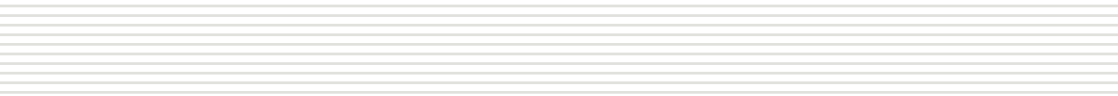




2011

Evolution of IT in the Finance Industry

Europe



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EVOLUTION OF IT IN THE FINANCE INDUSTRY

The financial services industry is under mounting pressure to add customer services and boost revenue—all while staying on budget. Added to these demands is increased scrutiny of corporate governance, higher accountability of senior management, greater expectations from shareholders and other financial services regulations. To meet these rigorous requirements, the financial services' IT infrastructures need to be revamped to convert customer data into revenue and drive down the cost of adding new services. As a result, emerging technologies, such as cloud computing and virtualisation, are gaining momentum in the financial services industry.

The 2011 Virtualisation and Evolution to the Cloud Survey—Europe Financial Services explores the goals, attitudes, challenges and experiences of financial services organisations in Europe as they stand on the brink of moving business-critical applications to virtualised and hybrid cloud environments.

As the following report describes, Europe's financial services institutions are more engaged in discussing virtualisation than other industries and have robust IT budgets to implement new systems. However, a disconnect exists between how the financial services industry expects virtualisation/cloud technology to perform and the reality of what these technologies have achieved. Plus, the survey reveals that concerns surrounding security and compliance are keeping the financial services industry from moving business-critical applications to virtualised or hybrid cloud environments.



METHODOLOGY

Symantec commissioned Applied Research to field the 2011 Virtualisation and Evolution to the Cloud Survey by telephone in April of 2011. The results in this report are based on 135 responses from financial institutions within seven countries in Europe. These responses are compared with results from the broader Europe survey, which included 1,100 responses.

Europe's financial respondents comprise the following types of enterprises:

- 21 percent small enterprises (1,000 to 2,499 employees)
- 39 percent medium enterprises (2,500 to 4,999 employees)
- 41 percent large enterprises (5,000 or more employees)

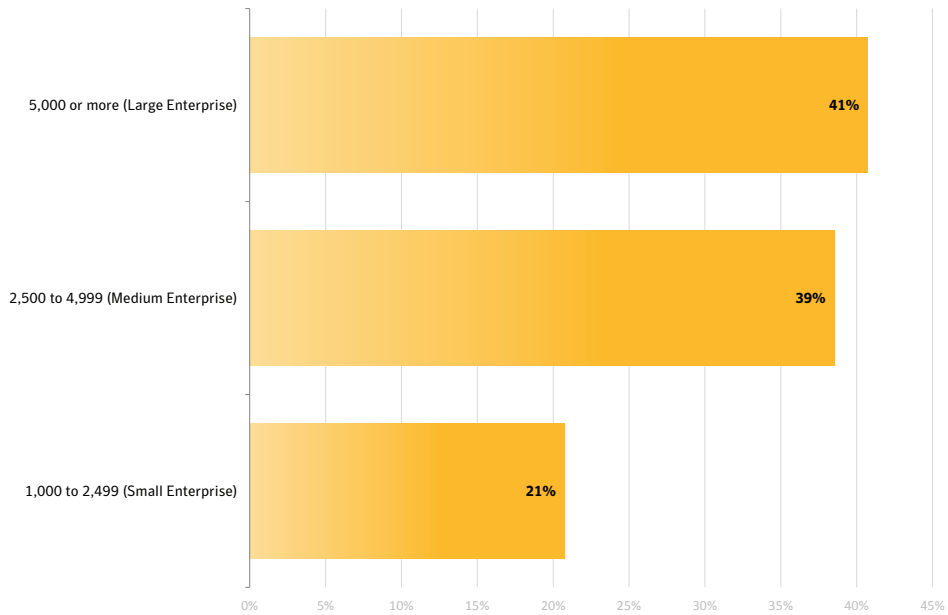
Respondents from the broader Europe survey comprise the following types of enterprises:

- 33 percent small enterprises (1,000 to 2,499 employees)
- 35 percent medium enterprises (2,500 to 4,999 employees)
- 43 percent large enterprises (5,000 or more employees)

Respondents represented a wide range of industries and included a mix of C-level (CIO, CISO, etc.) executives (33 percent), IT management who were primarily focused on strategic issues (51 percent) and IT management primarily focused on tactical issues (16 percent).

