

Citi 2Q12 CIO Survey

2012 IT Budgets Holding Steady at Low Levels

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11 July 2012



2Q12 CIO Survey – IT Budgets Holding Steady

- **2012 budgets largely unchanged, Europe worsening** – Our survey of 260 CIOs continues to suggest that IT budgets will be roughly flat Y/Y (+0.2%), largely consistent with our previous two surveys. Asia (1.1%) and the U.S. (0.2%) are expecting flat to modestly higher spending trends, while Europe is showing slight declines in budgets (-0.2%).
- **Macro outlook mixed but not all bad** – CIO responses suggest macro outlook is unstable, as it was last quarter. Though the European outlook is more cautious, CIOs in US and Asia expect macro-economic conditions to improve significantly. Surprisingly, CIOs remain much more bullish than this time last year.
- **Budget priorities & deferrals** – Server consolidation/virtualization, Improving network security, and Cloud computing are among the top priorities in all regions. HR and call center outsourcing are common candidates for deferral.
- **Hardware price pressure, software pricing stable** – Hardware continues to see the most pricing pressure with Servers, PCs and Printers high on the list in all three regions. Pricing for applications software (ERP, CRM) more favorable in Asia as compared to the U.S. and Europe. Applications development outsourcing and infrastructure software positive for vendors in Asia.

Sector Commentary

- **PCs / Hardware** – Our survey indicates that PC replacement cycles have normalized. Respondents are planning to replace roughly 20% of their PC installed base in 2012, suggesting a more normal PC refresh and trend-line growth in unit shipments. The survey also suggests iPad interest within enterprise is growing. Roughly 70% of respondents currently support the iPad. 25% of CIOs have procured/deployed the iPad.
- **Networking** – The expected annual change in Data Networking spending is largely unchanged with the weighted average response indicating a modest ~1% increase; this is roughly inline with prior quarter survey and a modest uptick versus the prior year. Strength in Asia is offsetting the tepid trends in the US and Europe, with Europe clearly presenting downside risks.

CIOs identified Network Security, Wireless, and WAN bandwidth as priority spending areas, while Application Delivery Networking, Video Content & Delivery, and Unified Communications/VoIP were cited as areas for potential deferral.

- **Services** – New applications demand (incl. analytics and cloud pilots) remains a positive driver for services vendors. Over the past four quarters, offshore outsourcing has increased as a twelve-month priority in each of the regions surveyed – moving work to lower cost locations is now a top-five priority among U.S. and European CIOs. Survey data points toward flattish 2012 pricing (+0.3% unit pricing on avg.). ACN, EPAM, and CTSH continue to be net positive wallet-share gainers based on the results. EPAM also benefits from European clients seeking to near-shore incremental work.
- **Software** – Software priorities are strengthening with short ROI projects (such as server virtualization) and non-discretionary items (security, PC upgrades) still strong. Security software is now in top-three spending priorities, in all the regions and Software as a Service moves up in the priority list globally. Both of these are more defensive spending categories.

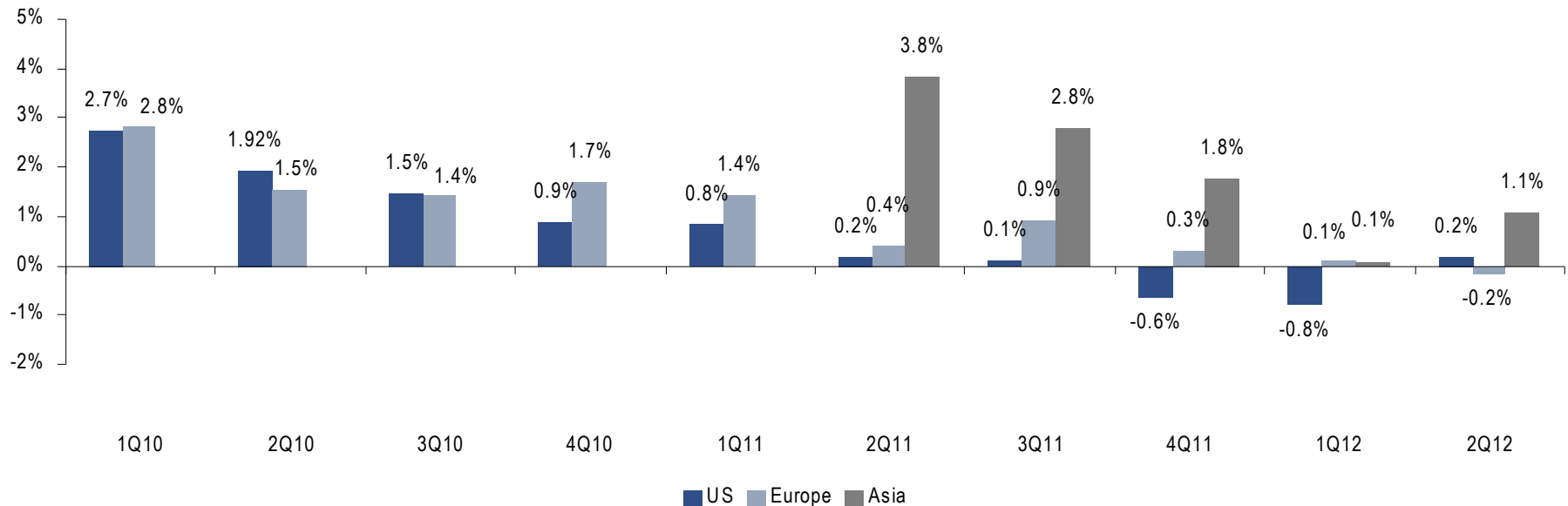
2012 IT Spending Growth: Still Below Last Two Years

Anticipated IT Budget Growth at Beginning of Year						
	2007	2008	2009	2010	2011	<u>2012</u>
						4Q11 2Q12
Asia	N/A	N/A	N/A	N/A	N/A	0.0% 1.1%
Europe	0.6%	0.4%	-2.2%	1.2%	1.6%	0.1% -0.2%
US	2.7%	1.3%	-3.2%	1.7%	0.8%	-0.5% 0.2%
Total	1.6%	0.8%	-2.7%	1.5%	1.2%	0.1% 0.2%

Anticipated IT Budget Growth figures taken from 4Q survey of year before labeled year (e.g. 2010 growth from 4Q09 survey)

- 2Q12 survey results suggests budget growth for the year at levels well below last two years
- Spending expectations improved from last quarter in the US (-0.8% to +0.2%) and Asia (0% to 1.1%)
- In Europe 2012 IT budgets expectations declined to -0.2% versus +0.1% in Q1

Please describe your 2012 IT budget relative to 2011



Expected 2012 IT Spending by Size and Vertical

Vertical	Aggregate 2012 Spending Growth (Anticipated)	
	Q2 2012	Q1 2012
Health Care	3.0%	0.9%
Manufacturing	1.6%	0.9%
Consumer Staples	0.8%	-0.4%
Consumer Discretionary	0.7%	0.0%
Telecommunication Services	0.3%	-0.7%
Financials	0.1%	-0.1%
Utilities	0.0%	-2.3%
Industrials	-0.1%	1.3%
Information Technology	-0.2%	-0.7%
Energy	-0.6%	0.0%
Materials	-0.8%	-0.9%
Other	-0.8%	-2.1%

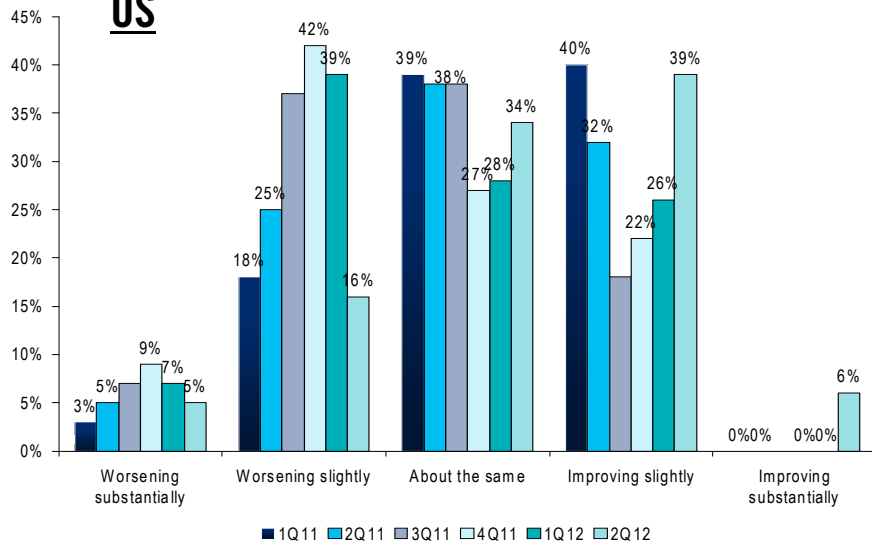
Company Revenue	Aggregate 2012 Spending Growth (Anticipated)	
	Q2 2012	Q1 2012
<\$1 billion	0.8%	-0.2%
\$1-5 billion	-0.3%	-0.7%
\$5-10 billion	0.7%	0.0%
>\$10 billion	0.4%	0.3%

- As has been the case the past few surveys, the Healthcare and Manufacturing verticals had the highest growth compared to last quarter
- Nearly all verticals showed modest sequential increases in budget growth versus Q1 except Industrials, IT and Energy
- Sub \$1B companies (SMEs) demonstrated the biggest sequential improvement with budgets jumping from -0.2% to +0.8%
- Large enterprises (>\$10B in revenue) expect budgets to remain largely unchanged

