# SILVER LININGS & SURPRISES

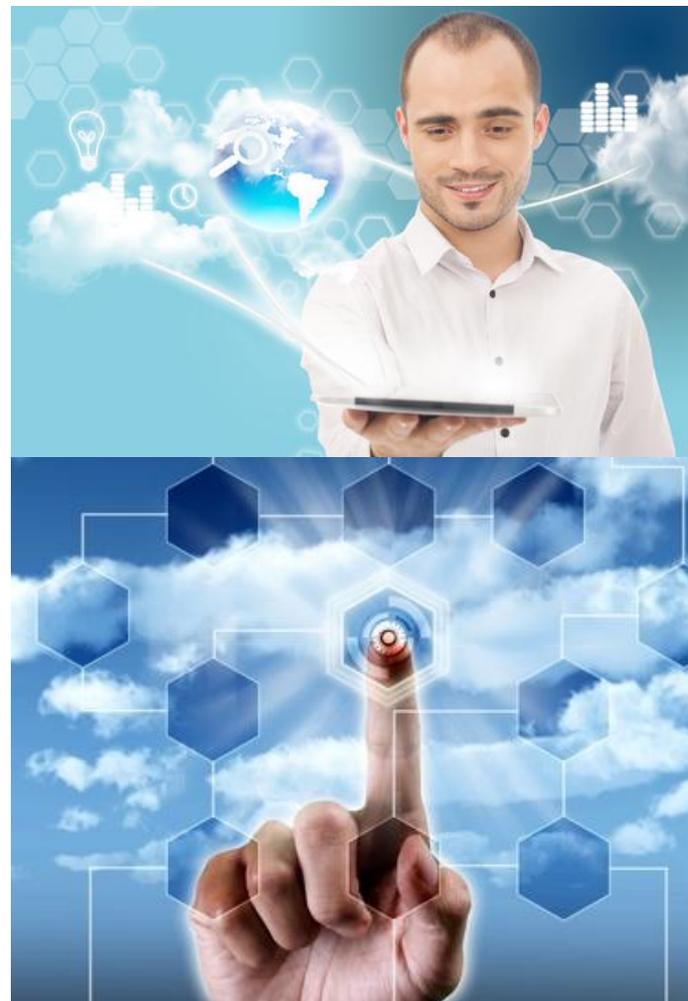**CDW's 2013 State of The Cloud Report**

# INTRODUCTION

An organization's decision to move IT to the cloud is daunting because it is a wholesale change in sourcing and delivery of solutions. However, most organizations are planning to shift select capabilities there, and many already have.

The decision is often influenced by technology trends, including the growth of bring your own device (BYOD), the consumerization of IT and ever-closer ties between technology delivery and business outcomes.

This report is based on the views of 1,242 IT professionals surveyed by CDW. It explores what drives the shift to the cloud, what types of applications organizations are taking to the cloud and what benefits (beyond cost savings) they are achieving.

PLEASE NOTE: Throughout this report, "cloud users" refers to organizations that are implementing or maintaining cloud computing, n=479.

# QUICK LINKS TO KEY FINDINGS

*Click on the area below to learn key statistics.*

## Personal use drives adoption

- Employee and IT professionals' use outside the job is driving cloud adoption at work

## Cloud is a business decision

- Non-IT executives are more involved in cloud decisions than in traditional IT decisions

## What's moving to the cloud

- More than half of organizations are moving a variety of capabilities to the cloud

## Benefits go beyond savings

SUCCESS

- Increased efficiency and innovation are just two of the key benefits of cloud

# WORK IMITATES LIFE

# DRIVER: EMPLOYEES' PERSONAL USE

- End users' experience with consumer cloud services is accelerating organizations' cloud adoption

**73%** Of IT professionals say employees' personal use of cloud apps/mobile devices has *significantly influenced* their organization's decisions to adopt cloud computing*

**61%** of cloud users** agree that employee use of cloud apps/mobile devices is making their *organization move faster to the cloud*\*\*\*

(vs. only 34% of non-cloud users)