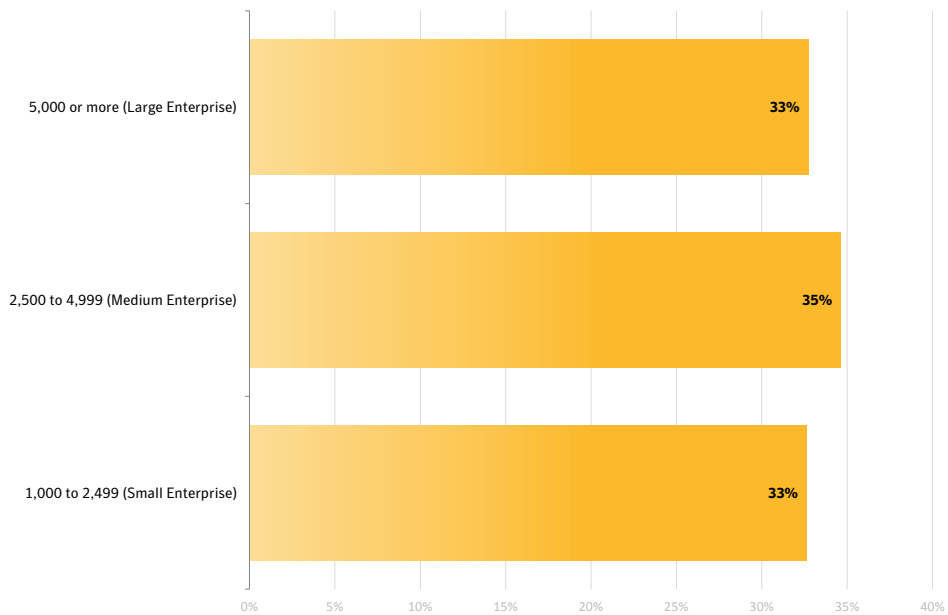
The overwhelming majority of respondents (78 percent) were 31 to 49 years of age, with the rest split between those less than 30 (16 percent) or older than 50 (6 percent). Nearly all (81 percent) were male. The typical respondent had worked in IT for 11 years.

Q2: How many employees does your organisation have in all locations worldwide?



Europe—Financial Services

Q2: How many employees does your organisation have in all locations worldwide?



Europe—All Respondents

FOCUS

The survey focused on five areas of virtualisation and cloud:

- Server virtualisation
- Storage virtualisation
- Desktop/endpoint virtualisation
- Private Storage-as-a-Service
- Private or hybrid cloud computing

We asked about awareness, adoption, goals, challenges and attitudes for each of these technologies.

According to the results, most enterprises follow the same pattern of adoption. First, organisations implement server virtualisation. Later they add other types of virtualisation, such as storage and desktops/endpoints. Finally, they implement private Storage-as-a-Service, private cloud and/or hybrid cloud.

What follows is the story of how this evolution from virtualisation to the cloud is playing out in the financial services industry in Europe.

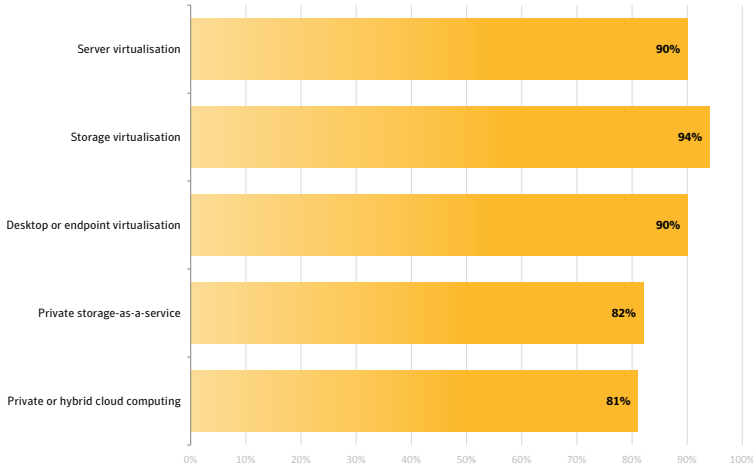
FINDING 1

Finance Industry Has Mature View on IT Trends

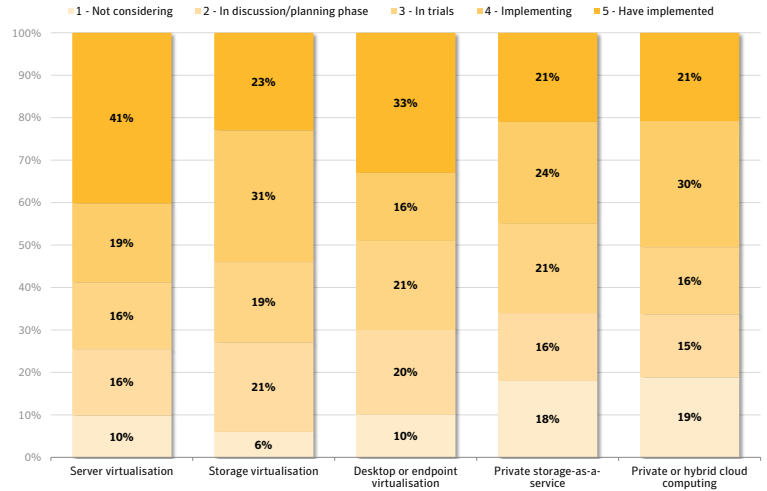
To gauge the level of adoption of cloud computing, respondents were asked at what stage their organisation was in implementing virtualisation and cloud computing services. Most of the finance respondents (81 percent) said they were at least discussing cloud adoption. This is a significant increase over the average of all industries, where 72 percent said they were at least discussing cloud adoption—an indication that the financial services industry has a more mature view on IT strategy. Additionally, Europe's financial respondents mentioned emerging technologies and mobile solutions more frequently than other respondents in the Europe survey, signifying their desire to explore new technologies to solve current challenges.