Economic Outlook Perceived to Improve Sequentially

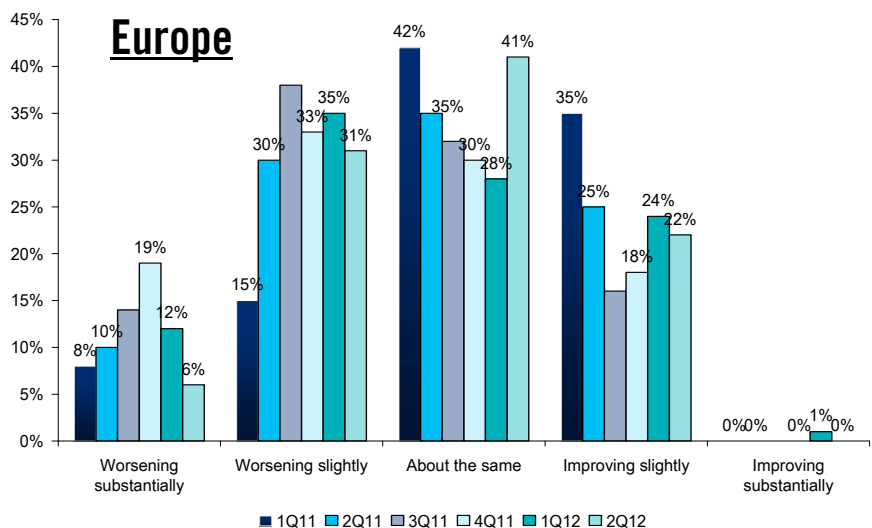
What is your general outlook for the next 12 months regarding the global economy?

US

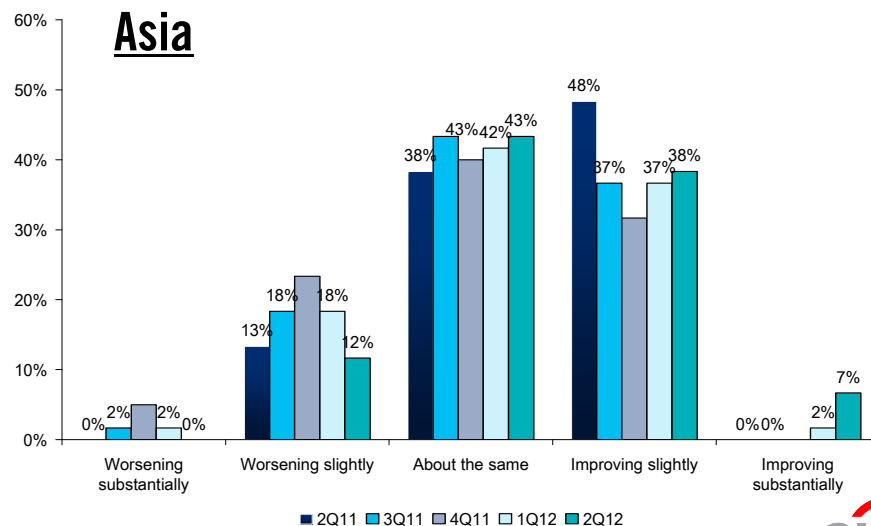


- Contrary to recent headlines, in US, 45% of CIOs see the global economy improving slightly or substantially (up meaningfully from 26% in 1Q12), while those who anticipate a slight to substantially worsening of the economy fell to 21% (from 46%)
- CIOs in US and Asia have an improved economic outlook; Europe outlook stagnant, 78% of CIOs still feel the global economic condition will stay the same or worsen
- Despite improving macro sentiment, the number of CIOs that expect their own company's prospects to worsening has increased since Q1

Europe

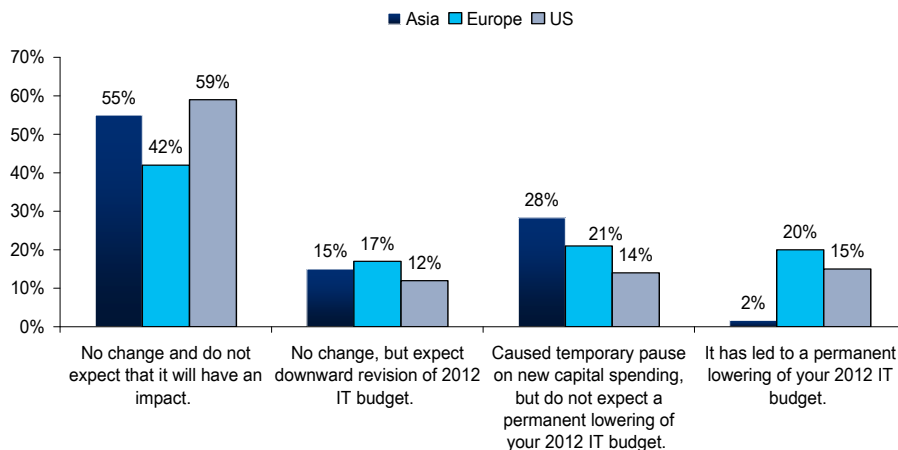


Asia

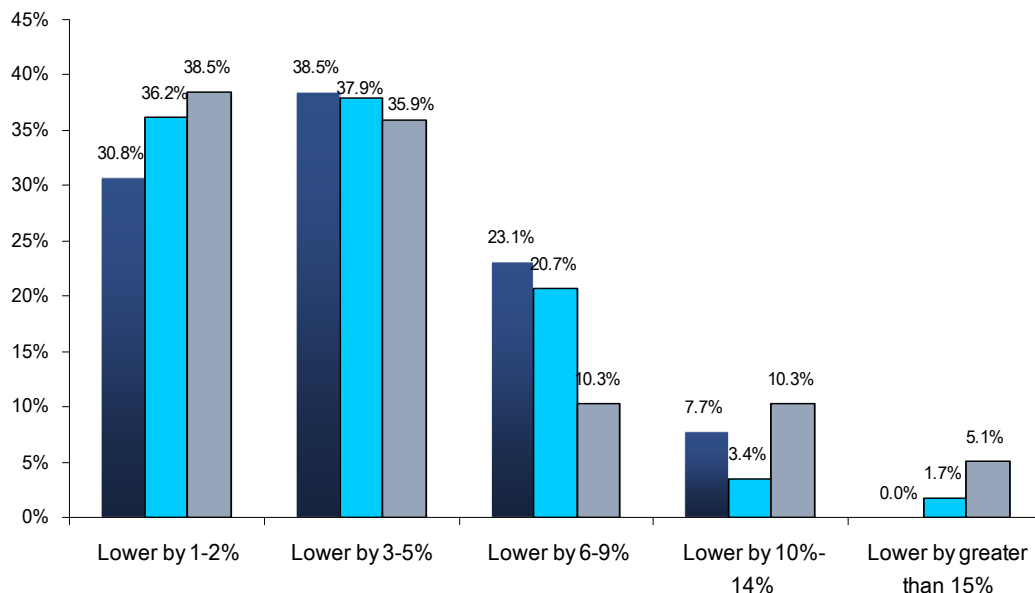


Economic Outlook : Effect on Proposed Budgetary

Has the recent commentary around the economy increased scrutiny on your 2012 IT budget?



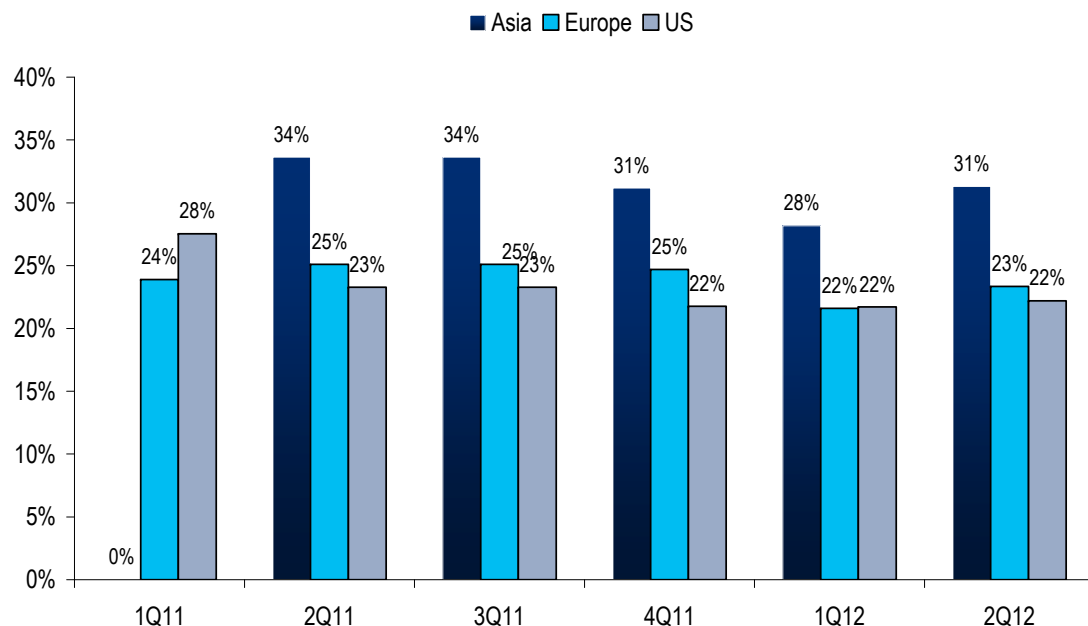
If the economy has, will, or you believe it will, lower your 2012 IT budget, by how much will it decrease relative to initial budget?



