



2011 Cloud Computing Research

November 2010

Conducted across the IDG Enterprise
brands: CIO, Computerworld, CSO,
InfoWorld, ITworld & Network World



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DEMO

InfoWorld



NETWORKWORLD



Purpose & Methodology

- This research was conducted to gain a better understanding of key cloud computing trends taking place today, and the effect these trends are having on our audience.
- Survey was conducted across IDG Enterprise brands (CIO, Computerworld, CSO, InfoWorld, ITworld and Network World).
- Survey fielded from October 26 – November 15, 2010
- All survey respondents are involved in the purchase of IT products and services at their organization, and have, or plan to have within 3 years, at least one application or a portion of their computing infrastructure in the cloud.
- Margin of error: +/- 2.5%

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



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Respondent Profile

- Of the 1,535 respondents, 307 were classified as executive IT mgmt., 548 as senior IT mgmt., 277 as IT professionals, 344 as business mgmt., and 59 as other.
 - Executive IT management are comprised of CIO, CTO, CSO and VP/SVP/EVP titles
 - Senior IT management are comprised of Director, Manager, Supervisor or Technical Consultant titles
 - IT Professionals are comprised of Systems Integrator, Networking Staff, Application/Software developer or other IT Staff
 - Business management are comprised of CEO, COO, Chairman, President, Director/Manager, VP/EVP/SVP, GM, Consultant (non-technical). CFO, Controller, Treasurer or Other Corporate Business Managers
- Average company size: 15,200 employees
- Annual company revenues: \$5.8 billion
- Industries represented include:
 - High Tech, Telecom & Utilities: 25%
 - Services (legal, consulting, real estate): 13%
 - Government/Nonprofit: 11%
 - Manufacturing (including automotive, aerospace & defense, construction, engineering, chemical, metals & mining): 11%
 - Financial Services (banking, insurance brokerage): 11%
 - Education: 9%

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



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Definitions for Types of Cloud Computing

- SaaS
 - Sometimes referred to as “software on demand,” is software that is deployed over the internet and/or is deployed to run behind a firewall on a local area network or personal computer. With SaaS, a provider licenses an application to customers either as a service on demand, through a subscription, in a “pay-as-you-go” model, or (increasingly) at no charge.
- Public Cloud
 - Public Cloud is cloud computing in the traditional main stream sense, whereby resources are dynamically provisioned on a fine-grained, self-service basis over the Internet, via web applications/web services, from an off-site third-party provider who bills on a fine-grained utility computing basis.
- Private Cloud
 - Offerings that emulate cloud computing on private networks. These (typically virtualization automation) products offer the ability to host applications or virtual machines in a company’s own set of hosts. These provide the benefits of utility computing -shared hardware costs, the ability to recover from failure, and the ability to scale up or down depending upon demand.
- Hybrid Cloud
 - The use of physical hardware and virtualized cloud server instances together to provide a single common service. Two clouds that have been joined together are more correctly called a “combined cloud”



Source: Wikipedia



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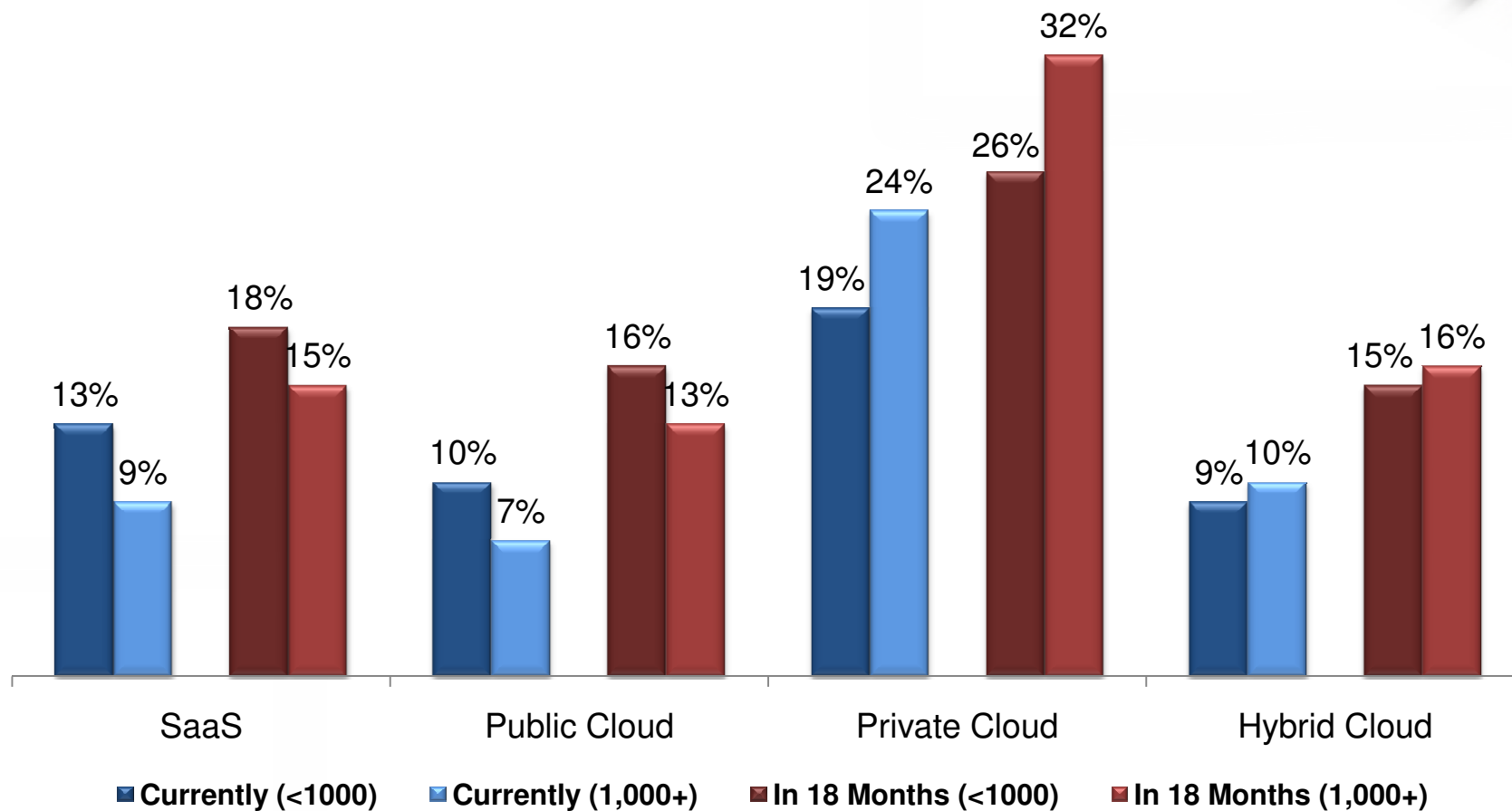
ITWORLD

NETWORKWORLD

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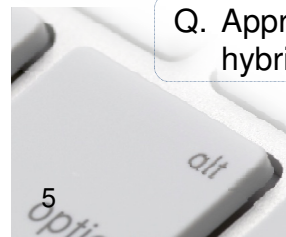


Private Cloud Most Readily Adopted

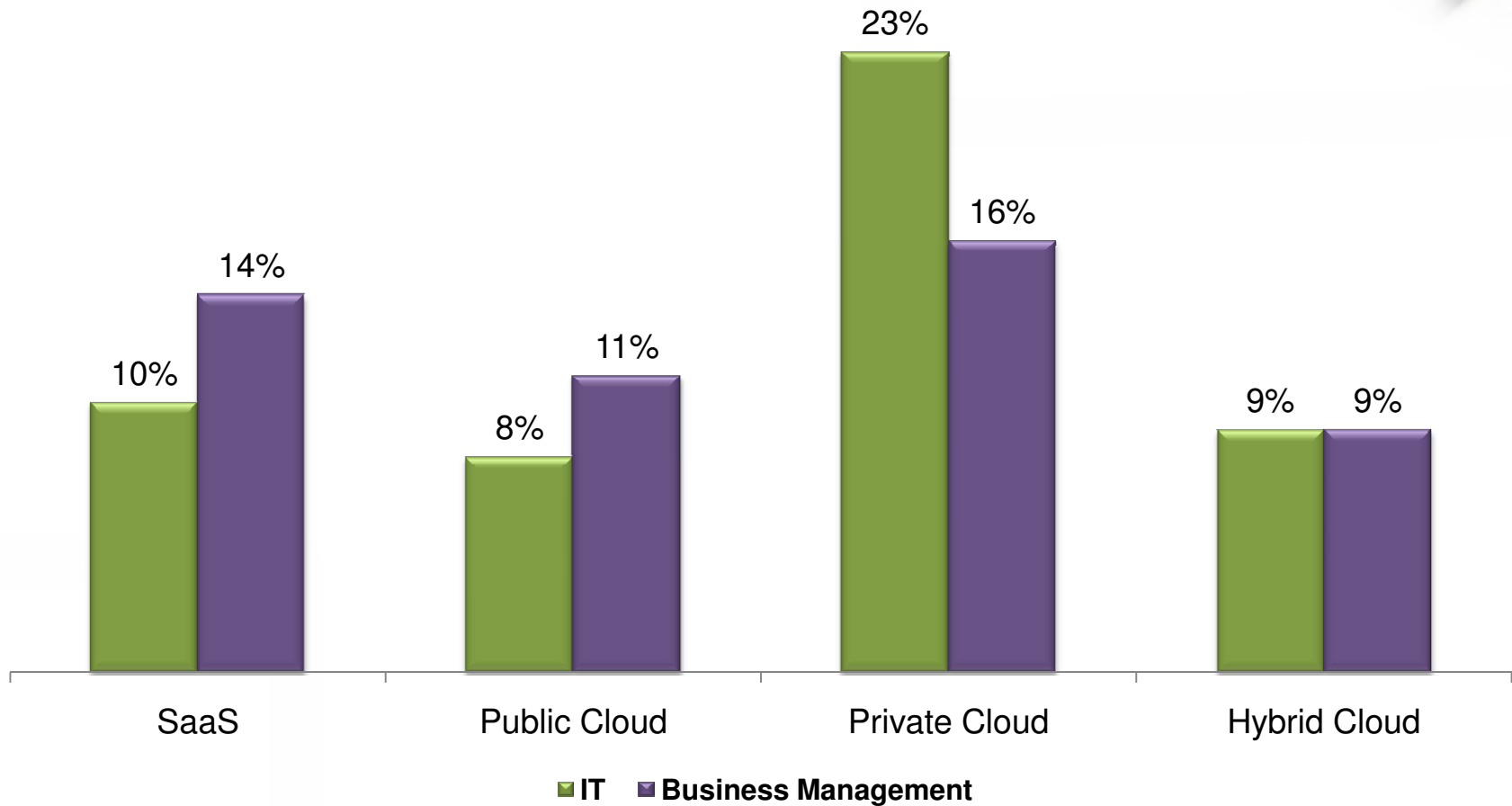


Q. Approximately, how much of your organization's data presently resides in the public, private and hybrid clouds, and will in 18 months?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



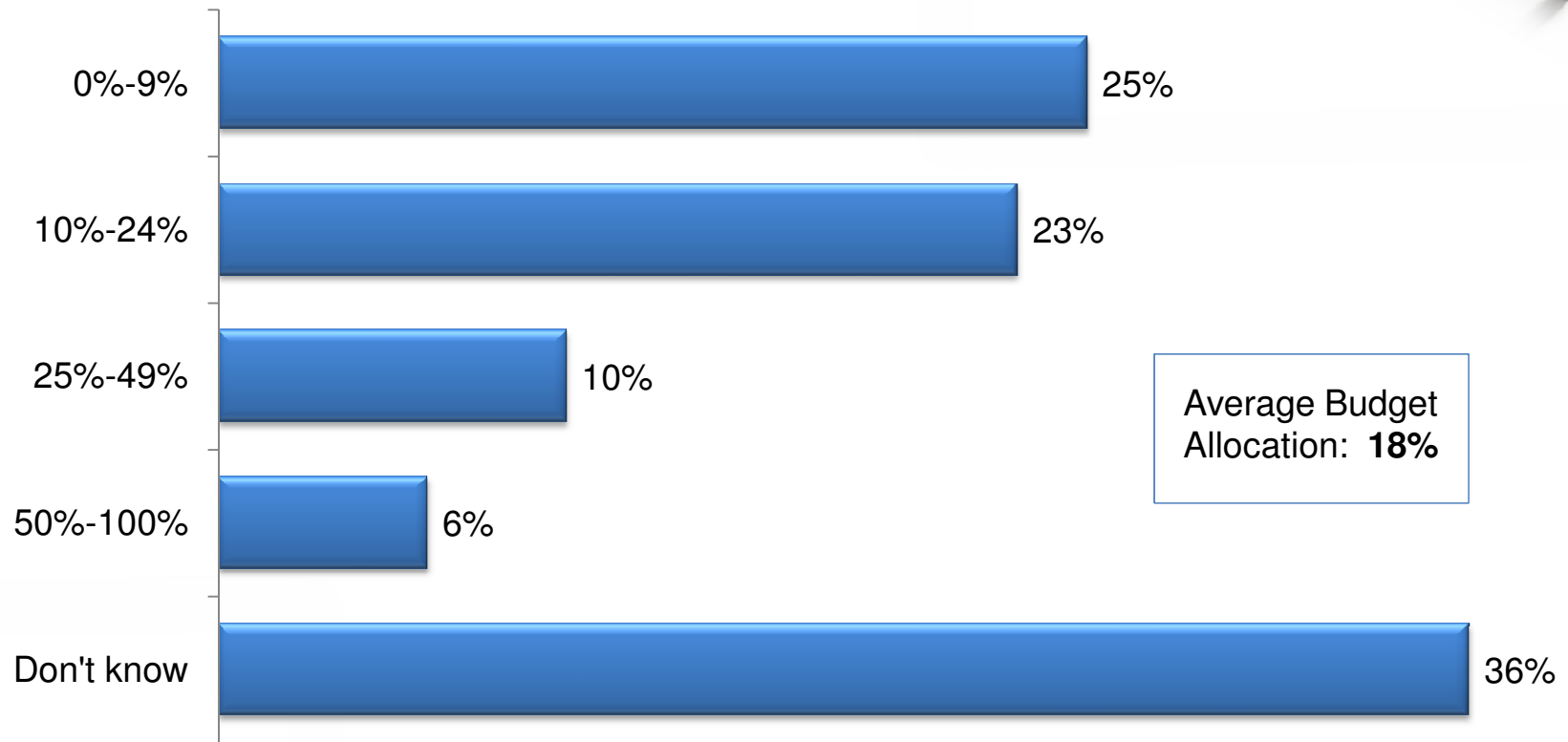
Disconnect on How Much Data is Stored, and Where



Q. Approximately, how much of your organization's data presently resides in the public, private and hybrid clouds?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010

