



A Pulse on Virtualization & Cloud Computing

Prepared for Quest Software

by Norwich University, School of Graduate and Continuing Studies

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Background

- In March of 2011, Quest Software engaged Norwich University's School of Graduate and Continuing Studies to conduct a survey of virtualization and cloud computing among government and higher education IT management professionals.
- About Norwich University:
 - Founded in 1819 as the nation's oldest private military college.
 - Educates traditional-age students and adults in a Corps of Cadets and as civilians.
 - Is the birthplace of the Reserve Officers Training Corps (ROTC).
 - Offers a broad selection of traditional and distance learning programs culminating in baccalaureate and graduate degrees.
 - The School of Graduate and Continuing Studies at Norwich is home to 9 Master's programs, including the acclaimed Master of Science in Information Assurance, which led to the designation of "Center of Excellence" from DHS and NSA.

Objective

- The purpose of this research is to gauge perceptions of virtualization and cloud computing among federal, state and local, and higher education IT management professionals.
- Research will highlight:
 - Public vs. private cloud
 - Cloud computing attitudes & perceptions
 - Barriers & incentives to adoption
 - Cloud computing “exit strategies”
 - Security of cloud computing
 - State of adoption of virtualization & cloud computing
 - Similarities & differences between federal, state and local, and higher education audiences

Research Methodology

- Online surveys were completed by (n=646) government IT professionals from federal civilian, federal defense/intelligence agencies, state; local and municipal government; and higher education agencies (Margin of Error is +/- 3.85% at the 95% confidence interval for aggregated results).
 - Both employees and contractors who worked at federal civilian and defense/intelligence agencies were allowed to participate in the survey.
- Survey participants included government and higher education IT decision makers with the following job functions:
 - C-Level Management/Command
 - Executive/Senior/Comptroller/Division Management
 - Programs/Project Management
 - Administration/Operation Management
 - IT/IS/DP/Network/System Management.
 - Respondents who indicated “other” job functions were terminated from the survey.
- Respondents self-identified belonging to the following groups:
 - (n=307) Federal government/military (125 Federal civilian and 182 Federal defense or intelligence agency), MOE=+/- 5.59%
 - (n=128) State and local government , MOE+/- 8.66%
 - (n=211) Higher Education , MOE=+/- 6.73%

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Summary Findings: Virtualization

- 46.2% of respondents indicated their organization's virtualization status as "purchased" and are at various stages of implementation.
 - Of those who have implemented virtualization, the majority (65.5%) stated that virtualization has "made it easy to manage IT needs."
 - Interestingly, a higher percentage of higher education (73.0%) and state/local respondents (71.7%) selected this statement compared to federal respondents (55.7%).
- Once virtualization is implemented, top IT priorities include:
 - Training staff (26.2%)
 - Measuring utilization and success (26.5%)
 - Leveraging its potential w/cloud computing (20.4%)

Summary Findings: Cloud Computing

- One-half of respondents (49.7%) indicated their organization had no “exit strategy” with regard to cloud computing.
- There appears to be confusion between cloud computing and virtualization with more than half (64.6%) indicating some level of confusion between the two.
- A plurality of respondents indicated that a hybrid cloud model (36.1%) will best meet their organization’s needs in 5 years, followed by a private cloud model (28.2%).
 - Interestingly, federal respondents were more likely to believe a private cloud model would best meet their organization’s needs (37.0% compared to 23.6% state and local respondents, and 18.1% higher education respondents).
 - Further, very few respondents (7.3%) thought a public cloud model would best meet their organization’s needs.

Summary Findings: Cloud Computing, cont.

- The biggest incentive for adopting cloud computing was “cost savings”; that said, a higher percentage of higher education (35.4%) respondents reported this compared to federal respondents (28.0%).
- “Vulnerability to security breaches” was the biggest barrier to **public** cloud adoption.
 - A higher percentage of federal respondents (62.5%) were concerned about this as compared to state/local (42.2%) and higher education respondents (38.0%).
- Barriers to **private** cloud adoption included:
 - “Upfront costs” (17.8%)
 - Not surprisingly, federal respondents were less likely than higher education respondents to be concerned about “upfront costs” (24.3% compared to 12.9%).
 - “Lack of in-house experts” (15.6%)
 - “Vulnerabilities to security breaches” (14.9%)

Summary Findings: Higher Education Segment

- A large majority of higher education respondents (60.7%) see a benefit to the creation of a national higher education cloud.
 - In fact, 60.6% believe that with cloud computing there will be more “intra-institutional collaboration.”
- According to higher education respondents, the momentum towards cloud computing is divided among “budget pressures” (26.5%), “desire for increased efficiencies” (25.1%), and the “need for better access to and integration of shared resources” (28.9%).
- While there is some concern about security, a plurality (34.8%) believe that the vulnerability of cloud computing and on-campus hosting are relatively equivalent.
- For the 2011-12 academic year, respondents believed their IT budget would either increase (26.5%) or remain the same (37.0%) rather than decrease.

Summary Findings: Government Segment

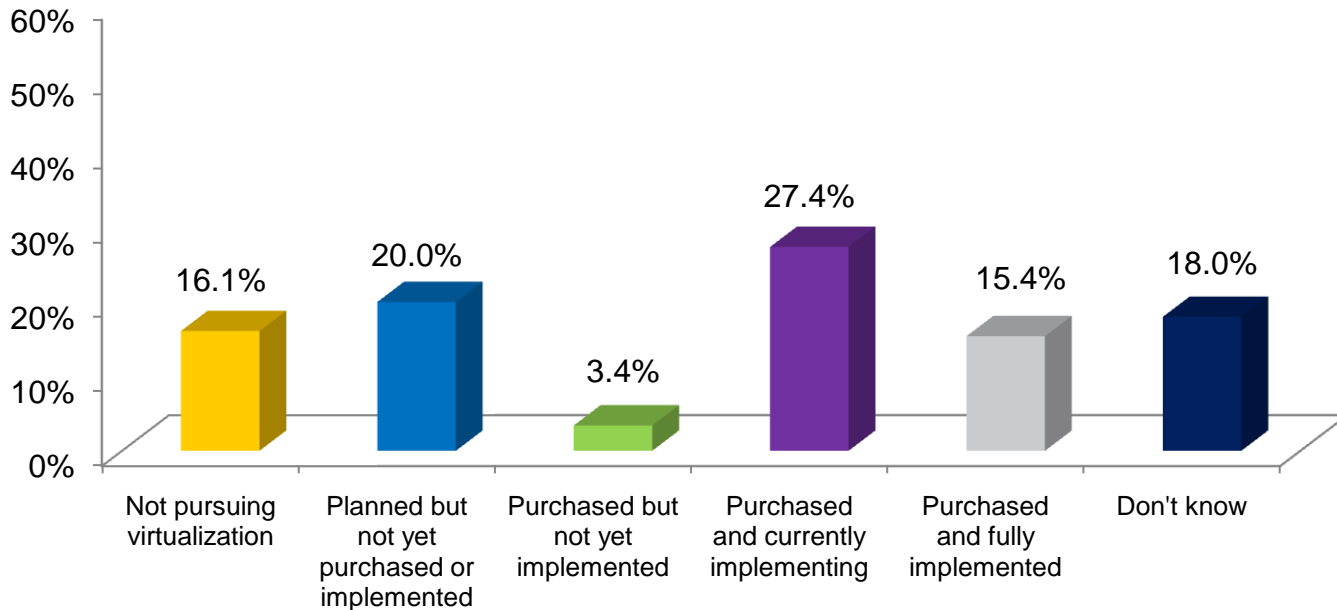
- Over one-half of government respondents (59.3%) believe it is “very” or “somewhat feasible” to eliminate 800 government data centers by 2015.
- In light of the Cloud-First policy, only 15.9% indicated their organization/agency will “setup and operate own private cloud.”
 - That said, almost one-half of government respondents (48.4%) stated “don’t know” when asked how their agency will satisfy these mandates.
- One-half of respondents (50.5%) believe existing security standards and regulations need to be supplemented.
 - However, one-half of state/local respondents (53.5%) stated “don’t know” when asked about their opinion.
- The most critical technologies to enhance telework according to respondents include:
 - IT/Network infrastructure upgrades (25.2%)
 - Virtual Desktop Infrastructure (19.2%)

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Virtualization Status

To the best of your knowledge, what is your organization's virtualization status? (n=646)



Four in ten respondents (42.6%) stated that their organization has “purchased and currently implementing” or “purchased and fully implemented” virtualization.

