduction

While still new to the IT world, cloud storage has to overcome some users' concerns, and educating the audience is a vital step, but those who use it often claim they would never switch back to their old technology.

In late 2009, Zetta conducted this survey in various emedia bulletins to get readers' feedback on the concept of cloud storage — and any issues encountered with real-world deployments — in order to better tailor its products and services to fit user needs.

The survey covered a wide spectrum of industries with the top five responding segments being software and technology, government, education, financial services, and healthcare and medical.

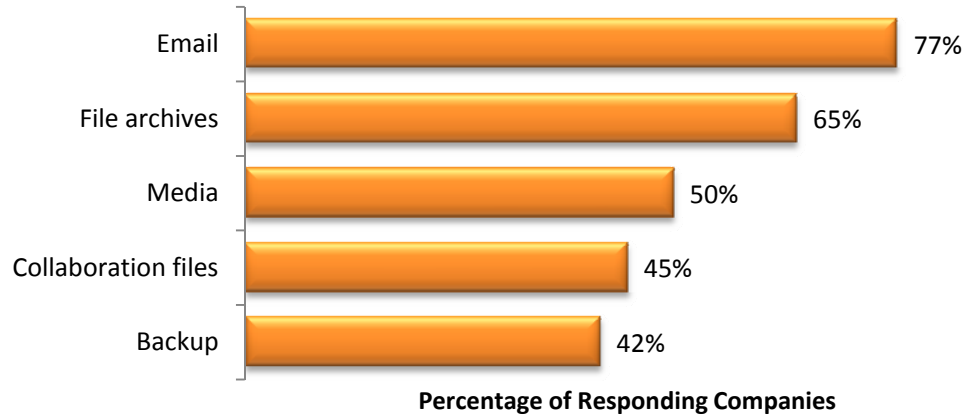


Over 400 industry professionals completed the survey. The following are the results.

## What are the sources of unstructured data at your organization?

This question allows for multiple selections. E-mail (77 percent) and file archives (65 percent) were the most prevalently selected sources of unstructured data, but even the least often selected (backup) was mentioned 42 percent of the time. The bottom-line message is that this type of unstructured data is in most organizations and needs to be stored and managed.

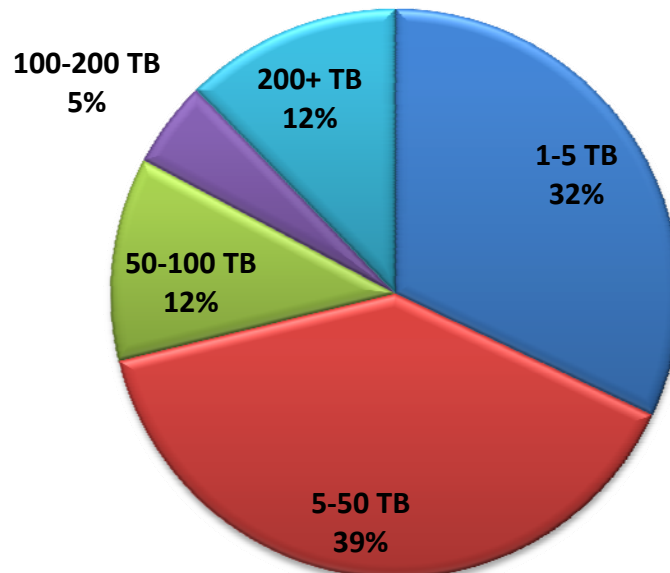
### Sources of Unstructured Data



## How much of this data do you store?

In this survey, the largest segment of respondents (39 percent) estimated they stored between 5 and 50 terabytes of unstructured data. 29 percent of the respondents managed more than 50 terabytes of unstructured data. 32 percent stored only 1 to 5 terabytes.