Cloud Investment a Significant Portion of Overall IT Budget



Q. What percent of your organization's 2010 IT budget is allocated to cloud-based services computing (including software, services, training and other related costs)?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



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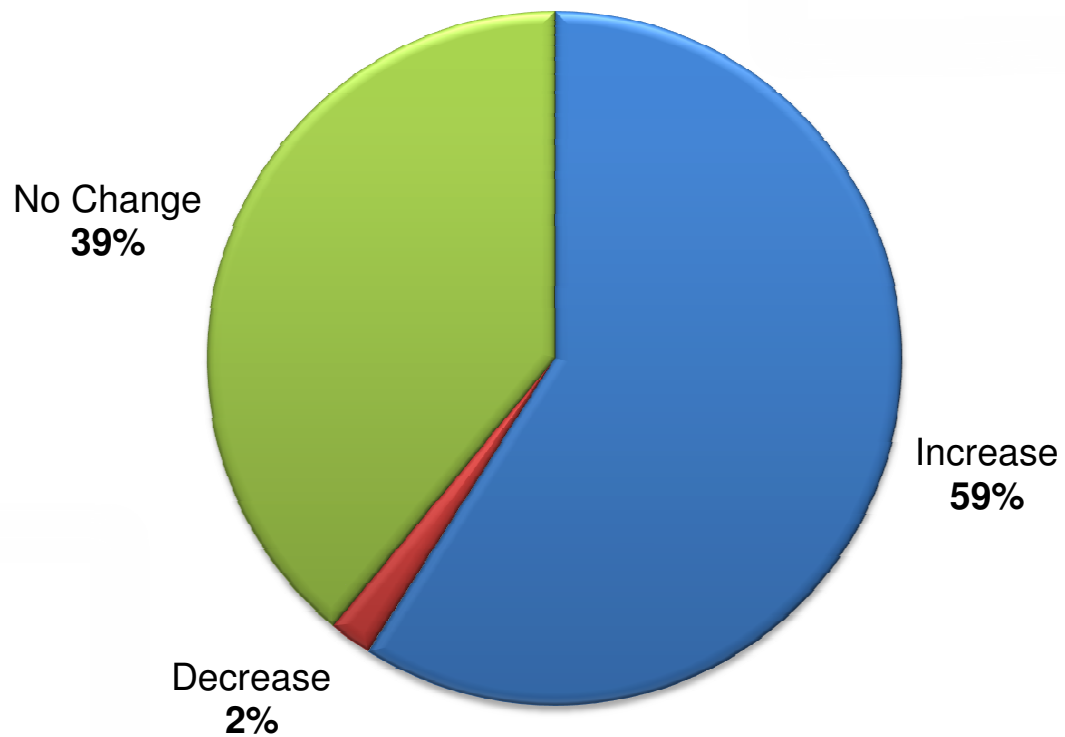
InfoWorld

ITWORLD

NETWORKWORLD



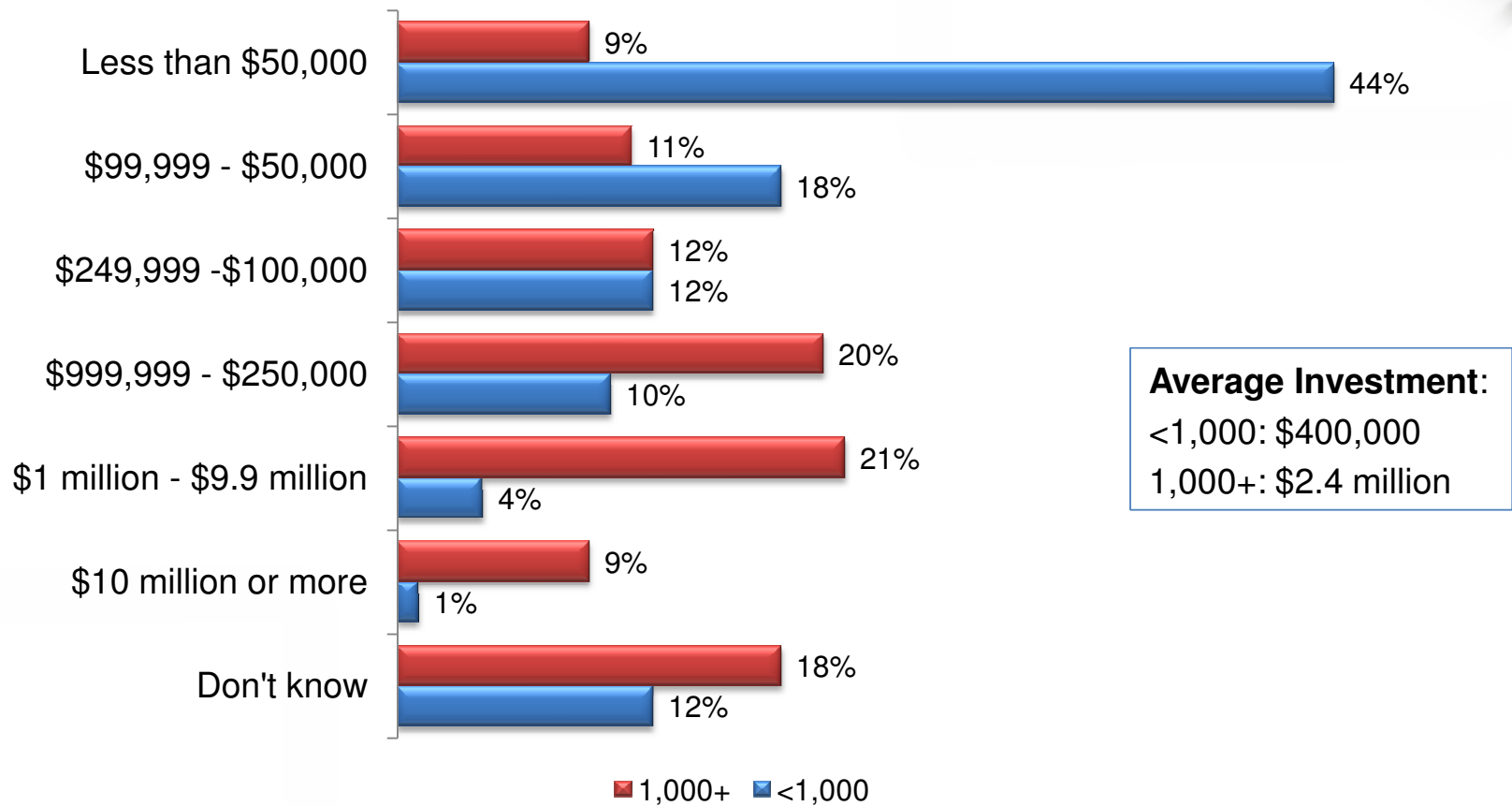
... and is Expected to Increase



Q. Do you expect the percentage of your organization's IT budget allocated to cloud-based services computing to increase, decrease or remain the same over the next 12 months?

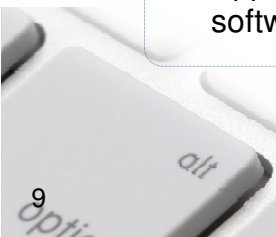
Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010

Enterprise Organizations Investing Significantly More Dollars



Q. Approximately how much will your organization invest in cloud-based computing (including software, services, training and other related costs) in the next 12 months?

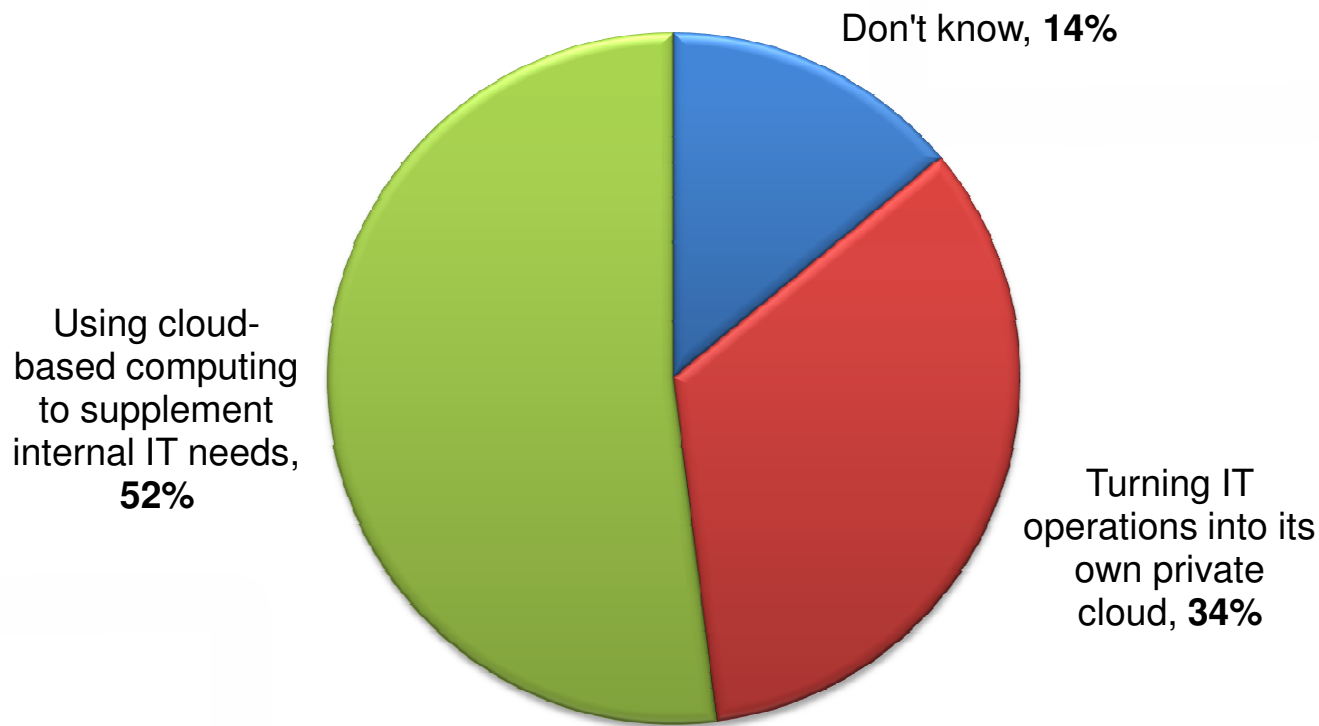
Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



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Cloud Primarily Supplementing IT Operations

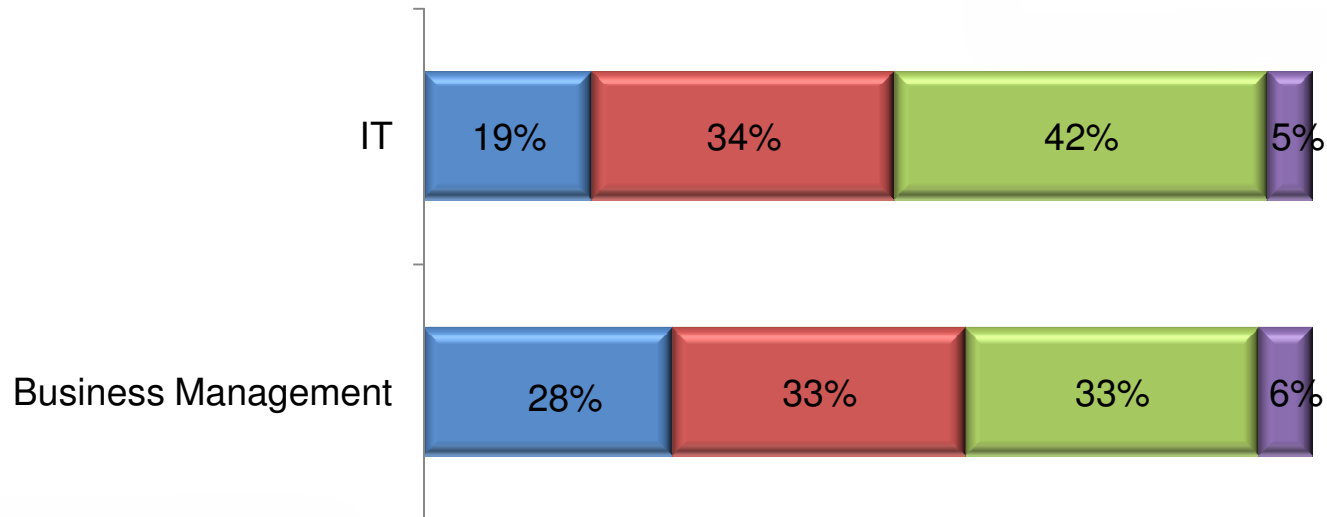


Q. Over the next 12 months, is your company using cloud-based computing to supplement internal IT needs or is it turning IT operations into its own private cloud?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



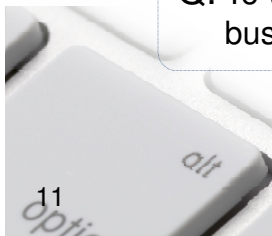
Cloud Investments Driven by Business Strategy



- Play a critical role in shaping overall business strategy
- Play a role in shaping overall business strategy but are not a central focus
- Driven by business strategy rather than shaping it2
- Don't know

Q. To what extent are cloud computing technology investments shaping your organization's overall business strategy and plans?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 CIO specific results



