Transforming Financial Workplaces from the Desktop

Compliance and mobility concerns converge with worker needs for a personalized experience anywhere, anytime.

Desktop virtualization is a key enabler in the effort to transform business computing. In addition to helping meet the needs for data centralization and verifiable security to help achieve regulatory compliance goals, this technology also eases migration to cloud computing and fosters greater flexibility to meet the changing needs of users. Users are increasingly on the go with more and different types of portable devices—some of which are personally owned.

This white paper provides a view into transformation activities within large organizations, based on an exclusive survey by IDG Research, and examines motivations and experiences of financial services organizations to transform the delivery of IT services through desktop virtualization.

Facing financial services industry challenges

For an IT executive in the financial services industry, it's likely that compliance and security issues are top of mind—unless those issues are overshadowed by cost concerns, or by demands to provide new services to the business as quickly and as efficiently as possible. And, perhaps IT also has to figure out how to get the CEO's latest smartphone or new iPad working smoothly within the enterprise infrastructure.

With such a bewildering array of high priorities, many financial services IT organizations are seeking to transform the traditional concept of desktop computing from a device-orientation to a service-orientation to empower workers, regardless of where they are or what device they are using to transform the traditional desktop from a device-centric, distributed computing model to a more user-centric, virtualized computing model.

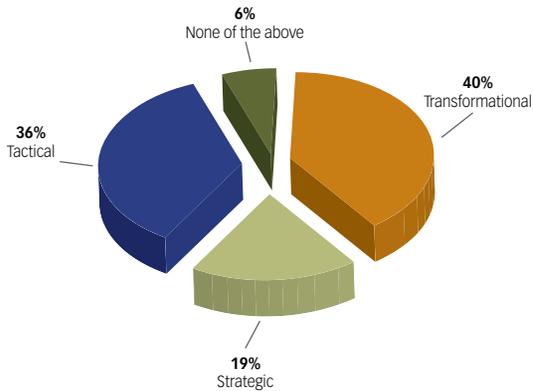Recently IDG Research conducted a survey on desktop virtualization adoption, polling 107 executives from the CIO audience on behalf of Citrix and IBM. These executives and managers represented a broad range of industries, from 1,000 employees to more than 200,000. Among IDG's findings are:

- 89 percent of respondents indicated desktop virtualization was on their technology roadmap

- 23 percent are actively researching applicable solutions

- 21 percent are testing or piloting

- 30 percent have deployed within the past 12 months

- 17 percent have had desktop virtualization solutions deployed for greater than 12 months.

One financial services IT executive says their company equipped its 500-agent call center with desktop virtualization, specifically VDI-based desktops, which run a user desktop inside a virtual machine that lives on a server in the datacenter. If an agent does something inappropriate like downloading malware, he says "we're able to put another desktop image out there in two seconds and it's done."

Keith Saxton, director of Global Banking and Financial Markets for IBM, says that as a result of recent economic and regulatory turmoil, there's a greater demand than ever before for efficiency strategies in the financial

CIO Custom Solutions Group

CITRIX®

IBM

Perception of Desktop Virtualization

6%
None of the above

40%
Transformational

36%
Tactical

19%
Strategic

Source: IDG Research, March 2011

services industry. He points out that the financial reform act known as Dodd-Frank, once complete, will create around 250 new rules. "They are all going to have an impact on how you deliver the data those rules require. It will definitely mean people sit down and look at architectures—their business architecture to their data architecture to their IT infrastructure architecture."

Saxton also says that for IT at many organizations, "a lot of discretionary spend has disappeared" and what has been allocated are for must-do projects that mainly involve "compliance or risk management, or something to do with making money as a platform."

For many, one way to make money is through acquisitions and mergers. Desktop virtualization makes it easier and quicker to execute these actions by speedily equipping acquired workers with hosted desktops which they can access remotely, rather than deploying or reconfiguring thousands of traditional PCs. In the survey, 28 percent cited the ability to support inorganic growth through acquisitions as a benefit they have realized but hadn't anticipated. "The rollout of applications is that much easier as well," says one IT executive. "No desktop visits are required."