Virtualization Status

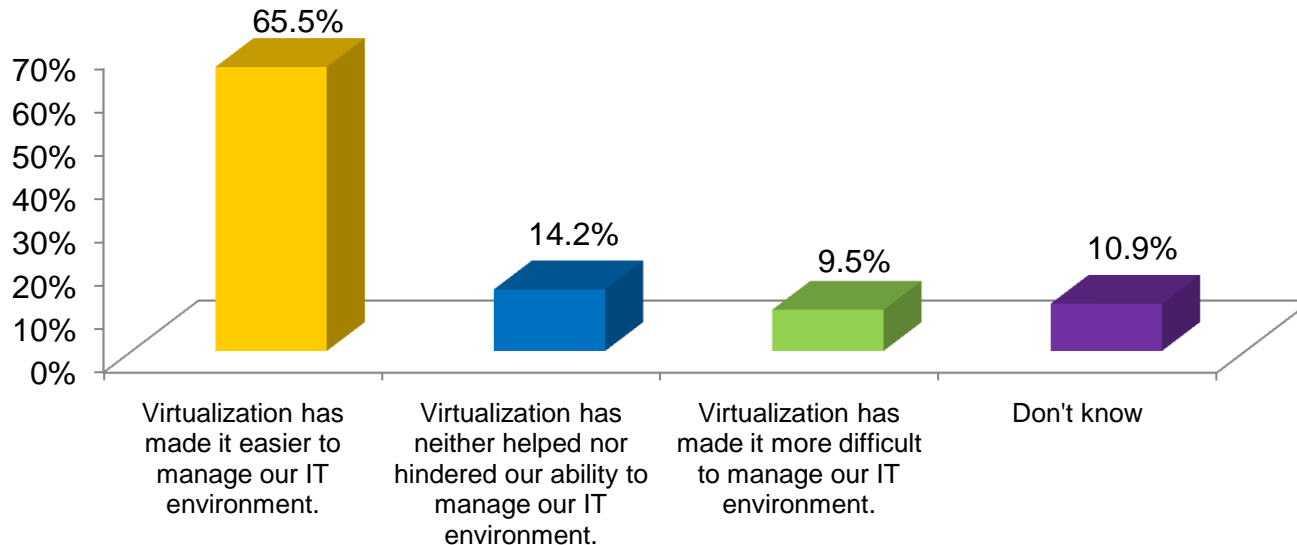
To the best of your knowledge, what is your organization's virtualization status? (n=646)

Virtualization Status	Total (%)	Fed. (%)	State & Local (%)	Higher Ed. (%)
Not pursuing virtualization	16.1	13.7	25.0	14.2
Planned but not yet purchased or implemented	20.0	22.8	12.5	20.4
Purchased but not yet implemented	3.4	3.9	2.3	3.3
Purchased and currently implementing	27.4	27.0	27.3	28.0
Purchased and fully implemented	15.4	10.4	19.5	19.4
Don't know	18.0	22.1	13.3	14.7

A similar percentage of respondents across each segment indicated their organization's virtualization status as "purchased and currently implementing."

Impact of Virtualization

In your opinion, what impact has virtualization had on your organization's ability to manage its IT environment? (n=275)*



Two-thirds of respondents (65.5%) stated that "virtualization had made it easier to manage our IT environment."

*Only asked to respondents whose organization's virtualization status was "purchased and fully implemented" or "purchased and currently implementing."

Impact of Virtualization

In your opinion, what impact has virtualization had on your organization's ability to manage its IT environment? (n=275)*

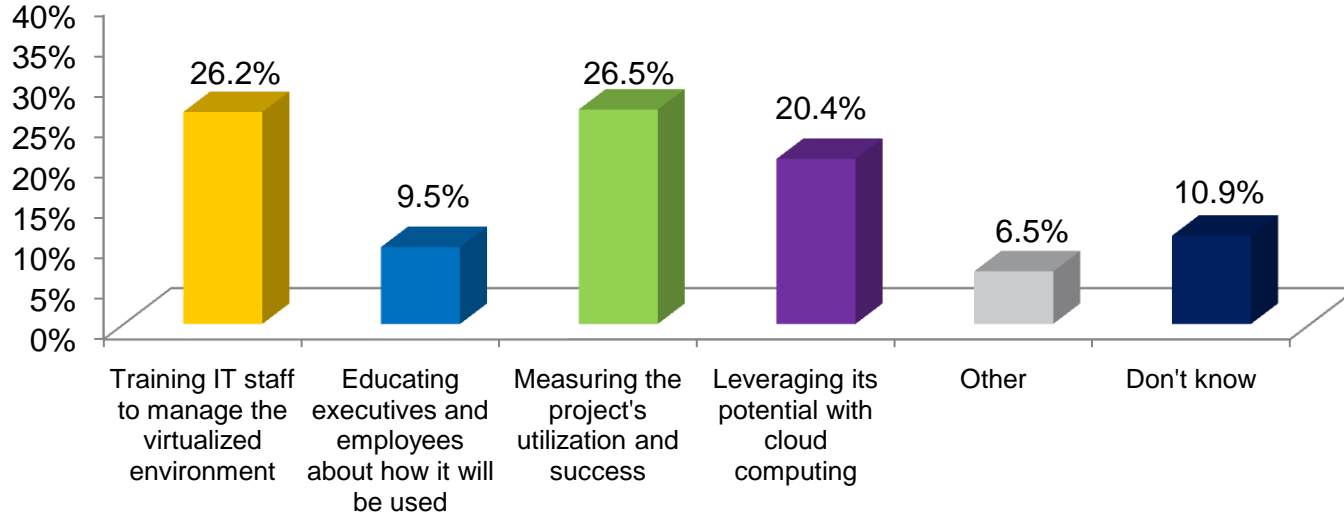
Response	Total (%)	Fed. (%)	State & Local (%)	Higher Ed. (%)
Virtualization has made it easier to manage our IT environment.	65.5	55.7	71.7	73.0
Virtualization has neither helped nor hindered our ability to manage our IT environment.	14.2	18.3	11.7	11.0
Virtualization has made it more difficult to manage our IT environment.	9.5	13.9	6.7	6.0
Don't know	10.9	12.2	10.0	10.0

A higher percentage of higher education (73.0%) and state and local respondents (71.7%) respondents stated that “virtualization had made it easier to manage our IT environment” than federal government respondents (55.7%).

*Only asked to respondents whose organization's virtualization status was “purchased and fully implemented” or “purchased and currently implementing.”

Top Priority After Virtualization

After your organization completes a virtualization project, which of the following is its top priority: (n=275)*



After completing a virtualization project, “training IT staff” and “measuring the project’s utilization and success” were the top IT priorities (26.2% and 26.5%, respectively).

*Only asked to respondents whose organization’s virtualization status was “purchased and fully implemented” or “purchased and currently implementing.”

Impact of Virtualization

After your organization completes a virtualization project, which of the following is its top priority: (n=275)*

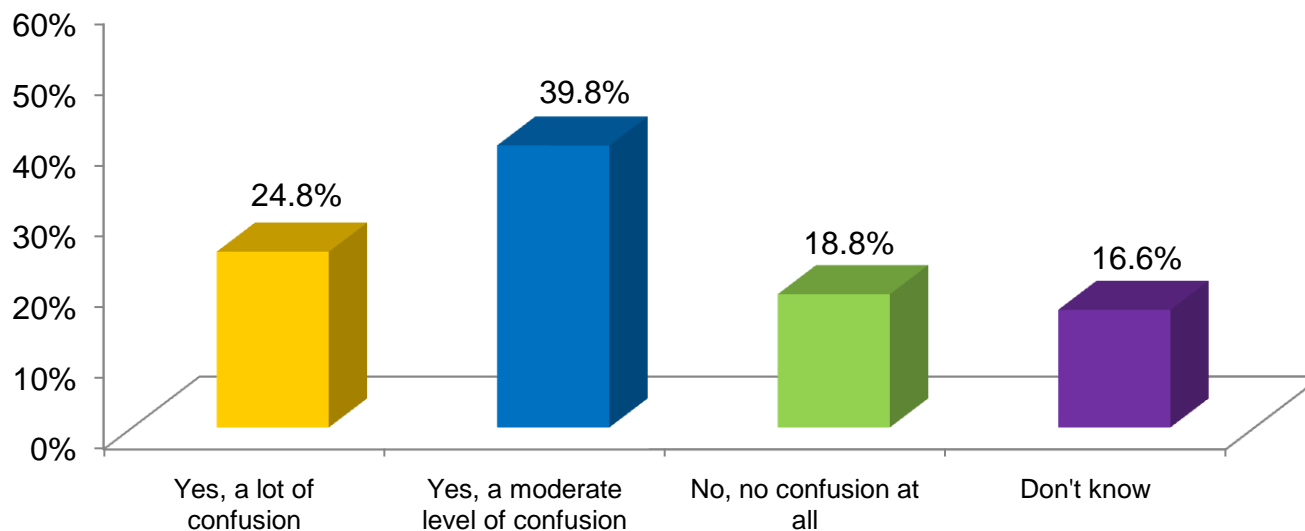
Response	Total (%)	Fed. (%)	State & Local (%)	Higher Ed. (%)
Training IT staff to manage the virtualized environment	26.2	25.2	30.0	25.0
Educating executives and employees about how it will be used	9.5	9.6	5.0	12.0
Measuring the project's utilization and success	26.5	30.4	25.0	23.0
Leveraging its potential with cloud computing	20.4	19.1	20.0	22.0
Other	6.5	3.5	6.7	10.0
Don't know	10.9	12.2	13.3	8.0

After completing a virtualization project, "training IT staff" and "measuring the project's utilization and success" were the top IT priorities (26.2% and 26.5%, respectively).