- CIO sentiment across U.S. and Asia is on relatively firm ground with more than half noting that macro commentary has not impacted budgets
- In Europe, close to 60% of the CIOs still expect the economy to have a downward impact on 2012 spending
- In Asia, 55% of CIOs expect no impact to 2012 budgets. This is quite a bit weaker than responses regarding 2011 budgets of 62% in 4Q11 and 75% in 2Q11 (our first qtr. of Asia data)
- On average, CIO believe that a worsening economy could result in a ~4-5% decrease in IT budgets

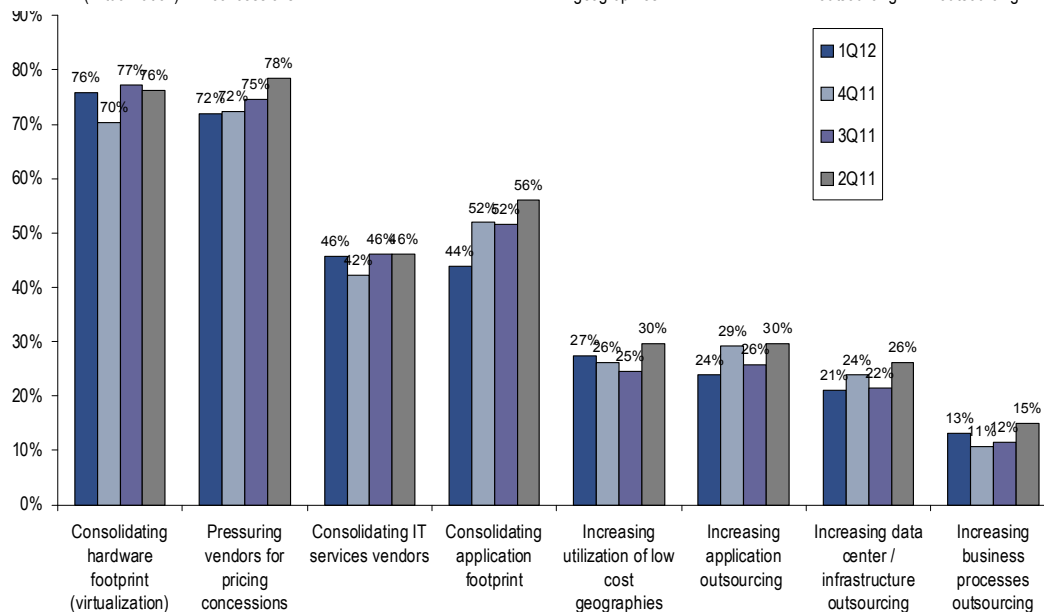
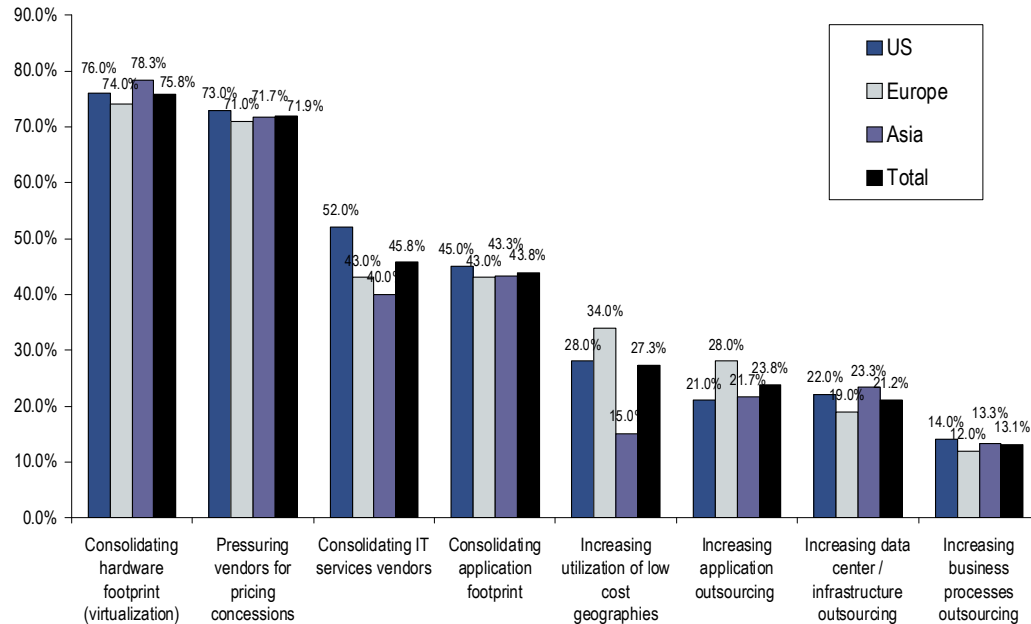
IT Budget Composition of New Projects is Stable

What percentage of your IT spending over the next 12 months will be on new projects (vs. existing) projects?



- U.S. CIOs intend to spend 22% of their IT budget on new projects. This is relatively consistent for the past three quarterly surveys
- Europe CIO spending on new projects increased to 23% this quarter after declining last quarter after consistently posting 25% marks the previous quarters
- Budgets for new projects remain more robust in Asian markets and the allocation increased this quarter after an unexpected dip last quarter

Consolidation, Price Still Primary Means of Budget Savings



- Consolidation, whether through hardware (via virtualization), applications or vendors, along with seeking price concessions, continues to be a primary means to generate savings near term cost savings
- Although consolidating application footprint and pricing pressure have declined as means to achieve savings over the past four quarters' surveys, they remain important.
- Increasing offshore outsourcing has consistently, albeit modestly, moved up the ranks over the past three quarters.

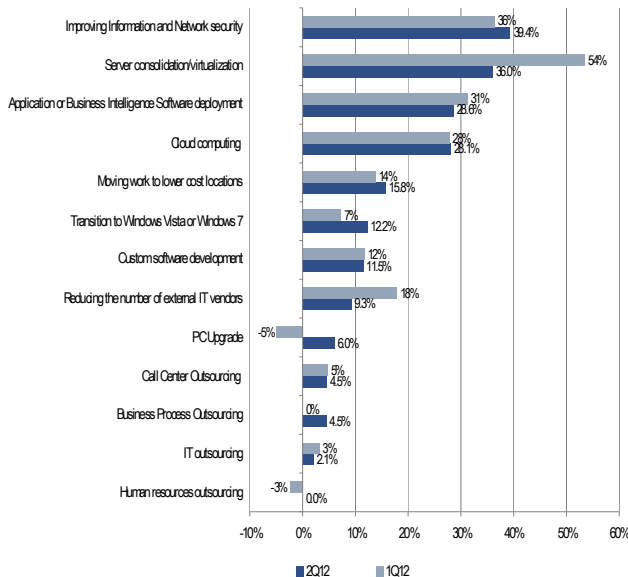
CIOs were asked: Are you currently using the following approaches to obtain near-term IT cost savings?

Project Priorities – Analytics, Cost Saves, Security

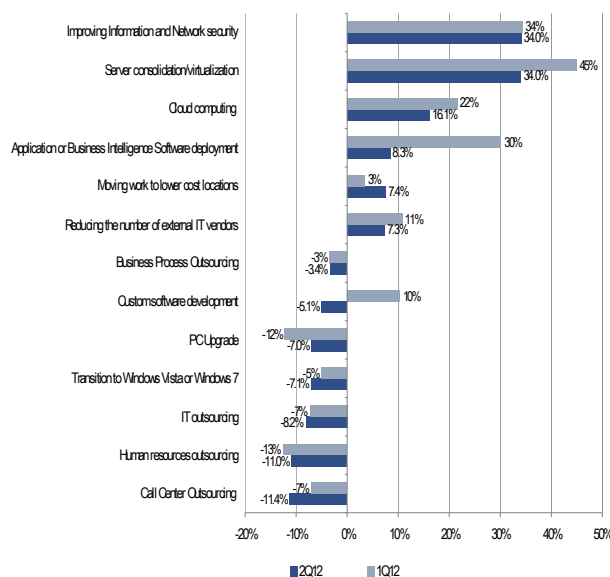
- Server consolidation/virtualization and Improving information / network security remain top 2 priorities across all three regions.
- Application or Business Intelligence software development and Cloud computing are in the top 4 priorities across all regions.
- Moving work to lower cost locations is another notable priority among the CIOs in the U.S. and Europe.
- HR outsourcing and Call Center outsourcing are low priority items across all three regions.

Are the following items a “priority” or “candidate for deferral” during the next 12 months?