Organizations can rely on desktop virtualization to rapidly provision secure access to desktops, applications and corporate data for workers who are facing business disruption, so they can do their jobs wherever they may be located—even with bandwidth constrained network

connections and personal computers that have never before been connected to the corporate network. It's also more efficient to support branch office workers.

A CIO and senior vice president of a 2,000-employee firm that adopted VDI-based desktops said the organization now relies on thin-client devices with no moving parts that cost about $200 each. "The remote office just swaps out this device and is right back in business."

An executive with a firm of more than 200,000 employees related his confidence in the greater manageability and accountability that desktop virtualization provides: "When people have data on their desktop drives we don't know where the data is; but if an auditor comes by, now [with desktop virtualization] we know where to search for the data and we can show the reports."

Increased reliance on desktop virtualization

More than 75 percent of the financial IT executives who participated in the survey identified simplified desktop management and maintenance, security and reduced IT expenditures as the top benefits they associate with desktop virtualization.
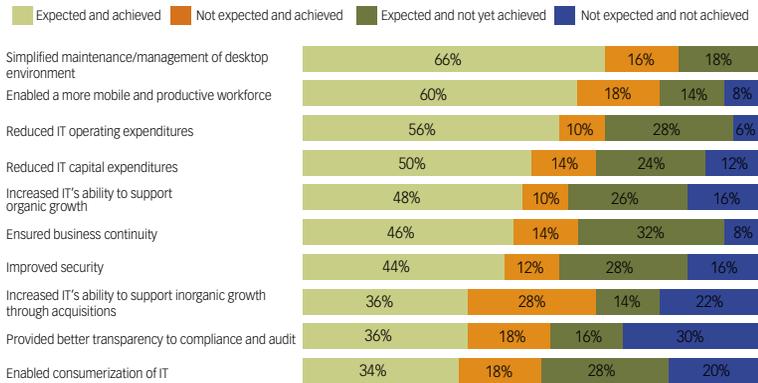
Many found upfront costs weren't as painful as they anticipated. Just 6 percent of respondents reported they'd experienced data center and back-end infrastructure costs that they hadn't expected, while 26 percent indicated a pleasant surprise because they had anticipated high costs but hadn't actually experienced that.

"We self-funded it," says the executive at the larger company. "It really wasn't a hit to the business." Monthly chargebacks are about 30 percent lower than for traditional desktops, he adds.

Natalie Lambert, director of product marketing for Citrix and former analyst expert on desktop virtualization at Forrester Research, says that some financial organizations initially were hesitant about embracing desktop virtualization because high-performance workers, such as traders, need peak resources on demand, and typical virtualization solutions weren't up to the task.

That's no longer the case. With Citrix FlexCast™ technology, companies now are able to deliver virtualized desktops to all workers, including peak performers who can now get powerful, dedicated server resources in

Success in Achieving Potential Benefits of Desktop Virtualization

■ Expected and achieved ■ Not expected and achieved ■ Expected and not yet achieved ■ Not expected and not achieved

	Expected and achieved	Not expected and achieved	Expected and not yet achieved	Not expected and not achieved
Simplified maintenance/management of desktop environment	66%	16%	18%	
Enabled a more mobile and productive workforce	60%	18%	14%	8%
Reduced IT operating expenditures	56%	10%	28%	6%
Reduced IT capital expenditures	50%	14%	24%	12%
Increased IT's ability to support organic growth	48%	10%	26%	16%
Ensured business continuity	46%	14%	32%	8%
Improved security	44%	12%	28%	16%
Increased IT's ability to support inorganic growth through acquisitions	36%	28%	14%	22%
Provided better transparency to compliance and audit	36%	18%	16%	30%
Enabled consumerization of IT	34%	18%	28%	20%

Source: IDG Research, November 2010

the datacenter—even more powerful than they could get in a traditional desktop without the heat and noise. At the same time, IT can provide a less intensive implementation to other workers without having to deploy a totally separate infrastructure.