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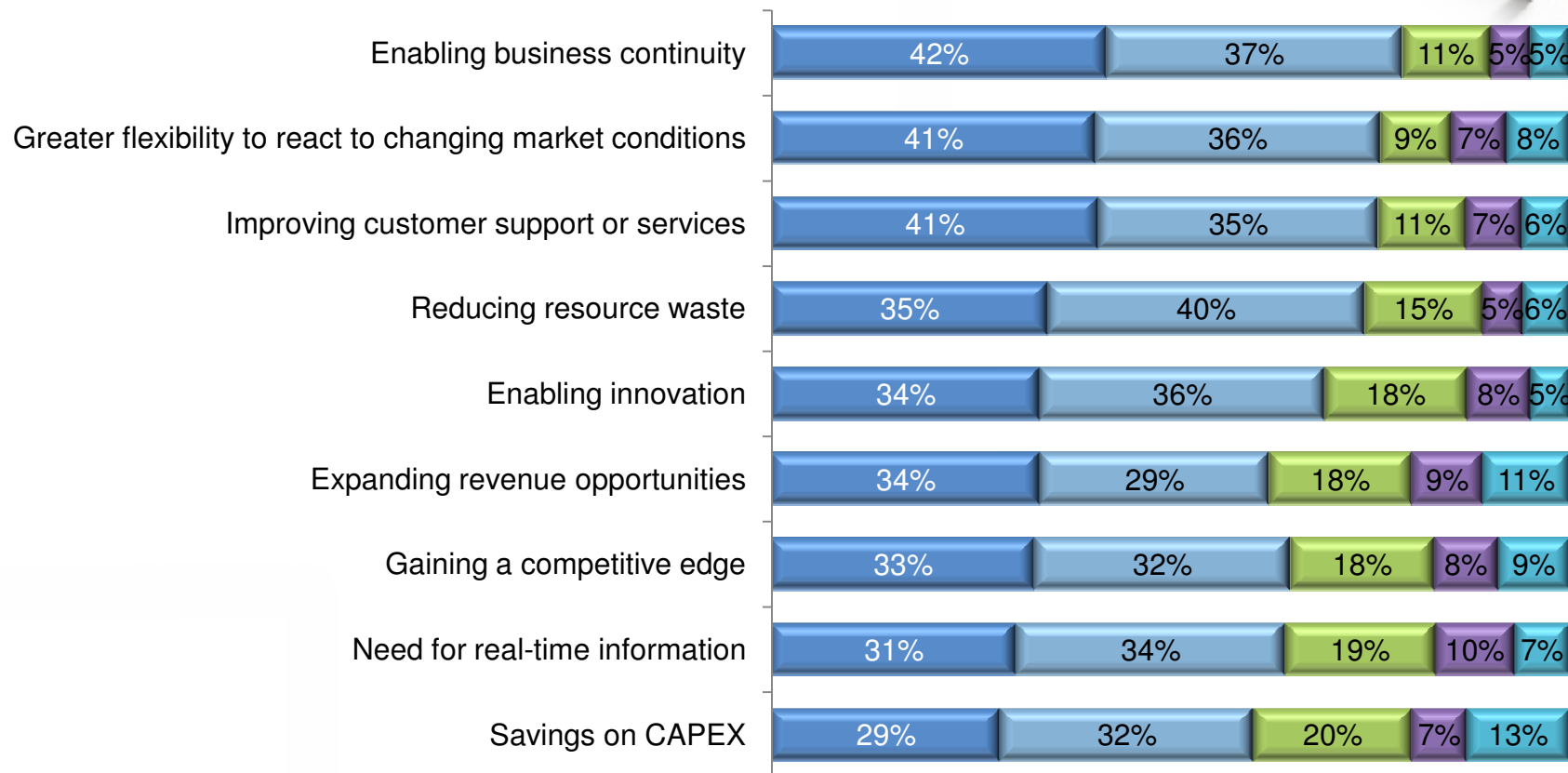
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Top Business Drivers are Continuity, Flexibility, and Customer Support

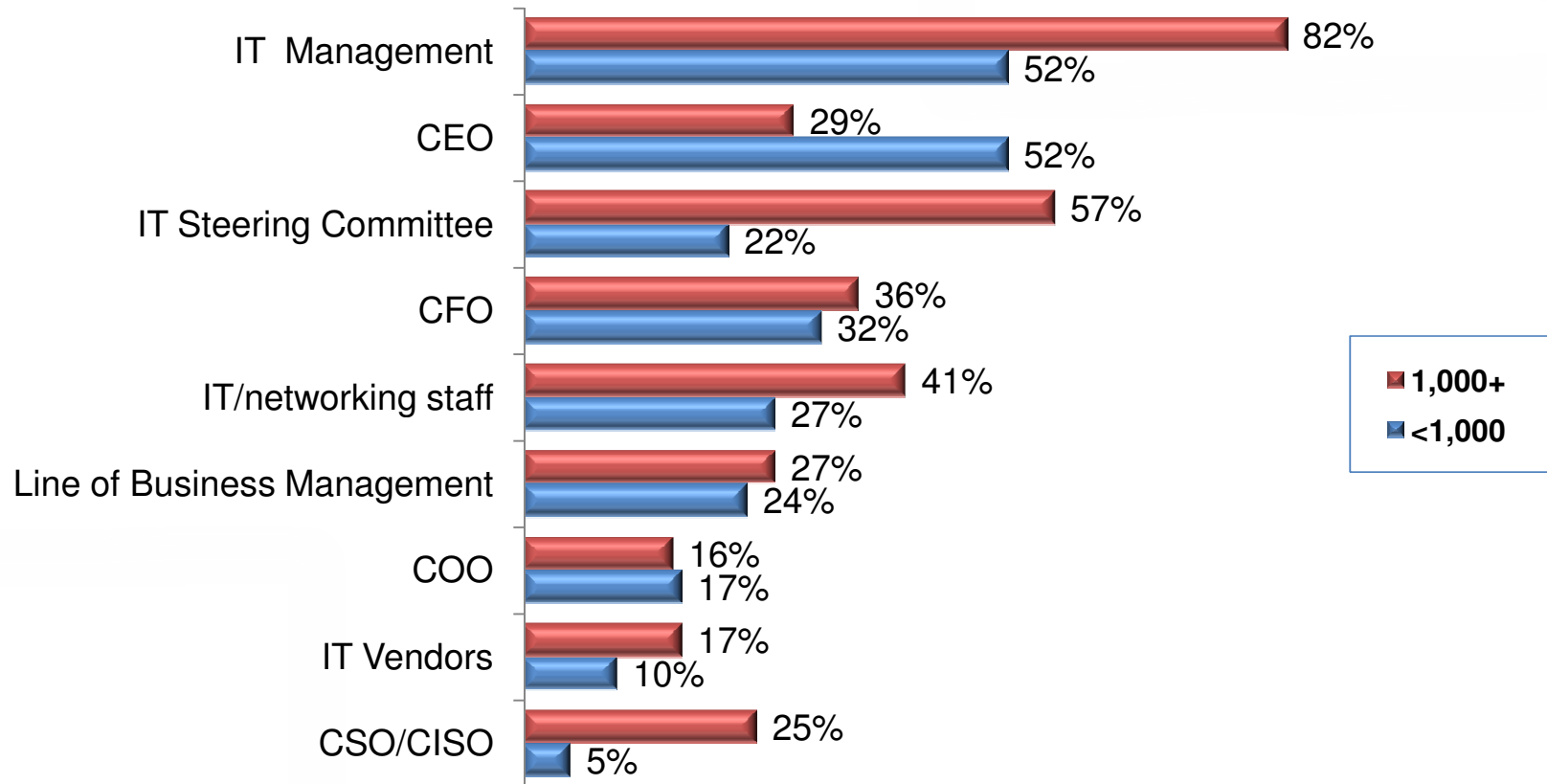


■ Very Important
 ■ Somewhat Important
 ■ Not Very Important
 ■ Not at all Important
 ■ Not Applicable

Q. How important are the following as business drivers of investment in cloud computing technology?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 CIO specific results

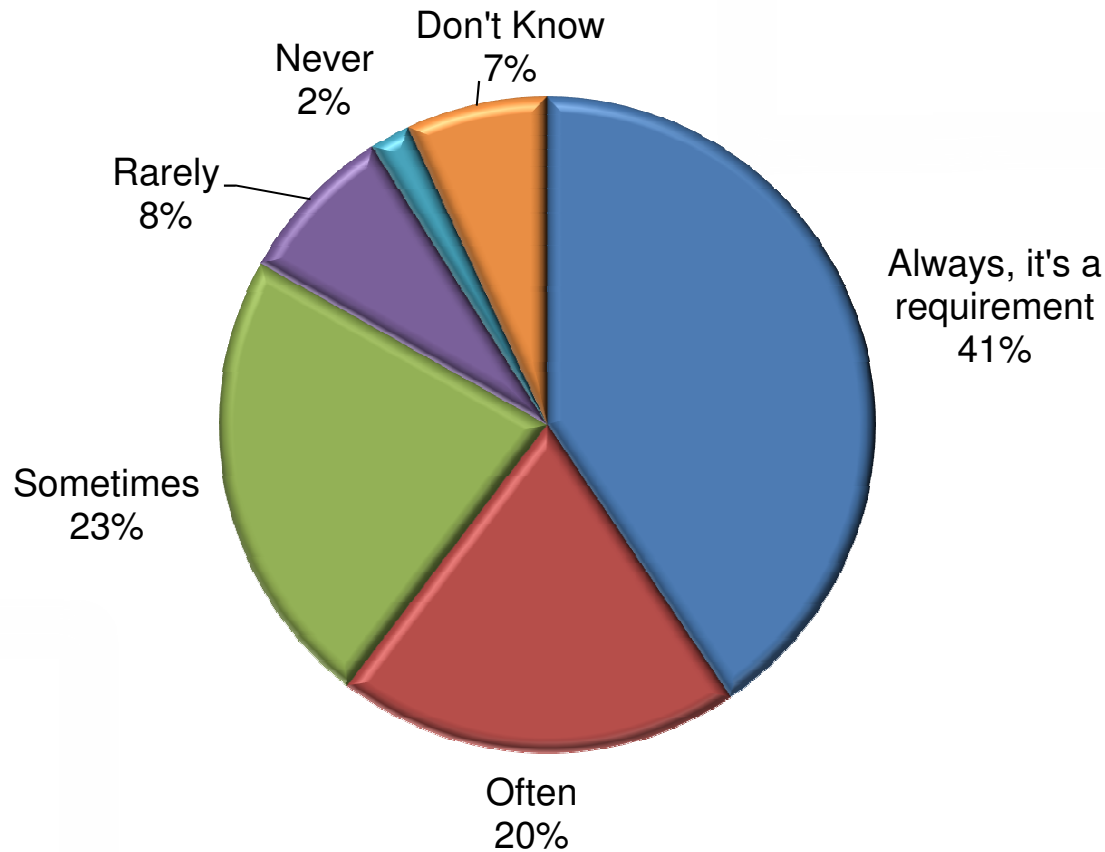
IT Leads Collaborative Purchase Process



Q. Including yourself, which of the following groups are involved in purchasing decisions about cloud computing?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 Computerworld specific results

IT Is Driving Cloud Adoption

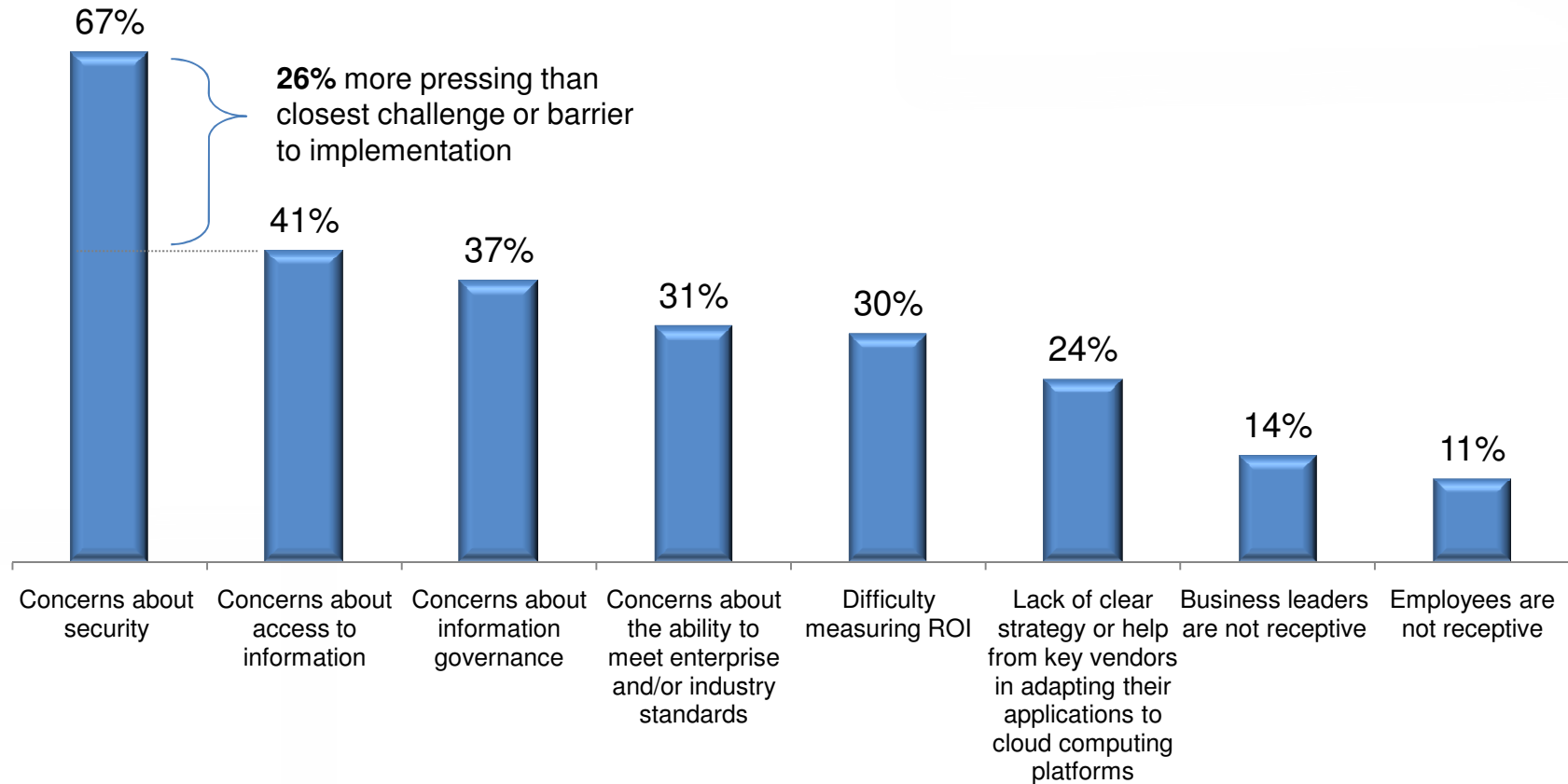


Q. When business units/departments select their own cloud computing solutions and services, how frequently do they consult IT prior to making the final purchase?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010

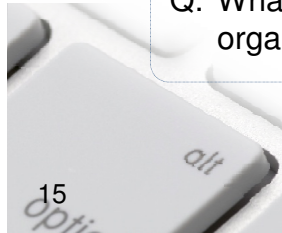
InfoWorld specific results

For CIOs, Top Challenge is Security, Security, Security

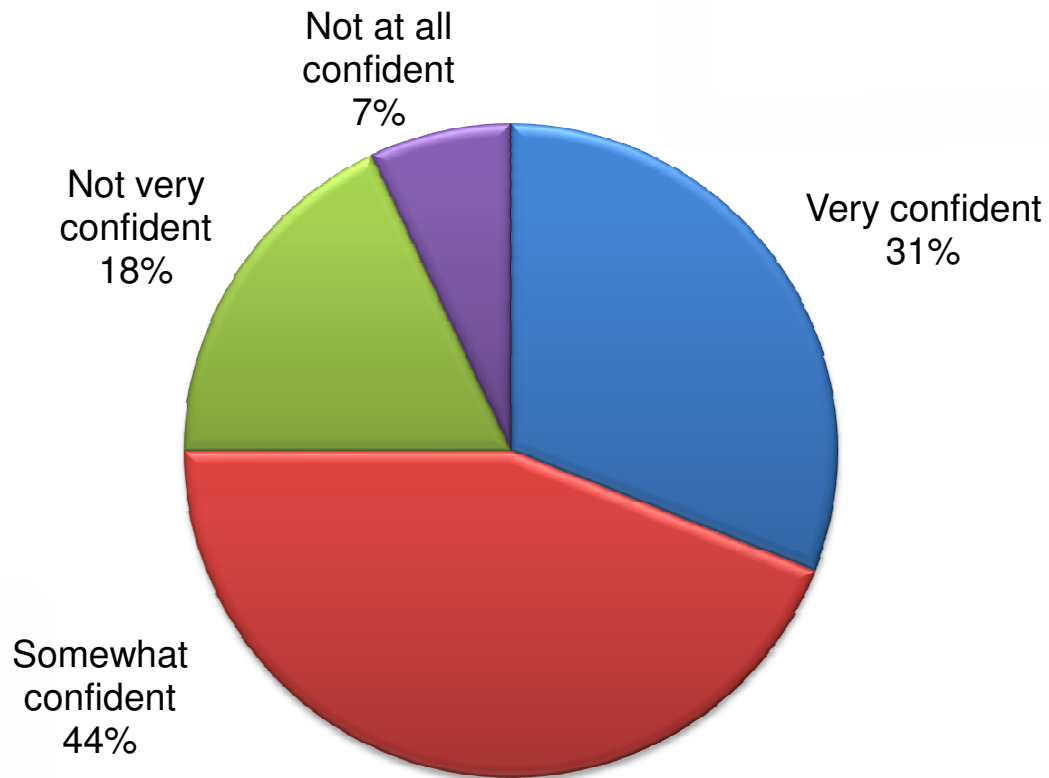


Q. What are the top three challenges or barriers to implementing a cloud computing strategy at your organization?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **CIO specific results**