**68%** say that employees' requests for cloud services have *increased over the last two years*

**27%** say that operating units are buying cloud services *without involving IT*\*\*\*

*Percent who said somewhat or very significantly **Organizations that are implementing or maintaining cloud computing, n=479
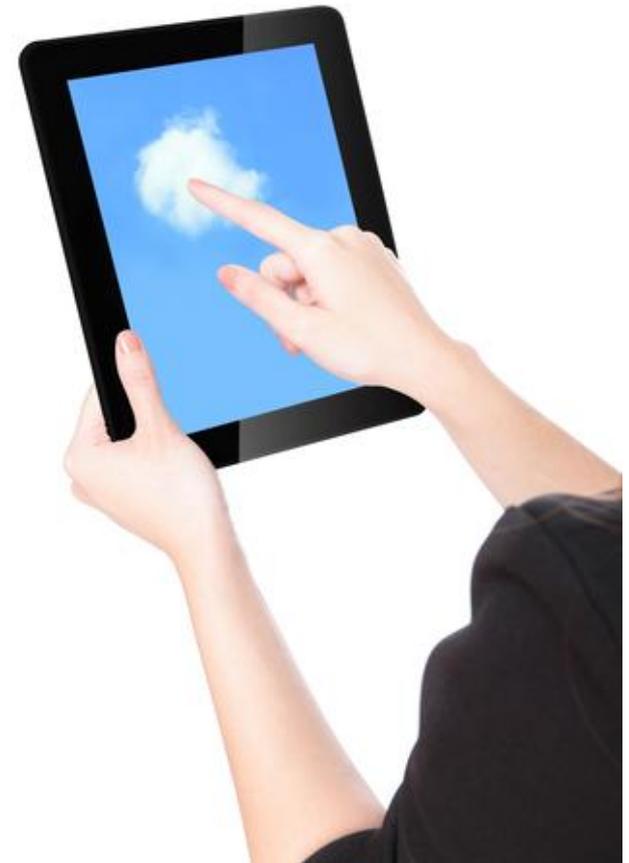***Percent who somewhat or strongly agree

# DRIVER: IT PROS' PERSONAL USE

- Even IT professionals say their own use of consumer cloud services has influenced their organization's decisions, too

## 66%

of IT pros say their *personal use* of cloud has influenced their recommendations to their organizations about moving to the cloud

**73%** of cloud users* versus **58%** of non-cloud users agree that their personal use has influenced their recommendation

*Organizations that are implementing or maintaining cloud computing, n=479

# DRIVER: IT PROS' PERSONAL USE

*Please describe a time when you used a cloud application or software for personal use and thought it **could work well for your organization**.*

"I realized when using the Amazon Cloud for music that ... **Having all stored files available** at a moment's notice, anywhere, any time would increase business."

*– Chief/Deputy CIO, Small Business*

"I set up a **full library of videos on a cloud** at home and thought it would be a great idea to do something similar with our training videos."

*– Chief/Deputy CIO, Medium Business*

"I always thought we could use **Apple iCloud for our judges' scheduling calendars**. It works very well."

*– IT Systems Engineer, Federal Government*

"I am using Google sites to set up basic websites. Could make ramp-up time to get a demo product or small-scale website **live in a matter of days/hours** instead of weeks/months."

*– IT Director/Manager, Medium Business*

# THE CLOUD DECISION PROCESS

# MORE COOKS IN THE KITCHEN FOR CLOUD

- Unlike traditional IT decisions, cloud is increasingly considered a business decision, not a technology selection

**46%** of cloud users* agree that non-IT senior management is more involved in the cloud decision than in other IT decisions**, and...

IT professionals rank non-IT executives among the most influential managers on cloud decisions:***

- ✓ IT Director: 61%
- ✓ CIO/CTO: 55%
- ✓ **Non-IT C-level executives: 37%**
- ✓ IT Manager: 32%
- ✓ IT Administrator: 24%

**58%** of cloud users* say the decision making process took longer than they expected
**46%** say by *more than three months*****
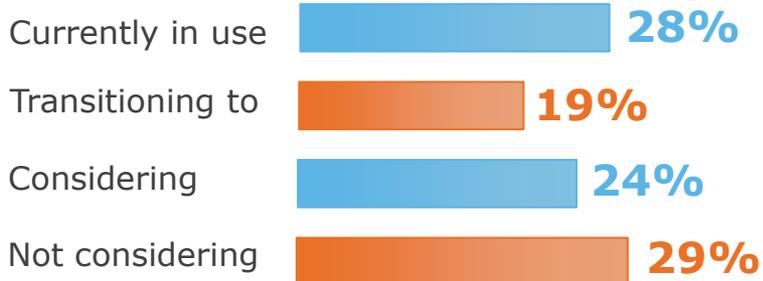
# THE CLOUD MODEL: SHOW US THE MONEY