### Unstructured Data Capacity



## What current methods are you using to handle unstructured data growth?

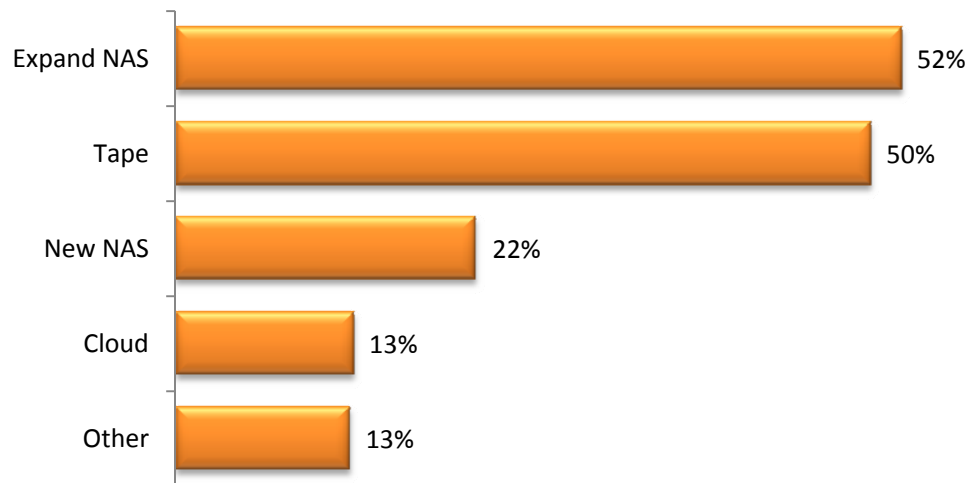
The next question focused on how companies were currently handling their unstructured data storage. Multiple selections were allowed.

The most often-chosen answer was to expand their current Network Attached Storage (NAS) system (52 percent of respondents). 22 percent were planning for new or additional NAS systems.

Tape played the second largest role at 50 percent of the respondents.

At the same time, 13 percent of the respondents said they were already using some form of cloud storage for some of their unstructured data.

### Current Handling of Unstructured Data



A fill-in-the-blank category of “Other” was also allowed. Those answers included:

- Additional External drives
- Archive to offline storage
- Attached RAID, DAS
- Capture to disk, age off to tape
- Client external drive backup
- D2D2T appliance
- Dedup
- DPM
- ECM
- External hard drive
- File compression and SAN with growth for 2 years
- Filling up current available space and pruning
- Flash
- ILM moving data between storage tiers
- Optical
- Paper files
- Remote SFTP storage
- SAN
- Selectively review and archive
- VTL

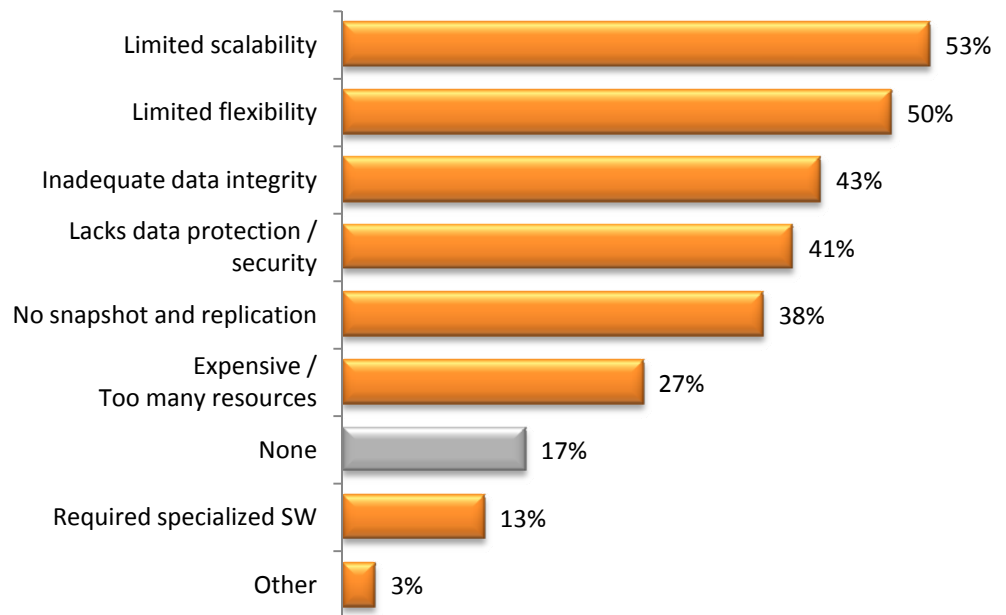
## What are your biggest issues with your current system for storing unstructured files?