The financial services industry also proves to be ahead of the region in regards to server virtualisation. Sixty percent of financial organisations are either implementing or have implemented this technology compared to the all-industry sample where only 45 percent have adopted server virtualisation.

Q12: At what stage is your organisation in each of the following areas?
(At least in discussion/planning phase)

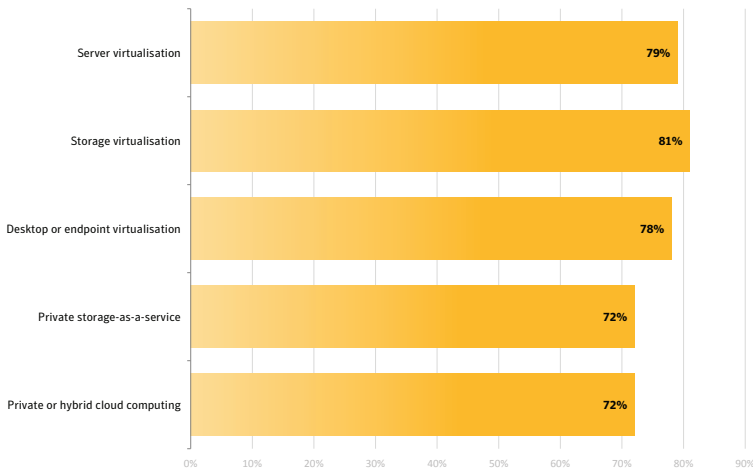


Q12: At what stage is your organisation in each of the following areas?

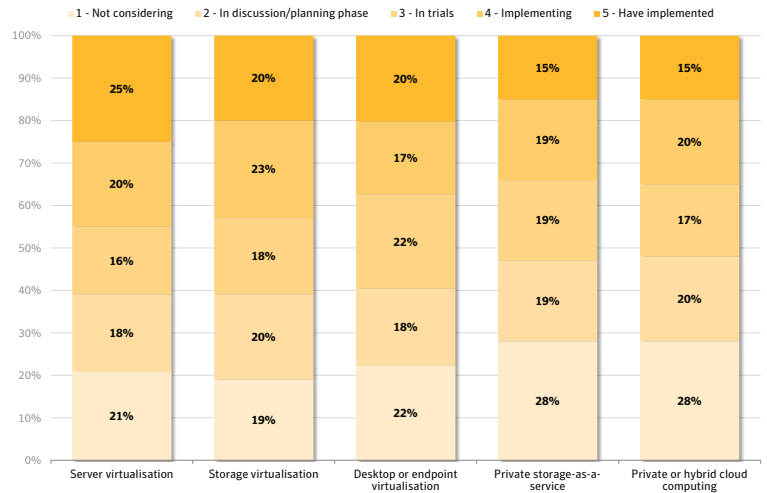


Europe—Financial Services

Q12: At what stage is your organisation in each of the following areas?
(At least in discussion/planning phase)



Q12: At what stage is your organisation in each of the following areas?



Europe—All Respondents

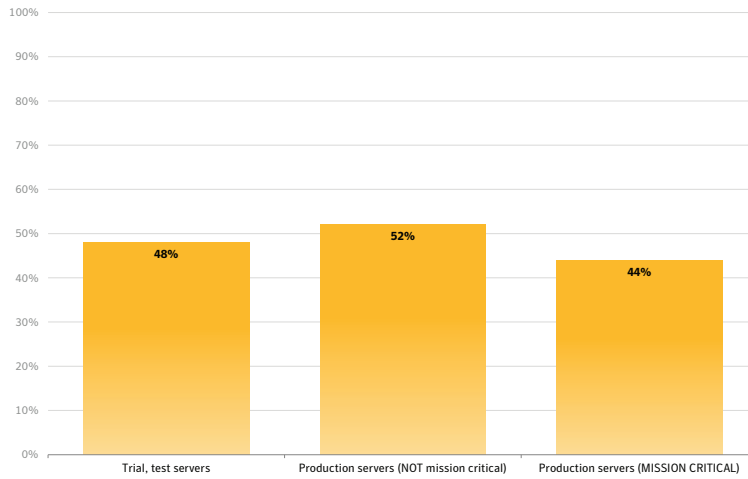
FINDING 2

Financial Organisations More Advanced in Implementing Virtualisation Than Cloud Computing