*Only asked to respondents whose organization's virtualization status was "purchased and fully implemented" or "purchased and currently implementing."

Confusion Regarding Cloud Computing & Virtualization

In your opinion, is there confusion within your organization about the distinction between cloud computing and virtualization? (n=644)



Almost two-thirds of respondents (64.6%) indicated that there is “a lot” or a “moderate level of confusion” regarding the distinction between cloud computing and virtualization.

Confusion Regarding Cloud Computing & Virtualization

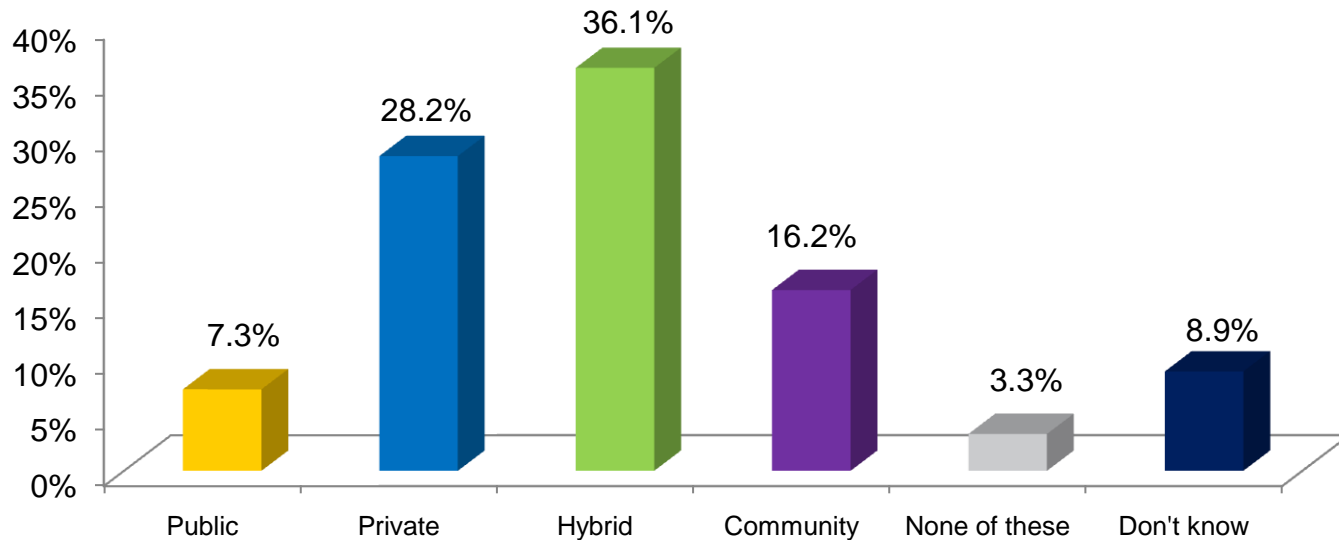
In your opinion, is there confusion within your organization about the distinction between cloud computing and virtualization? (n=644)

Response	Total (%)	Fed. (%)	State & Local (%)	Higher Ed. (%)
Yes, a lot of confusion	24.8	26.8	24.4	22.3
Yes, a moderate level of confusion	39.8	37.9	42.5	40.8
No, no confusion at all	18.8	18.6	15.7	20.9
Don't know	16.6	16.7	17.3	16.1

Almost two-thirds of respondents (64.6%) indicated that there is “a lot” or a “moderate level of confusion” regarding the distinction between cloud computing and virtualization.

Cloud Model For Future Needs

Thinking ahead, which cloud model do you believe will best meet your organization's needs 5 years or more from now? (n=642)



Over one-third of respondents (36.1%) believe that a “hybrid” cloud model will best meet their organization’s needs 5 years or more from now.

Cloud Model For Future Needs

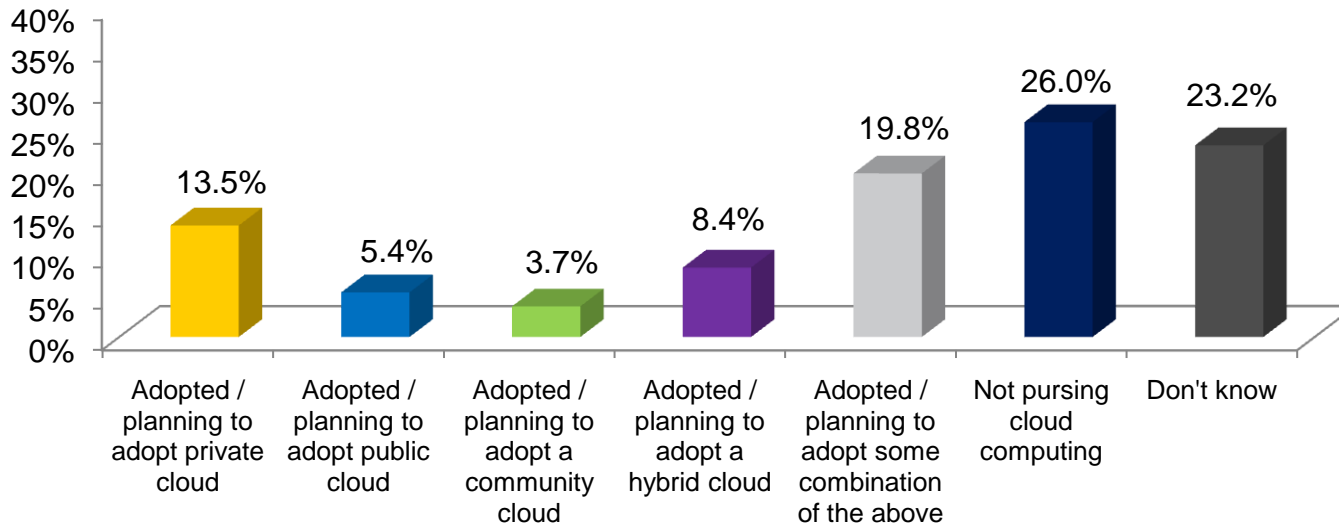
Thinking ahead, which cloud model do you believe will best meet your organization's needs 5 years or more from now? (n=642)

Response	Total (%)	Fed. (%)	State & Local (%)	Higher Ed. (%)
Public	7.3	6.9	9.4	6.7
Private	28.2	37.0	23.6	18.1
Hybrid	36.1	31.1	37.0	42.9
Community	16.2	16.4	15.0	16.7
None of these—a cloud model does not meet our organization's long-term needs	3.3	2.0	4.7	4.3
Don't know	8.9	6.6	10.2	11.4

More than one-third (37.0%) of federal respondents indicated that a private cloud model will best meet their organization's needs 5 years or more from now while higher education respondents were more likely to select a hybrid model (42.9%).

Organization's Cloud Computing Status

To the best of your knowledge, what is your organization's cloud computing status? (n=646)



Twenty percent (19.8%) of respondents indicated that they have adopted or are planning to adopt some combination of the cloud computing models, while 26% stated their organization is “not pursuing cloud computing.”