Perhaps suggesting reasons for changing the status quo, the next question delves into what are the most pressing issues with the current methods of storing unstructured data.

Respondents were free to select as many issues as they had. Only 17 percent of the respondents had no issues with how they were currently storing data.

Limited scalability topped the list with 53 percent of the respondents citing it as a big issue, followed closely by limited flexibility (50 percent).

### Problems with Current Unstructured Data Storage



Some of the responses in the “other” category include:

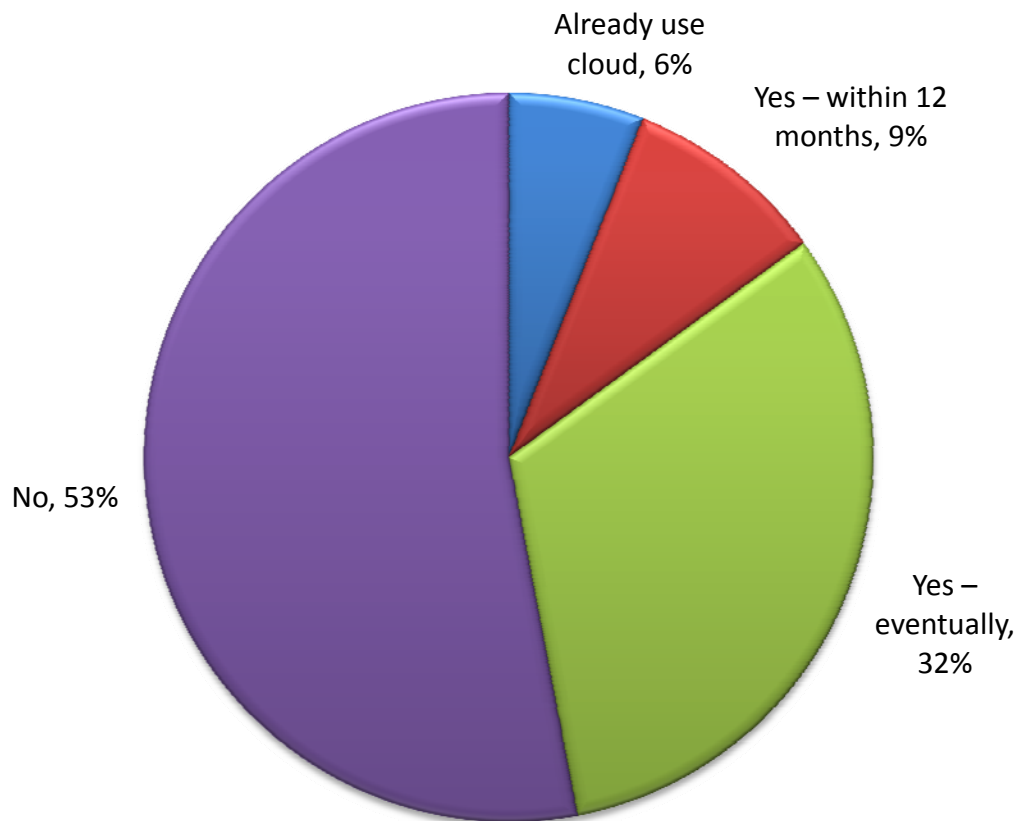
- Forecast of volume
- Growth is explosive
- Lack info on what it is
- Learning cycle, fixing issues, diagnosing issues
- Real estate required too costly
- Restores
- Software and middleware crawl
- Tape too slow to meet business requirements
- Time consuming, manual
- Worried about TOS and legal issues of cloud storage

## Is your company currently considering implementing cloud storage solutions?

While only 6 percent of the respondents were already using cloud storage, nearly half (47 percent) of the respondents were planning to eventually use some form of cloud storage.