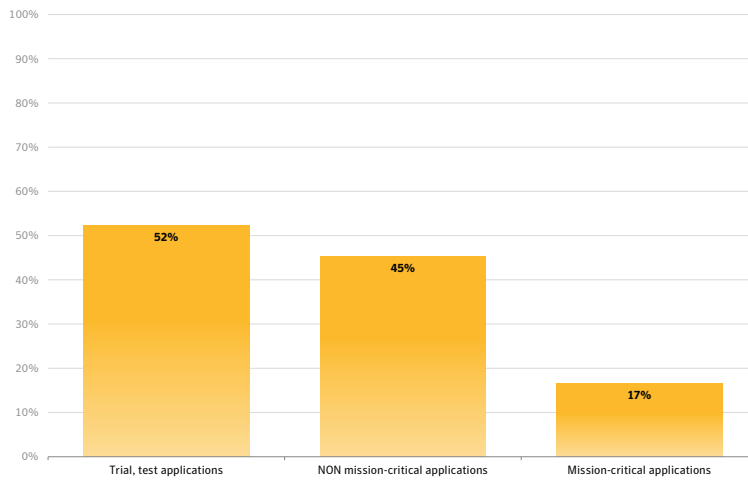
The financial services industry is already advanced in virtualising business-critical applications, but is proving to be much more restrictive when using private/hybrid cloud. Of the financial respondents who are currently implementing server virtualisation, 44 percent are planning on moving mission-critical applications to virtualised servers in the next 12 months. Conversely, for those considering private/hybrid cloud environments, just 17 percent of respondents would move mission-critical applications to a private/hybrid cloud in the next 12 months.

Why the lack of adoption? Among those currently implementing hybrid/private cloud computing, the most common concerns regarding placing business-critical applications into the cloud are related to compliance issues, concerns that account, service or traffic can be hijacked and the inability to audit security practices.

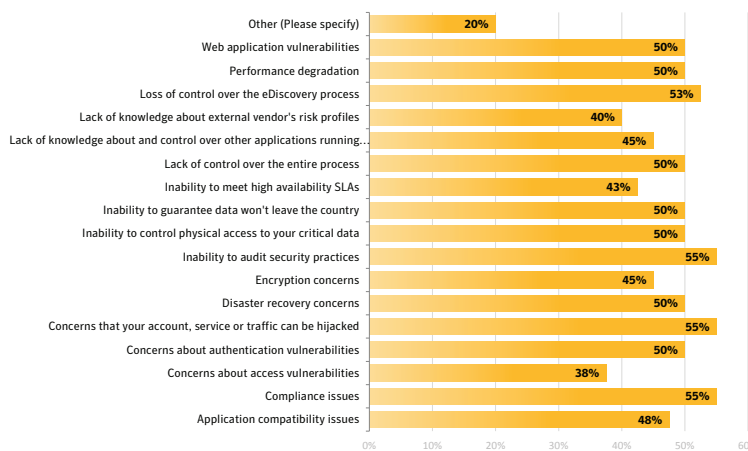
**Q18: On which kinds of servers are you implementing virtualisation in the next 12 months?
(Mark all that apply.)**



**Q70: What kinds of applications are you considering moving to a hybrid/private cloud in the next 12 months?
(Mark all that apply.)**



**Q80: How much does each of the following risks weigh in keeping various constituents from being more confident about placing mission-critical applications on a private/hybrid cloud?
(Somewhat/Extremely large factor)**