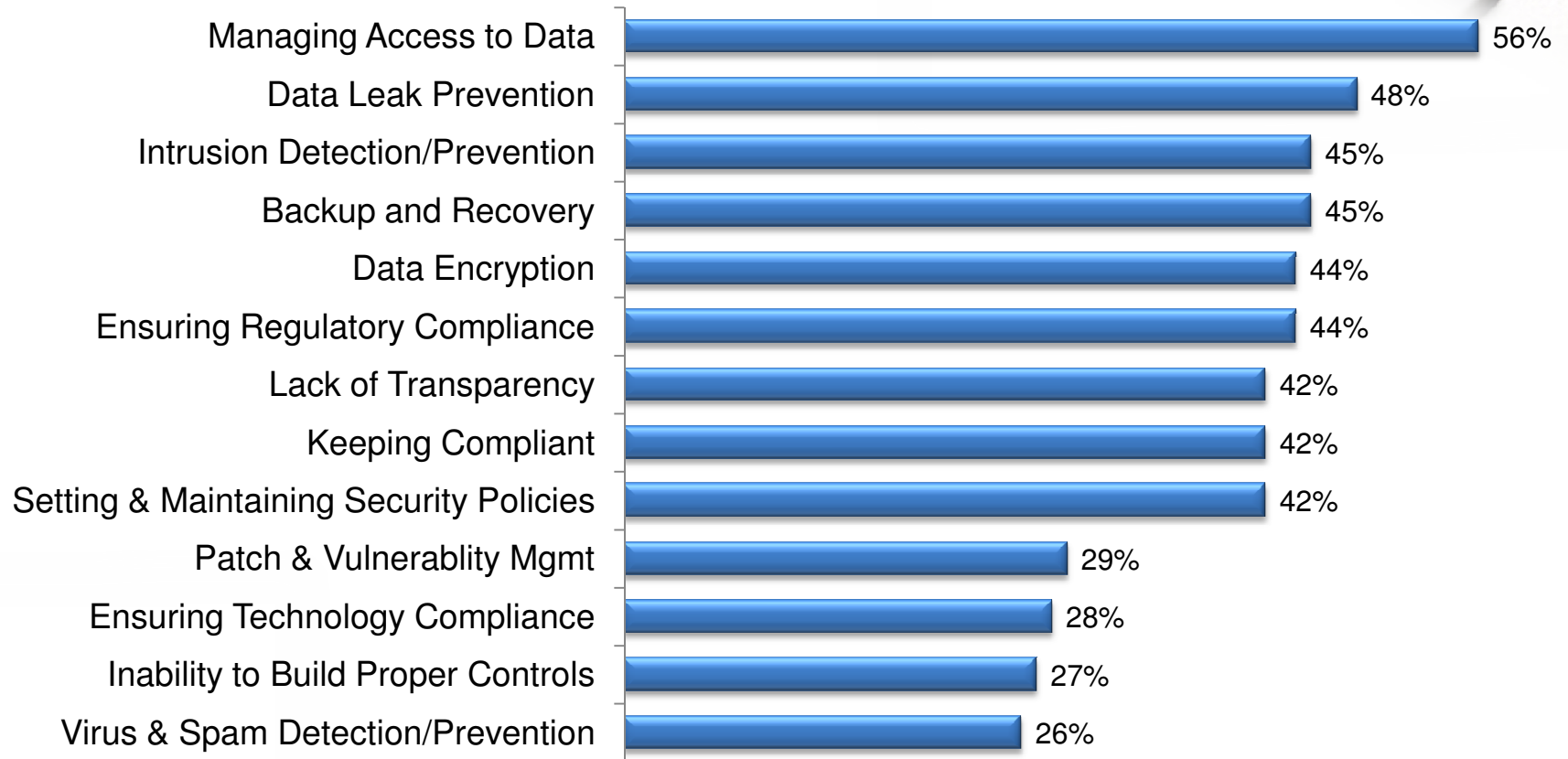
CSOs Generally Confident in Security of Data



Q. Considering the current policies and security measures in place at your organization, how confident are you in the security of the data your organization has placed in the cloud?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **CSO specific results**

Top Security Challenge: Managing Access to Data

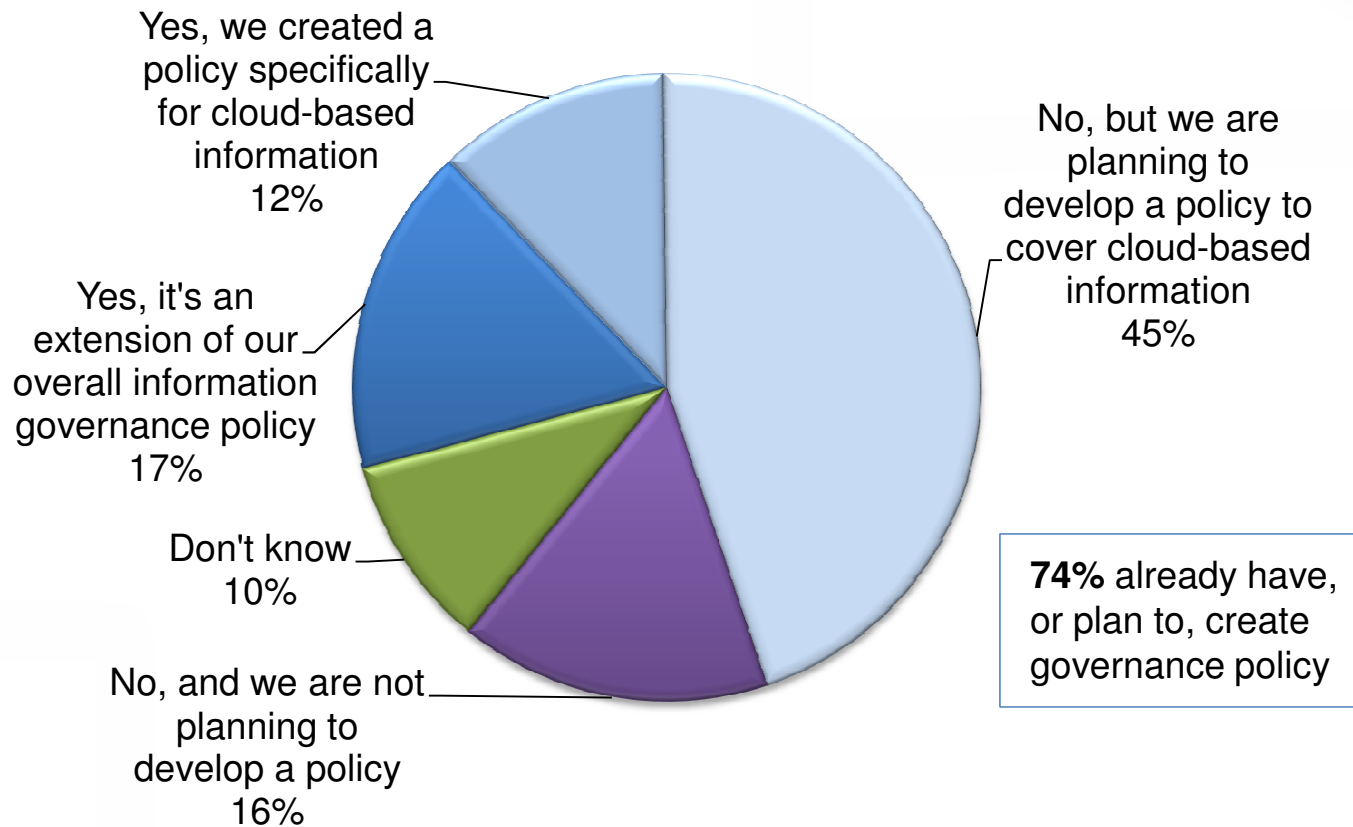


Q. What are your organization's top challenges with regards to ensuring and maintaining the security of information that is stored in the cloud?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 CSO specific results



Cloud Governance Seen as Critical

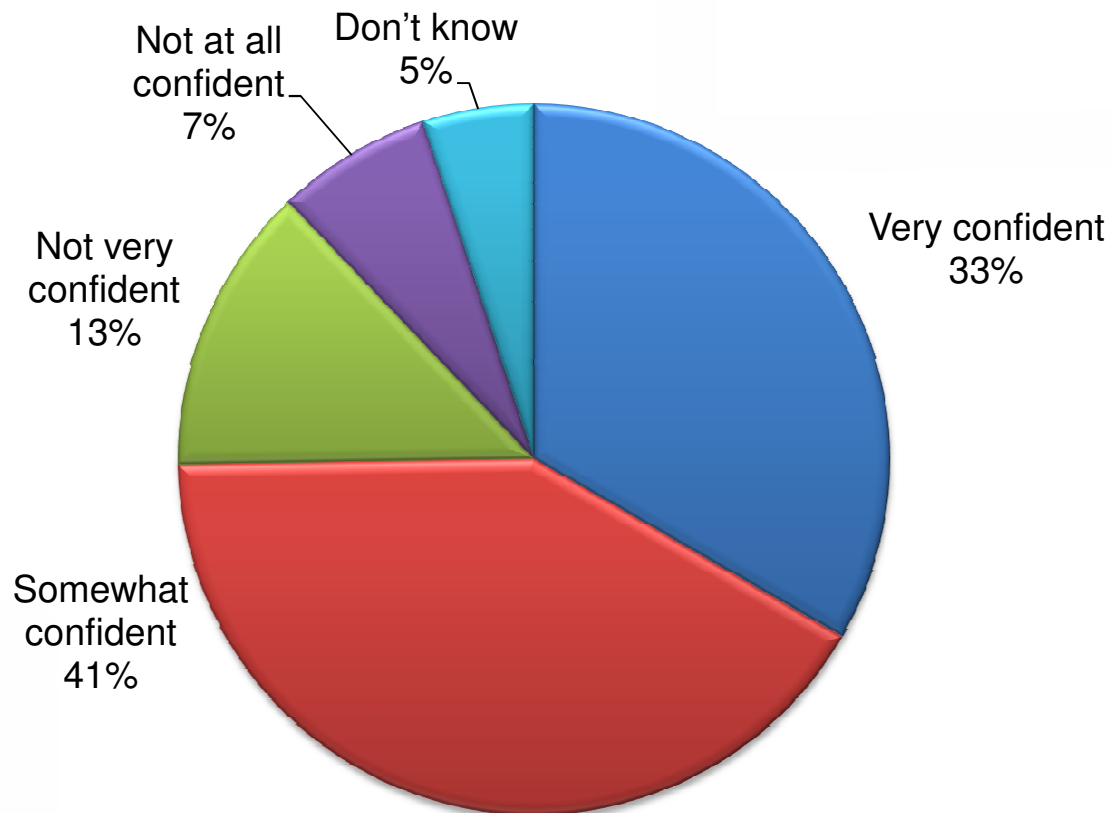


Q. Does your organization have a governance policy for cloud-based information – a policy for information generated and/or stored in the cloud and covering items such as compliance, e-discovery, archiving content, records management, file management, etc.?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Computerworld specific results**



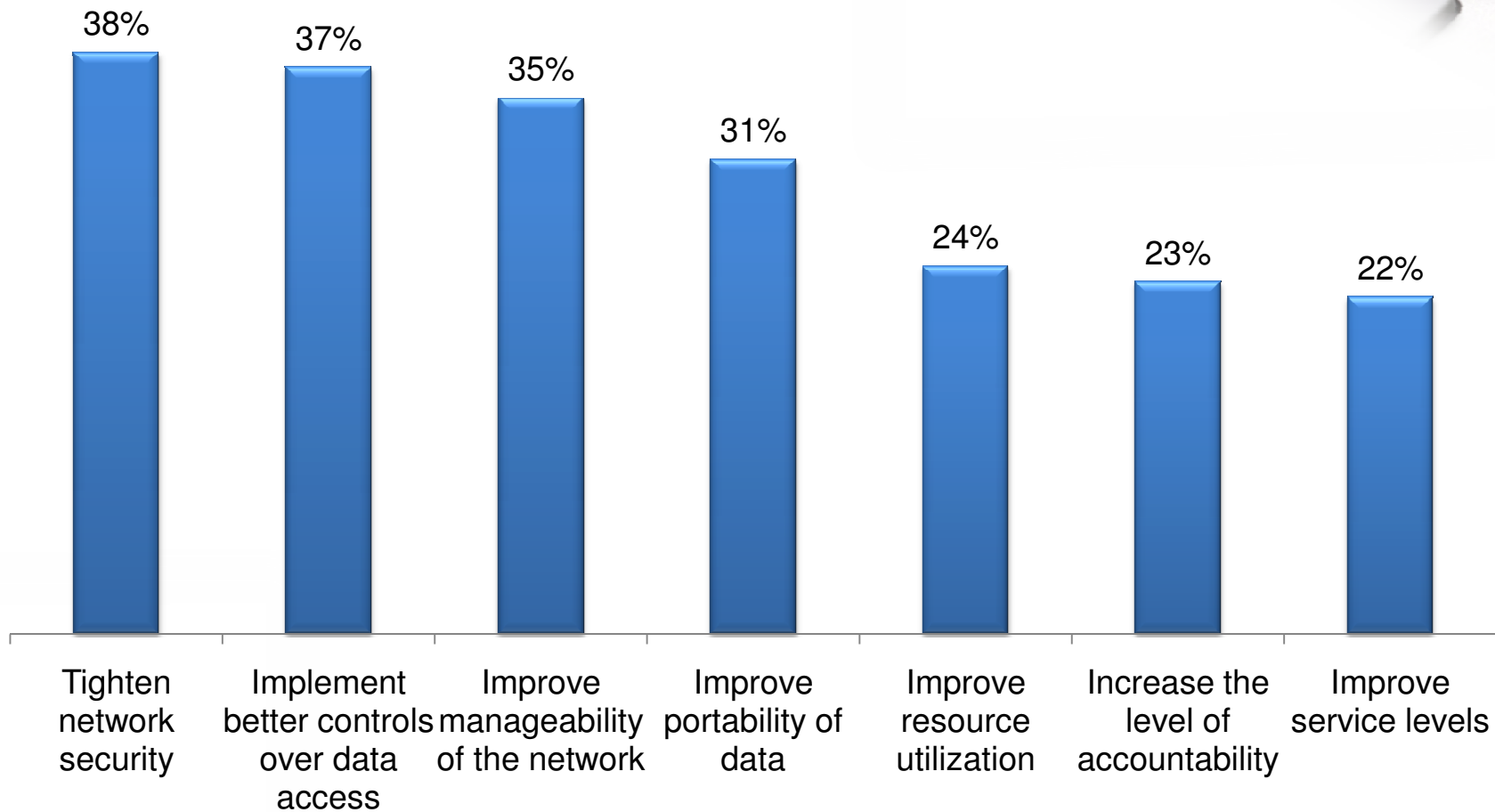
Infrastructure Readiness for Cloud a Work in Progress