It could be noted that in the answers to a prior question (“What current methods are you using to handle unstructured data growth?”), 13 percent of the respondents said they were using cloud storage. This may represent a combination of the “already use” and “will use within the next 12 months” from this question.

## Will You Use Cloud Storage



## What applications are you or would you consider moving to cloud storage?

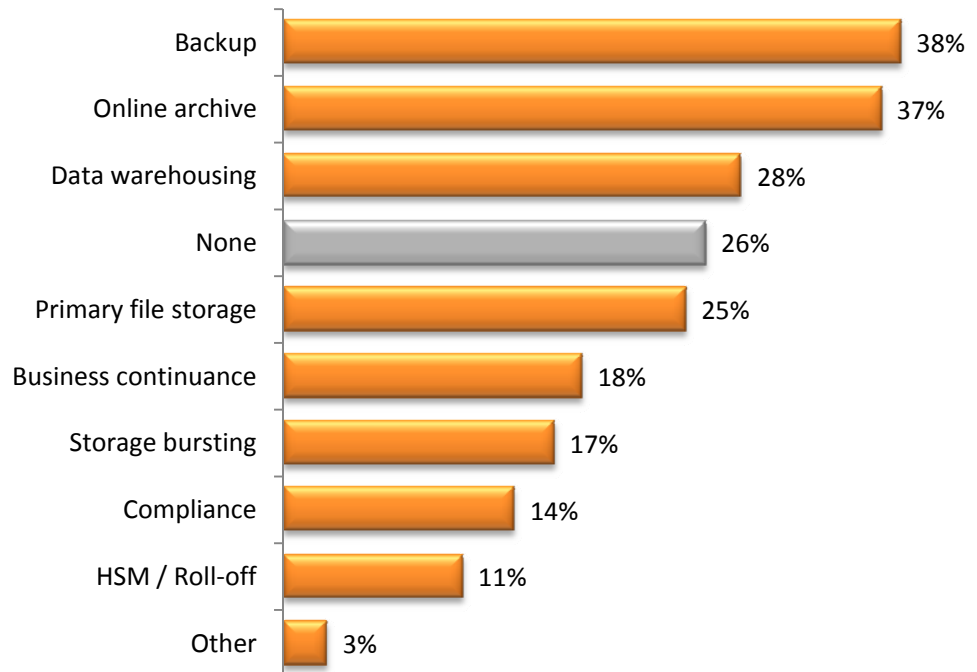
Respondents were asked to select which applications they either already were or would consider moving to the cloud. Multiple selections could be made.

The two most often-selected applications were backup, selected by 38 percent of the respondents, and online archive at 37 percent. There is no surprise there, as those are very early use cases that can fit into first-generation cloud storage offerings.

Data warehousing (28 percent), primary file storage (25 percent) and business continuance (18 percent) were the next most chosen applications. It's interesting that primary file storage scored as high as it did. Many early cloud offerings do not make that an easy transition as new APIs and storage techniques are required. This indicates though a need and willingness on the part of the users to explore this option.

26 percent of the respondents selected "none," indicating that they would not consider using cloud storage for anything. This is a much smaller number, though, than the prior question where 53 percent of the respondents said they had no plans for cloud storage. Perhaps their plans will change?