Cloud Computing and SaaS

Flexibility can be further extended with desktop virtualization via cloud computing services. The IBM Smart Business Desktop services, for example, can help accelerate the transition to a less complex, virtualized desktop environment, leveraging a cloud computing infrastructure and consulting services, including assessment and planning, design and implementation, as well as subscription-based cloud hosting.

Smart Business Desktop with Citrix XenDesktop® transforms complex distributed computing architectures into simplified, centralized virtual computing centers that deliver a high-definition computing experience to any user on any device or connection.

Accommodating the Changing Workforce

Many companies are dealing with consumerization of IT—workers and top executives can go out to a

Best Buy on the weekend and acquire a sophisticated device that delivers higher-end performance than whatever IT supports or deploys.

That pressure may be coming from the CEO's office, and from the latest Generation X employee who increasingly expects on-demand IT services. "It's not something we like to do—it's something we have to do," one IT executive says of the need to meet these user demands. "People are addicted to their iPhones and iPads."

Almost two-thirds (64 percent) of the survey respondents say that employees in their organization want to be able to use their personal computing devices in the workplace, so they expect a dramatic organizational shift to occur over the next 18 months that will accommodate this desire. With desktop virtualization IT doesn't have to port an application to each desired new platform; instead, IT can support all organizational apps inside a virtual desktop users can access on various devices.

Rather than physically managing devices on a one-to-one basis, as is done with a traditional PC environment, IT can manage virtual desktops from the data center. This means implementing changes and new technologies can happen far more quickly, cost-effectively and efficiently. For example, a global company can essentially provision desktops in a "following the sun" manner, so updates and changes can be managed according to geographic work cycles.

For many, the clincher is the growing need to migrate from Windows XP to Windows 7. "We were going to Windows 7 and the beauty of this now is that everything is standardized and virtualized; the Windows 7 rollout will be a no-brainer," says the executive with the 200,000-plus employee base. Not only can IT roll out Windows 7 to virtualized desktops, but they can also run it, essentially side-by-side, with Windows XP for those who need access to older, legacy applications.

Putting Desktop Transformation to Work

Desktop virtualization can transform a traditional, distributed desktop environment into a centrally delivered on-demand service. But it also provides an opportunity to step back and carefully plan a comprehensive approach to resolving critical stress points that are impacting many organizations.

IT departments are confronting four key issues:

- Windows 7 migration
- Worker demand for an expanding variety of mobility devices with different operating systems
- Expanding requirements for more applications delivered more speedily
- Business needs for new virtualization and cloud delivery models

Once IT and business executives grasp the potential of virtualization to solve some of their key technology issues, they're often left wondering how to get "from this great vision to full scale implementation," says Lambert. At Forrester, Lambert was the leading expert on desktop virtualization and advised clients on enterprise computing technology investments and best practices.

Transforming the static, hard-coded datacenter of traditional computing into a virtual computing center takes some effort. "Customers have tried to do this without doing the proper planning and learned that if you take something that is not optimized, [and virtualize it], it can actually make things worse," says Mary Jane Couldridge, director of Workplace Services Strategy and Sales with IBM.

However, the benefits of this desktop transformation are worth the effort as this enables companies to move from a device-centric, distributed computing model to a more user-centric, virtualized computing model.

That transition hinges on a well thought desktop transformation model that incorporates proven best practices and tools to achieve maximum success. "Unless they have a very simple workload, organizations should start with an OS migration and application delivery assessment," says Couldridge.

