

# Transforming The Data Center — Navigating The Journey From Virtualization To Private Clouds

September 2013

## Virtualization And IT Standardization Are Driving Data Center Strategies

IT organizations across Asia Pacific (AP) are actively seeking strategies for standardizing core infrastructure and improving the efficiency and responsiveness of IT operations. While benefits are significant, the path from infrastructure consolidation to virtualization and then to private/hybrid cloud deployment models is not without risks. IT decision-makers must consider a variety of technology and organizational factors to ensure that they can deliver real business value. The business pressure for increased IT efficiency, improved agility, and flexible service delivery will only increase with time. To effectively support changing business needs, successful IT organizations must move quickly to embrace private/hybrid cloud models alongside traditional data center strategies.

In June 2013, Cisco Systems and Wipro IT Business commissioned Forrester Consulting to interview 140 senior IT decision-makers in Australia, India, and Singapore to gauge their plans, priorities, and challenges on the journey from virtualization to private cloud enablement. Findings from these interviews were augmented by results from the recent Forrsights Budgets And Priorities Tracker Survey, Q4 2012, which provided insight from 3,659 AP-based senior IT and business decision-makers. Results from the Cisco- and Wipro-commissioned study, supported by the Forrsights survey, confirm that two of the top six technology priorities for senior IT decision-makers in AP center on consolidation and management of IT infrastructure via virtualization (see Figure 1).

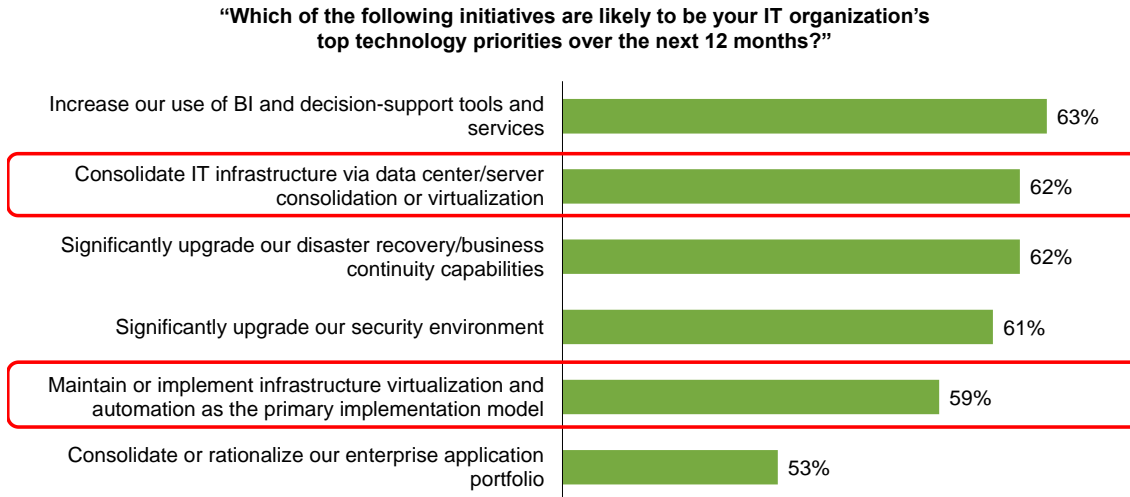


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**Figure 1**

Two Of The Top Five Technology Priorities In Asia Pacific Target Virtualization And Infrastructure Consolidation



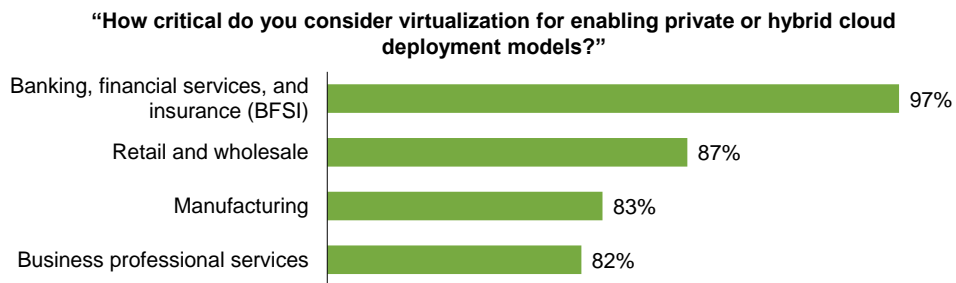
Base: 3,659 IT and business decision-makers in Asia Pacific

Source: Forrsights Budgets And Priorities Tracker Survey, Q4 2012, Forrester Research, Inc.