Organization's Cloud Computing Status

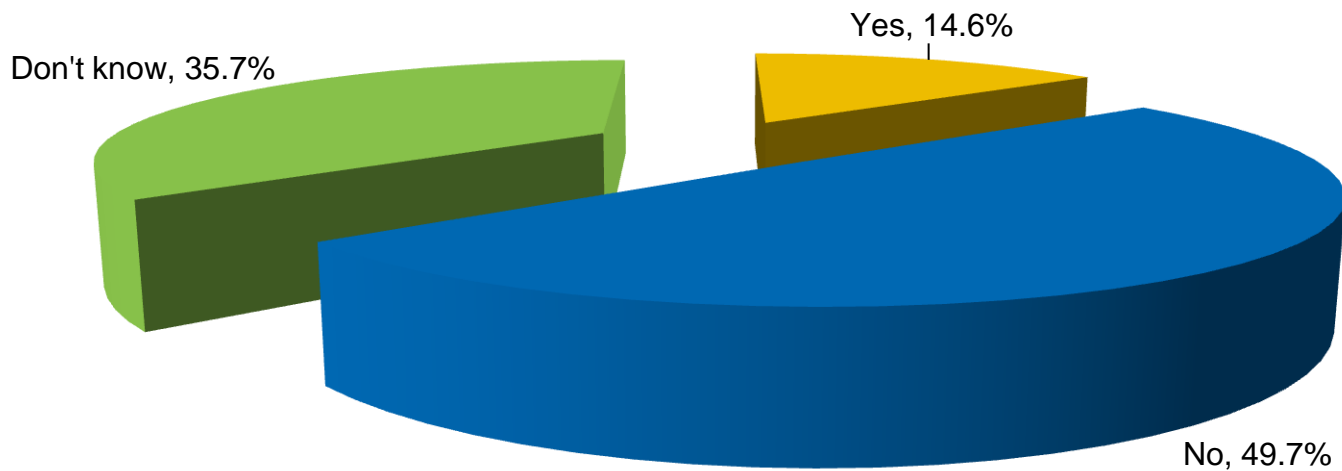
To the best of your knowledge, what is your organization's cloud computing status? (n=646)

Computing Status	Total (%)	Fed. (%)	State & Local (%)	Higher Ed. (%)
Adopted/planning to adopt private cloud	13.5	15.6	11.7	11.4
Adopted /planning to adopt public cloud	5.4	5.2	5.5	5.7
Adopted/planning to adopt a community cloud	3.7	3.3	3.1	4.7
Adopted/planning to adopt a hybrid cloud	8.4	9.1	6.3	8.5
Adopted/planning to adopt some combination of the above	19.8	17.3	18.8	24.2
Not pursuing cloud computing	26.0	20.5	39.1	26.1
Don't know	23.2	29.0	15.6	19.4

Almost four in ten (39.1%) of state and local respondents believe their organization is “not pursuing cloud computing” compared with 20.5% of federal and 26.1% of higher education respondents.

Cloud Exit Strategy

To the best of your knowledge, does your organization have a cloud “exit strategy”? (n=328)*



Almost one-half of respondents (49.7%) stated that their organization does not have a cloud “exit strategy.”

*Not asked of respondents who selected “not pursuing cloud computing” or “don’t know” in the previous question.

Cloud Exit Strategy

To the best of your knowledge, does your organization have a cloud “exit strategy”? (n=328)*

Response	Total (%)	Fed. (%)	State & Local (%)	Higher Ed. (%)
Yes	14.6	9.7	17.2	20.0
No	49.7	48.4	50.0	51.3
Don't know	35.7	41.9	32.8	28.7

One-fifth (20.0%) of higher education respondents indicated their organization has a cloud “exit strategy” compared to 9.7% of federal respondents.

*Not asked of respondents who selected “not pursuing cloud computing” or “don’t know” in the previous question.

Cloud Computing Incentives

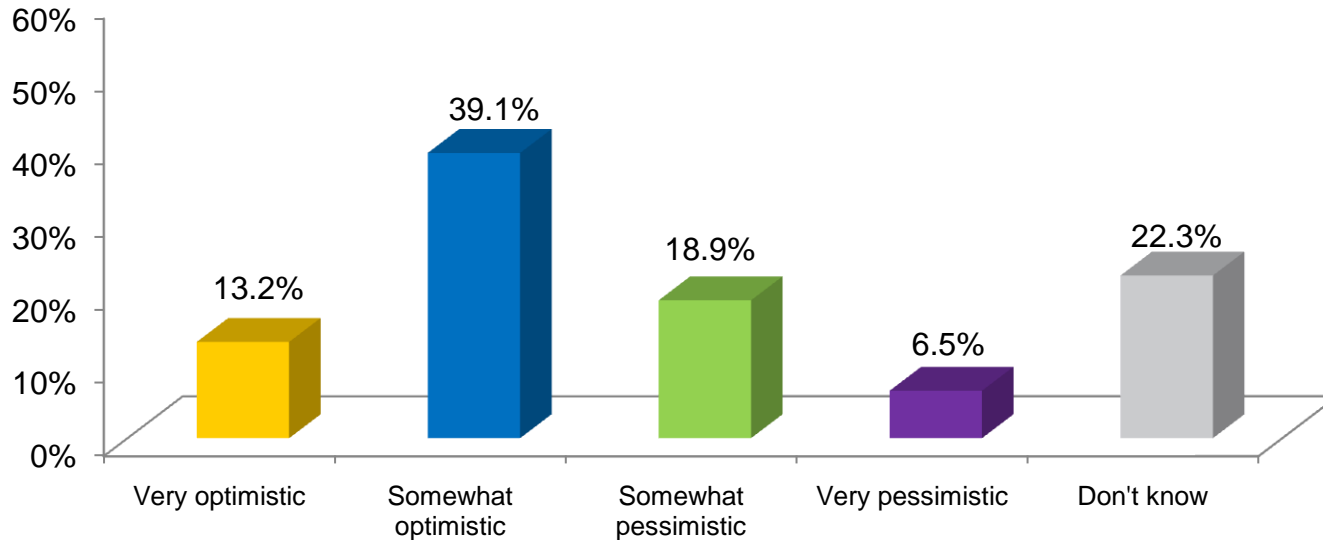
What, in your opinion, is your organization's biggest incentive for adopting cloud computing? *Please choose one.* (n=639)

Incentive	All (%)	Federal (%)	State/Local (%)	Higher Ed. (%)
Cost savings	31.1	28.0	31.7	35.4
Increased functionality	13.5	10.5	10.3	19.6
On-demand computing	5.9	5.6	5.6	6.7
Facilitation of telework and/or mobile computing	6.3	8.9	4.0	3.8
Improved COOP capabilities	5.0	5.9	6.3	2.9
Better mission support	16.6	21.1	11.1	13.4
No incentive to adopt	9.7	6.9	17.5	9.1
Don't know	11.9	13.2	13.5	9.1

“Cost savings,” according to almost one-third of respondents (31.1%), is the biggest incentive for adopting cloud computing.

Overall Attitude Toward Cloud Computing

Overall, which of the following best describes your organization's attitude toward cloud computing? (n=645)



Over one-half of respondents (52.3%) describe their organization's attitude toward cloud computing as "very" or "somewhat optimistic."

Overall Attitude Toward Cloud Computing

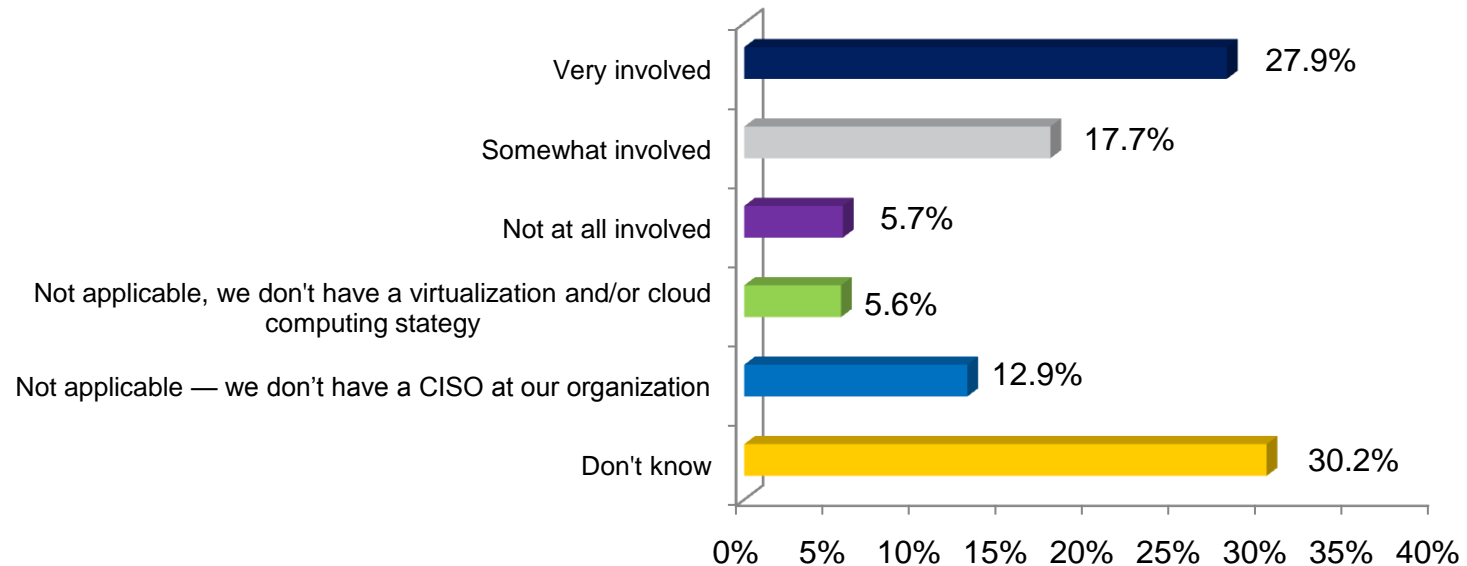
Overall, which of the following best describes your organization's attitude toward cloud computing? (n=645)

Response	Total (%)	Fed. (%)	State & Local (%)	Higher Ed. (%)
Very optimistic	13.2	15.6	9.4	11.8
Somewhat optimistic	39.1	31.6	37.8	50.7
Somewhat pessimistic	18.9	22.1	18.1	14.7
Very pessimistic	6.5	6.5	11.0	3.8
Don't know	22.3	24.1	23.6	19.0

Higher education respondents (62.5%) were more likely to indicate their organization as having an optimistic view of cloud computing than federal (47.2%) or state and local respondents (47.2%).