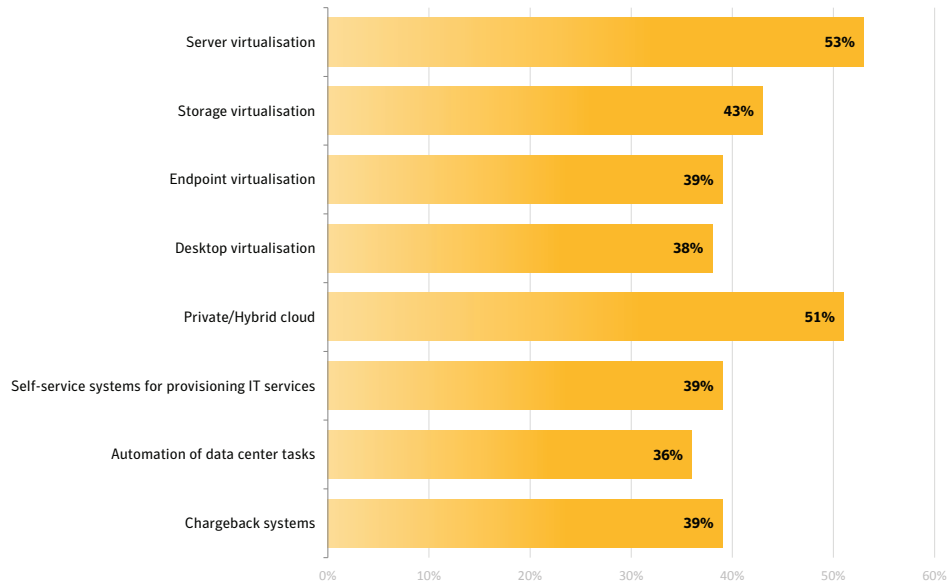


FINDING 3

Financial Services' Budgets Support Virtualisation and Cloud Computing

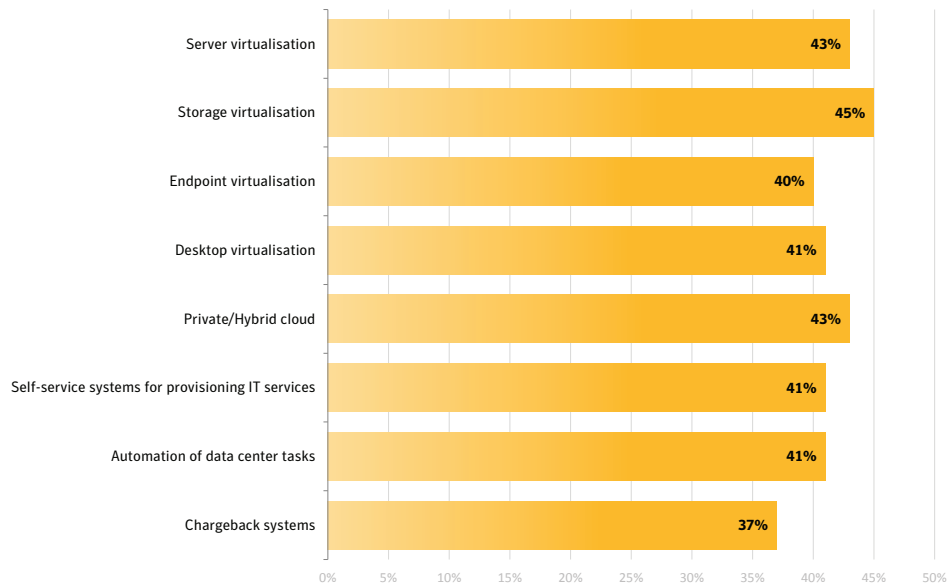
Despite the concerns expressed by Europe's financial respondents over implementing cloud computing, more financial respondents in the survey reported having an adequate budget for server virtualisation and private/hybrid cloud than the all-industry sample. The budgets within the financial services industry are growing more in server virtualisation (53 percent vs. 43 percent) and private/hybrid cloud computing (51 percent vs. 43 percent) than companies in other industries. Although this finding may seem surprising, given the financial services' hesitation to adopt cloud computing, these results indicate that cloud computing and virtualisation are critical technologies for these organisations' future IT strategy.

Q104: How would you characterise the budget for each of the following enterprise security sub areas? (Gradually/Rapidly growing)



Europe—Financial Services

Q104: How would you characterise the budget for each of the following enterprise security sub areas? (Gradually/Rapidly growing)



Europe—All Respondents

FINDING 4

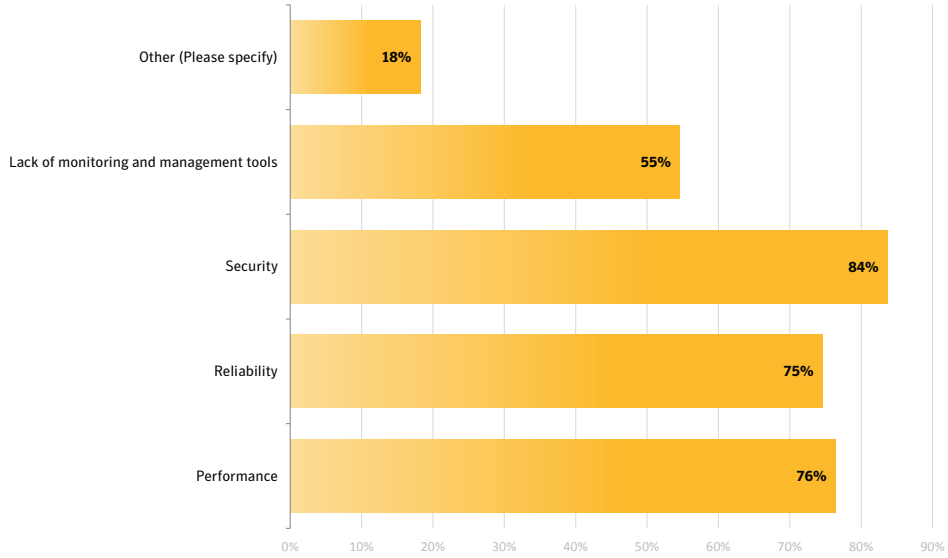
Security is Paramount to Financial Services Industry

Due to increasing security regulations faced by the financial services industry, security issues surrounding virtualisation can have a serious impact on an organisation's decisions to implement—or not implement—this technology. Seventy-six percent of financial organisations who have implemented server virtualisation indicated that security was a somewhat/extremely large factor in keeping various constituents from being more confident about placing business-critical applications on virtualised servers.

Similarly, 64 percent of financial organisations who stated they are not considering deploying private/hybrid cloud cited security as the top concern. This is in stark contrast to the all-industry survey where only 31 percent of respondents stated security as a reason for not deploying private/hybrid cloud.

With security proving to be the major roadblock preventing the financial services industry from virtualising business-critical applications, better understanding of the potential risks and benefits offered by virtualisation and cloud computing can aid in the decision-making process.