Q. How confident are you in the preparedness of your network infrastructure for the use or expanded use of cloud computing technology?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Network World specific results**

Top Areas for Readiness Improvement Focus on Security

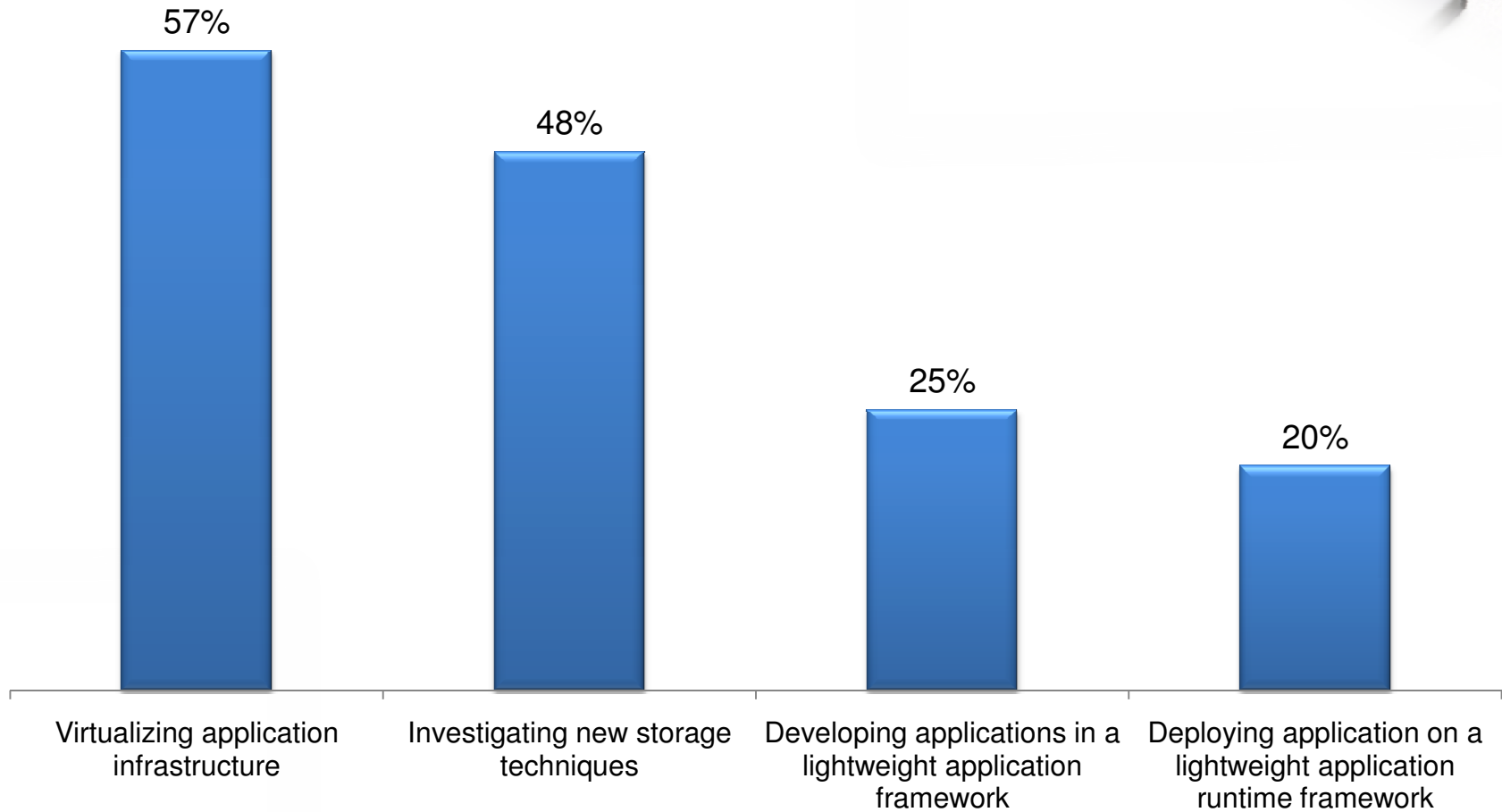


Q. Which of the following areas does your organization most need to address or improve before it can deploy or expand deployment of its infrastructure and/or applications to the cloud?

Network World specific results

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010

Detailed Investment Roadmaps Being Developed

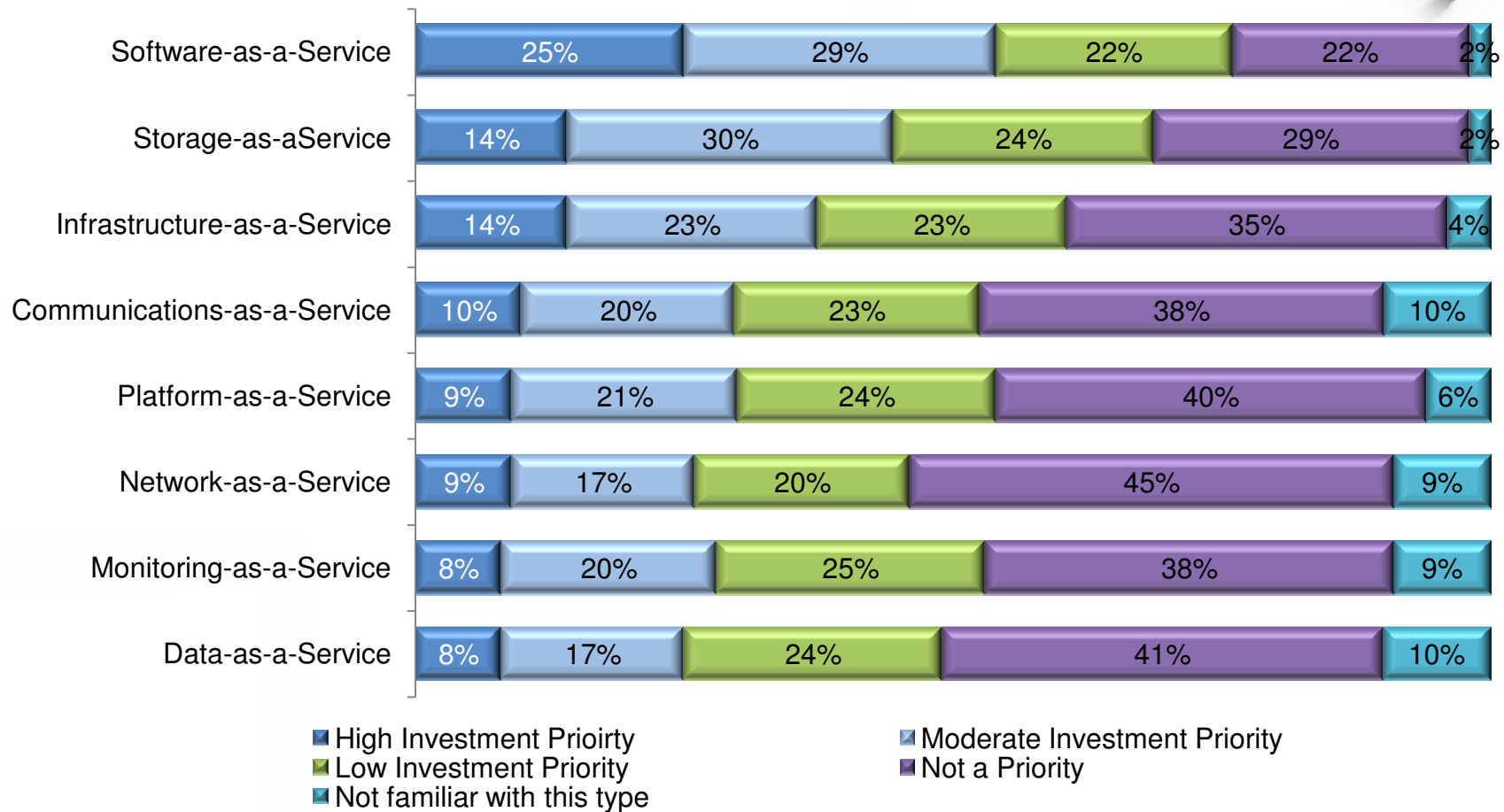


Q. Which of the following is your company doing to prepare application for deployment to the cloud?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Network World specific results**



Cloud Services Investment Priorities

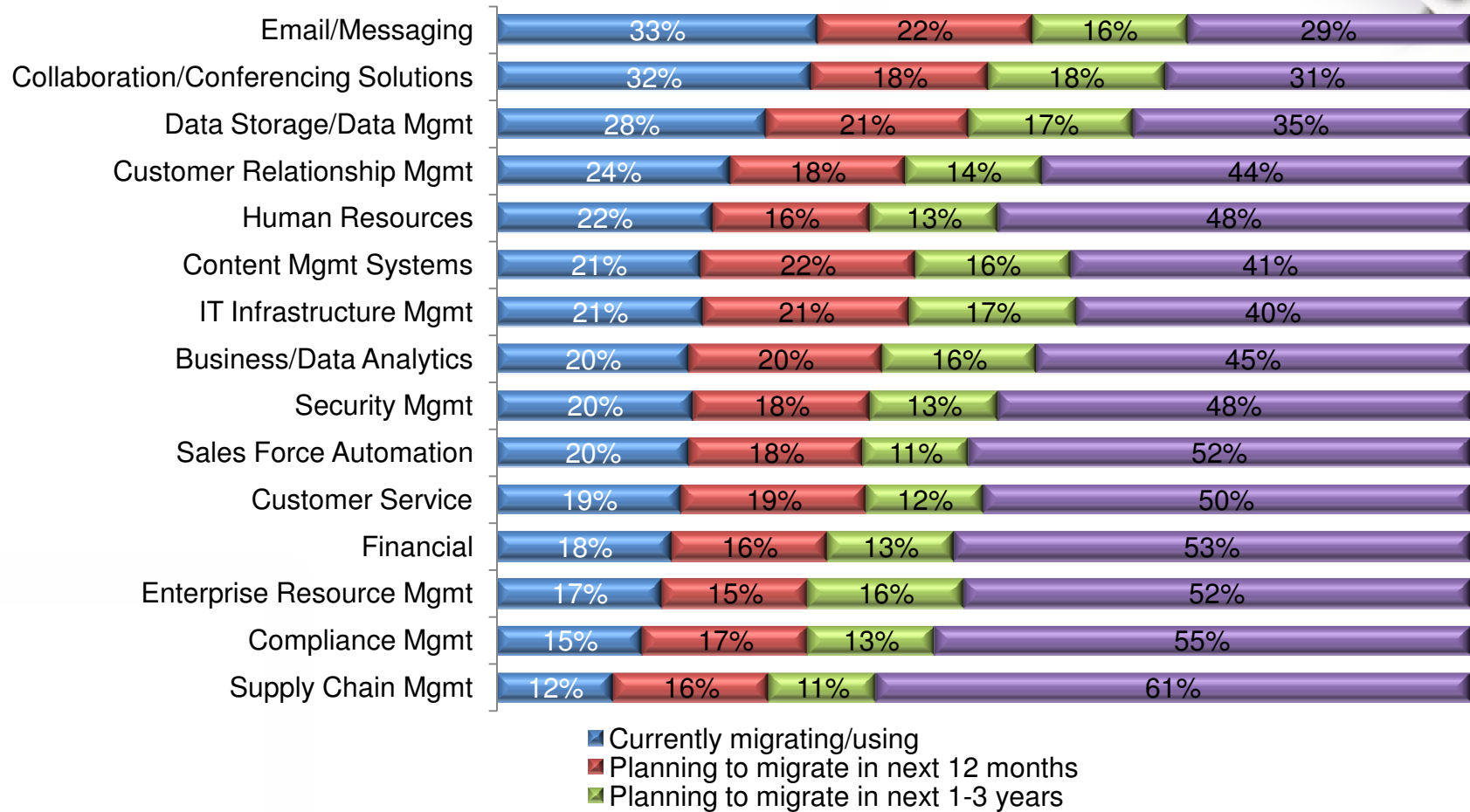


Q. Please prioritize your company's expected investment in each of the following types of cloud computing over the next 12 months.

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010

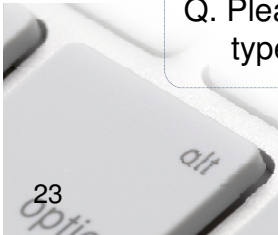


Applications Adoption Priorities



Q. Please use the scale below to describe your organization's plans for moving each of the following types of applications to the cloud.