- The characteristics of cloud are that it is on-demand and metered, with IT running more and more like a business

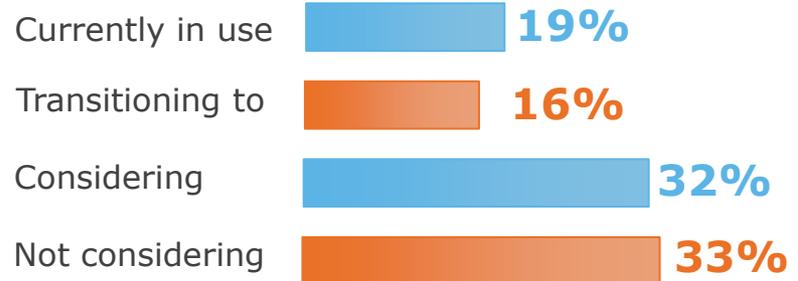## Where is your organization with the following concepts?*

### Chargeback
(Charging the costs of IT services, hardware or software to business units in which they are used)

| | |
|---|---|
| Currently in use | **28%** |
| Transitioning to | **19%** |
| Considering | **24%** |
| Not considering | **29%** |

### Showback
(Tracking and reporting costs of IT services, hardware or software used by business units)

| | |
|---|---|
| Currently in use | **19%** |
| Transitioning to | **16%** |
| Considering | **32%** |
| Not considering | **33%** |

**37%** say that senior management is pushing IT to move spending from capital investment to an operating expenses model**

*Question asked of all surveyed  **Percent of all surveyed who somewhat or strongly agree

# HOW IS CLOUD ... COMPARED TO WHAT?

- Cost factors also weigh heavily in the decision to move to the cloud; the equation is complex yet sometimes incomplete

What **cost factors** does your organization consider when comparing cloud alternatives to your traditional IT services?*

Software management costs (**65%**)

Software licensing costs (**63%**)

IT labor costs (**52%**)

Cost of capital to our organization (**41%**)

Electric bills for our IT operations (**21%**)

Real estate costs (**12%**)

*What information is missing from your organization's* **cloud comparison calculation?***

**37%** We have all of the cost information to make an informed decision

**23%** Electric bills for our IT operations

**19%** Real estate costs

**18%** Software management costs

**18%** Software licensing costs

**16%** IT labor costs

**16%** Cost of capital to our organization

*Respondents asked to select all that apply

# THE RAIN ON THE CLOUD PARADE

- Security once dominated, but cloud service performance and other issues are emerging as concerns that slow adoption

## Biggest barriers:*

... concerns with security of proprietary data or applications?

**46%** say yes

... concerns with performance of cloud services?

**32%** say yes

… concerns with technical aspects of integrating cloud applications or infrastructure with legacy systems?