Q31: How much do each of the following risks weigh in keeping various constituents from being more confident about placing mission-critical applications on virtualised servers? (Somewhat/Extremely large factor)



Europe—Financial Services

Q68: How important are each of the following reasons in terms of why you are not considering private/hybrid cloud computing? (Somewhat/Absolutely a factor)



Q68: How important are each of the following reasons in terms of why you are not considering private/hybrid cloud computing? (Somewhat/Absolutely a factor)



Europe—Financial Services

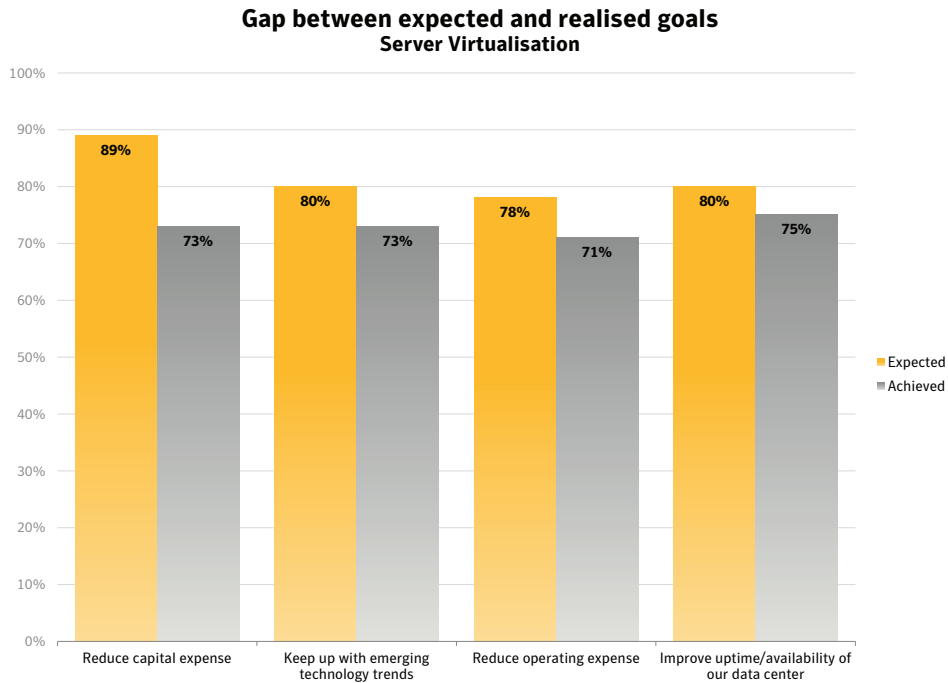
Europe—All Respondents

FINDING 5

Gaps Between Expectations and Reality Reveal Market Evolution

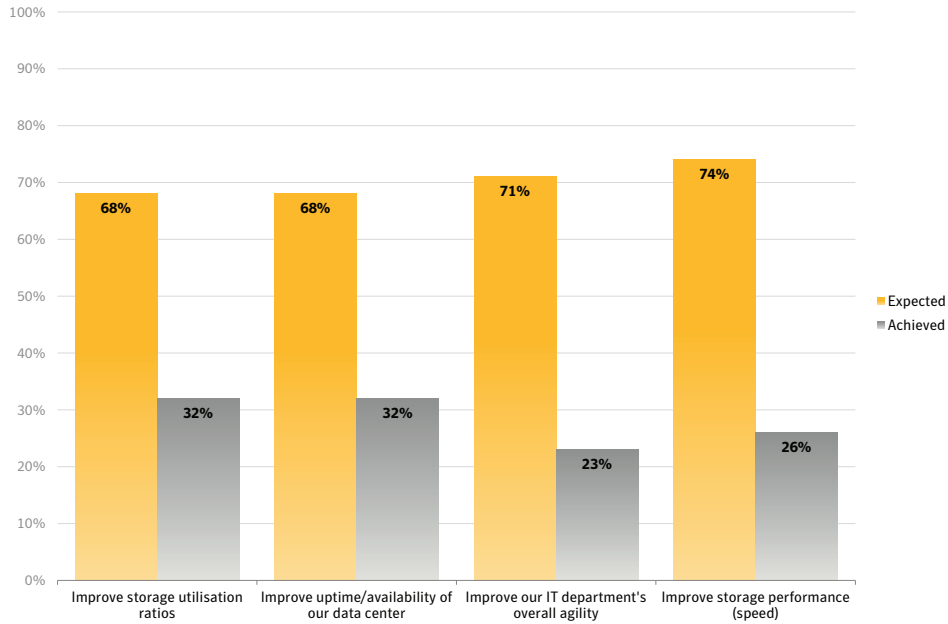
With emerging technologies often come big promises, which in turn, elevate expectations. Such expectations as reduced expenses, improved scalability, better performance and increased disaster recovery preparedness were just a few of the goals our respondents hoped to achieve when implementing virtualisation and cloud computing technology. However, how these technologies actually perform in the real world, often left a gap between expectations and reality.