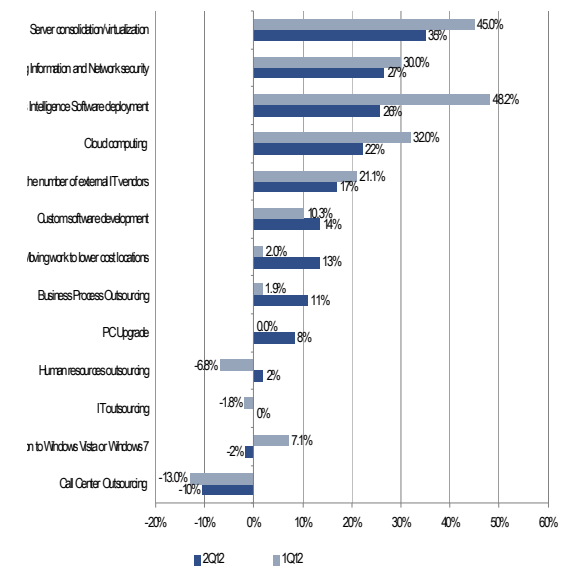
US



Europe

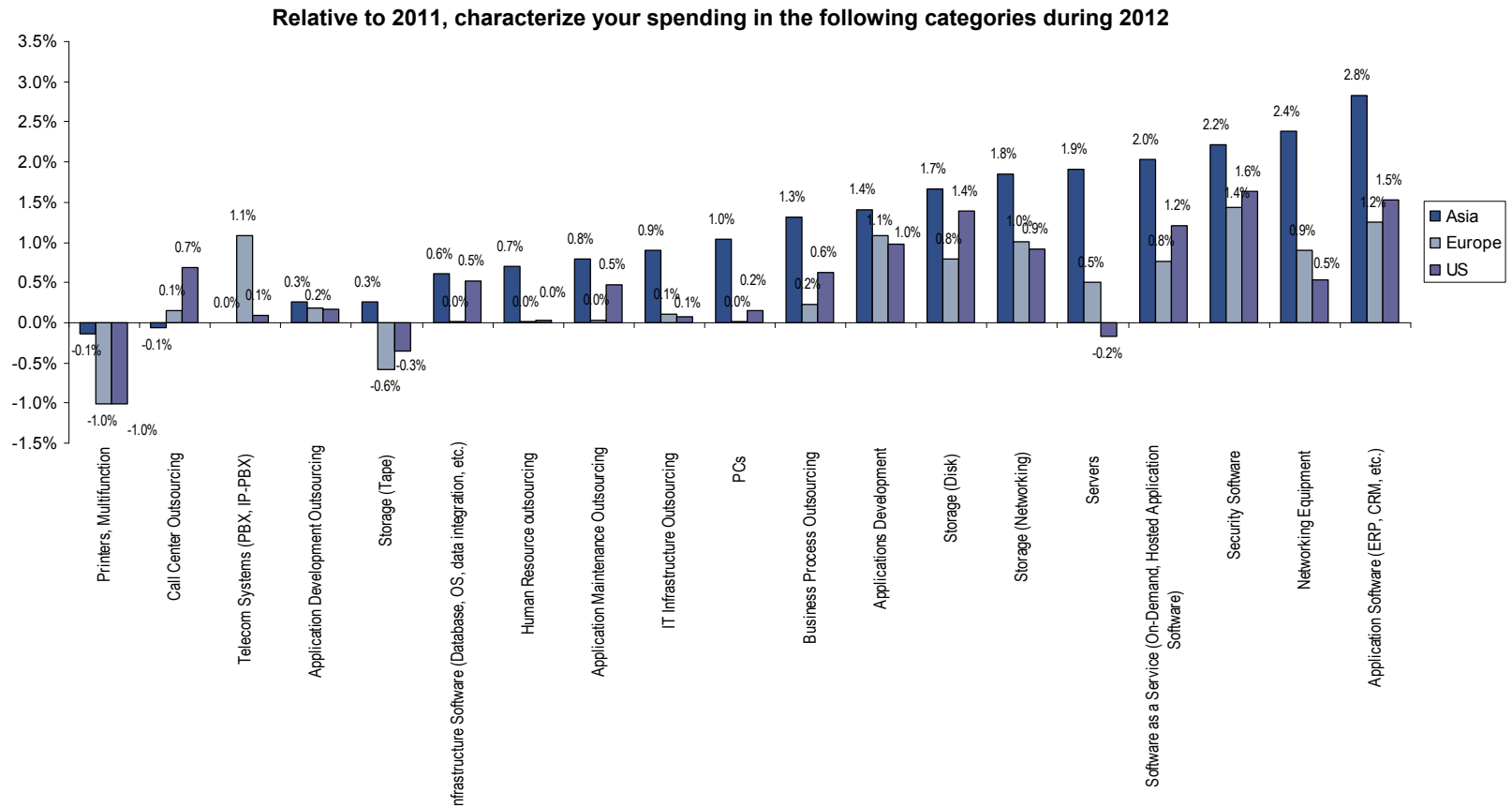


Asia



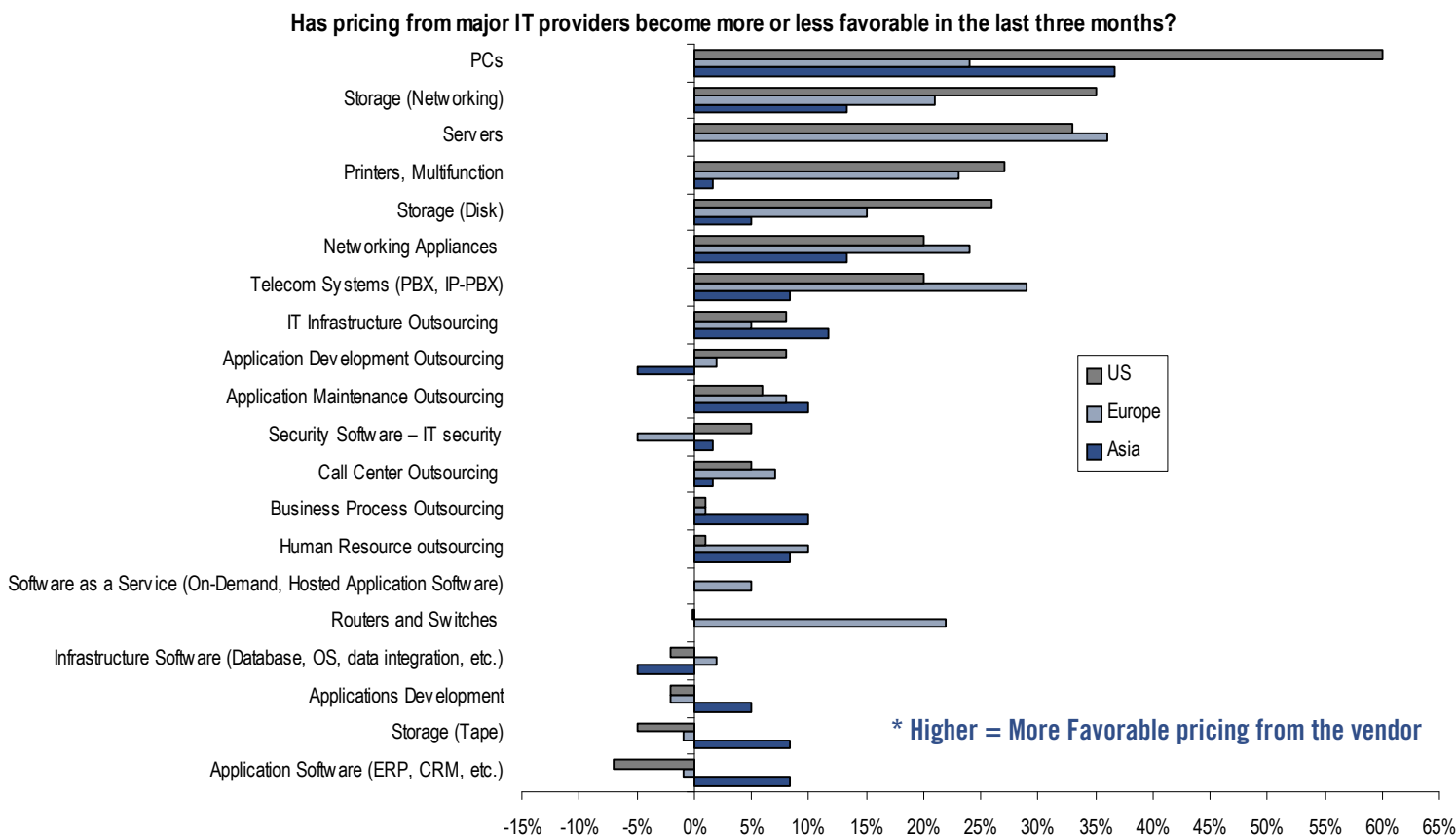
2012 Spending Priorities vs. 2011 Spend

- Application software and Security software move up to being a top-3 priority, in all the regions
- Printers and Storage (Tape) have been consistently bottom two in US and Europe, in 2Q12 and 1Q12 and in 2011.
- Datacenter activity appears to be picking up in Asia with networking equipment and servers higher priorities.



Hardware Pricing Still Under Pressure

- Hardware is still under the most pricing pressure across all regions (PCs, printers, servers)
- Trends across software applications development and maintenance outsourcing positive for vendors
- Pricing for applications software (ERP, CRM) more favorable in Asia as compared to the U.S. and Europe

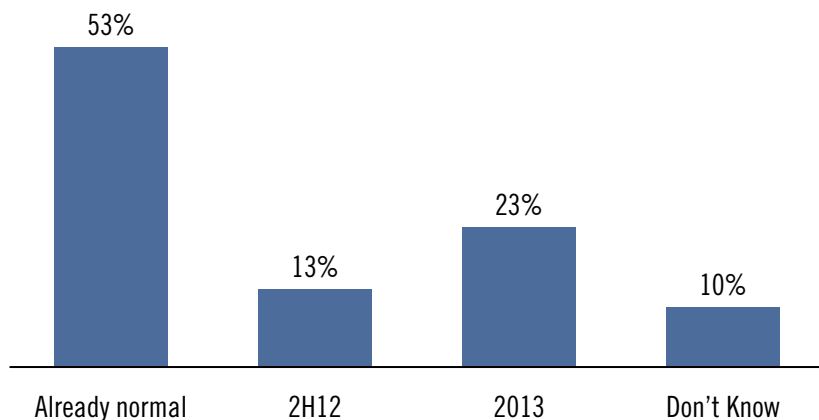


Sector Commentary

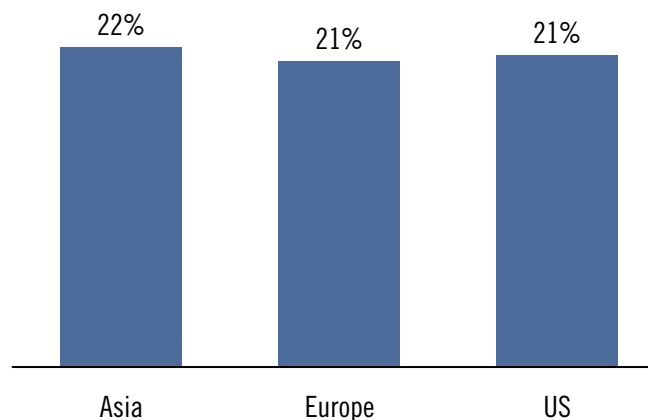
PC Replacement Cycle Nearly Normalized

- 2/3 of CIOs surveyed indicate that PC replacement cycles have or will normalize by the end of 2012
- 10% of CIOs are still not sure when PC replacement cycle will return to normal
- On average, 20-22% of the PC installed base is expected to be replaced in 2012 up from 19-21% last quarter (vs. the normal 30-35%).