**25%** say yes

## Other impeding factors

**22%** report ambiguous agreements with vendors about who's responsible for what

**21%** report concerns with locating services in multi-tenant environments

**20%** report senior-level non-IT management is holding them back

**20%** report software licensing policy issues
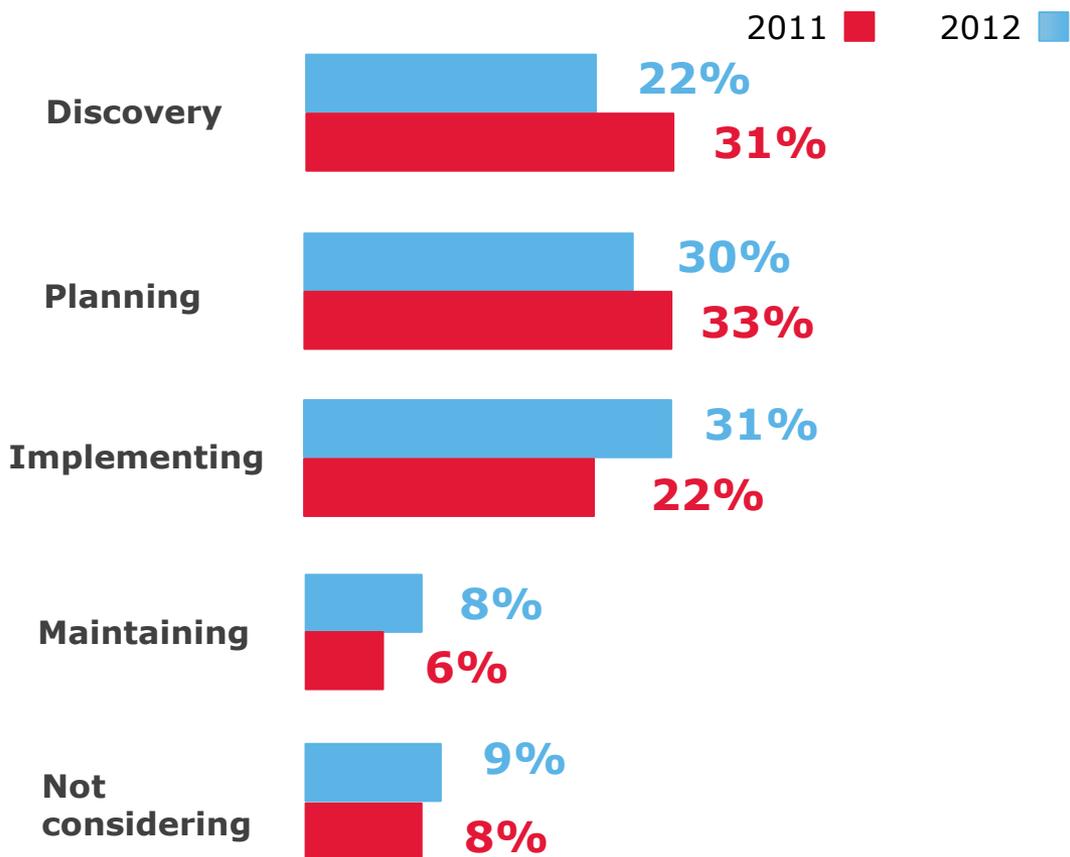
*Respondents asked to select all that apply

# UPWARD TRENDS: MIGRATING APPLICATIONS, BUSINESS AGILITY

# CLOUD ADOPTION IS GROWING

- The trend is upward: 39% of organizations are implementing or maintaining a cloud solution, up from 28% in 2011

*Overall, what is the status of cloud computing within your organization?**

2011 ■   2012 ■

**Discovery**
- 2012: 22%
- 2011: 31%

**Planning**
- 2012: 30%
- 2011: 33%

**Implementing**
- 2012: 31%
- 2011: 22%

**Maintaining**
- 2012: 8%
- 2011: 6%

**Not considering**
- 2012: 9%
- 2011: 8%

What percentage of your organization's IT budget do you currently **expect to spend** using cloud resources and applications?*