We asked Europe financial respondents what their goals were at the time they implemented server, storage and endpoint virtualisation; private Storage-as-a Service; and private/hybrid cloud. We also asked those who have implemented each of these technologies about the benefits that were actually realised following implementation. The most significant gap of all was private Storage-as-a-Service—a sure sign of an immature market. Efficiency in this area did not improve as expected, which is similar across other industries as well. Conversely, the area where expectations most closely matched reality was server virtualisation where the majority of financial services enterprises had realised improved scalability, agility and time to deploy new servers.



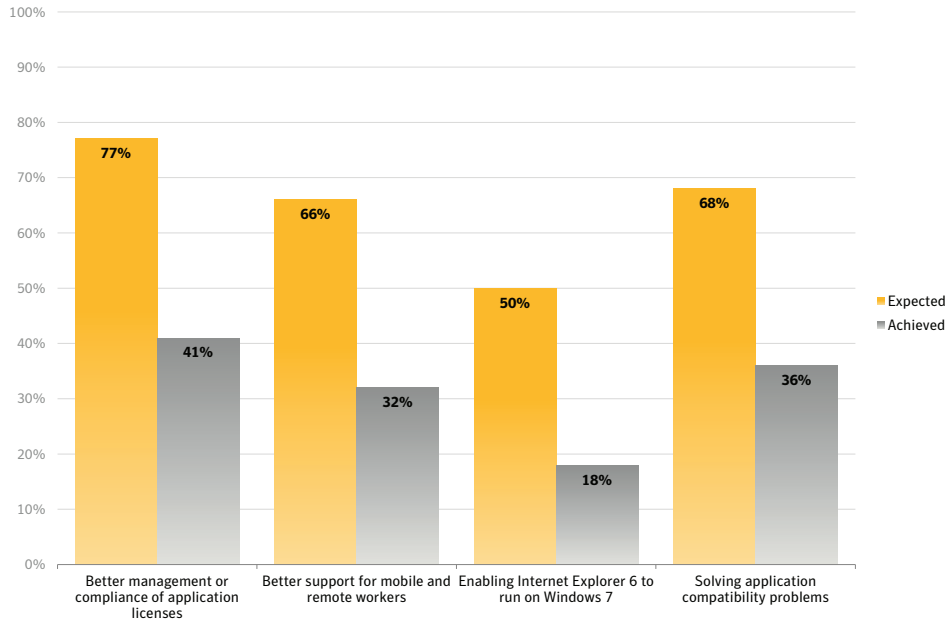
Server Virtualisation—In regards to server virtualisation, this gap was fairly small. The majority of financial services enterprises had realised improved scalability, agility and time to deploy new servers. The largest gap between expected and realised goals was reducing capital expenses, which is not surprising as the growing amount of data that financial institutions manage means escalating costs as well.

Gap between expected and realised goals Storage Virtualisation

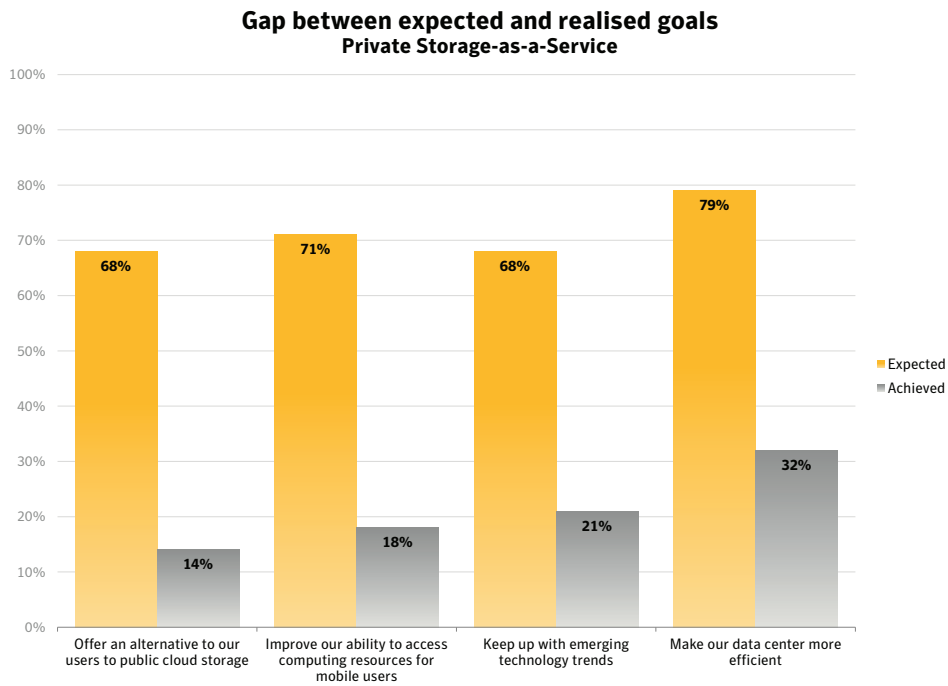


Storage Virtualisation—Unlike the case of server virtualisation, the gap between expectations and reality with storage virtualisation indicates a notable lack of maturity in this segment. The biggest disappointments in this area included storage performance/speed and agility, followed by storage utilisation and uptime/availability. As these survey results attest, financial services organisations are not realistic about what is possible. This may be due to vendors over-promising or IT departments' lack of experience in storage virtualisation. In either case, this is a sign that the market is not yet mature.

