A Custom Technology Adoption Profile Commissioned By Cisco Systems

# Speed, Security, Cost, And Availability Are The Lifeblood For Financial Services

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## Introduction

A Tech Adoption Profile (TAP) is a data-focused document designed to educate the market about the current activities and adoption practices of a particular market segment or vertical. No vendor names or specific products are referenced and for more details on this commissioned Cisco study, please see the Methodology section at the end of this document. This TAP examines how it is critical for financial services IT organizations to create massive scalable data centers that:

- Increase their efficiency while supporting the explosion of data for an industry that lives and breathes information.
- Enable real-time decisions with virtually instant availability of the latest economic and financial data.
- Meet the security threats in a globally connected world.
- Ensure that data is always available in a business that never sleeps.

Companies in the financial services industry — like banks, credit card companies, stock and insurance brokerages, investment and foreign exchange services, and venture capitalists — manage, invest, transfer, and/or lend money; these institutions rely on vast amounts of financial data to enhance existing services, implement new ones, and make them available in new ways; the market adoption of the services is predicated on the fact that the data is fresh. Compounding the need for speed, the industry is also driven by the bottom line, which forces relentless pressure on budgets and the requirement for a quick return on any investments. In addition, the entire industry must operate under the watchful eye of their discerning customer base and various government agencies.

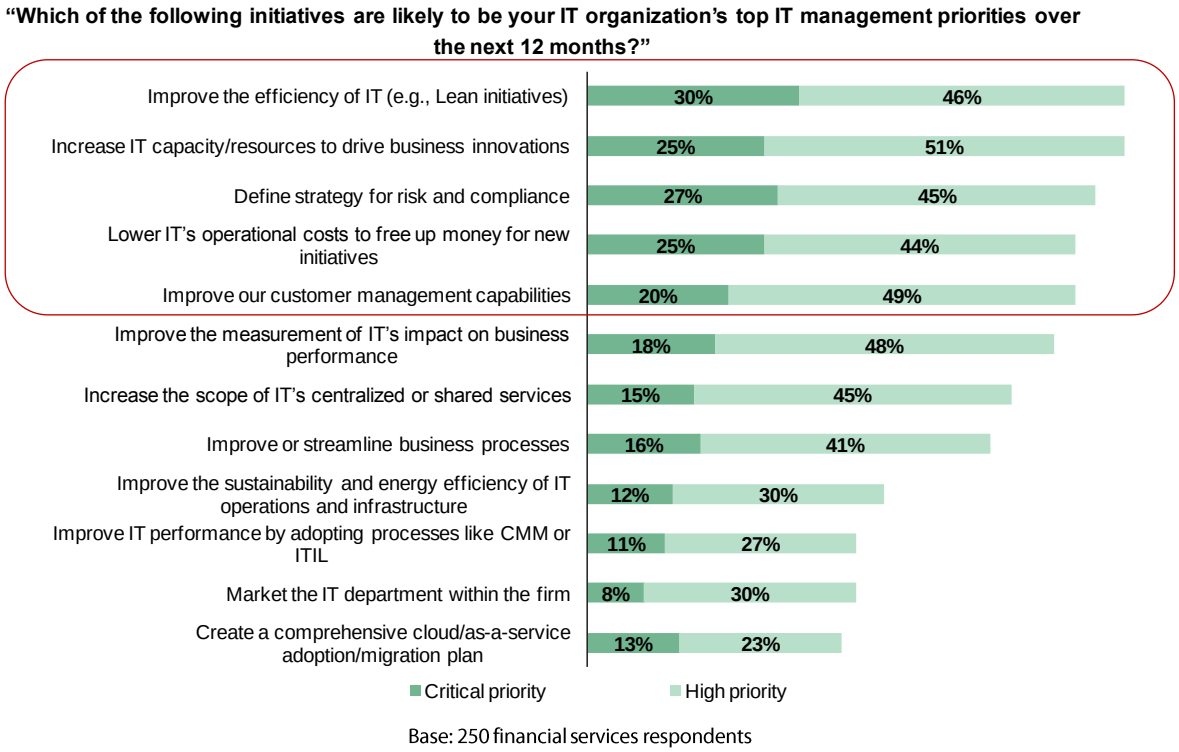
While other industries may be driven by 24x7 operations, regulations, fear of compromise, or profits, financial services infrastructure and operation organizations have all four.