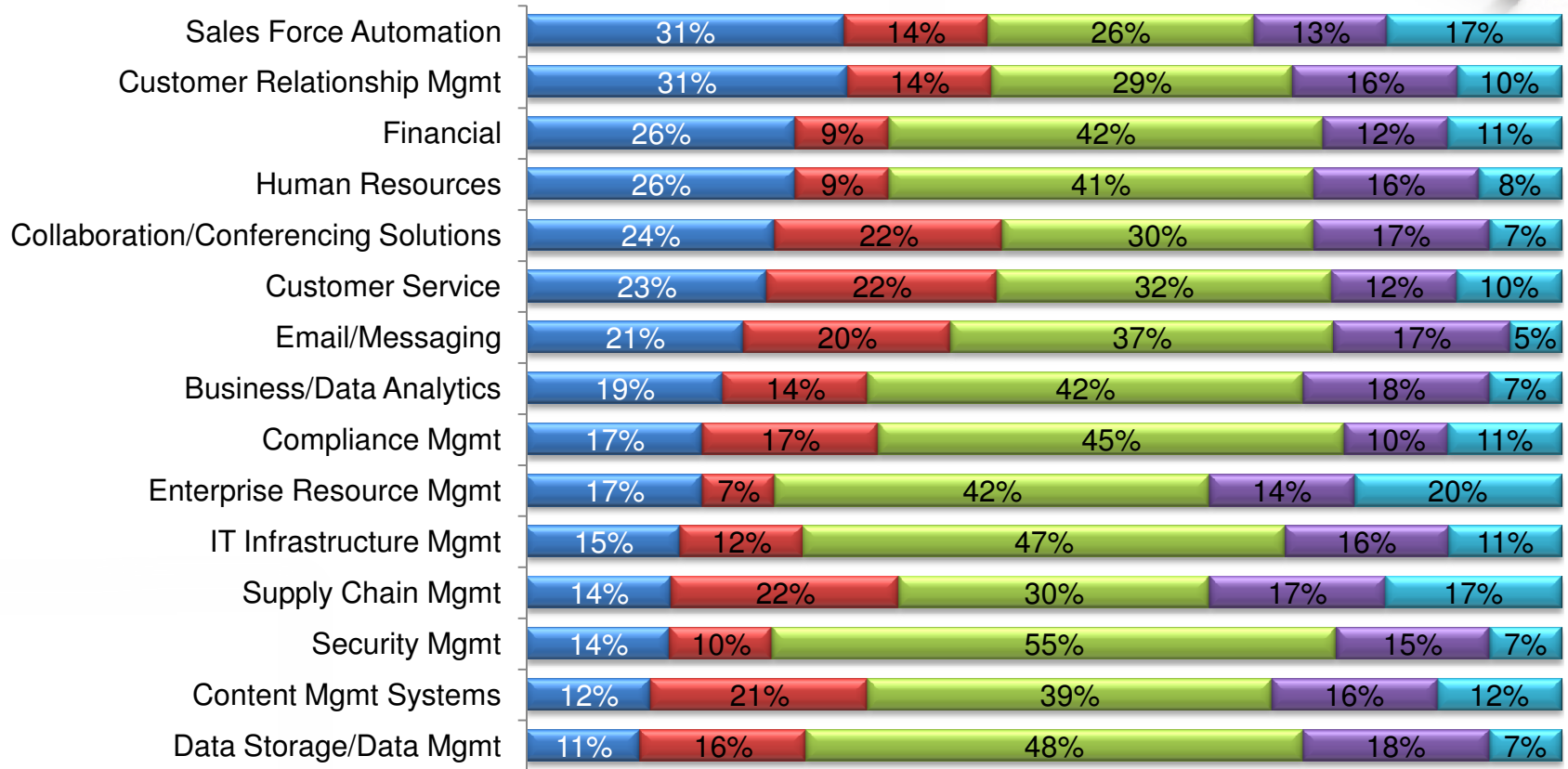
Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Network World specific results**



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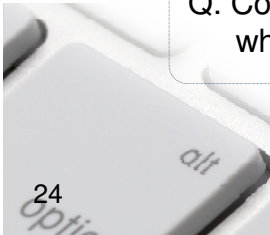
Private Cloud Models Dominate Applications Migration



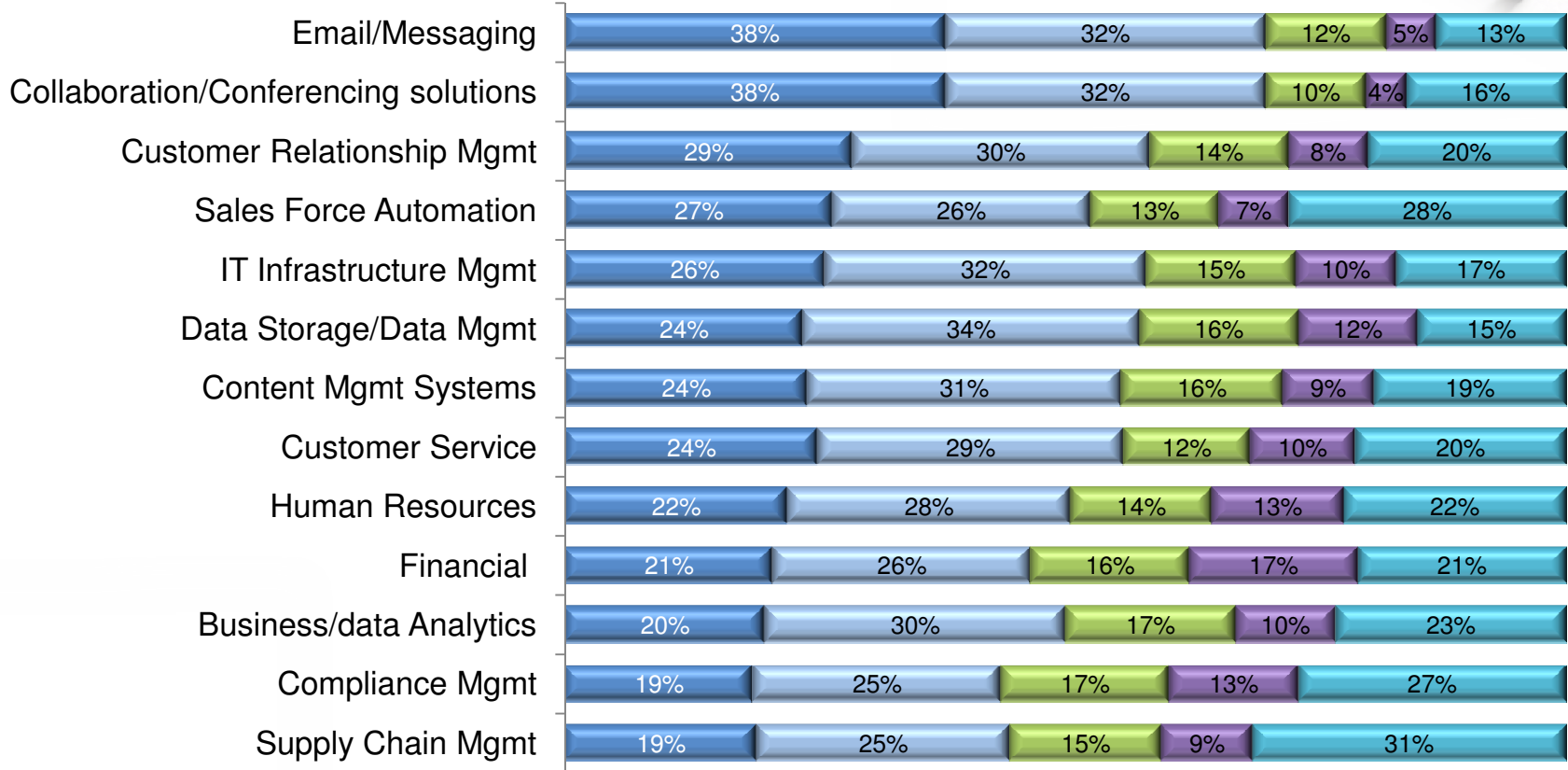
■ SaaS ■ Public ■ Private ■ Hybrid ■ Not sure

Q. Considering those applications you are currently migrating/using in the cloud or planning to migrate which type of cloud model/approach is your organization using or most likely to select?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Network World specific results**



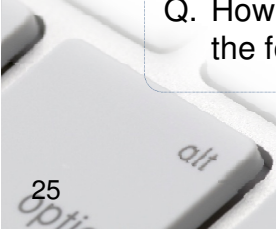
Executive Management Supports Communication & Collaboration in Cloud



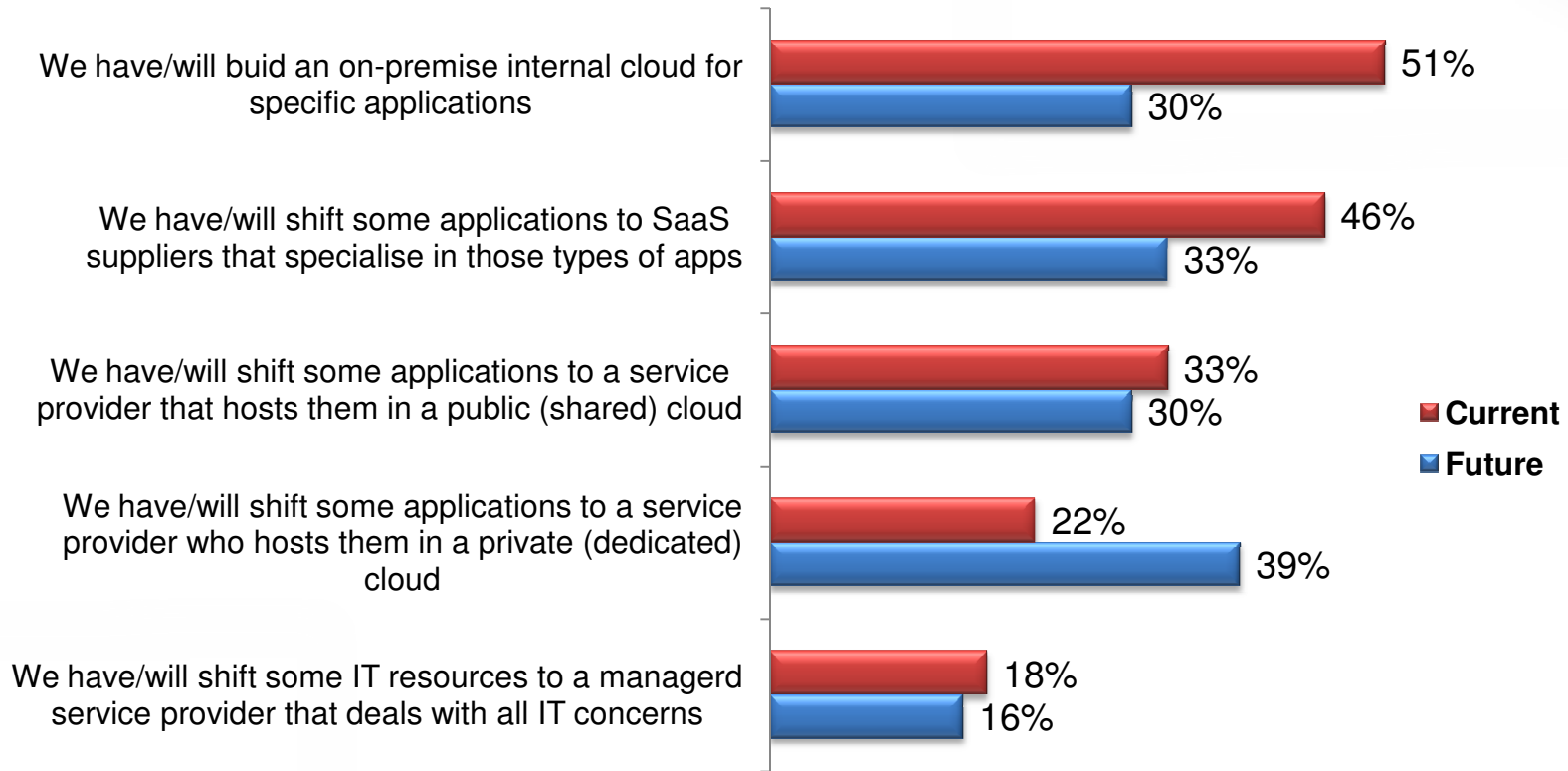
■ Very Supportive
 ■ Somewhat Supportive
 ■ Not Very Supportive
 ■ Not at all Supportive
 ■ Don't know

Q. How supportive is your company's executive management of moving to a cloud-based model for the following types of solutions?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Computerworld specific results**



Private Cloud will Continue to Dominate Applications

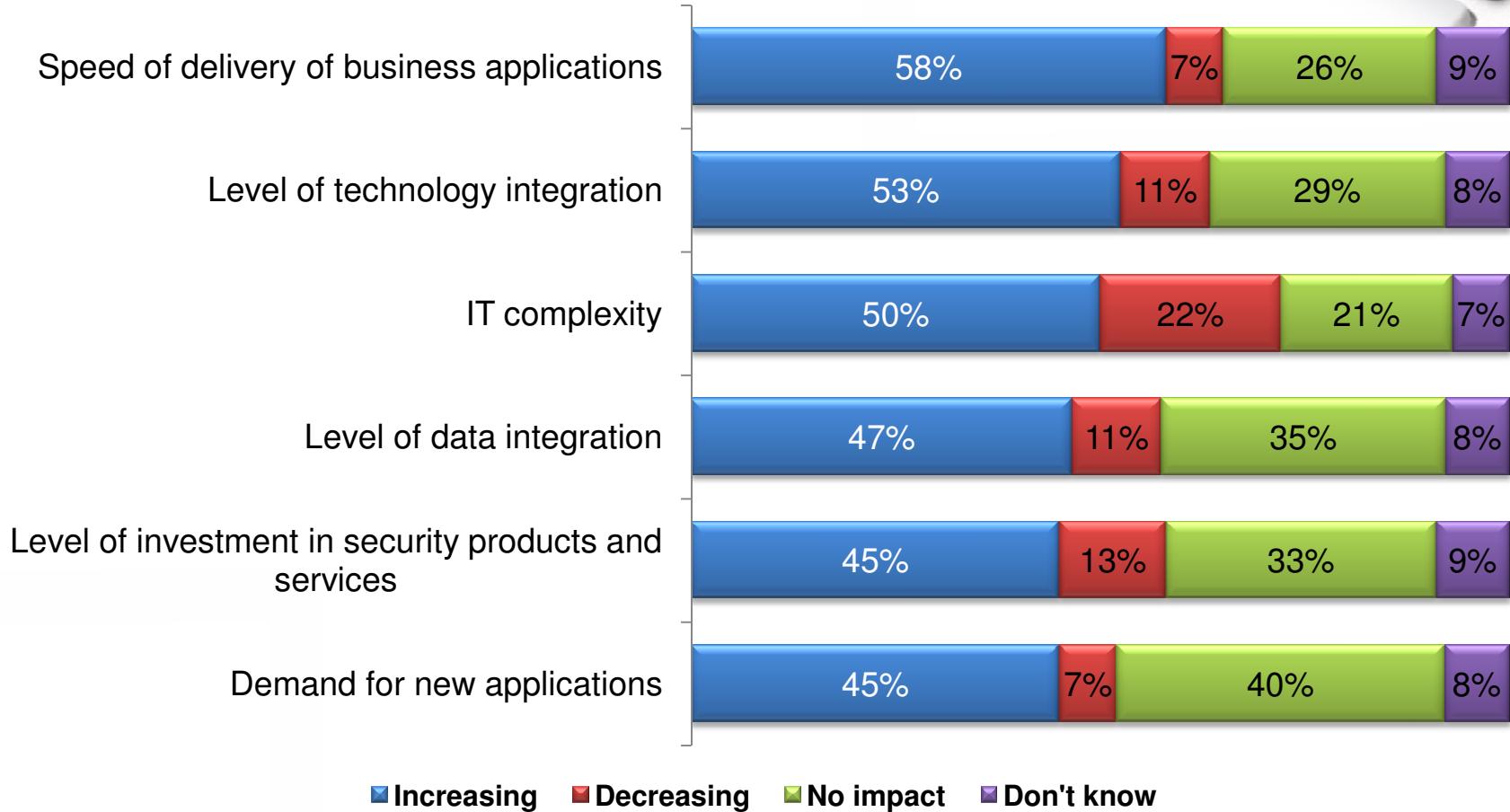


Q. CURRENT: You mentioned that your organization has at least one application or a portion of its computing infrastructure in the cloud. Which of the following applies to your organization?
 FUTURE: You mentioned that your organization plans to use cloud-based applications and/or a portion of its computing infrastructure in the cloud. Which of the following is your company planning to pursue?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Network World specific results**

