Virtual Desktop Infrastructure

Essential steps to a long-term ROI

ABOUT THIS PAPER

By offering anytime, anywhere access to end-user workspaces, Virtual Desktop Infrastructure (VDI) promises to significantly boost business agility, security and compliance while reducing end-user computing costs.

In the early stages of VDI implementation, the cost savings generated were less than projected due to sizable investment requirements. However, the drivers for VDI remain unchanged, and the need for the technology has only grown.

The question today isn't so much if VDI is the right technology; it's a matter of how best to implement it. This paper discusses issues around the successful adoption of VDI and generating a long-term ROI, and how CGI works with organizations to ensure both.

Virtual Desktop Infrastructure (VDI) is the story of a promise whose time has finally come. Over the last few years, VDI has entered the marketplace with an enticing new value proposition: anytime, anywhere access to end-user workspaces, from any choice of device, across a variety of operating systems. That's where the story gets complicated, however.

Despite VDI's heralded potential, its initial implementation saw a mixed return on investment. While initial projections forecasted a 30–40 percent reduction in end-user computing costs, many enterprises were soon faced with this caveat: any sizable gain in total cost of ownership (TOC) could only be realized alongside an equally sizable investment in servers, storage, security mechanisms and wide area networks—a less-than-ideal scenario with enterprise IT budgets already stretched thin.

IT vendors have since lowered cost-saving projections to 15 percent at most. And yet, the need for endpoint virtualization technology cannot be discounted. In fact, the need for the technology has only grown. An increasingly mobile workforce demonstrates as much, as does the need for a new methodology to support desktop environments that boost business agility.

Data securitization is a growing concern as well, with the shift to a centralized computing model now well underway across IT departments. Meanwhile, the looming end of life support for Microsoft Windows® XP, and the ensuing migration to Windows 7, offers an additional and equally compelling cost case for VDI, thanks to a virtualized environment that ends the costly task of upgrading internal systems.

With a suite of services spanning desktop, application, network and storage virtualization, VDI remains a critical next step for many enterprises. The key—this go-round—is for an enterprise to know from the outset what it will gain through VDI implementation.

While VDI benefits may not necessarily be reflected in a simple TCO analysis, they will certainly be reflected in a whole host of soft savings—which eventually do translate into a lower TCO. Among those preliminary benefits is an ability to address critical peak demand cycles when an organization must ramp up and down quickly.

As opposed to traditional desktop environments, which may require an organization to allocate new assets (then destroy subsequent data just months after project completion), a VDI environment provides a means for data and IT infrastructures to be centrally located. This centralized model increases business agility, security and compliance. In addition, the need for additional support staff is minimized due to the decreased demand for repair and new hardware purchases.

In the midst of this agile new environment, the question now isn't so much if VDI is the right technology for today's enterprise; it's matter of *how* exactly an enterprise can wisely implement it. Addressing this latter point will increase the odds of more effectively capitalizing on the promise of VDI as a cost-saving, agile and secure business solution.

VDI opportunity costs

The first step toward navigating the current VDI landscape—and securing the right tool—is understanding just how rapidly the technology solution is maturing. The offerings from top tier software vendors alone is eventful, with release updates now occurring within a compressed six- to nine-month timeframe. Emerging, in turn, is a swift acceleration in functionality: the type of end points and protocols that drive VDI solution speed.

The underlying software technologies also continue to mature. In the future, far more endpoints will be touched by solutions from vendors such as Citrix, Microsoft and VMware than can be touched today.

At the same time, VDI technology remains an emerging field—no reputable provider can dispute that. Some projections state it will take another five years before enterprises operate in a true virtual aspect. At a minimum, it will certainly be another 6–18 months before the technology sees an additional level of capability.

This rapid pace of change can understandably trigger hesitation by an enterprise about whether to roll out the actual number of endpoints that it may truly need for operations. However, the compelling change surrounding VDI will undoubtedly slow down as the technology becomes more mature. That certainty offers a persuasive imperative for an enterprise to seize the potential savings and agility today through adoption, as opposed to waiting out the technology's maturation phase (and potentially losing out on one's competitive edge).