## It Is Critical For IT Organizations To Improve Efficiency And Increase Capacity

While the financial services have always been diligent about cost, finance professionals over the last four years have implemented aggressive cost containment strategies to help keep companies profitable with weaker consumer demand and financial market uncertainty. This corporate discipline of fiscal constraint will remain in effect even as business outlook improves. Since information technology is increasingly viewed as an integral business function for financial services, infrastructure and operations (I&O) teams must orient themselves in the same direction as the

business. Capital investments, including IT systems, face demanding justification hurdles. This is why I&O will then try to access unused infrastructures. According to Forrester's Forrsights Budgets And Priorities Tracker Survey conducted in Q2 2011, 76% of IT organizations within financial services companies have improving efficiencies as a top priority and say it is a high or critical requirement (see Figure 1).

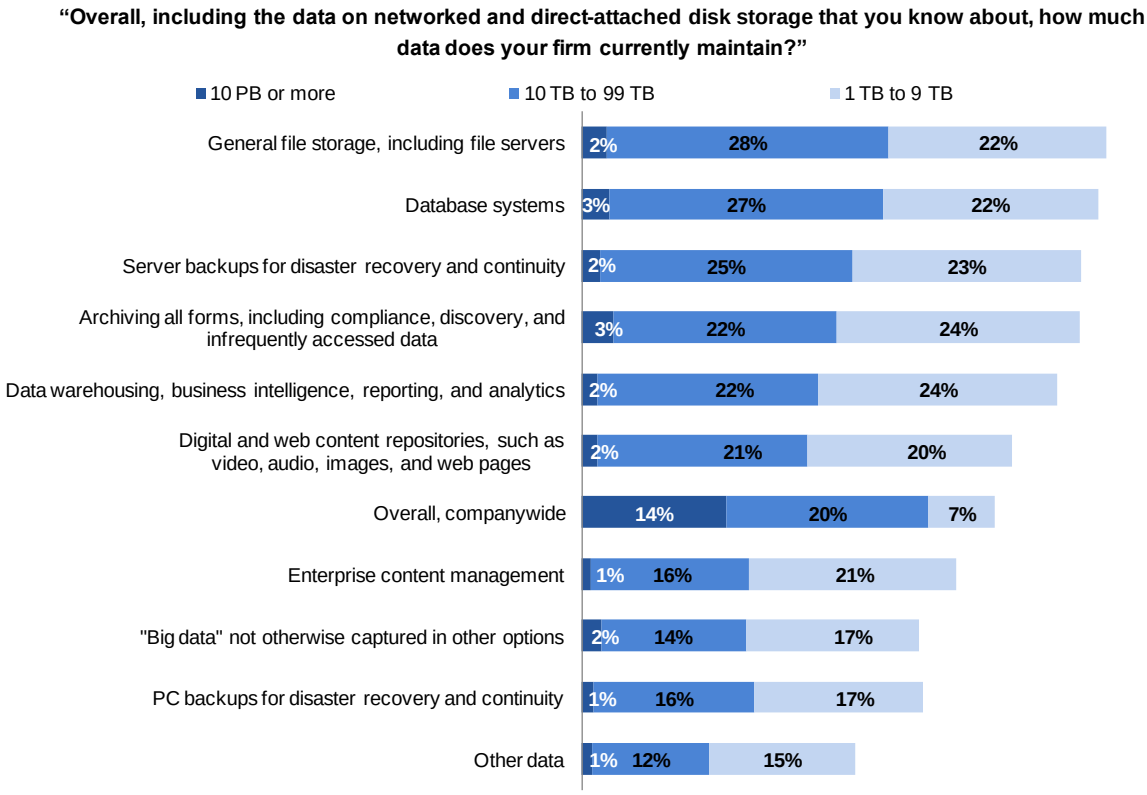
**Figure 1**
IT Is Aligning Efforts With Broad Business Initiatives: Regulation, Speed, Cost And Information




Source: Forrsights Budgets And Priorities Tracker Survey, Q2 2011

An additional benefit to increasing efficiency is the usage and availability of wasted resources. On equal priority, increasing efficiency, 76% of respondents need to increase IT capacity/resources to drive business innovations. Information technology no longer occupies its traditional place in the organization as a support function. Instead, it becomes a business function true to its essential mission: managing data as a genuine asset. Going forward, data will not simply represent inventory to passively store or warehouse, but rather dynamically interconnect information to correlate, integrate, and use holistically. Indeed, the warehouse becomes the nerve center that adds value to stored legacy information, turning it into an actionable commodity. At least half of the organizations surveyed in Forrester's Forrsights Hardware Survey, Q3 2011, have more than 1 TB of data in general file storage, database systems, and server backups for disaster recovery (see Figure 2).