The primary role of virtualization as an enabler of infrastructure consolidation is now well understood, as is the link between virtualization and private/hybrid cloud enablement. But while 86% of total AP respondents consider virtualization either extremely important or critical for enabling private/hybrid cloud, variations by vertical segment persist (see Figure 2). Banking, financial services, and insurance (BFSI) organizations in all three AP markets are most likely to recognize the link, driven by mature IT capabilities and strong ongoing technology investments. This is not surprising given the competitive pressures among BFSI organizations to more effectively leverage technology, become agile, and improve customer engagement. In contrast, respondents in manufacturing consistently lag across all three markets in recognizing the importance of virtualization for driving private/hybrid cloud enablement, which reflects the more conservative pace of IT adoption typical in this segment.

**Figure 2**

Virtualization Is Viewed As Critical To Private/Hybrid Enablement Across The Region



Base: 140 decision-makers

Note: Respondents answering 7 or higher on a scale of 1 (lowest) to 10 (highest) are illustrated.

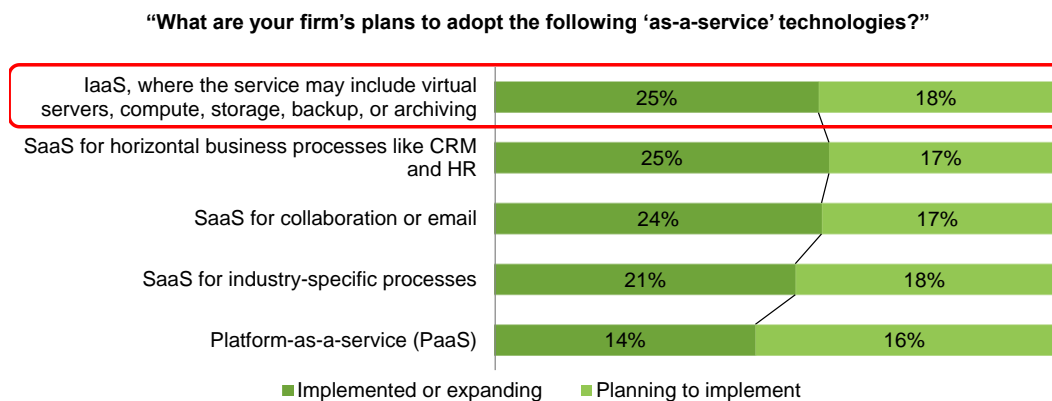
Source: A commissioned study conducted by Forrester Consulting on behalf of Cisco and Wipro, June 2013

## Hybrid Cloud Use Is Becoming The “New Normal”

Organizational resistance to expanding internal IaaS use is mostly due to concerns over security, data management, and availability/performance. However, findings indicate that IaaS use will continue to grow across the region as business and technology decision-makers rationally seek public cloud-based services that meet needs not met by internal IT (see Figure 3). IT decision-makers failing to consider all service-provisioning options — including private and hybrid approaches — will see their credibility wane and their control usurped by the inevitable emergence of shadow IT, driven by clear business demand.

**Figure 3**

IaaS Adoption Will Continue To Grow, Driving IT Organizations Toward A Hybrid Cloud Approach



Base: 3,659 IT and business decision-makers in Asia Pacific

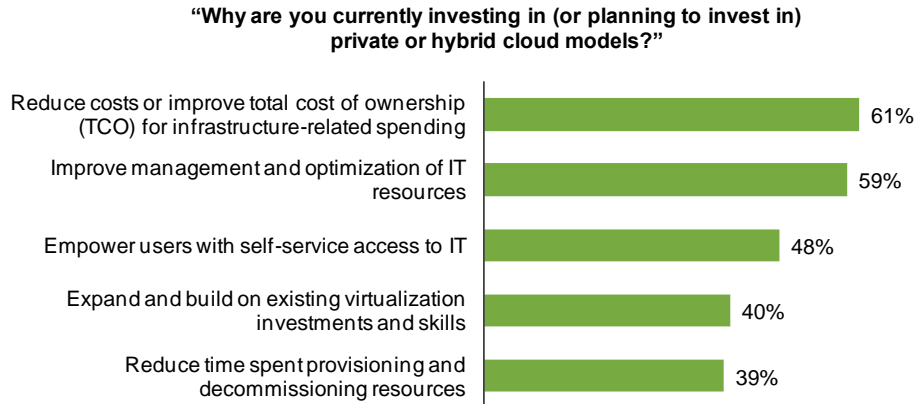
Source: Forrsights Budgets And Priorities Tracker Survey, Q4 2012, Forrester Research, Inc.