CISO Involvement

How involved, if at all, has your Chief Information Security Officer (CISO) been in your cloud computing strategy? (n=645)



Four in ten respondents (45.6%) state their CISO is “very” or “somewhat involved” in their cloud computing strategy.

CISO Involvement

How involved, if at all, has your Chief Information Security Officer (CISO) been in your cloud computing strategy? (n=645)

Involvement	Total (%)	Fed. (%)	State & Local (%)	Higher Ed. (%)
Very involved	27.9	27.8	25.8	29.4
Somewhat involved	17.7	20.6	14.1	15.6
Not at all involved	5.7	4.2	10.2	5.2
Not applicable — we don't have a virtualization and/or cloud computing strategy	5.6	5.9	5.5	5.2
Not applicable — we don't have a CISO at our organization	12.9	3.9	23.4	19.4
Don't know	30.2	37.6	21.1	25.1

Over one-third of federal respondents (37.6%) stated “don't know” when asked about the involvement of their CISO in the organization's cloud computing strategy compared with 21.1% of state and local and 25.1% of higher education respondents.

Biggest Barrier to Public Cloud Adoption

In your opinion, which of the following is the biggest barrier to public cloud adoption? (n=643)

Potential Barrier	Total (%)	Federal Gov. (%)	State/ Local (%)	Higher Ed. (%)
Vulnerability to security breaches	50.5	62.5	42.2	38.0
Inability to control and track data in-house	11.0	4.6	13.3	19.2
Compliance with federal or state regulations	10.6	10.7	14.8	7.7
Lack of data interoperability/portability	3.3	2.9	3.1	3.8
Lack of virtualized infrastructure	2.6	1.6	5.5	2.4
Agency/mission-specific disaster recovery plans	2.2	2.6	2.3	1.4
Reduced functionality	0.9	0.7	0.8	1.4
None of these	6.8	4.9	6.3	10.1
Don't know	12.0	9.4	11.7	15.9

“Vulnerability to security breaches” is the biggest barrier to public cloud adoption according to one-half of all respondents (50.5%); however, a larger percentage of federal government respondents are concerned about it than higher education respondents (62.5% and 38.0%, respectively).

Biggest Barrier to Private Cloud Adoption

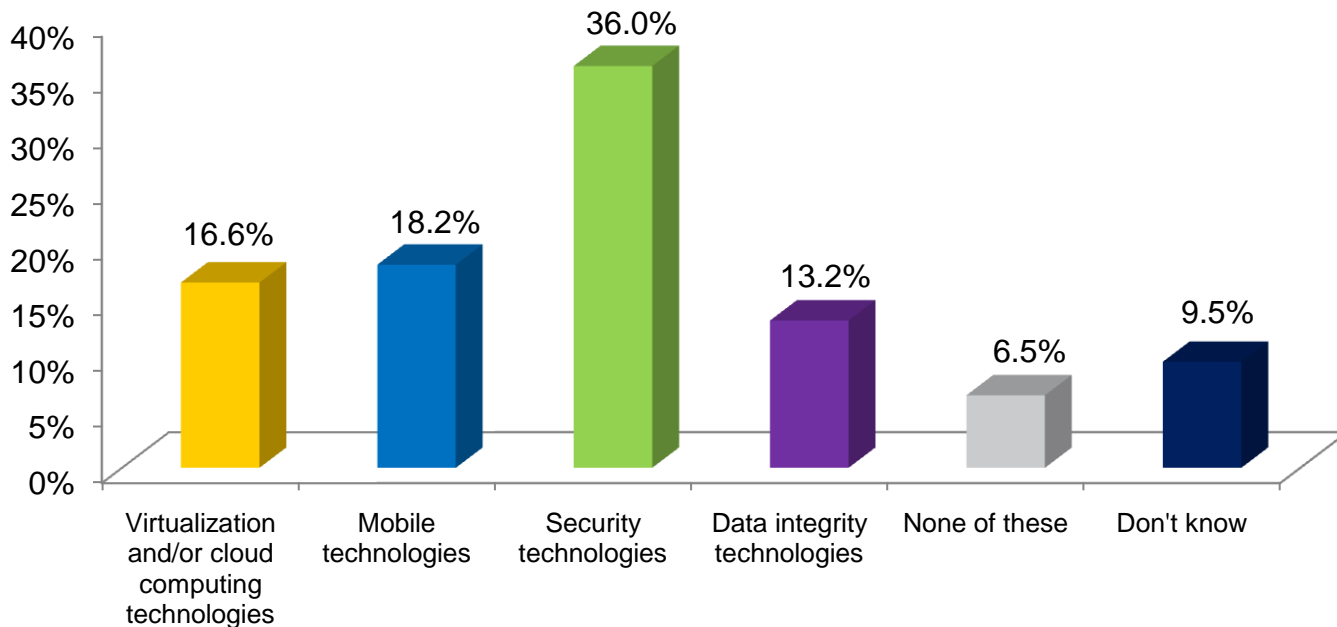
In your opinion, which of the following is the biggest barrier to private cloud adoption? (n=639)

Potential Barrier	Total (%)	Federal Gov. (%)	State/ Local (%)	Higher Ed. (%)
Upfront costs	17.8	12.9	18.9	24.3
Lack of in-house expertise	15.6	18.5	13.4	12.9
Vulnerability to security breaches	14.9	18.2	13.4	11.0
Learning curve	7.7	6.6	10.2	7.6
Newness/immaturity of technology	11.3	11.9	10.2	11.0
Reduced functionality	3.3	4.0	1.6	3.3
Vendor lock-in	10.2	11.3	7.1	10.5
None of these	5.3	4.6	7.9	4.8
Don't know	13.9	11.9	17.3	14.8

When it comes to the biggest barrier to private cloud adoption, higher education (24.3%) and state/local government (18.9%) respondents state “upfront costs” while federal government respondents state “lack of in-house expertise” (18.5%) and “vulnerability to security breaches” (18.2%).

Most Critical to Maintain U.S.'s Competitiveness

In your opinion, which of the following technologies is most critical for maintaining or enhancing the U.S.'s global technological competitiveness? *Please select one.* (n=644)



Over one-third of respondents (36.0%) stated that “security technologies” was the most critical technology for enhancing or maintaining the U.S.’s global technological competitiveness.

Most Critical to Maintain U.S.'s Competitiveness

In your opinion, which of the following technologies is most critical for maintaining or enhancing the U.S.'s global technological competitiveness? *Please select one.* (n=644)

Technologies	Total (%)	Federal Gov. (%)	State/ Local (%)	Higher Ed. (%)
Virtualization and/or cloud computing technologies	16.6	15.0	19.7	17.1
Mobile technologies	18.2	12.1	16.5	28.1
Security technologies	36.0	44.3	33.1	25.7
Data integrity technologies	13.2	15.3	12.6	10.5
None of these	6.5	5.2	7.9	7.6
Don't know	9.5	8.1	10.2	11.0

Over forty percent (44.3%) of federal respondents indicated that “security technologies” was the most critical technology for enhancing or maintaining the U.S.’s global technological competitiveness, compared with one-quarter (25.7%) of higher education respondents.