When do you expect your PC refresh cycle to return to normal?



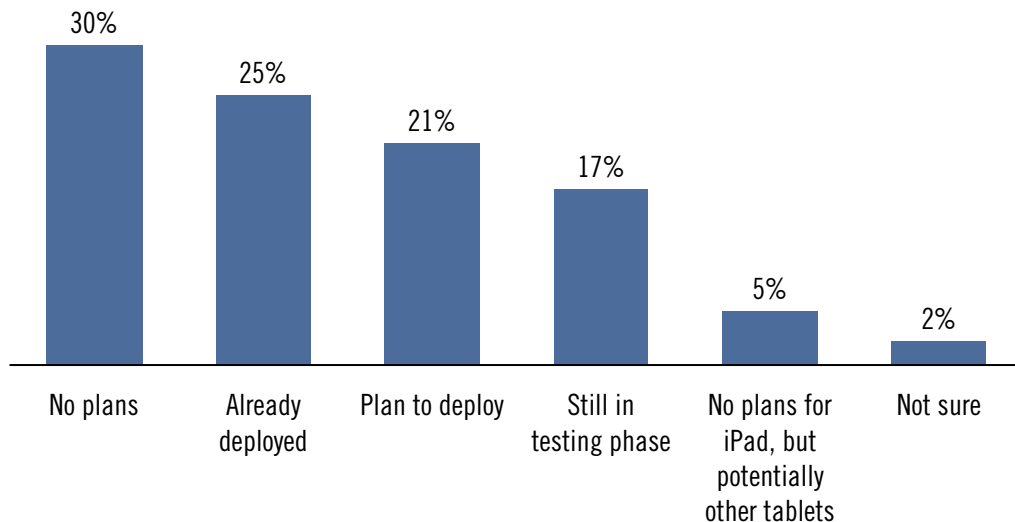
What percent of your current PC installed base will you replace in 2012?



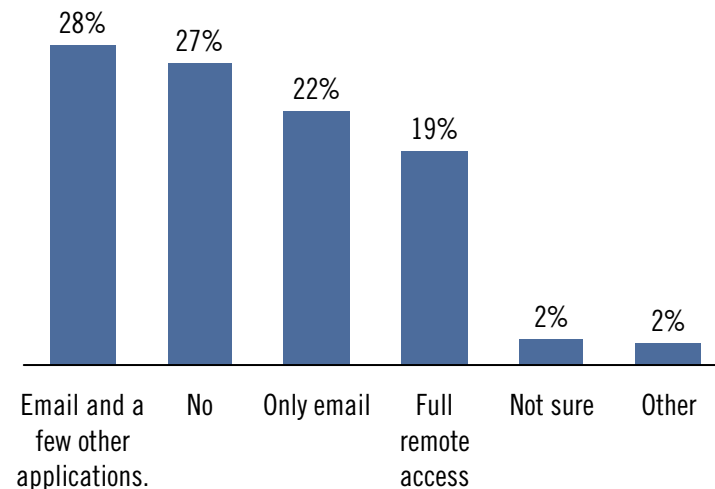
Corporate iPad Adoption Gaining Traction

- About 70% of respondents currently support the iPad, unchanged from the prior quarter
- Similarly, 25% of surveyed companies have already deployed the iPad, compared to only 17% in Q4 of last year
- Only 5% are considering deploying non-iPad tablets

Do you plan to procure and deploy iPads to your employee base?



Does your corporate IT infrastructure currently support (or will soon support) the iPad?



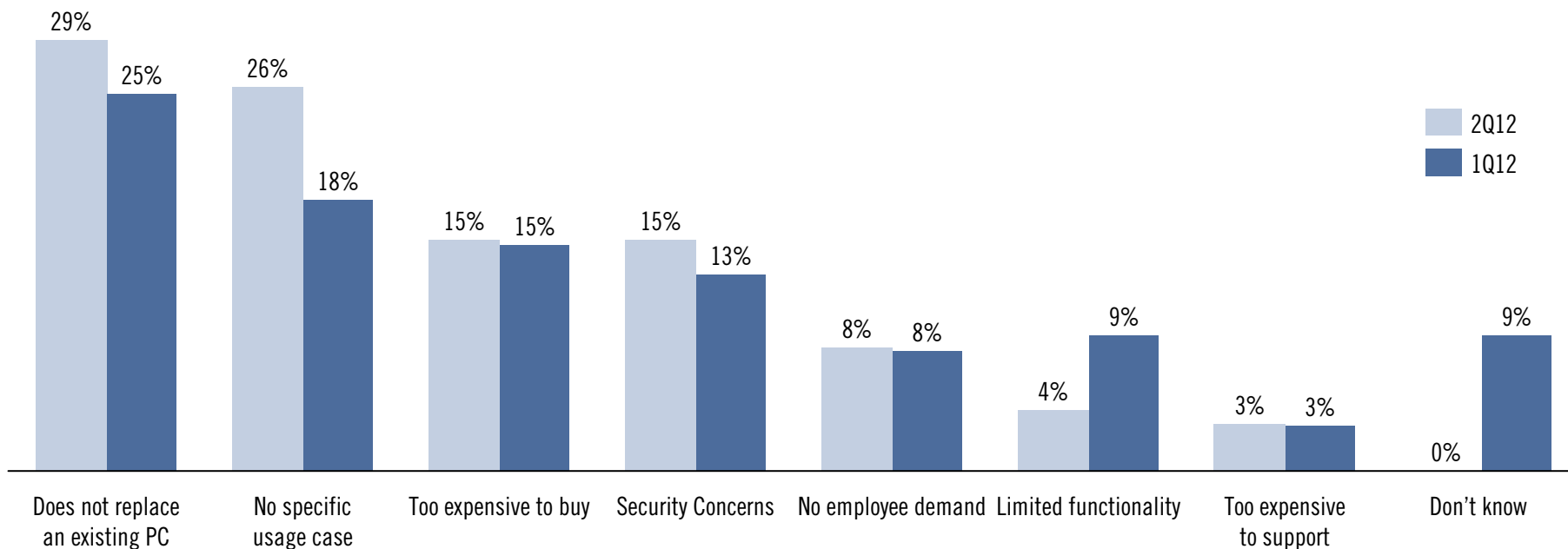
Headwinds to Corporate iPad Adoption Still Remain

- Similar to prior surveys, the three major reasons for not deploying the iPad continue to be:

1) The inability to replace a fully functional PC

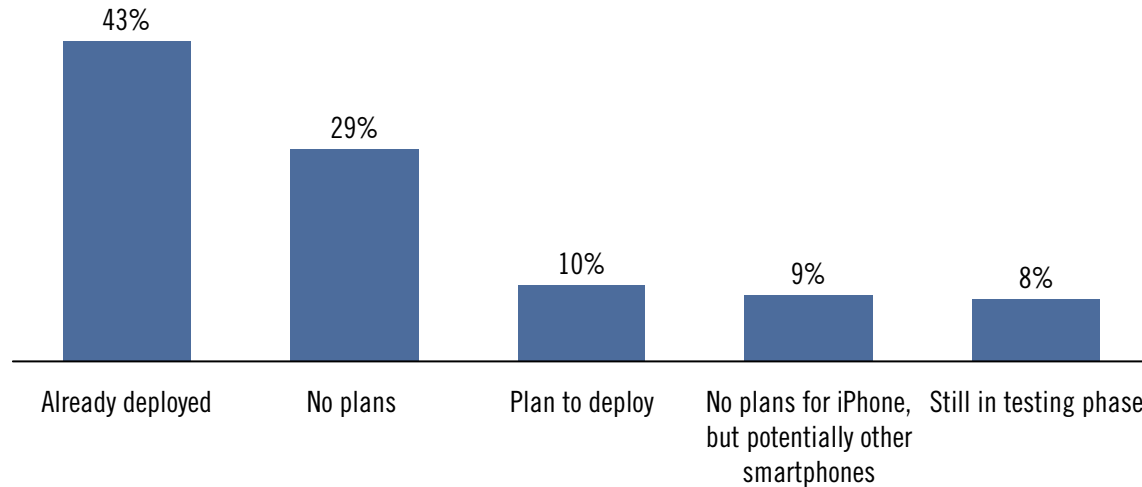
2) The lack of a specific usage case

3) High purchase costs



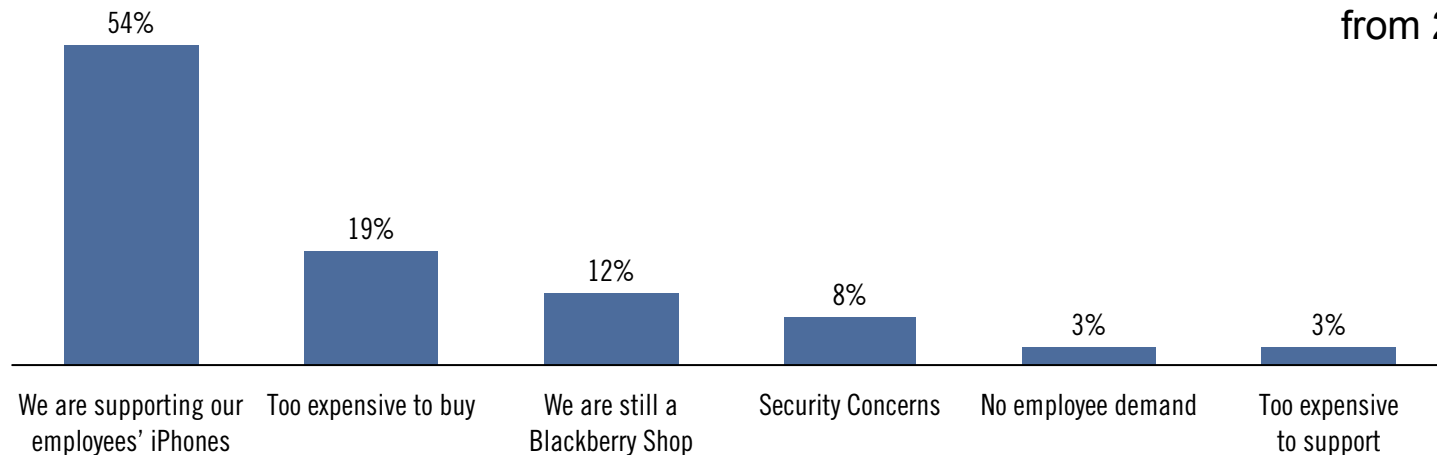
iPhone Slowly Rising Within Enterprise

Do you plan to procure and deploy iPhones to your employee base?



- 43% of respondents have deployed the iPhone, up slightly from 38% in the prior quarter
- 54% of companies are already supporting their employees' personal iPhones
- Costs remains an inhibitor
- Only 12% indicated being a Blackberry shop down from 21% last quarter

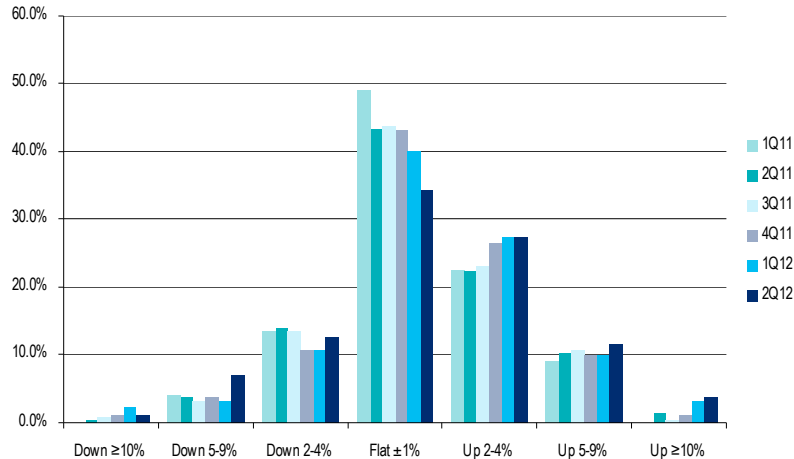
If you are not planning to deploy the iPhones, what is the primary reason?



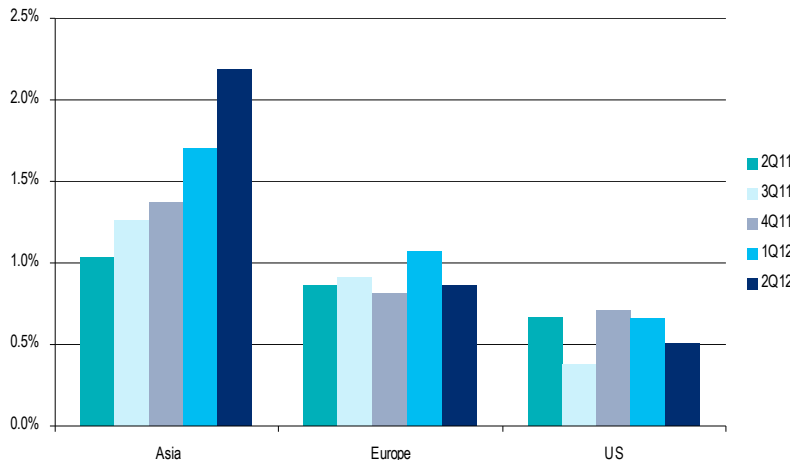
Data Networking

The expected annual changes in Data Networking spending are roughly flat sequentially and are modestly higher versus the prior year. Strength in Asia offsets tepid trends in the US and Europe

Networking - Spending Intentions Relative to Prior Year



Networking Spending - Weighted Response Trends



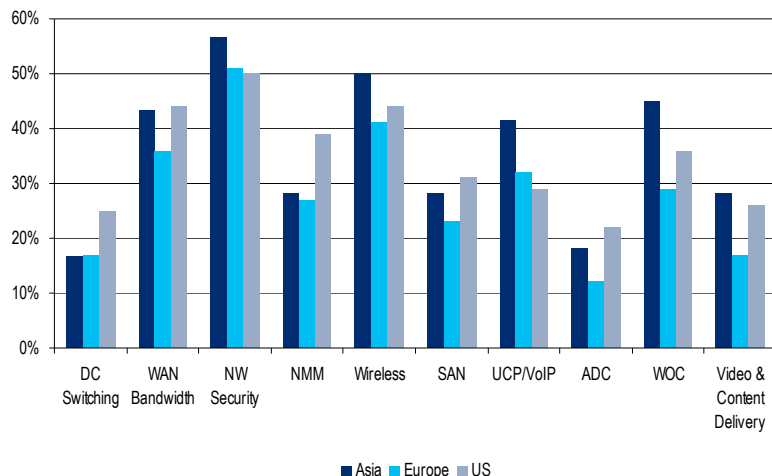
Source: Citi Research

- Expected annual change in Data Networking spending is largely unchanged, as modest positive momentum in higher spending intentions are largely offset by expectations of some cuts
- On balance, the weighted average response indicates a modest ~1% increase in data networking spending; this is roughly inline with the prior quarter survey and a very modest uptick versus the prior year
- At the geographic level, consistent strength in Asia has been offset by flat to lower expectations in Europe and the US
 - Although Europe has been relatively constant, we believe there may be risks going forward as seen on next slide

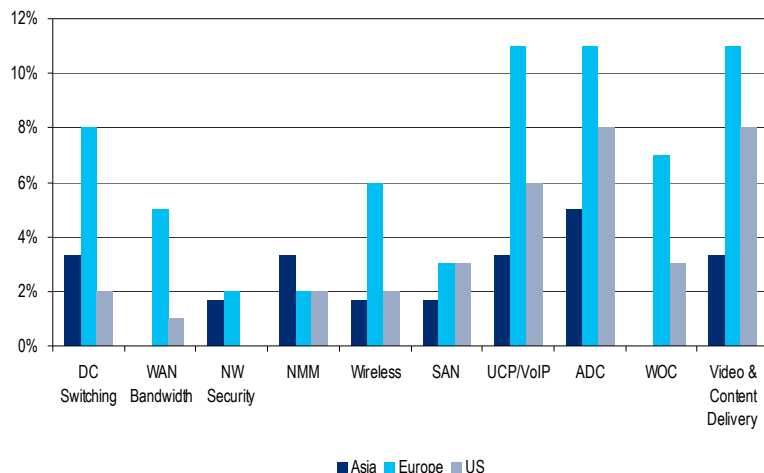
Data Networking

Network Security, Wireless & Mobility, and WAN Bandwidth are top priorities, while CIOs indicated a the most ability to defer spending Application Delivery Networking, Video & Content Delivery, and Unified Communications/VoIP

% Reporting High Priority in IT Budget



% Reporting Ability to Defer in IT Budget



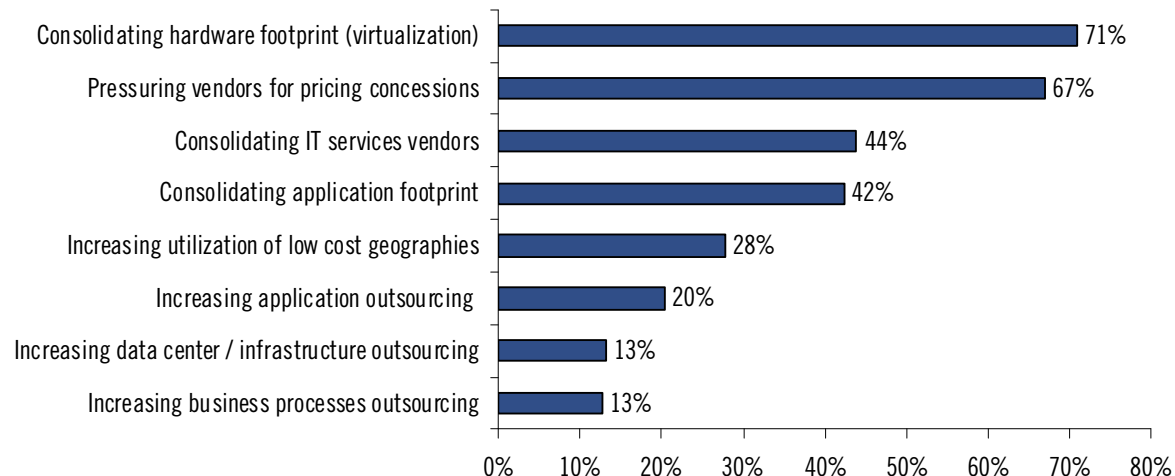
- Network Security is consistently a top focus for CIOs and is currently viewed by 52% of survey respondents as a high priority spending item
 - Wireless (44%) and WAN bandwidth (41%) are also perennial spending priorities
- Conversely, Application Delivery Networking ranks as the category with highest propensity to experience spending deferrals with 9% of survey respondents indicating an ability to push out spending
 - CIOs also view Video Content & Delivery and Unified Communications/VoIP as deferral targets
- Although spending intentions on Data Networking seems relatively stable in Europe (as seen in prior slide), 8% of European CIOs say they can defer investment in switching
 - This sets up potential risk going forward that macro/political uncertainty in the region may dampen demand in 2H