## Primary Cloud Demand Drivers — Lowering Costs And Leveraging Resources

The business need to embrace private/hybrid cloud approaches is increasing across the region (see Figure 4). But the specific drivers for adoption still vary by country. For instance, cost reduction remains top of mind in India (78%) but not in Singapore (57%) or Australia (48%). Indian respondents are also strongly focused on improving IT operational efficiency, with 51% seeking ways to reduce the time spent provisioning or deprovisioning resources. Respondents in both Singapore (47%) and Australia (43%) cite a desire to expand on existing virtualization investments and skills as a driver of private/hybrid cloud investments — versus only 29% in India.

In a sign that access to cloud-based resources remains opportunistic and project-driven, respondents did not cite strong pressure from senior IT or business decision-makers as a driver of private/hybrid cloud-related investments. Nor is there currently strong demand for implementing a pay-per-use consumption model or providing an internally managed alternative to public cloud for use by employees. However, as the link between private/hybrid cloud enablement and improved business agility becomes more widely understood across the region, Forrester expects this pressure to increase.

**Figure 4**  
 Cost Reductions And Resource Optimization Drive Cloud Investments



Base: 140 decision-makers

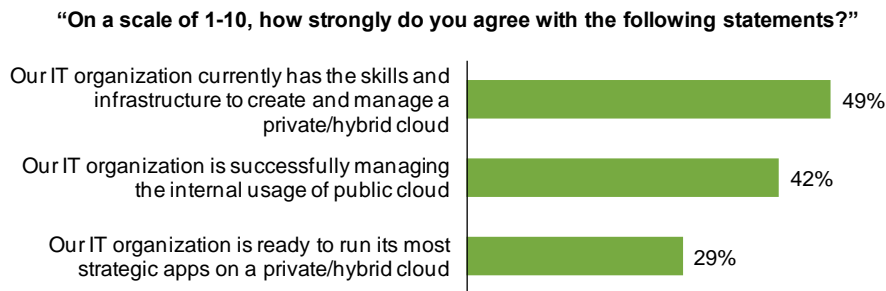
Note: Only the top five responses (out of eight total) are shown.

Source: A commissioned study conducted by Forrester Consulting on behalf of Cisco and Wipro, May 2013

### Private/Hybrid Cloud Challenges — Technical Issues Trump Organizational Concerns

Survey results confirm AP organizations’ ongoing concerns over the lack of cloud-related management skills or capabilities (see Figure 5). Respondents from Singapore have the least confidence (22%) in their cloud skills and readiness, which highlights the disconnect between overall IT maturity and cloud readiness in that market. Forty percent of Indian respondents rate readiness to run their most strategic applications on a private/hybrid cloud at 7 or higher, 10 being highest. While this confidence varies widely by organization size and vertical segment in India, the results remain far above the regional average of 29%.

**Figure 5**  
 Confidence In Cloud Skills And Readiness Are Still Limited



Base: 140 decision-makers

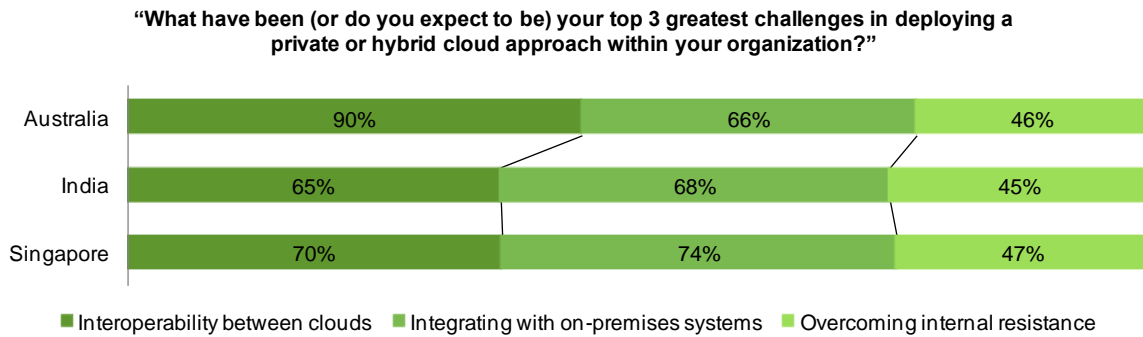
Note: Respondents answering 7 or higher on a scale of 1 (lowest) to 10 (highest) are illustrated.