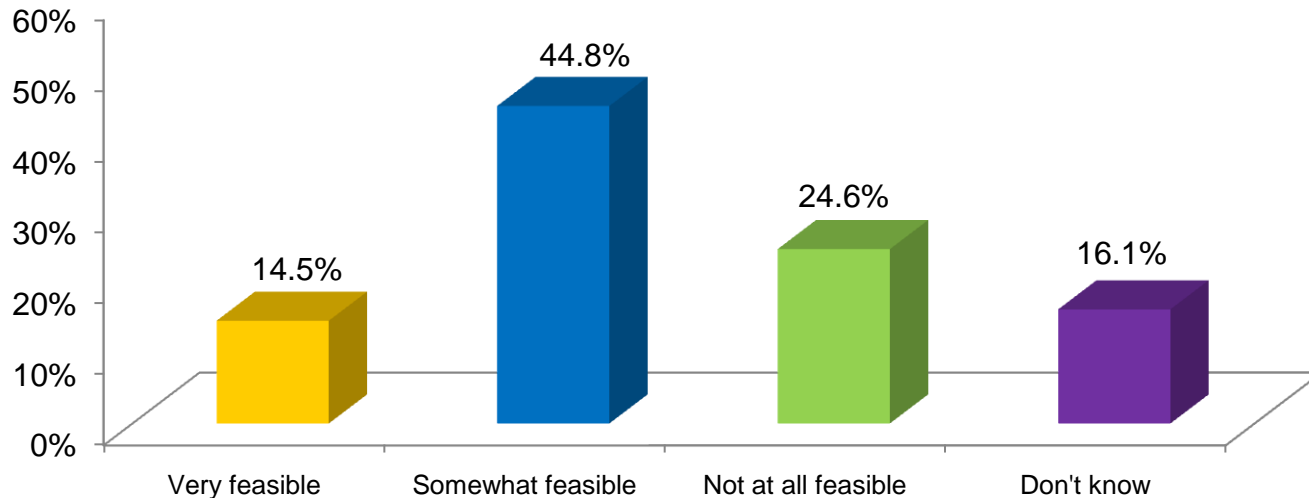
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Government Only Question:

Elimination of Government Data Centers

In your opinion, how feasible is the federal plan to eliminate at least 800 of the government's data centers by 2015? (n=435)



Over one-half of government respondents (59.3%) state the federal plan to eliminate at least 800 government's data centers is either "very" or "somewhat feasible," while one-quarter (24.6%) believe is "not at all feasible."

Government Only Question:

Elimination of Government Data Centers

In your opinion, how feasible is the federal plan to eliminate at least 800 of the government's data centers by 2015? (n=435)

Response	Total (%)	Federal Gov. (%)	State/Local (%)
Very feasible	14.5	14.3	14.8
Somewhat feasible	44.8	47.9	37.5
Not at all feasible	24.6	26.1	21.1
Don't know	16.1	11.7	26.6

Over one-half of government respondents (59.3%) state the federal plan to eliminate at least 800 government's data centers is either "very" or "somewhat feasible," while one-quarter (24.6%) believe is "not at all feasible."

Government Only Question:

Cloud-First Policy

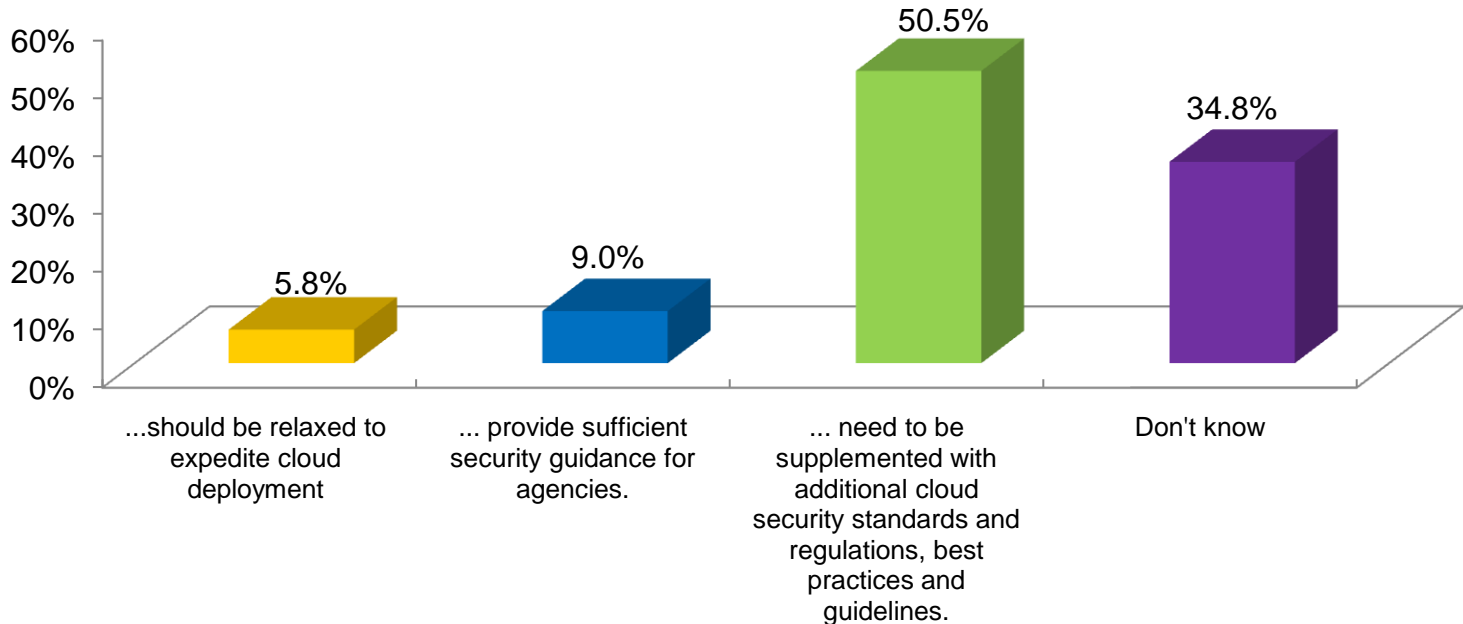
In light of the Cloud-First policy in the Obama Administration's *25 Point Implementation Plan to Reform Federal IT Management* issued in December 2010, how is your agency planning to satisfy the mandates to migrate applications to the cloud within the designated timeframes? (n=434)

Response	Total (%)	Federal Gov. (%)	State/ Local (%)
We will set up and operate our own private cloud.	15.9	15.3	17.3
We will explore opportunities to obtain cloud services from 3 rd party agency clouds (e.g., DISA, NASA).	13.8	17.9	3.9
We will make arrangements with a public cloud provider.	3.2	3.6	2.4
We will make arrangements with a private cloud provider.	3.7	3.6	3.9
We will use GSA as a broker of cloud services (Apps.gov).	10.6	12.7	5.5
Other	4.4	3.6	6.3
Don't know	48.4	43.3	60.9

Government Only Question:

Federal Cloud Security Standards

Which of the following best describes your opinion about federal cloud security standards and regulations? Existing federal security standards and regulations (such as FISMA & FedRAMP) (n=434)



Over one-half of government respondents (50.5%) describe federal cloud security standards/regulations as needing to be “supplemented,” while only 9.0% believe the standards and regulations are “sufficient.”

Government Only Question:

Federal Cloud Security Standards

Which of the following best describes your opinion about federal cloud security standards and regulations? Existing federal security standards and regulations (such as FISMA & FedRAMP) (n=434)

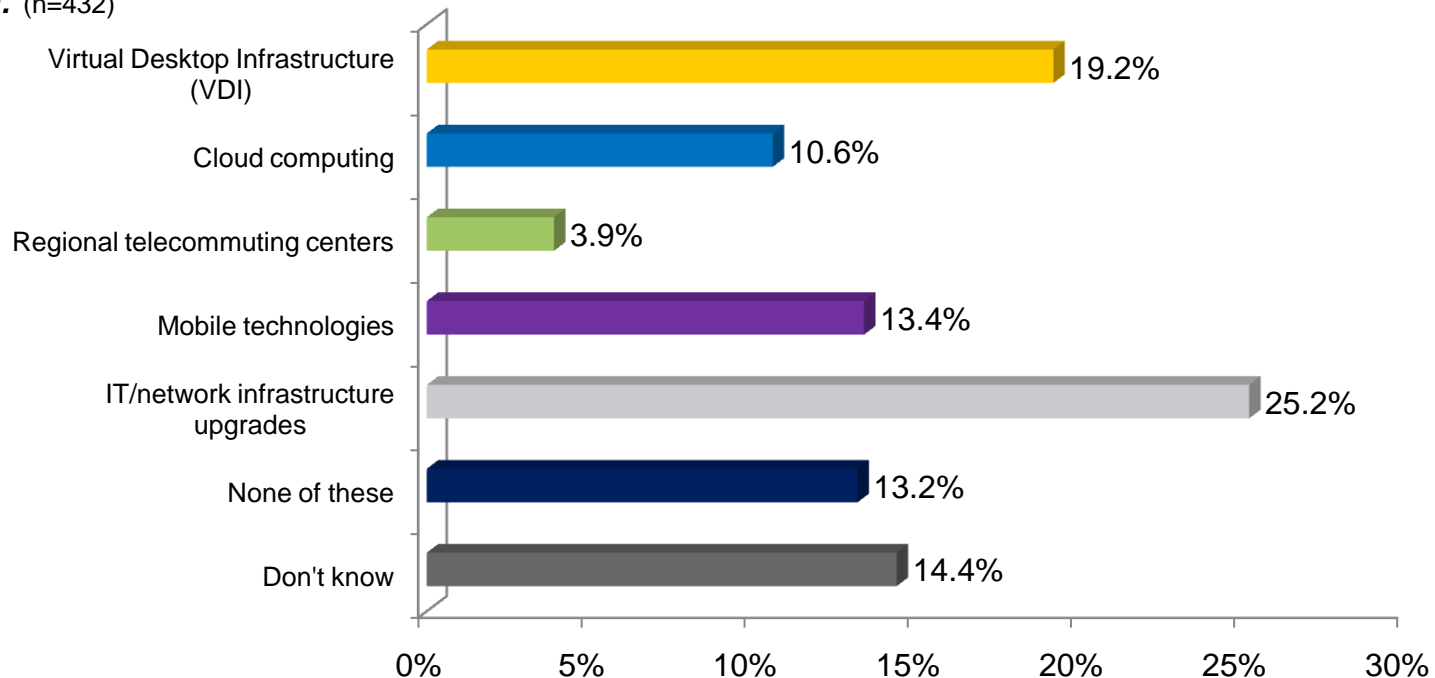
Response	Total (%)	Federal Gov. (%)	State/ Local (%)
Existing federal security standards and regulations (such as FISMA & FedRAMP) should be relaxed to expedite cloud deployment	5.8	6.5	3.9
Existing federal security standards and regulations (such as FISMA & FedRAMP) provide sufficient security guidance for agencies	9.0	10.1	6.3
Existing federal security standards and regulations (such as FISMA & FedRAMP) need to be supplemented with additional cloud security standards and regulations, best practices and guidelines	50.5	56.4	36.2
Don't know	34.8	27.0	53.5