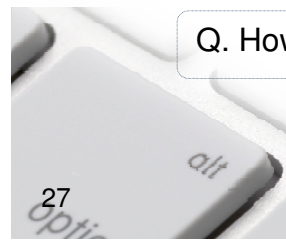


ROI for Cloud is Clear



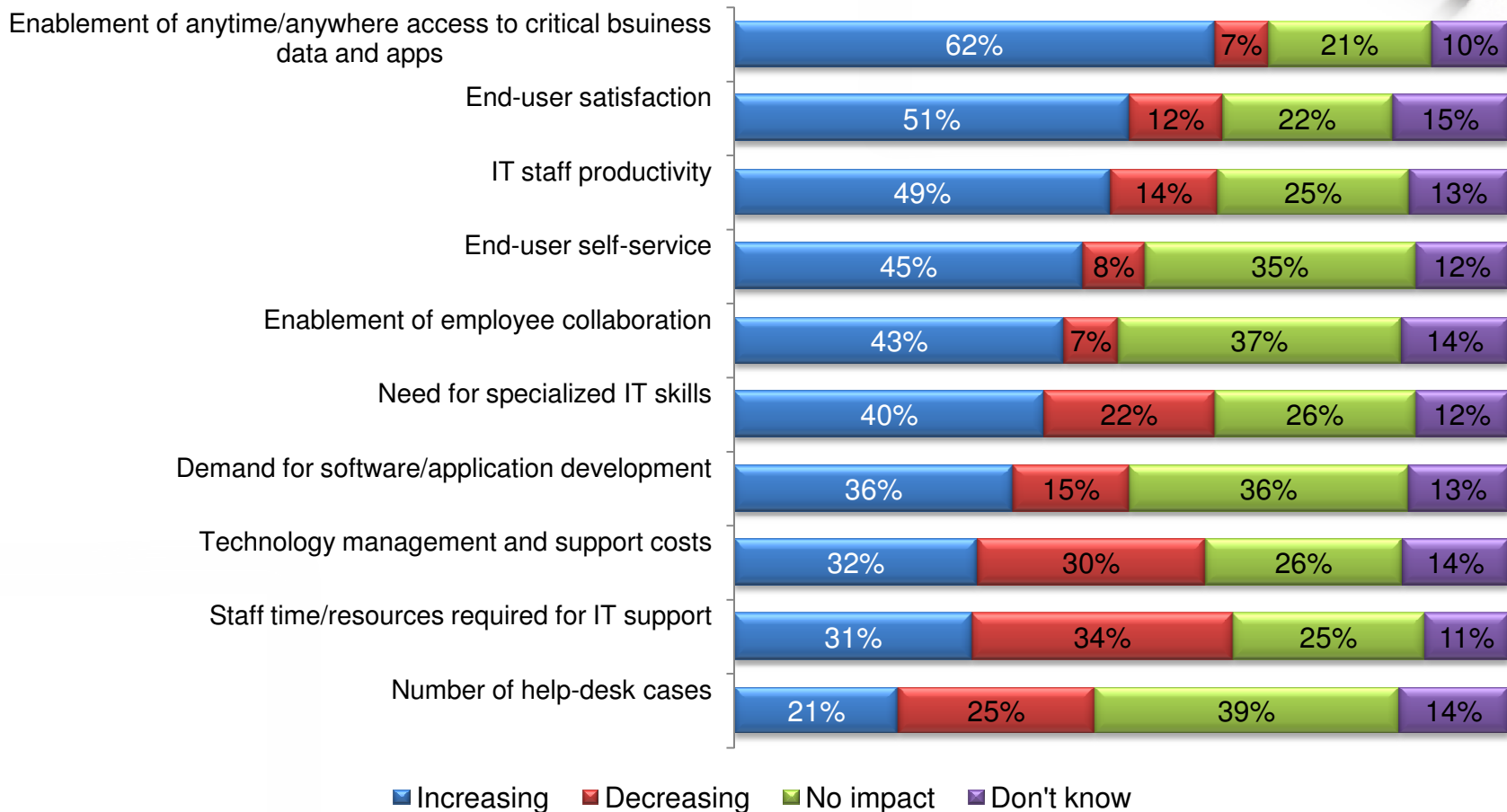
Q. How is the use of cloud computing technology impacting the following at your organization?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Network World specific results**





Cloud is Dramatically Expanding IT Services

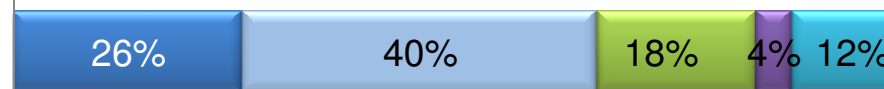


Q. How is the use of cloud computing technology impacting the support and services that IT provides at your organization?

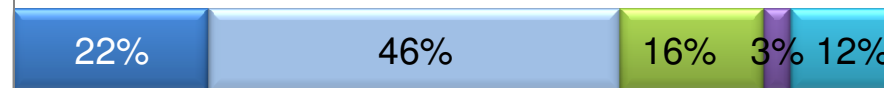
Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Network World specific results**

Cloud Elevating Network IT Skills and Importance

IT networking function has had to rapidly expand its skill set/knowledge in order to keep up with cloud computing developments



IT networking function has more opportunity to be involved in strategy decisions



New roles have been created within IT/networking to help development and implement cloud computing strategy



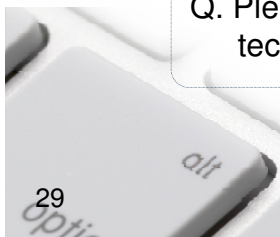
IT networking function has become more decentralized



■ Strongly agree
 ■ Agree
 ■ Disagree
 ■ Strongly disagree
 ■ Not applicable

Q. Please rate your agreement with the following statements regarding the impact of cloud computing technology investments on the IT networking function at your organization.

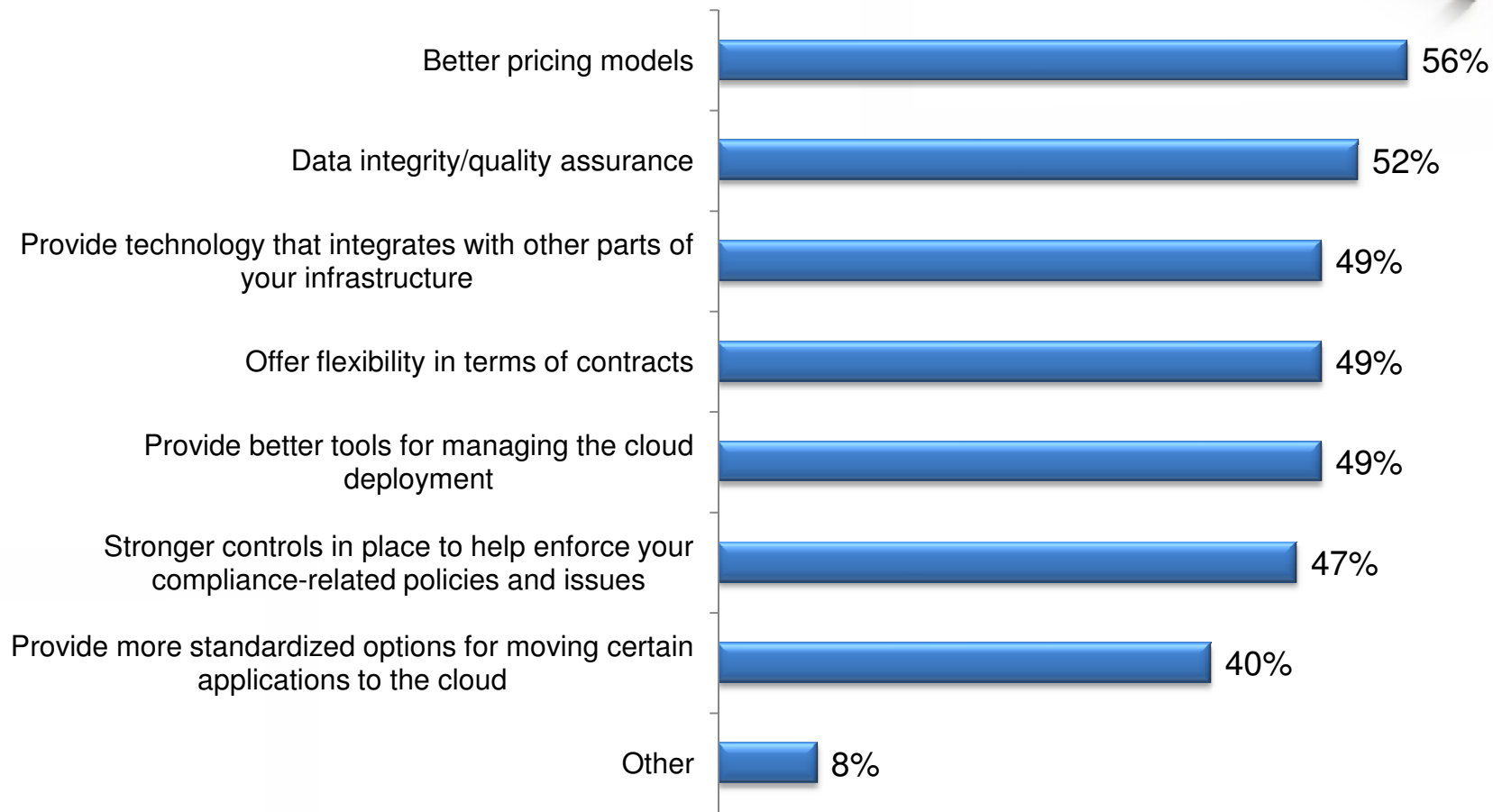
Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 **Network World specific results**





Vendor Attributes

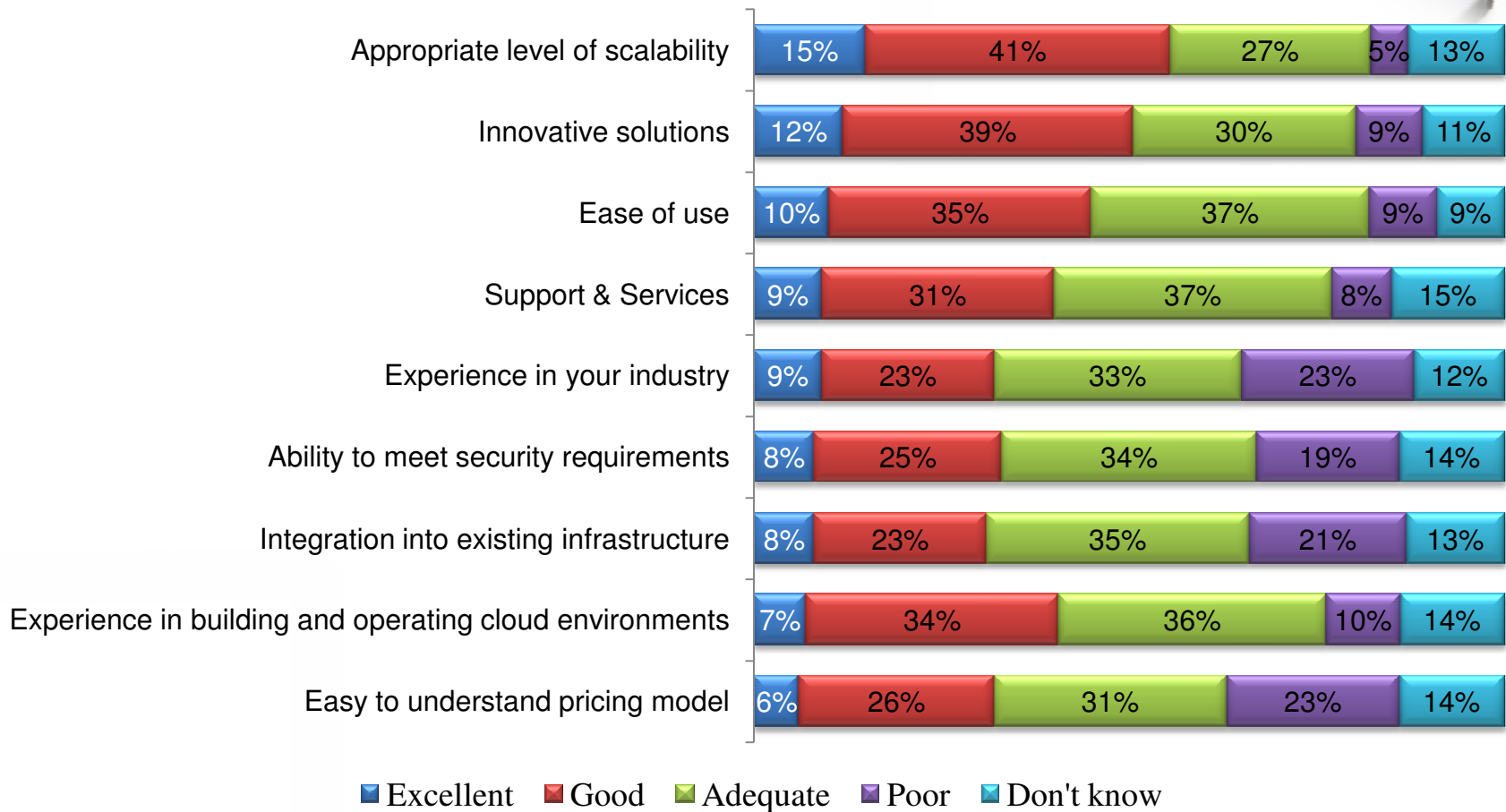
Vendor Pricing Models Need Improvement



Q. What can technology vendors do to make cloud computing offerings more attractive?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 Computerworld specific results