Source: A commissioned study conducted by Forrester Consulting on behalf of Cisco and Wipro, May 2013

Surprisingly, lack of awareness about the benefits of cloud, lack of skills, and confusion over cloud vendor product offerings are not commonly cited as major challenges for deploying a private/hybrid cloud in any market covered

(see Figure 6). Instead, technical challenges of adoption are the topmost concerns for IT decision-makers. But variations by country are significant. Interoperability across different clouds, for instance, is a far greater concern among Australian respondents than Singaporean and Indian respondents. In contrast, integrating with existing on-premises systems is cited as the top private/hybrid cloud deployment challenge in Singapore, noticeably higher than in both India and Australia.

**Figure 6**  
Technical Challenges Vary By Market



Base: 140 decision-makers

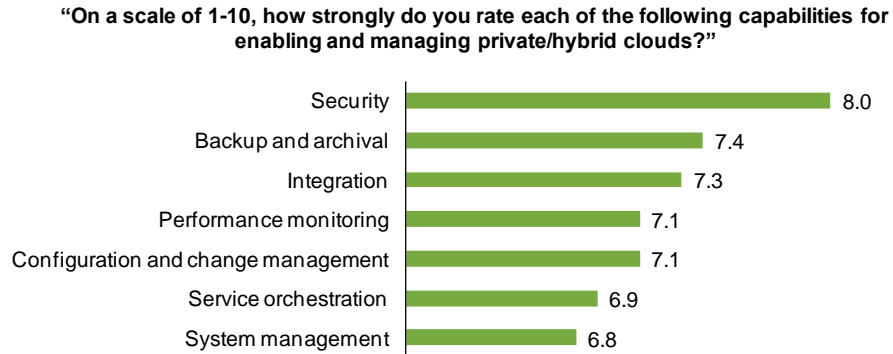
Source: A commissioned study conducted by Forrester Consulting on behalf of Cisco and Wipro, May 2013

### Enabling Private/Hybrid Clouds — Key Capabilities Required

Not surprisingly, security tops the list of key capabilities that organizations believe are vital to enable and manage private/hybrid clouds (see Figure 7). In fact, 96% of Australian respondents rate the importance of security for enabling private/hybrid cloud at 7 or higher, 10 being highest — versus a regional average of 89%. Eighty-seven percent in Australia also rate backup and archival as critical — versus 84% in Singapore and only 76% in India.

**Figure 7****Security Tops The List Of Private/Hybrid Cloud-Related Capabilities Organizations Are Seeking**

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Base: 140 decision-makers

Source: A commissioned study conducted by Forrester Consulting on behalf of Cisco and Wipro, May 2013

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As indicated by the findings from our Forrsights Budgets And Priorities Tracker Survey, Q4 2012 and the custom survey commissioned by Cisco and Wipro, IT decision-makers in Asia Pacific still need help navigating the journey from infrastructure consolidation to server virtualization and then to private/hybrid cloud deployment. But the benefits of embracing private/hybrid cloud for reducing infrastructure costs and enabling organizations to quickly ramp up business capabilities outweigh the risks.

IT decision-makers failing to consider all service-provisioning options — including private and hybrid approaches — will see their credibility wane and their ability to support business requirements suffer. In sharp contrast, Forrester believes organizations that embrace private/hybrid cloud approaches alongside traditional data center capabilities and approaches will be far better positioned to support — and actually encourage — innovation within their organizations based on simplified, more efficient access to compute resources and capabilities.

## Appendix: Methodology

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This Technology Adoption Profile was commissioned by Cisco and Wipro. Forrester leveraged its Forrsights Budgets And Priorities Tracker Survey, Q4 2012, which provided insight from a survey of 3,659 AP-based senior IT and business decision-makers. Forrester Consulting supplemented this analysis with a custom survey of 140 senior IT decision-makers in Australia, India, and Singapore. The respondents were asked about their current and future private/hybrid cloud and virtualization adoption plans. Respondents were also asked to identify key drivers and inhibitors that will determine the speed of adoption for private and hybrid cloud deployment models. This survey was conducted in June 2012.

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