Data Points to Flat IT Services Pricing

- Our data again indicates flattish 2012 IT Services pricing – the average unit price change across the 260 CIOs is expected to be +0.3% in 2012 vs. -0.5% in our 1Q12 survey. Also, the percentage of CIOs looking for unit price reductions was essentially unchanged qtr/qtr at 32% vs. 33% in 1Q12.
- Given the above trends, we continue to believe pricing will be relatively neutral to the vendors in 2012.
- With regard to overall IT pricing, pressuring vendors for price concessions remains a top go-to-strategy (Refer to chart below).

Asia, Europe, U.S.

CIOs were asked: Are you currently using the following approaches to obtain near-term IT cost savings? (Yes/No)

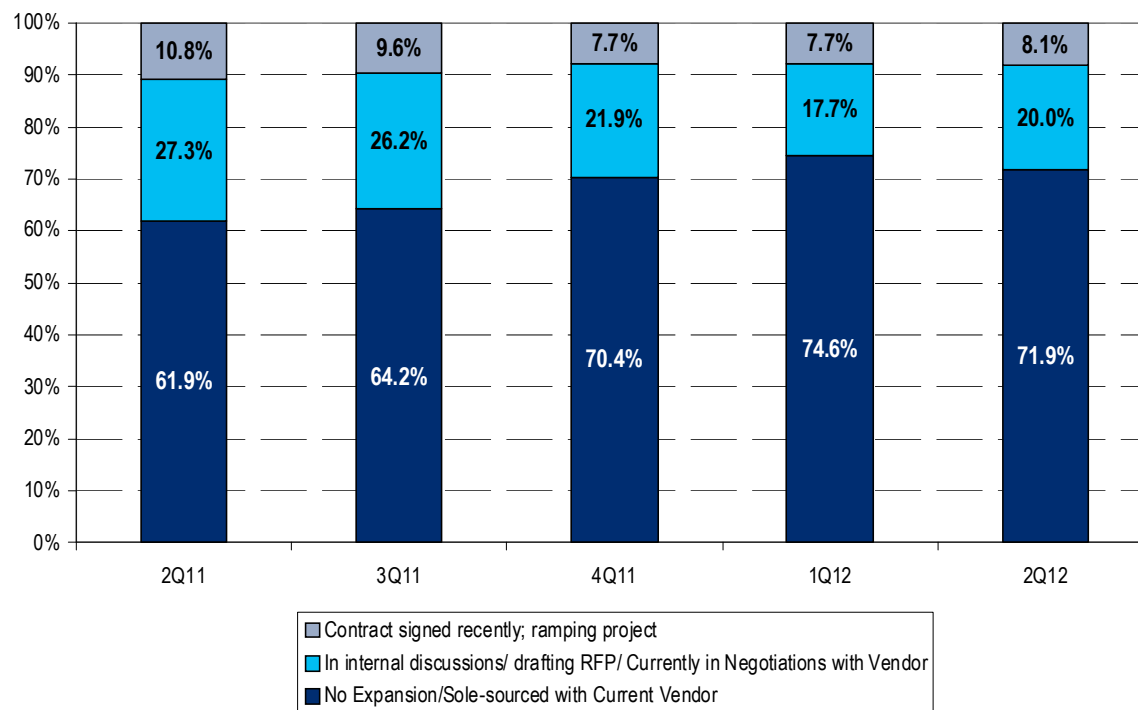


Outsourcing Trends

- CIOs either exploring outsourcing additional functions or currently ramping incremental projects improved sequentially to 28% in 2Q12 from 25.4% in 1Q12.
- Note that this chart typically applies primarily to large traditional IT outsourcing, and not to smaller incremental offshore outsourcing deals .

Asia, Europe, U.S.

CIOs were asked the following: If you are currently in the process of outsourcing incremental functions in your organization, what stage of the process are you in?

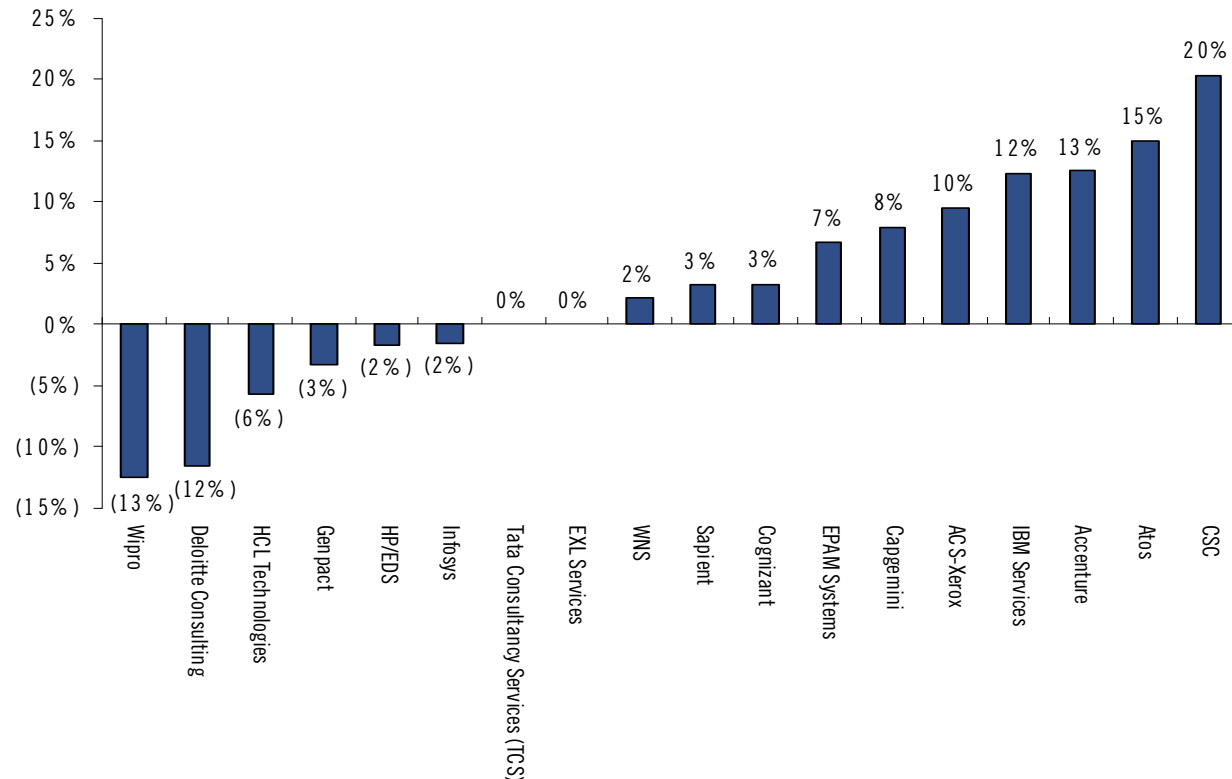


Services “Wallet-Share” Trends

- On average, IT vendors did a good job of maintaining or increasing wallet share in 2Q.
- Accenture, Cognizant, and CSC remained positive net wallet-share gainers in the second quarter. Although CSC is a share gainer two quarters in a row, public statements indicate they have had difficulty ramping new signings.
- East European outsourcer EPAM showed solid net wallet share gain (+7%) particularly among European clients.

Asia, Europe, U.S.