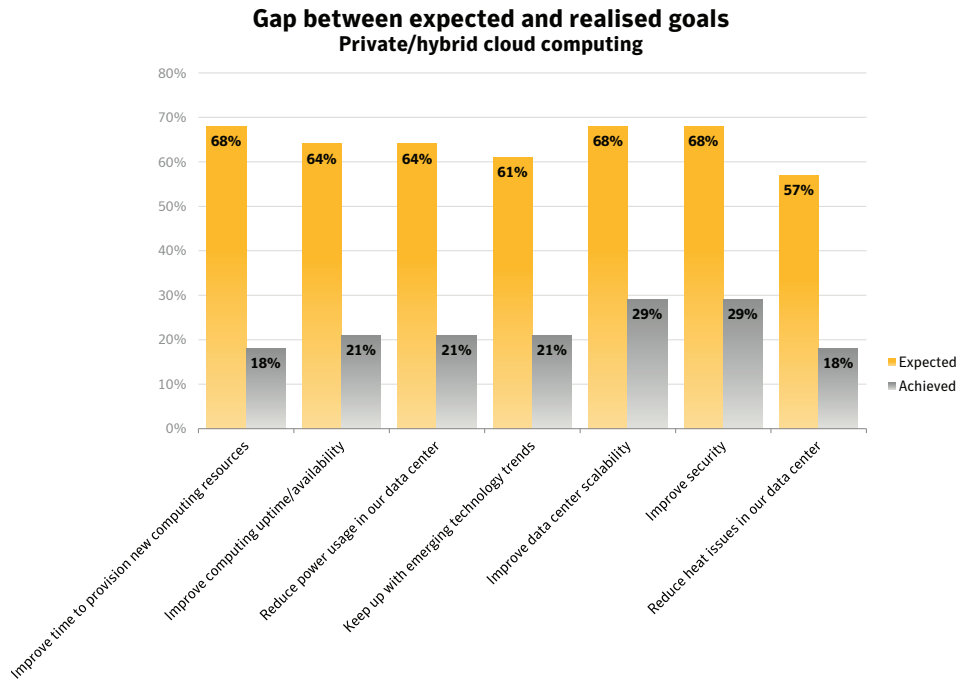
Gap between expected and realised goals Endpoint virtualisation



Endpoint/Desktop Virtualisation—As with storage virtualisation, endpoint/desktop virtualisation saw a big gap between expectations and reality. The biggest disappointments for the financial services industry were application compatibility where 77 percent expected to realise this goal and only 41 actually did achieve their goal—a much higher percentage than other industries.



Private Storage as a Service—The largest gap of all was private Storage-as-a-Service—a strong sign of an immature market. Efficiency in this area did not improve as expected, which is similar across other industries as well. The biggest disappointments were offering alternatives to cloud storage and improving their ability to access computing resources for mobile users.



Private/Hybrid Cloud Computing—Finally, with private/hybrid cloud computing, a staggering expectation vs. reality gap was the time to provision new computing resources. This result was promptly followed by improving uptime/availability and reducing power usage. Emerging technologies, scalability, security and heat issues proved to be equally disappointing.

What does this tell us about the financial services industry? For one thing, we can see the varying maturity of several types of virtualisation. Server virtualisation is much more mature, as evidenced by the close match between survey respondents' pre-implementation expectations and the end results. We also see how expectations are unlikely to be matched by reality until IT organisations gain sufficient experience with these technologies to understand their potential.

Key Recommendations

For financial institutions to stay competitive and deliver the results expected by customers, virtualisation and cloud computing need to become an integral part of their IT strategy. While there remain many obstacles to overcome, Symantec would like to make the following recommendations to help make the journey to the cloud as smooth as possible.

Consider the Private Cloud: Financial institutions need to make very well-considered, precise moves when it comes to IT—mostly due to security, compliance and governance requirements. As a result, the financial services industry has been cautious about entrusting their business-critical data to public cloud services, and rightly so. By creating a private cloud infrastructure, over which they can retain control and apply rigorous security, financial institutions can take advantage of the benefits of the cloud while reducing risk. IT departments can further mitigate risk to an organisation's data by taking proactive measures to prevent the emergence of outside threats that could compromise sensitive information.

Resolve Concerns to Increase Cloud Adoption: Financial institutions are well aware of the benefits of cloud computing even have budgets ear-marked for implementing this technology. To help executives make the leap, IT managers need to address concerns such as security and compliance with regulations. Show that their concerns, while important, can be successfully overcome by leveraging existing best practices and robust solutions that ensure valuable information and critical applications are protected and highly available. By investing in new technologies, financial institutions can become more agile and more relevant, which means higher profits and happy shareholders.

Set realistic expectations and track your results. Remember that despite the hype, cloud is a new and still maturing market. Do your homework and collaborate with experts to set expectations that are realistic, then follow up

and track results to identify ways to improve project efficiency going forward. Enlisting the help of a trusted partner who is knowledgeable about the risks and benefits of this new technology will help ensure your organisation's best interests.