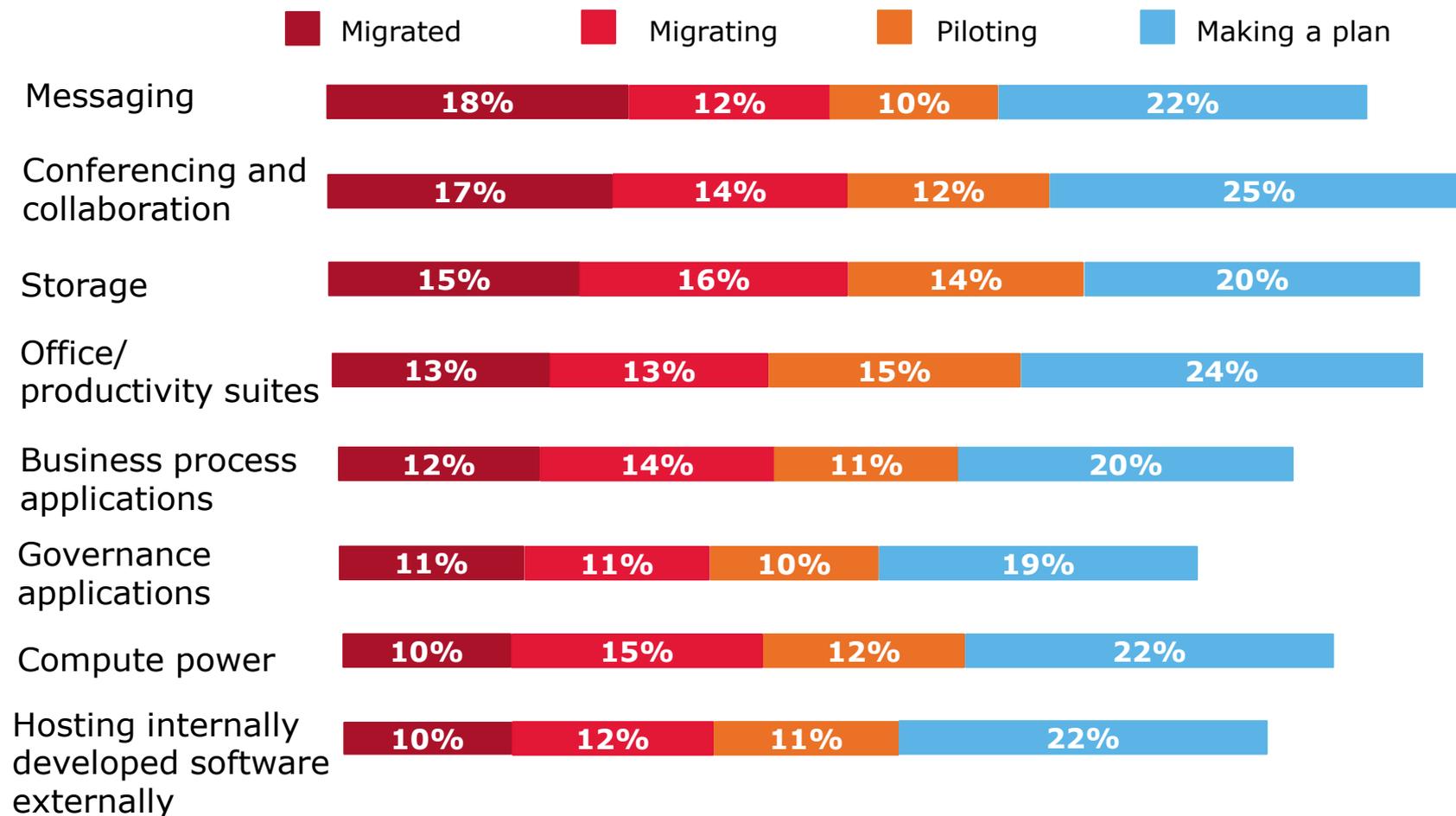| | 2011 | 2012 |
|---|---|---|
| In one year? | 20% | 23% |
| In four years? | 30% | 33% |

*Question asked of all surveyed

# WHAT'S MOVING TO THE CLOUD

- More than half of organizations are migrating or planning to move a wide variety of services to the cloud

**Legend:** ■ Migrated   ■ Migrating   ■ Piloting   ■ Making a plan

| Service | Migrated | Migrating | Piloting | Making a plan |
|---|---|---|---|---|
| Messaging | 18% | 12% | 10% | 22% |
| Conferencing and collaboration | 17% | 14% | 12% | 25% |
| Storage | 15% | 16% | 14% | 20% |
| Office/productivity suites | 13% | 13% | 15% | 24% |
| Business process applications | 12% | 14% | 11% | 20% |
| Governance applications | 11% | 11% | 10% | 19% |
| Compute power | 10% | 15% | 12% | 22% |
| Hosting internally developed software externally | 10% | 12% | 11% | 22% |

# CLOUD MIGRATION BY INDUSTRY

## Top services or applications moving to the cloud:*

### Small business

1. Storage (40%)
2. Conferencing & collaboration (37%)
3. Messaging (36%)

### Medium business

1. Storage (35%)
2. Messaging (33%)
3. Office & productivity suites (32%)

### Large business

1. Conferencing & collaboration (40%)
2. Storage/business process apps (35%)
3. Messaging/ compute power (34%)

### Federal govt.

1. Conferencing & collaboration (39%)
2. Messaging (37%)
3. Business process apps (31%)

### State/local govt.

1. Storage (19%)
2. Conferencing & collaboration (17%)
3. Messaging/business process apps/ compute power (15%)

### Healthcare

1. Conferencing & collaboration (29%)
2. Compute power (26%)
3. Office & productivity suites (22%)

### Higher education

1. Storage (31%)
2. Messaging/ conferencing & collaboration (29%)
3. Compute power (25%)

### K-12

1. Storage (40%)
2. Conferencing & collaboration (36%)
3. Office & productivity suites (33%)

*Those who are migrating or have migrated

# THE CLOUD SAVINGS FORECAST IS UP

- The cloud savings forecast has increased since 2011; cloud users* report higher anticipated savings than non-cloud users