Over one-half of federal respondents (56.4%) describe their opinion about a federal cloud security standards/regulations as needing to be “supplemented,” compared to 36.2% of state and local respondents.

Government Only Question:

Telework Policies

The concept of telework has been discussed for years now with minimal adoption rates. Now that the federal government has passed its first major piece of legislation in December 2010 requiring agencies to draft telework policies, what do you think will be the most critical enable to enhance telework in government? *Please choose one.* (n=432)



A plurality of government respondents (25.2%) state that “IT/network infrastructure upgrades” are the most critical to enhance telework in government, followed by “virtual desktop infrastructure” (19.2%).

Government Only Question:

Telework Policies

The concept of telework has been discussed for years now with minimal adoption rates. Now that the federal government has passed its first major piece of legislation in December 2010 requiring agencies to draft telework policies, what do you think will be the most critical enable to enhance telework in government? *Please choose one.* (n=432)

Policies	Total (%)	Federal Gov. (%)	State/ Local (%)
Virtual Desktop Infrastructure (VDI)	19.2	20.7	15.7
Cloud computing	10.6	9.2	14.2
Regional telecommuting centers	3.9	4.9	1.6
Mobile technologies	13.4	14.4	11.0
IT/network infrastructure upgrades	25.2	27.2	20.5
None of these	13.2	13.8	11.8
Don't know	14.4	9.8	25.2

One-quarter of federal government respondents (27.2%) state that "IT/network infrastructure upgrades" are the most critical to enhance telework in government, compared to 20.5% of state and local respondents.

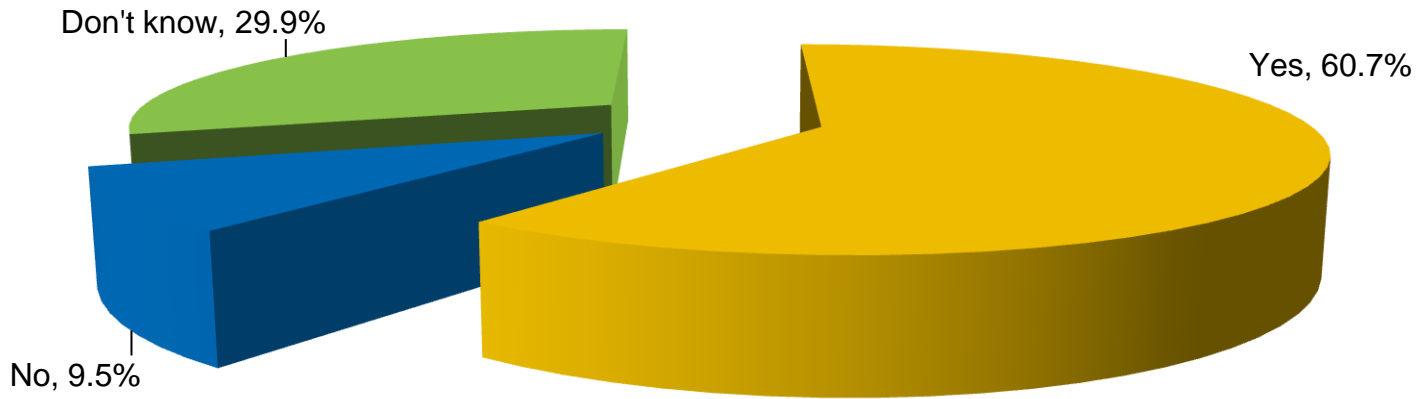
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Higher Education Only:

National Cloud for Higher Education

As you may know, there has been some talk about the federal government creating a national cloud for higher education. In your opinion, would this be of benefit to colleges and universities? (n=211)

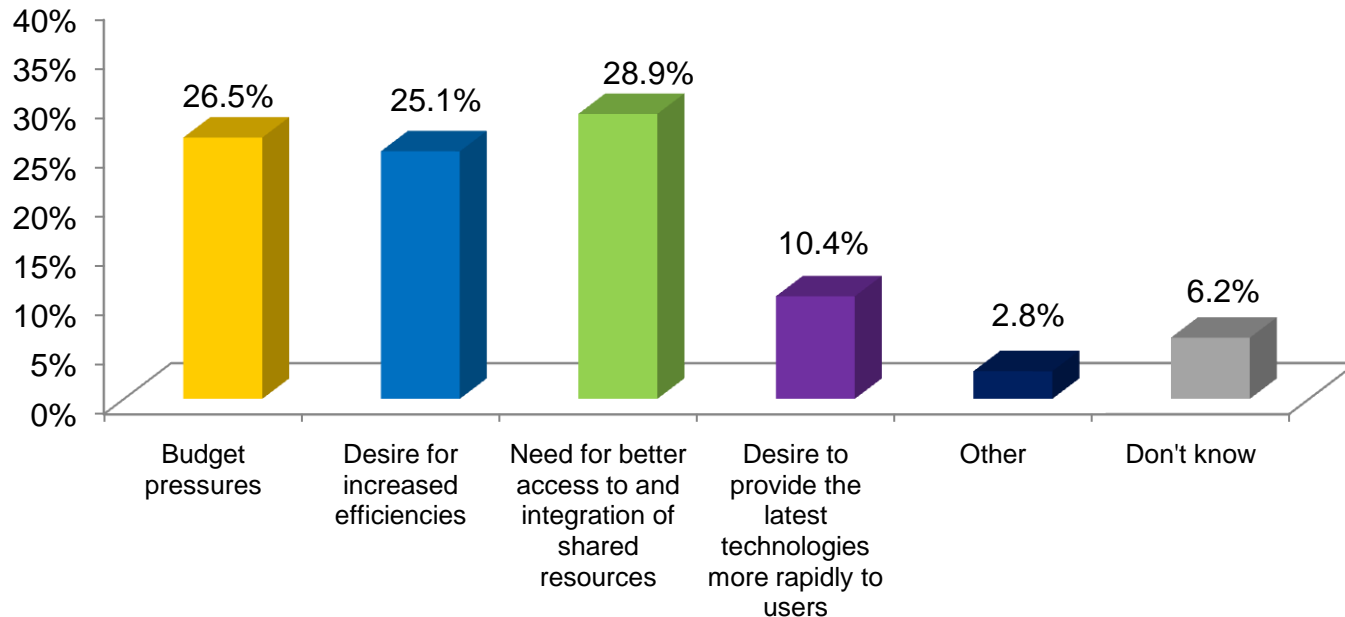


The majority of higher education respondents (60.7%) believe a national cloud for higher education would be of benefit colleges and universities.