### Applications Considered for the Cloud

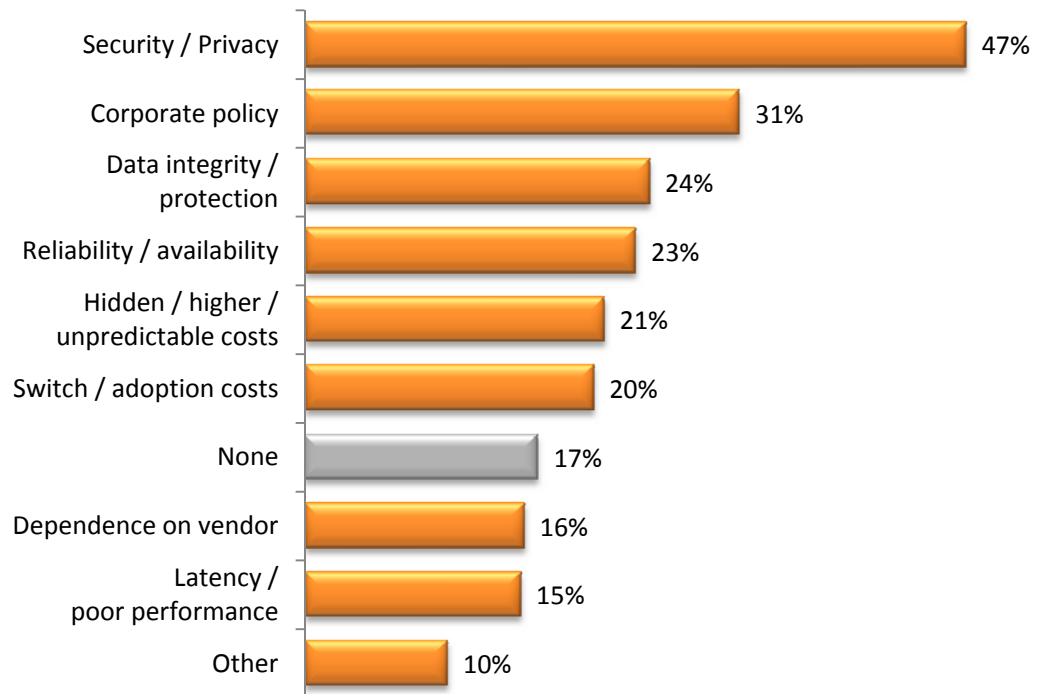


## What are your current barriers to implementing cloud storage?

The most often-cited barrier to implementation of cloud storage was security / privacy (47 percent of the respondents). At a distant second was corporate policy (31 percent).

All scoring in the 20 percent range as a barrier to at least one out of five respondents were data integrity/protection, reliability/availability, and costs.

### Barriers to Cloud Storage



“Other” responses included:

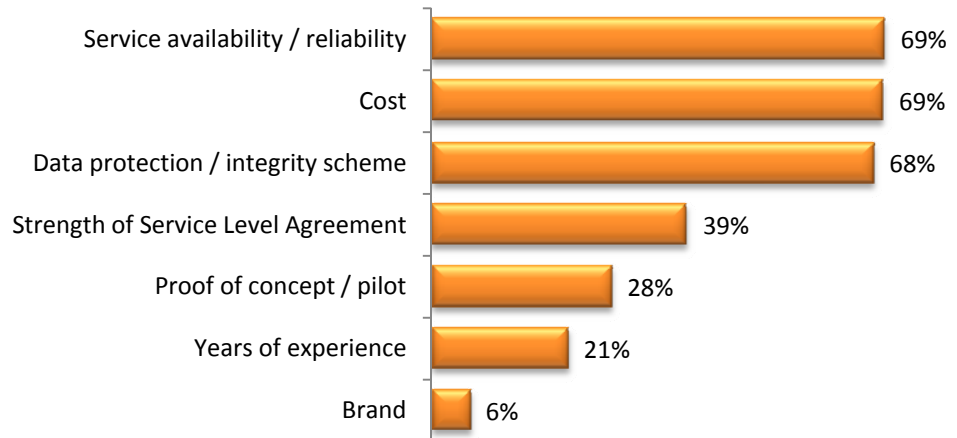
- Budget problems / restraints
- Detailed information, examples on how to do it
- Don't trust outsourcing data
- I would have to rewrite my application from SQL to MySQL
- Just starting the conversations
- Lack of standards
- Legal (many issues)
- Need
- Network topology
- Non-Internet-connected Govt info
- Not sure cloud is mature - yet
- Older co-workers
- Poor leadership, lack of integration
- Psychological
- Regulatory issues with reliability and industry guarantees that do not actually provide enough assurance of data recovery
- Resources to plan, implement
- Time (Priority)
- Unknown technology