> What percentage of your organization's IT budget do you currently **save** or **expect to save** using cloud resources and applications?

| All respondents: | 2012 | 2011 |
|---|---|---|
| **Currently** saving | 13% | 10% |
| Savings in **one** year | 17% | 17% |
| Savings in **four** years | 25% | 25% |

| Cloud users* project higher savings than non-cloud users estimate: | Cloud users | Non-cloud users |
|---|---|---|
| Savings in **one** year | 21% | 13% |
| Savings in **four** years | 27% | 21% |

*Organizations that are implementing or maintaining cloud computing, n=479

# BUT CLOUD DOES MORE THAN CUT COSTS

- Beyond the acknowledged cost benefits, cloud users* say increased efficiency, employee mobility and ability to innovate are top benefits

### *Cloud benefits according to cloud users:*

**#1** Increased efficiency (55%)

**#2** Improved employee mobility (49%)

**#3** Increased ability to innovate (32%)

**#4** Freed current IT staff for other projects (31%)

**#5** Reduced IT operating costs (25%)

**#6** Enabled us to offer new products/services (24%)

*Cloud users: How is cloud enabling your organization to do things you couldn't do before?*

**"Our ability to ramp up huge amounts of compute for very short periods of time completely changes how we operate."**

*– Chief/Deputy CIO, Small Business*

**"The increased bandwidth, not to mention capital savings, has been a big gain."**

*– IT Director/Manager, Medium Business*

**"Cloud improved our ease of access for a very mobile work staff."**

*– IT Systems Engineer, Federal Government*

*Organizations that are implementing or maintaining cloud computing, n=479; respondents asked to select all that apply

# CLOUD ROADMAP: RECOMMENDATIONS

- **Key considerations for cloud**
  - Tap a cross-section of your stakeholders for a thoughtful analysis of benefits and costs, and then select a cloud strategy consistent with your IT service fulfillment model
  - Launch first with services that don't pose unacceptable risks to your organization, aren't business critical and where complexity of implementation is low – e.g., storage, UC, office productivity
  - Leverage your users' consumer experience: familiarity will maximize success of cloud adoption

# CLOUD ROADMAP: RECOMMENDATIONS

- **Reality check**
  - Independent software vendors will bring new features to market faster with cloud applications, so follow those changes closely
  - Start planning today; understand your internal "cost to serve" per application, which will help determine return on investment (ROI) for public cloud solutions
  - When working with cloud providers, look for contracts that establish and enforce service levels and security standards
- **Address software licensing**
  - Work with a software licensing expert to clarify and resolve issues affecting applications your organization wants to move to the cloud

# METHODOLOGY AND DEMOGRAPHICS

- CDW surveyed* 1,242 IT decision makers in August and September 2012. The sample size results in a margin of error of ±2.7% at a 95% confidence level. The margin of error for industry sub-groups is ±7.9% at a 95% confidence level

| IT decision makers | Titles | Organization size |
|---|---|---|
| **100% of respondents are familiar with their organization's use of, or plans for, cloud computing** | 12%  Chief/Deputy CIO<br>7%  Chief/Deputy CTO<br>45%  IT Director/Manager<br>24%  IT Supervisor/Specialist<br>12%  IT Systems Engineer | 13%  Less than 50 employees<br>12%  50-99 employees<br>23%  100-499 employees<br>35%  500-10,000 employees<br>17%  More than 10,000 employees |

| Small business (20-99 employees) | Medium business (100-499 employees) | Large business (500+ employees) | Federal government | State & local government | Healthcare | Higher education | K-12 public school districts |
|---|---|---|---|---|---|---|---|
| n = 155 | n = 155 | n = 157 | n = 155 | n = 155 | n = 156 | n = 157 | n = 152 |
| | | | 61% Federal civilian<br>39% Department of Defense | 51% State<br>38% County<br>11% Municipal | 74% Hospital/medical center<br>14% Doctor's office<br>12% Long-term care facility | 46% Public four year<br>42% Private four year<br>10% Public community college<br>2% Private community college | |