Transformation guidance

IBM and Citrix collaborated on a standardized, fact-based approach to design the optimum delivery method for desktops and applications by user group, which takes advantage of new delivery models, such as public and private cloud, while leveraging virtualization. IBM's Smart Migration and Application Delivery approach and its Smart Business Desktop Cloud offering has been utilized to help organizations with large and small-scale desktop virtualization deployments to transform their distributed IT architectures into virtualized, open-standards-based frameworks.

This methodology follows four key steps:

- The first step starts with a workplace assessment that includes a discovery phase to gather the "before" facts about the current desktop and application environment and how resources are being used, from the network, operating system to CPU.

- The second step checks for Windows 7 compatibility and application rationalization across the portfolio. Recommendations are then made for the most effective delivery infrastructure, leveraging the web, application and desktop virtualization, and public/private cloud models.

- Third, the approach matches the delivery and deployment recommendations developed in the design phase with an organization's business needs and budget. It creates a roadmap to show which applications should be part of an enterprise's new application portfolio and the best way to migrate them—via straight migration, remediation, rewrites or virtualization.

- Finally, the fourth step applies continuous analysis and monitoring. A regular set of "health checks" are performed to predict approaching thresholds or potential problems and remediate them in the most time- and cost-effective manner.

Implementation strategies

Many organizations find that desktop virtualization

Choosing the right virtualization framework

Different types of workers need different types of desktops. Some require simplicity and standardization, while others require high performance and personalization. "It's crucial to understand the workloads—no one size fits all," says Couldridge. "The devil is in the details in understanding the end-user application stack and how specific users require different environments."

For example, some workers may require a full desktop experience, such as VDI-based desktop to deliver complete, user-specific virtual desktop, while data remains secure in the data center. With Citrix XenDesktop, IT administrators can manage a single instance of the OS in the data center, while delivering personalized desktops and applications on a growing array of devices.

Others such as remote contractors may only need access to virtualized applications so IT can centralize application management in the datacenter to reduce costs and deliver instant and secure shared access to these Windows applications over any network with the best performance. With Citrix XenApp™, a key component of XenDesktop, applications are hosted on servers in the data center and then accessed remotely by any client device.

Most companies, says Lambert, "need a wide variety of desktop virtualization tools to meet the needs of their entire user base." With its FlexCast delivery technology (flexcast.citrix.com), Citrix can enable IT to deliver high-performance desktops to any user in the organization—from simple and standardized, to high performance and personalized—using a single solution, according to Lambert.

technologies and solutions offer a fundamentally better approach to desktop architecture, while relieving IT of the pain and costs of supporting an outdated desktop model. But many IT departments do not have internal resources that can be freed up, or the necessary expertise in-house, to take on the project on their own.

In the IDG survey, 47% of those surveyed indicated they had desktop virtualization solutions deployed. Half of those who have already deployed solutions said they had used the services of a consultant, an outsourcer or a managed services provider in rolling out their desktop virtualization solution. Forty-eight percent indicated they use such a partner to manage or optimize their solution. Not surprisingly, most of those who relied on outside services opted to do so in both the rollout and the management and optimization phases.

That may help explain why there was a relatively low rate of surprise when it came to back-end infrastructure costs: About one in four respondents anticipated challenges in this area but did not experience them, while only 6 percent said they experienced challenges they had not expected.

Those who have yet to take the desktop virtualization step are even more likely to rely on outside services. Seven out of 10 in that category report they are likely to work with a partner while deploying the solution, and 56 percent say they are likely to work with a partner to help manage and optimize their solution.

These organizations are mainly seeking experience, which is why many turn to IBM, says Couldridge. "This is still relatively new and the skills base generally is still coming up to speed," she adds. Couldridge says that organizations approaching desktop virtualization should stay focused on the business value they're seeking to gain. "The transformational value of this desktop initiative is not about the technology," she says. "Technology is the enabler and you need to keep that in mind."

For more information:

For more information on how Citrix XenDesktop can transform your workplace, and how IBM Smart Business Desktop Cloud can accelerate virtualization of your desktop environment, visit **www.Citrix.com and www.IBM.com.**