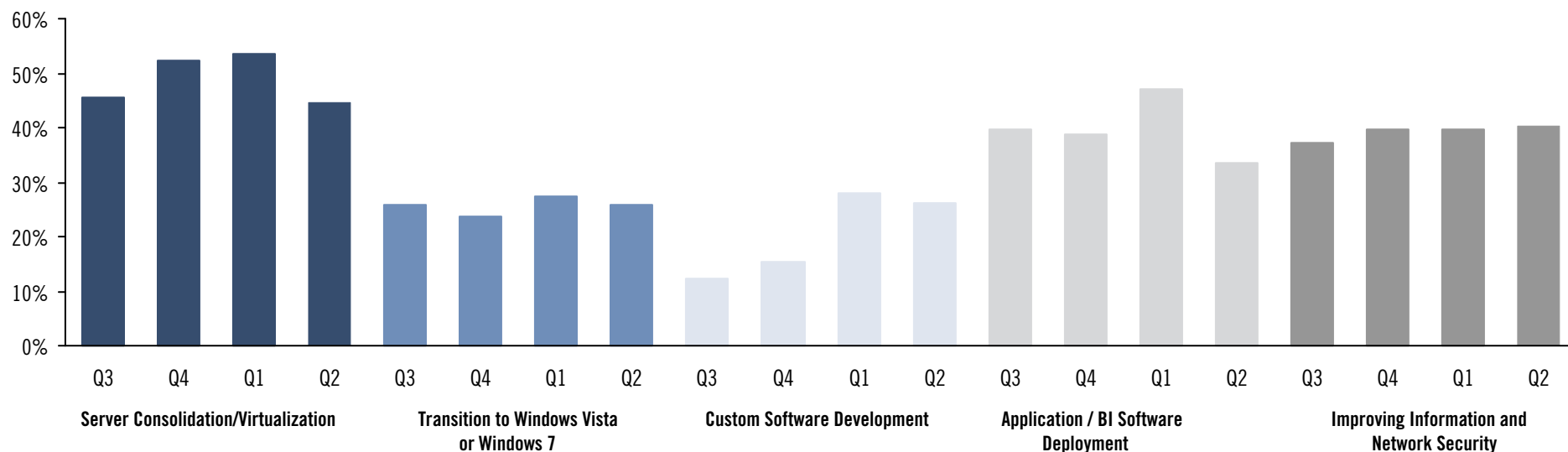
CIOs were asked: Which IT services vendors are gaining or losing share of the IT spending dollars at your organization?



Software Budget Priorities

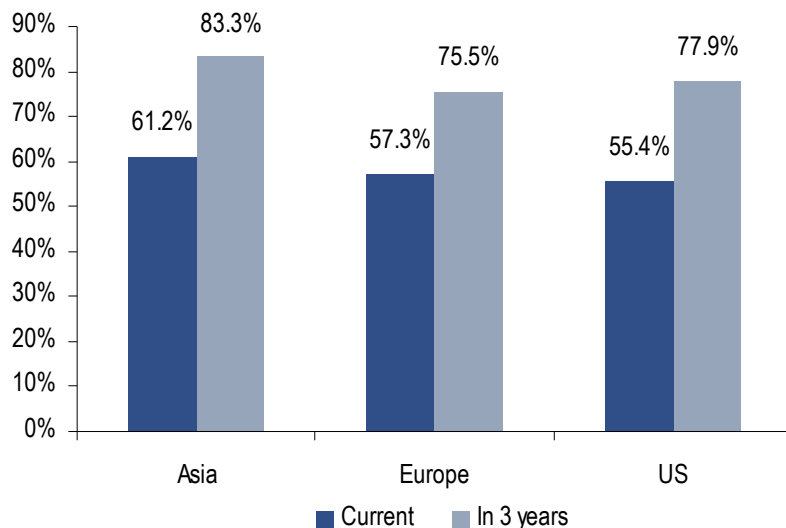
- Server Virtualization showing some weakness after consistently strong results in 4Q11 and 1Q12
- Applications Software see meaningful decline after peaking in Q1
- Improving Information and Network Security continues to rise steadily (40.4% in 2Q12 vs. 39.6% in 1Q12)
- Uptick in PC upgrade efforts didn't result in increase in OS upgrade activity. Looming XP end of life should result in heightened pressure to transition to more current Windows

CIO Spending Priorities



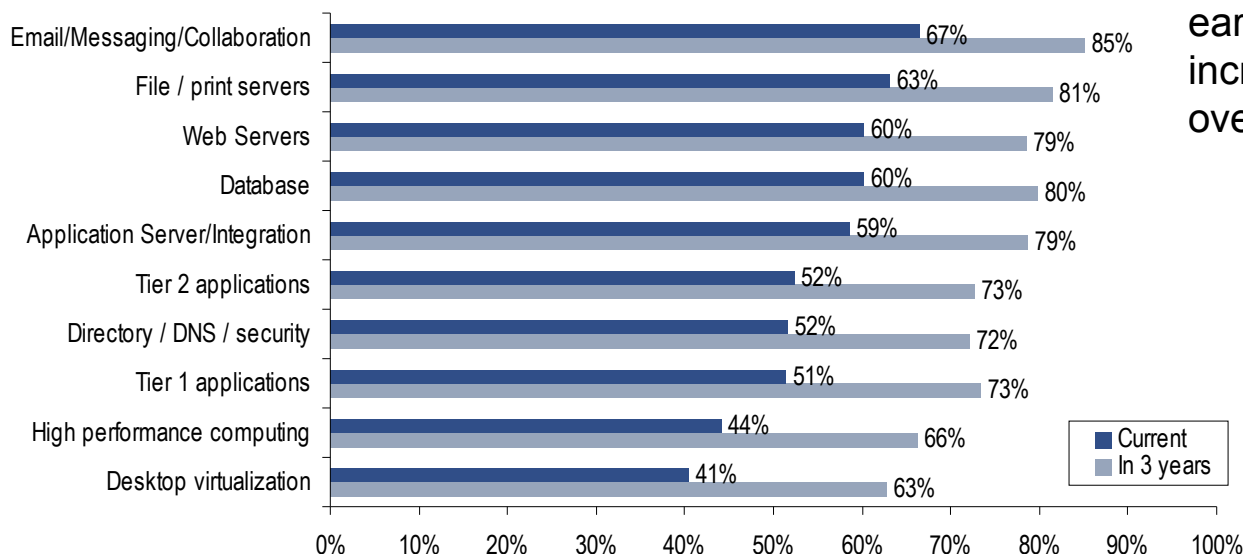
Majority of Workloads Virtualized, CIOs Pushing For More

What % of your x86 workloads do you expect to have virtualized in 3 years?



- More than half of all server workloads are virtualized
- Across all the three regions CIOs expect more than 70% of x86 workloads to be virtualized in 3 years
- Low hanging fruit (email, print / web servers) well under way; Tier 1 and more resource intensive workloads in future plans
- Desktop virtualization is still early days. More than 50% increase in adoption is expected over next 3 years

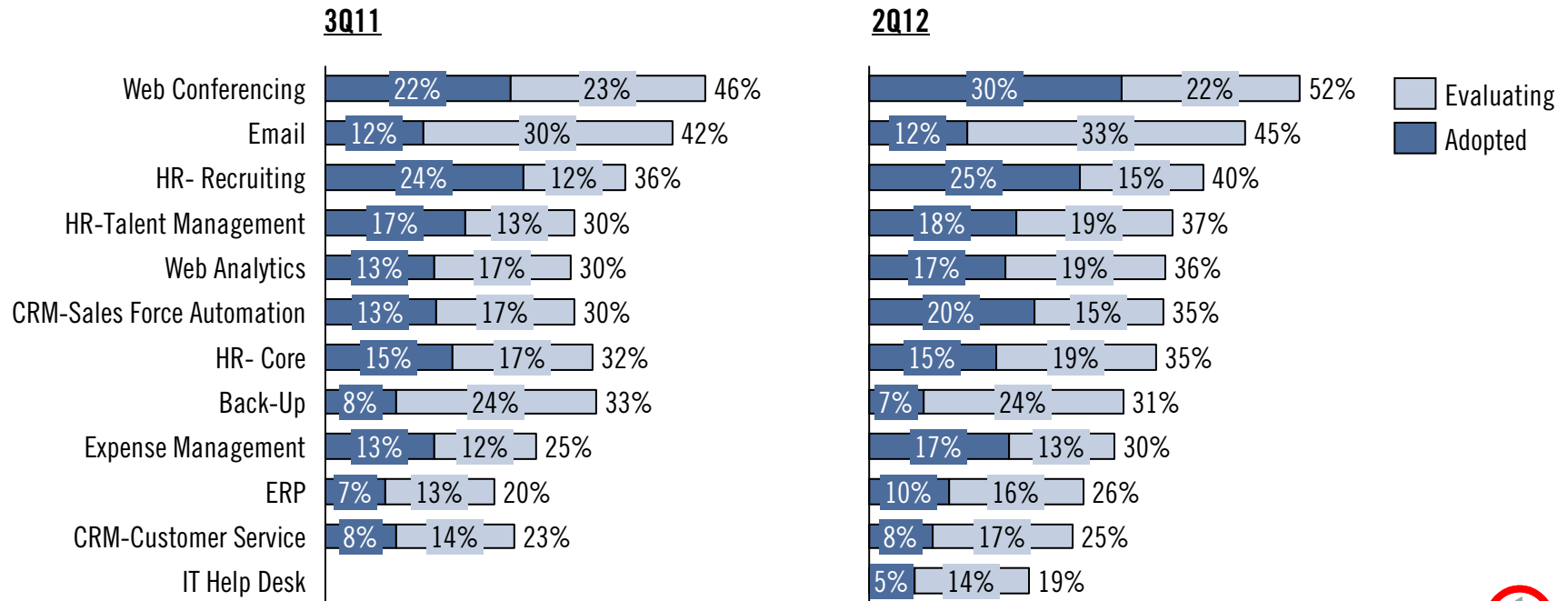
What % of your workloads are virtualized currently / Expect in 3 years?



Demand for Cloud Services Depends on Category

- Uptick in Expense management, CRM, and even ERP SaaS adoption
- Evaluation of email (likely due to Office 365 launch) and back-up remain high but no action taken.
- IT Helpdesk space underpenetrated by SaaS

Please choose the response that best describes your plans with software as a service in each of the follow areas:



Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

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Data current as of 30 Jun 2012	12 Month Rating			Relative Rating		
	Buy	Hold	Sell	Buy	Hold	Sell
Citi Research Global Fundamental Coverage	53%	37%	10%	10%	80%	10%
% of companies in each rating category that are investment banking clients	44%	43%	40%	48%	43%	45%

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Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

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