*Research conducted by O'Keeffe & Company

# APPENDIX

# INDUSTRY CLOUD ADOPTION

- Large businesses and higher education institutions lead on cloud adoption, but small and medium businesses, the Federal government and K-12 have also seen significant growth

**Overall, what is the status of cloud computing within your organization?***

| | Large business | Higher education | Small business | Federal government | K-12 | Medium business | Healthcare | State & local government |
|---|---|---|---|---|---|---|---|---|
| **Percentage of organizations implementing or maintaining cloud computing *2012*:** | 44% | 43% | 42% | 42% | 42% | 40% | 35% | 27% |
| **Percentage of organizations implementing or maintaining cloud computing *2011*:** | 37% | 34% | 21% | 29% | 27% | 21% | 30% | 23% |

# SMALL BUSINESS AT A GLANCE

## Who's making the cloud decision:*

51% IT Director
48% CIO/CTO
36% IT Manager/Non-IT C-level executives

**70%** Of IT pros say personal use of cloud has influenced their recommendation to their organization about cloud adoption

**45%** Say employees' use of cloud apps/mobile devices is making their organization move faster to the cloud**

## Biggest impeding factors to cloud:***

**#1** Concerns with security of proprietary data/ applications (39%)

**#2** Concerns with performance of cloud services (30%)

**#3** Lack of information to compare options/Based on cost analysis, cloud is not compelling enough to adopt (18%)

### Cloud forecast:

The average percentage of budget IT pros expect to spend on cloud computing in:****

- One year:          **28%**

- Four years:        **38%**

The average percentage of budget IT pros say they expect to save on cloud computing in:****

- One year:          **21%**

- Four years:        **30%**

*Respondents asked to select the top three  **Those who strongly or somewhat agree ***Respondents asked to select all that apply ****IT budget

# MEDIUM BUSINESS AT A GLANCE

## Who's making the cloud decision:*

63% IT Director
50% CIO/CTO
35% IT Manager

**72%** Of IT pros say personal use of cloud has influenced their recommendation to their organization about cloud adoption

**59%** Say employees' use of cloud apps/mobile devices is making their organization move faster to the cloud**

## Biggest impeding factors to cloud:***

**#1** Concerns with security of proprietary data/ applications (45%)
**#2** Concerns with performance of cloud services (34%)
**#3** Senior-level non-IT management is holding us back (30%)

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### Cloud forecast:

The average percentage of budget IT pros expect to spend on cloud computing in:****

- One year:      **27%**

- Four years:    **36%**

The average percentage of budget IT pros say they expect to save on cloud computing in:****

- One year:      **19%**

- Four years:    **27%**

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*Respondents asked to select the top three  **Those who strongly or somewhat agree ***Respondents asked to select all that apply ****IT budget

# LARGE BUSINESS AT A GLANCE

**CDW**

## Who's making the cloud decision:*

68% CIO/CTO
64% IT Director
33% IT Manager/Non-IT C-level executives

**68%** Of IT pros say personal use of cloud has influenced their recommendation to their organization about cloud adoption

**51%** Say employees' use of cloud apps/mobile devices is making their organization move faster to the cloud**

## Biggest impeding factors to cloud:***

**#1** Concerns with security of proprietary data/ applications (43%)

**#2** Concerns with performance of cloud services (36%)

**#3** Concerns with locating our services in multi-tenant environments (33%)

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### Cloud forecast:

The average percentage of budget IT pros expect to spend on cloud computing in:****

- One year:          **25%**

- Four years:          **36%**

The average percentage of budget IT pros say they expect to save on cloud computing in:****

- One year:          **19%**

- Four years:          **26%**

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*Respondents asked to select the top three  **Those who strongly or somewhat agree ***Respondents asked to select all that apply ****IT budget

# FEDERAL GOVERNMENT AT A GLANCE

**CDW**

## Who's making the cloud decision:*

66% IT Director
62% CIO/CTO
39% Non-IT C-level executives

**53%** Of IT pros say personal use of cloud has influenced their recommendation to their organization about cloud adoption

**43%** Say employees' use of cloud apps/mobile devices is making their organization move faster to the cloud**

## Biggest impeding factors to cloud:***

**#1** Concerns with security of proprietary data/ applications (56%)

**#2** Concerns with performance of cloud services (32%)

**#3** Concerns with technical aspects of integrating cloud applications/infrastructure with legacy systems (28%)

---

### Cloud forecast:

The average percentage of budget IT pros expect to spend on cloud computing in:****