Scalability and Innovation Top in Cloud Satisfaction



Q. Thinking of current cloud offerings available today, how would you rate existing offerings on the following criteria?

InfoWorld specific results

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



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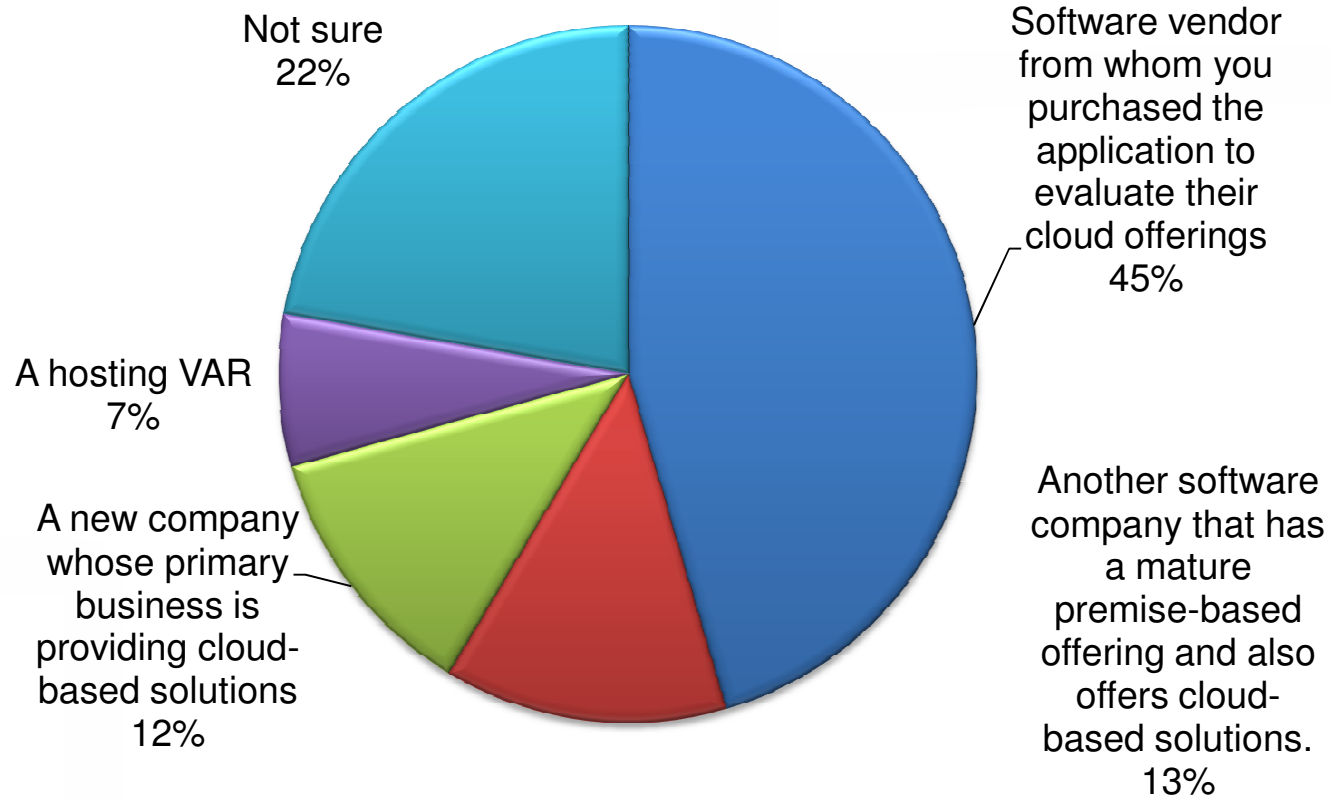
InfoWorld

ITWORLD

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Incumbent Software Vendor Has Advantage

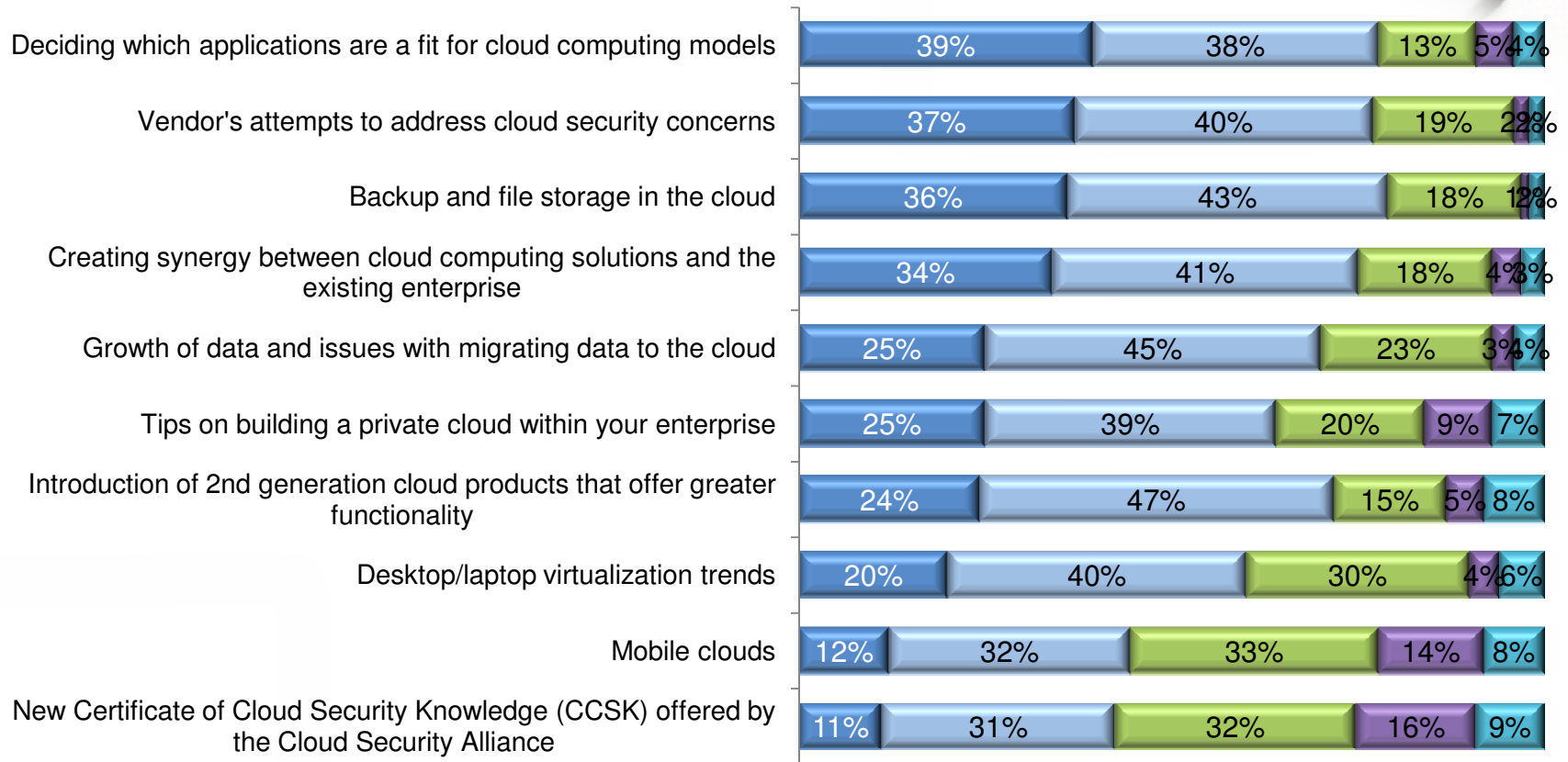


Q. When migrating a business-critical application to the cloud, who would you most likely contact first?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 InfoWorld specific results



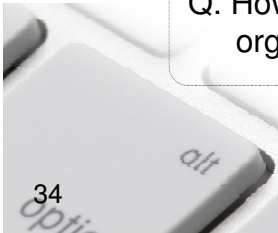
Vendor Content Opportunities



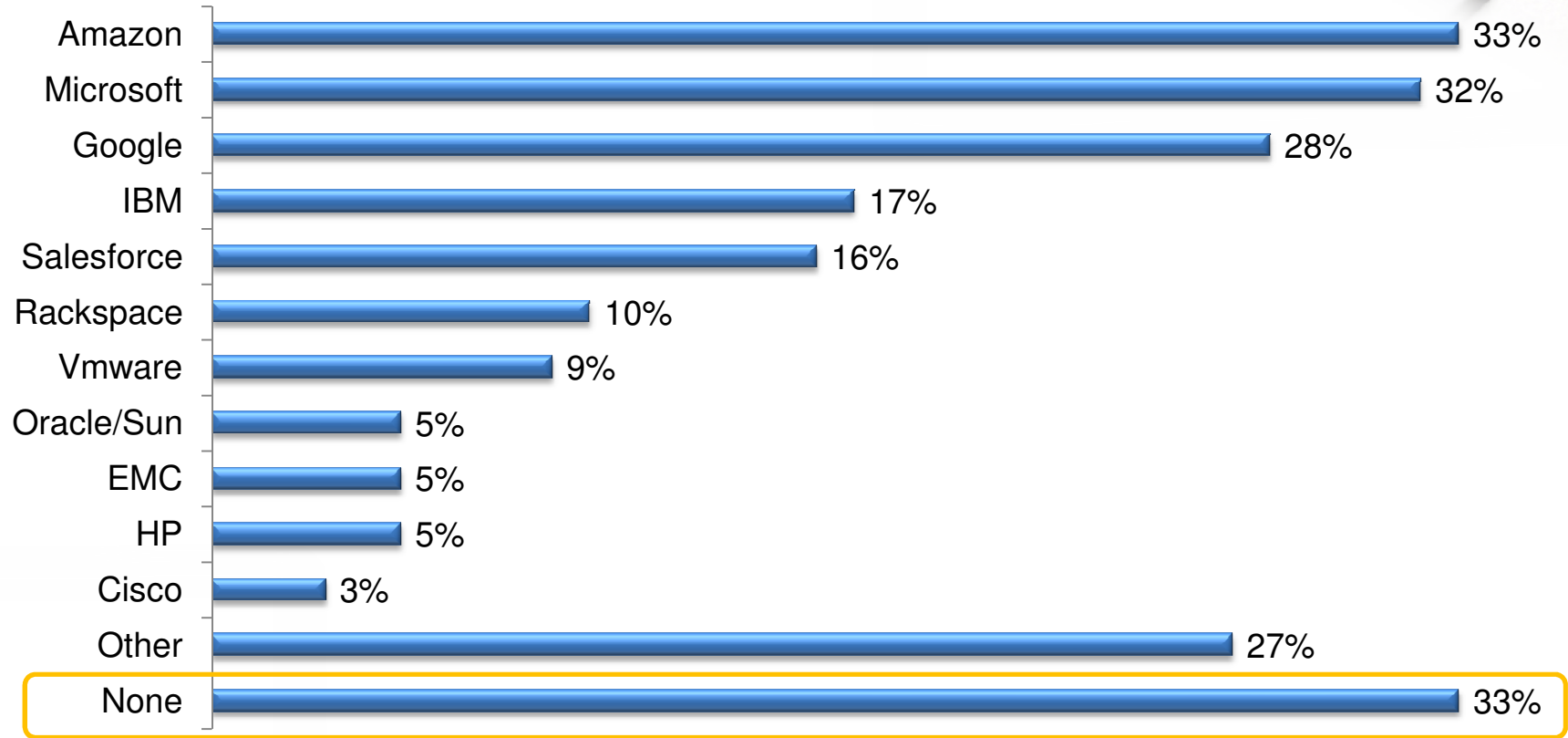
■ Very important
 ■ Somewhat important
 ■ Not very important
 ■ Not at all important
 ■ Not applicable

Q. How important are each of the following cloud computing topics or stories in helping your organization build its cloud computing strategy?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 ITworld specific results



Biggest Room in the House is the Room for Improvement



Q. Which vendors do you consider to be thought leaders in the area of cloud computing? [Open-ended]

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010 InfoWorld specific results



Demographic Information



Cloud-related Purchase Involvement

Involved (NET)	100%
Determine the business need	67%
Determine requirements	68%
Evaluate	73%
Recommend and select vendors	65%
Sell internally	32%
Approve/authorize	38%

Q. In which of the following ways are you involved in the purchase process for cloud computing solutions at your organization?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



Cloud Computing Plans

Plans (NET)	100%
Have at least one application or a portion of our computing infrastructure in the cloud.	51%
Plan to use cloud-based applications and/or computing infrastructure via the cloud within the next 12 months.	28%
Plan to use cloud-based applications and/or computing infrastructure via the cloud within 1 to 3 years	21%

Q. What are your organization's plans with regard to utilizing computing infrastructure or applications via the cloud?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



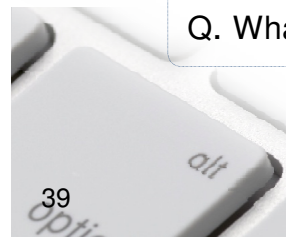
Job Titles

IT/Networking/Security Management (NET)	56%
CIO,CTO, CSO	16%
Director	14%
Manager	13%
Technical Consultant	7%
VP	3%
Executive VP, Senior VP	2%
Supervisor	2%
IT/Networking Staff (NET)	18%
Systems Integrator	5%
Other IT Staff	5%
Application/Software developer	4%
Networking Staff	4%

Business Management (NET)	22%
CEO, COO, Chairman, President	9%
Director, Manager	7%
Executive VP, Senior VP, VP GM	3%
Other Corporate Business Manager	2%
Consultant (Non Technical)	1%
CFO, Controller, Treasurer	1%
Other (NET)	4%
Other (Non Manager)	4%

Q. What is your primary job title?

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010

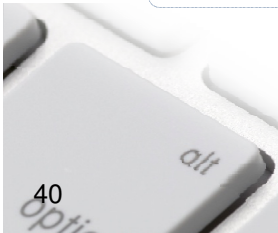




Industry

High Tech, Telecom & Utilities	25%
Services (legal, consulting, real estate)	13%
Government and Nonprofits	11%
Manufacturing (including automotive, aerospace & defense, construction, engineering, chemical, metals and mining)	11%
Financial Services (banking, insurance, brokerage)	11%
Education	9%
Healthcare	8%
Retail, Wholesale and Distribution	5%
Advertising/Marketing/PR/Media (publishing, broadcast, online)	5%
Transportation (airlines, trucking, railroads, shipping and logistics)	2%
Travel and Leisure (cruise lines, hotels, theme parks, casinos)	1%

Q. Which of the following best describes your organization's industry or function at this location?



Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010



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Annual Gross Sales/Revenue

\$15 billion +	10%
\$2 billion - \$14.9 billion	12%
\$500 million - \$1.9 billion	11%
\$100 million - \$499.9 million	11%
Less than \$100 million	37%
Not applicable (e.g. non profit, government, union)	9%
Not sure	7%

Average Revenue: \$5.8 billion

Q. Please select the dollar amount that best represents the annual gross sales or revenues for your organization or enterprise (include all plants, divisions, branches, parents, and subsidiaries worldwide).

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010





Company Size

100,000 or more	8%
10,000 – 99,999	15%
5,000 – 9,999	8%
2,500 – 4,999	7%
1,000 – 2,499	8%
500 – 999	9%
Less than 500	44%
Not sure	3%

Average Company size: **15,200**

Q. Approximately how many people are employed in your entire organization or enterprise?
(Please include all plants, divisions, branches, parents and subsidiaries worldwide?)

Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010