**Figure 2**
With The Explosion Of Data And Delivery Millisecond Experiences, I&O Teams Need To Build Out Massively Scalable Data Centers




Base: 1,252 North American and European IT executives and technology decision-makers
Source: Forrsights Hardware Survey, Q3 2011

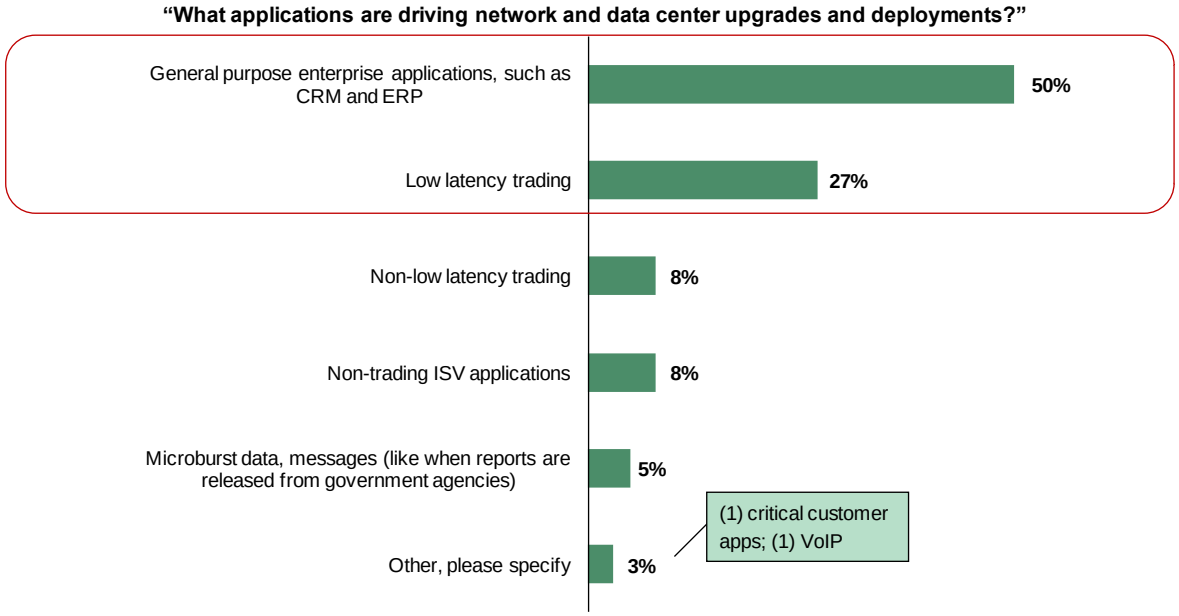
## Applications And Speed Turn Data Into Commercially Viable Products And Services

Streams of data coming in from government agencies and private institutions like stock exchanges are occupying terabytes of data, overflowing into petabytes. Information will acquire value just like any asset in a portfolio. A primary purpose of technology will become the implementation of strategies for enriching data to achieve larger business objectives across all functions. Fifty percent of companies are updating their enterprise applications, because they realize that their client data is a key indicator to the success of their institution (see Figure 3). Strategies such as these will allow for enhanced reporting and analytical capabilities, including the use of data to test risk and investment assumptions and to explore predictive scenarios built around various decision paths. These capabilities will enable financial services to offer more relevant products and services to their customer base.

Data storage comprises only one element in an integrated series of operations which begins with transactional processing and includes workflow technology (to enable business automation), monitoring, data management, and end-use data-rich dashboards. Even though stock exchanges are only a small portion of the organizations that make up the financial services industry, one-third of respondents say low latency information is driving infrastructure changes. Large compute platforms crunch through complex algorithms tying together various pools of data. Since

the speed of data transfer becomes the utmost importance to ensure that efficiencies are maintained and deliverables are met, 27% of respondents have low latency applications driving network upgrades and deployments.