- One year:        **22%**

- Four years:      **34%**

The average percentage of budget IT pros say they expect to save on cloud computing in:****

- One year:        **16%**

- Four years:      **24%**

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*Respondents asked to select the top three  **Those who strongly or somewhat agree ***Respondents asked to select all that apply ****IT budget

# STATE & LOCAL GOVERNMENT AT A GLANCE

**Who's making the cloud decision:***

59% IT Director
50% CIO/CTO
37% Non-IT C-level executives

**57%** — Of IT pros say personal use of cloud has influenced their recommendation to their organization about cloud adoption

**34%** — Say employees' use of cloud apps/mobile devices is making their organization move faster to the cloud**

**Biggest impeding factors to cloud:****

**#1** Concerns with security of proprietary data/ applications (45%)
**#2** Concerns with performance of cloud services (29%)
**#3** Senior-level non-IT management is holding us back (27%)

---

## Cloud forecast:

The average percentage of budget IT pros expect to spend on cloud computing in:****

- One year:        **15%**

- Four years:      **27%**

The average percentage of budget IT pros say they expect to save on cloud computing in:****

- One year:        **12%**

- Four years:      **20%**

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*Respondents asked to select the top three  **Those who strongly or somewhat agree ***Respondents asked to select all that apply ****IT budget

# HEALTHCARE AT A GLANCE

## Who's making the cloud decision:*

68% CIO/CTO
63% IT Director
44% Non-IT C-level executives

**67%** — Of IT pros say personal use of cloud has influenced their recommendation to their organization about cloud adoption

**47%** — Say employees' use of cloud apps/mobile devices is making their organization move faster to the cloud**

## Biggest impeding factors to cloud:***

**#1** Concerns with security of proprietary data/applications (51%)

**#2** Concerns with performance of cloud services (36%)

**#3** Concerns with technical aspects of integrating cloud applications/infrastructure with legacy systems (31%)

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### Cloud forecast:

The average percentage of budget IT pros expect to <u>spend</u> on cloud computing in:****

- One year:          **19%**

- Four years:        **29%**

The average percentage of budget IT pros say they expect to <u>save</u> on cloud computing in:****

- One year:          **14%**

- Four years:        **21%**

---

*Respondents asked to select the top three  **Those who strongly or somewhat agree ***Respondents asked to select all that apply ****IT budget

# HIGHER EDUCATION AT A GLANCE

## Who's making the cloud decision:*

61% IT Director
59% CIO/CTO
41% Non-IT C-level executives

**63%** Of IT pros say personal use of cloud has influenced their recommendation to their organization about cloud adoption

**48%** Say employees' use of cloud apps/mobile devices is making their organization move faster to the cloud**

## Biggest impeding factors to cloud:***

**#1** Concerns with security of proprietary data/applications (52%)

**#2** Concerns with performance of cloud services (31%)

**#3** Ambiguity of service level agreements with vendors about who's responsible for what (27%)

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### Cloud forecast:

The average percentage of budget IT pros expect to spend on cloud computing in:****

- One year: **20%**

- Four years: **33%**

The average percentage of budget IT pros say they expect to save on cloud computing in:****

- One year: **14%**

- Four years: **20%**

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*Respondents asked to select the top three  **Those who strongly or somewhat agree ***Respondents asked to select all that apply ****IT budget

# K-12 AT A GLANCE

## Who's making the cloud decision:*

61% IT Director
39% IT Administrator
37% IT Manager

**76%** Of IT pros say personal use of cloud has influenced their recommendation to their organization about cloud adoption

**56%** Say employees' use of cloud apps/mobile devices is making their organization move faster to the cloud**

## Biggest impeding factors to cloud:***

**#1** Concerns with security of proprietary data/ applications (39%)

**#2** Concerns with performance of cloud services (30%)

**#3** Concerns with technical aspects of integrating cloud applications/infrastructure with legacy systems (24%)

---

### Cloud forecast:

The average percentage of budget IT pros expect to spend on cloud computing in:****

- One year:          **25%**

- Four years:        **35%**

The average percentage of budget IT pros say they expect to save on cloud computing in:****

- One year:          **20%**

- Four years:        **27%**

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*Respondents asked to select the top three  **Those who strongly or somewhat agree ***Respondents asked to select all that apply ****IT budget

# Thank you.

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