What are the most important considerations in selecting a cloud storage provider?

In terms of cloud storage vendor selection criteria, there was a clear mandate. Three aspects reigned supreme at nearly 70 percent respondent selection: service availability/reliability, cost, and data protection/integrity scheme.

A strong Service Level Agreement was the next most selected criterion at 39 percent of the respondents.

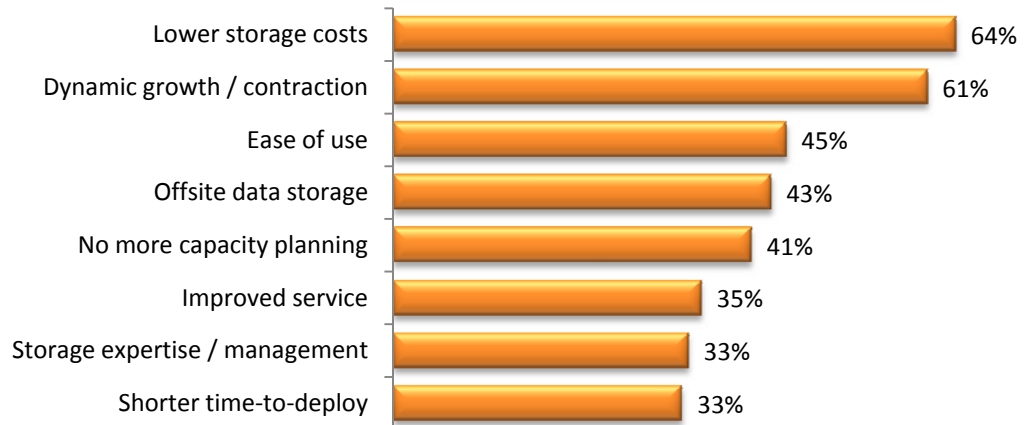
## Cloud Storage Vendor Considerations



What benefits would you expect to get from cloud storage?

In terms of expected benefits, 64 percent of the respondents mentioned lower storage costs while dynamic growth/contraction came in second (61 percent chose it). The next most commonly expected benefits, all receiving votes from at least 40 percent of the respondents, were ease of use (45 percent), offsite data storage (43 percent) and no more capacity planning (41 percent).

## Expected Cloud Storage Benefits



## Conclusion

Cloud storage is a relatively new option, initially targeted at web 2.0 developers. For enterprise IT departments, cloud storage has been a wait-and-see proposition, just recently starting to get a lot of attention from IT departments.

As indicated through this and other surveys, interest is real. 13 percent of survey respondents said they were already using cloud storage and nearly half of the respondents expected to use cloud storage in the near future.

In spite of the legitimate concerns, the expected benefits of reduced costs and dynamic scaling, ease-of-use, offsite storage and many others are too significant to ignore. Organizations must examine the options and look for solutions that meet their needs while addressing any barriers or concerns.

A cloud storage solution such as Zetta's, designed and built for the enterprise customer, meets the enterprise needs (scalability, flexibility, and data integrity) and addresses the enterprise concerns (security/privacy, reliability, and adoption costs).

For more information on Zetta Enterprise Cloud Storage, please visit [www.zetta.net](http://www.zetta.net), call 1-877-GO-ZETTA, or follow Zetta on Twitter at [www.twitter.com/zettanet](http://www.twitter.com/zettanet).