**Figure 3**
Enterprise Apps And Low Latency Trading Are Main Drivers For IT Efficiency

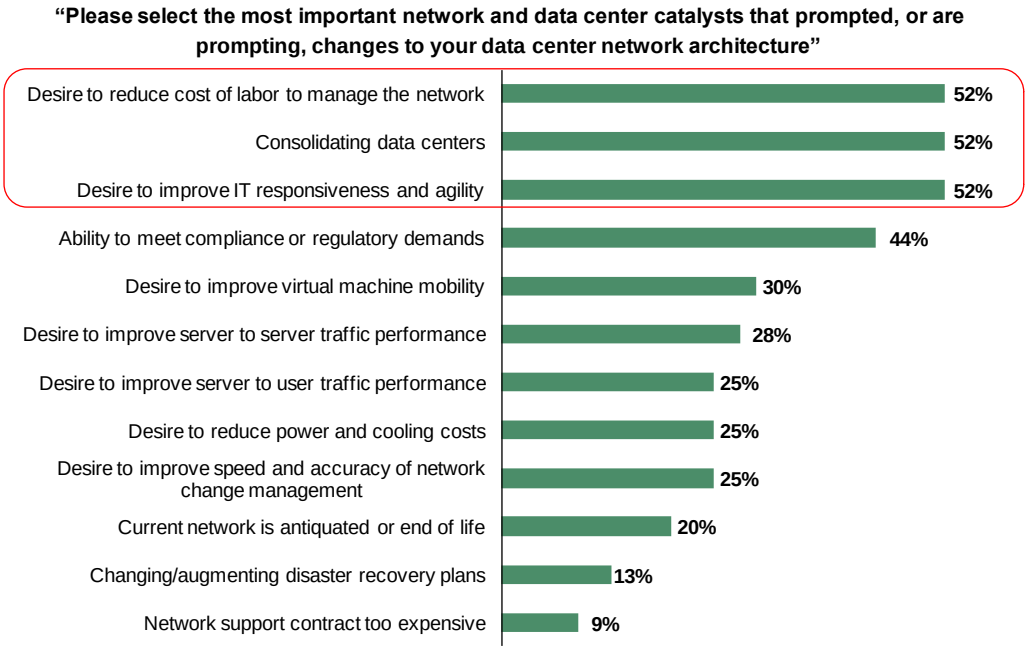



Base: 64 financial services respondents in the US and UK
Source: A commissioned study conducted by Forrester Consulting on behalf of Cisco Systems, December 2011

In today's global economy, decision-making needs to be instant. Companies have to be prepared for immediate reactions to not only new products and services hitting the market, but also integrating new technology into their existing infrastructure. Firms are investing heavily in critical infrastructure items such as storage technologies, operating systems and network infrastructure, recognizing that strengthening the data center is critical to supporting the business. However, maintaining the speed required for success cannot be achieved without ensuring efficiency and keeping costs low.

In December 2011, Cisco Systems commissioned Forrester Consulting to take a closer look at financial services organizations to gain insight into what applications are driving network and data center upgrades and deployments. The survey of 64 senior-level decision-makers in the United States and United Kingdom also explored which capabilities are most critical to achieving a successful scalable data center. More than half (52%) of financial service organizations indicated that the top three most important network and data center catalysts that have prompted, or are prompting, changes to their data center network architecture are reducing cost, consolidation, and improving IT efficiency. It is a necessity for IT organizations to secure data with an efficient infrastructure in the most cost-effective manner. With more than half of respondents indicating the desire to improve IT responsiveness and agility, the key to success is offering quick and reliable services as efficiently as possible. The balance of these three priorities is essential for the financial services market to protect their products and services (see Figure 4).