Higher Education Only Question:

Momentum for Cloud Computing

In your view, which of the following is most responsible for the momentum towards cloud computing in higher education? (n=211)

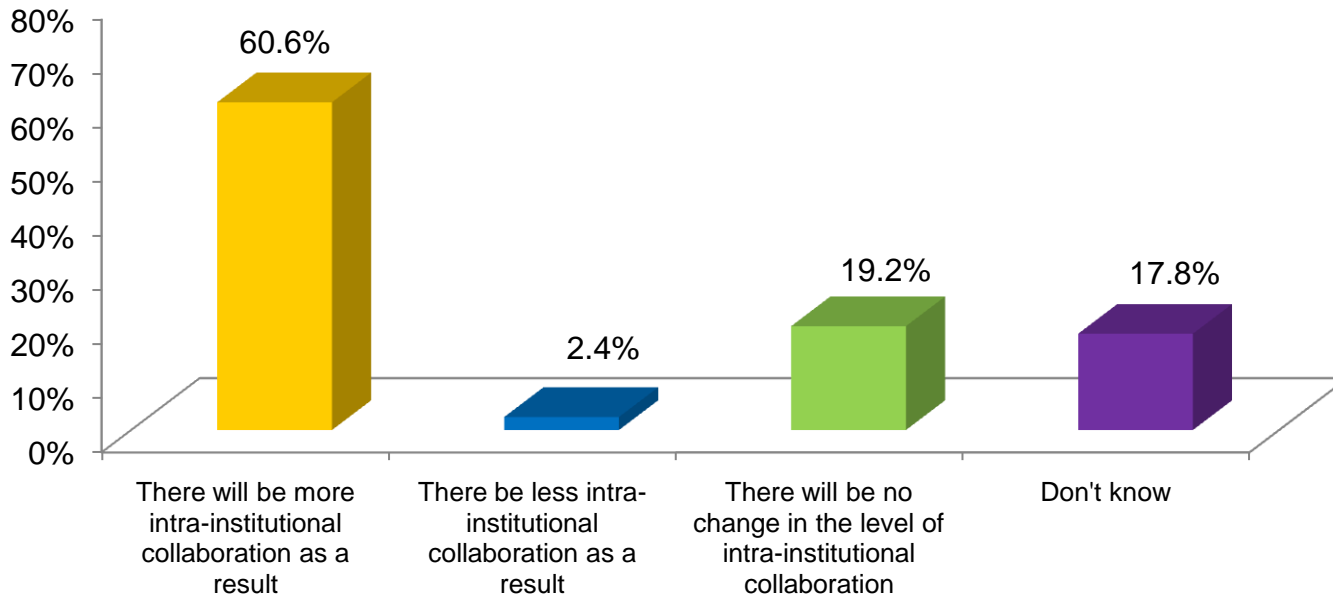


According to higher education respondents, the momentum towards cloud computing is divided among “budget pressures” (26.5%), “desire for increased efficiencies” (25.1%), and the “need for better access to and integration of shared resources” (28.9%).

Higher Education Only Question:

Intra-institutional Collaboration

In the next five years, how do you see the level of intra-institutional collaboration changing as a result of a greater adoption of cloud computing? (n=208)

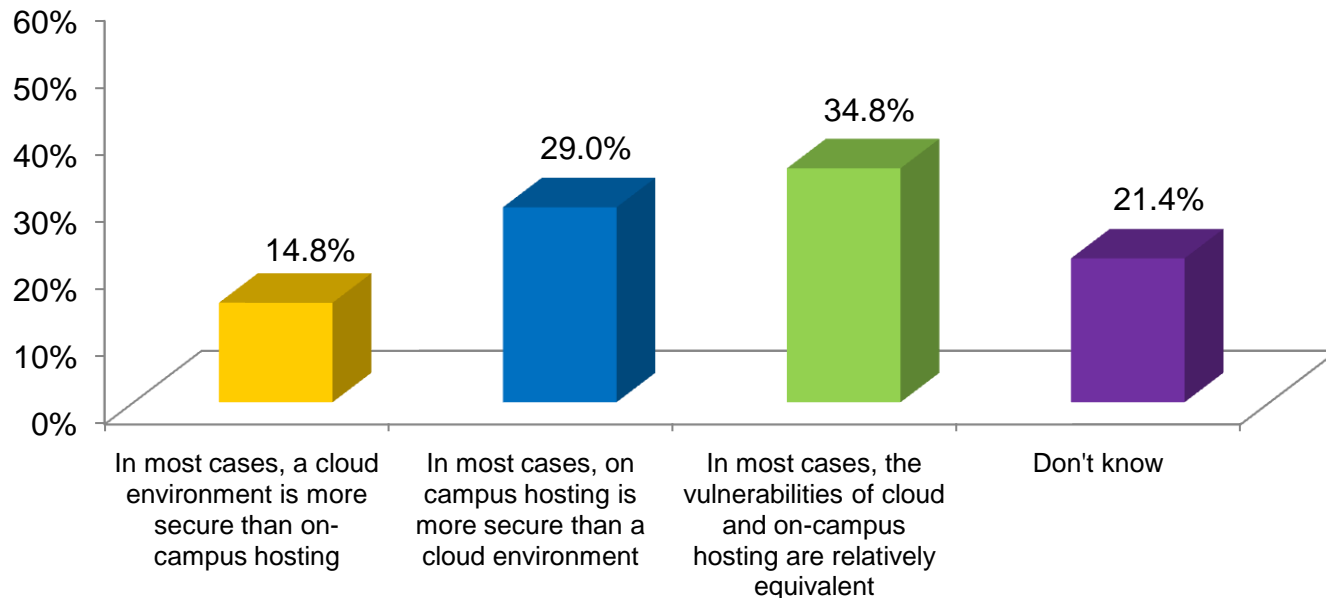


The majority of higher education respondents (60.6%) state that there will be more “intra-institutional collaboration” due to a greater adoption of cloud computing.

Higher Education Only Question:

Perception of Cloud Computing Security Risks

While some are concerned about the security risks posed by cloud computing services, others believe the cloud environment may be more secure than on-campus hosting. Where do you stand? (n=210)

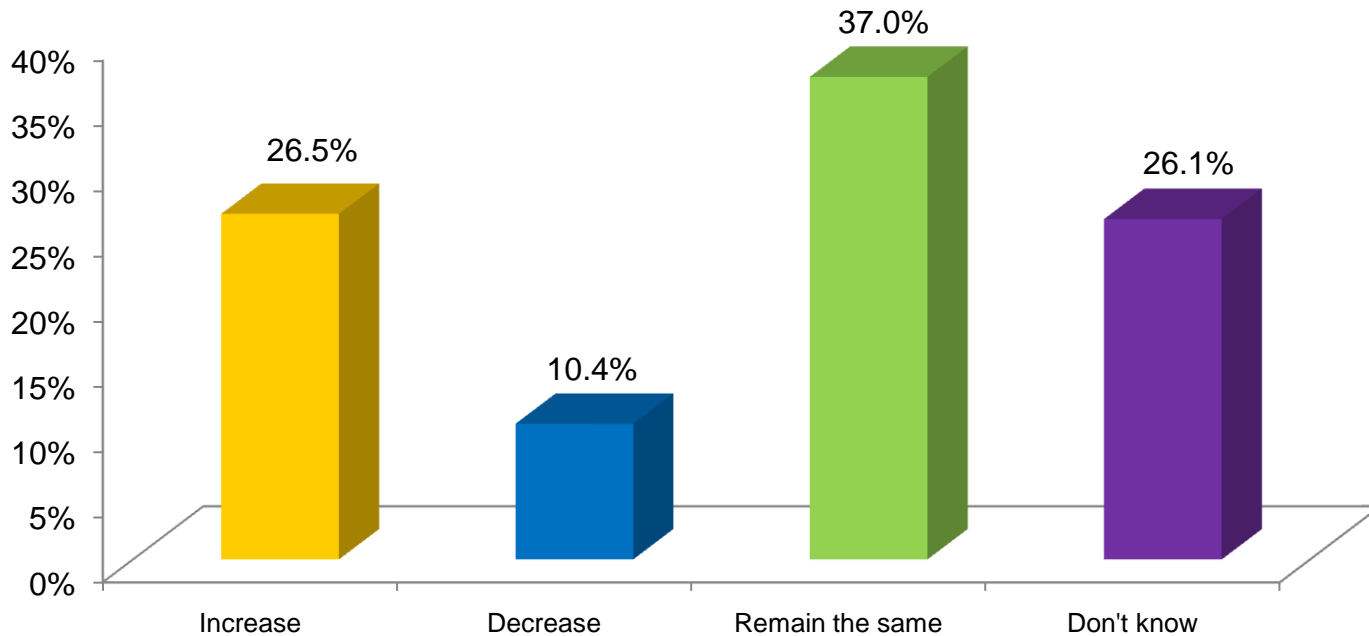


Only 14.8% of higher education respondents believe cloud computing is “more secure than on-campus hosting.”

Higher Education Only Question:

2011-12 IT Budget

For the 2011-12 academic school year, will your IT budget for virtualization and/or cloud computing: (n=211)



Over one-third of higher education respondents (37.0%) believe the IT budget for 2011-12 will “remain the same,” while approximately one-quarter (26.5%) believe the budget will increase.

Higher Education Only Question:

Top 2011-12 IT Priority

What is your top IT priority for the 2011-12 academic school year? (n=211)

IT Priority	(%)
Distance learning	27.0
Desktop virtualization	10.0
IT consolidation	9.5
Network security	8.5
Mobile computing	7.6
Server virtualization	6.2
Cloud computing	3.8
None of these	14.2
Don't know	13.3

"Distance learning" is the top IT priority for higher education respondents in 2011-12.