**Figure 4**
Reducing Cost And Improving Data Center Efficient Are Critical To Success




Base: 64 financial services respondents in the US and UK
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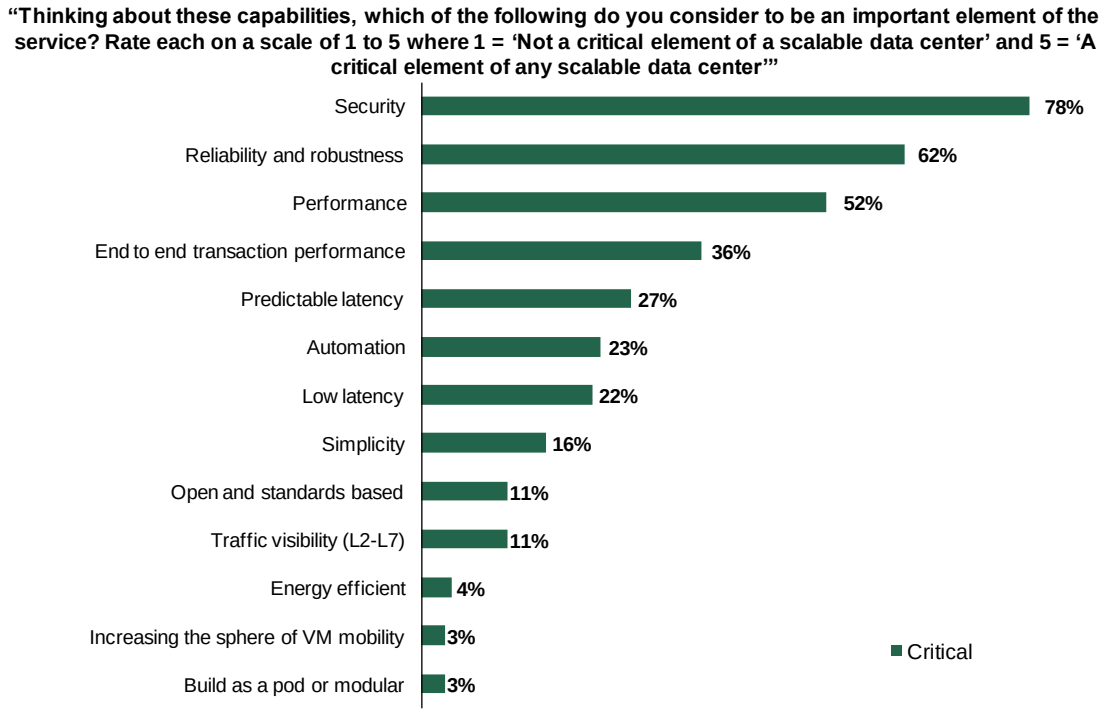
Financial service firms are only as good as the value of the information. Three principles guide the trustworthiness of the services:

- **Purchased services are reliable and uncompromised.** Customers expect the information they receive to be pure and thus expect the supplying company to ensure the data is safe, whether dynamic or static.
- **Consumer and business information is secure.** Organizations and individuals who supply information to companies expect the data remains secure and private. For example, consumers don't want others to know their income and expenses.
- **System is fair and balanced.** Customers won't use the services if they feel others are cheating the system. Various private and government agencies have put forth regulations and requirements, like payment card industry (PCI) standards and the Sarbanes-Oxley Act, to instill confidence.

Consequently, 78% of survey respondents indicated that security was the most critical characteristic for a financial institution (see Figure 5). Companies must live and die by their reputation or suffer the same fate many did during the Great Depression when customers lost confidence in financial institutions.

**Figure 5**
Security Is Key




Base: 64 financial services respondents in the US and UK
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## Conclusion

Integrating and automating the network enables new services. The massively scalable data center becomes the nerve center that adds value to stored legacy information, turning it into an actionable financial service. For example, large pools of data on a manufacturing company's performance could provide investors an important view into the company's long-term viability. Therefore, large pools of compute resources require low latency connections to connect all the economic signals through a complex algorithm so investors can make instantaneous judgments about their assets.

However, what separate financial institutions from other organizations are the three other boundary conditions: security, resiliency, and efficiency. These massively scalable infrastructures have to be highly efficient and cost-effective to remain competitive in a world where everyone else has the same access to information. In addition, business and consumers are leveraging their powers 24x7. Consequently, infrastructures need to designed, deployed, and managed with security as the primary guiding point supported by efficiency, speed, and resiliency.

## Methodology

This Technology Adoption Profile was commissioned by Cisco Systems. To create this profile, Forrester leveraged its Forrsights Budgets And Priorities Tracker Survey, Q2 2011, and Forrsights Hardware Survey, Q3 2011. Forrester Consulting supplemented this data with custom survey questions asked of 64 IT decision-makers in the US and UK responsible for infrastructure or network operations and information and knowledge management at organizations with more than 500 employees. Survey questions related to trends in network and data center operations within financial service companies. The auxiliary survey was conducted in December 2011. For more information on Forrester's data panel and Tech Industry Consulting services, visit www.forrester.com.