But adoption—how? That's the critical next question for enterprises, especially to ensure minimal financial risk. Fortunately, far more opportunities now exist for enterprises to effectively address this critical issue.

Virtualizing the desktop space

While previous discussion of VDI implementation typically conjured images of hefty IT infrastructure investment that an enterprise itself would have to assume, today's cloud computing business model, with accompanying benefits of software and infrastructure as a service, reduces direct risk to an enterprise while accelerating the pace of implementation and accompanying cost savings.

A new IT model ensures the cost of implementation shifts to the provider, which alone takes on the critical investments in storage, infrastructure and networks within its own data centers. In addition, the provider continues to upgrade software components as new features become available, thereby allowing an enterprise to adopt VDI advancements earlier than if it might have in-house.

LEVERAGING THE CLOUD

Today's cloud computing business model, with accompanying benefits of software and infrastructure as a service, reduces direct risk to an enterprise while accelerating the pace of implementation and accompanying cost savings.

This offers an attractive option to enterprises looking to adopt VDI. The cloud IT model shifts the cost of implementation to the provider, thereby allowing an enterprise to adopt advancements earlier than it might have in-house.

VDI COST SAVINGS

Estimated costs savings through VDI are substantial. Projected savings for a client moving to VDI include:

- 50% reduction in operating systems imaging support costs
- 48% reduction in workstation deskside support requests
- 25% reduction in help desk incidents

What the end customer gets in return are VDI offerings with flexible service terms, as well as high availability solutions that guarantee the uptime availability agreed upon between the provider and the enterprise. This allows an enterprise to quickly add new users to its corporate IT environment in the event of an acquisition or for the rapid integration of a larger number of new hires for a project. The result is the ability to select from a host of virtual desktop offerings, at far lower cost and risk.

Big picture savings

Whatever an enterprise seeks to virtualize, such as data centers and other storage environments, the success of each effort will depend on leveraging a seamless solution that integrates with any legacy IT infrastructure the enterprise seeks to retain.

Also essential is the ability to achieve savings not simply through a focus on the desktop but the overall environment. Critical questions to consider include: What is the current location of home and profile directories? Is there a better way to optimize those components in a new environment and to cap limits on profiles in other areas so storage does not grow considerably?

Areas of expected savings include a decrease in help desk call volume and the need for fewer IT staff in office locations to support devices. Many clients have multiple Windows operating system images to maintain based on different business requirements within their company, with each image tied to a different piece of certified hardware.

With VDI, the complexity of this configuration is whittled down to a single image. In turn, the time and effort of updating each workstation is bypassed; any update occurs on one image and in one central data center. Additional benefits, from a licensing perspective, include an ability to track application usage and only buy a specific number of application licenses that an enterprise can be confident will be used.

An in-depth assessment is essential to gauge such big-picture savings. For example, CGI conducts a thorough assessment that includes a sampling of workstations in scope, current applications, as well as user types that may benefit from VDI. (Some user profiles may not in fact be suitable for VDI, such as those involving intensive graphics work, Flash video and animation.) Our approach also includes an assessment of a company's application topology, as well as network traffic driven by the application.

Just as critically, CGI engages top tier IT vendor partners in the assessment phase. This increased level of engagement provides a "sanity check," allowing the main provider to more effectively trend and roadmap emerging technologies. This extra level of participation also assures the customer that, along with CGI's expertise, they will benefit from the expertise of vendors with the latest IT solution credentials. Each of these elements contributes to successful VDI deployment.

ABOUT CGI

At CGI, we're in the business of satisfying clients. A leading IT and business process services provider, CGI has 31,000 professionals operating in 125 offices worldwide.

Working in partnership with clients for 35 years, CGI has extensive experience in all aspects of IT management, from consulting and systems integration services to the full management of IT and business functions (outsourcing).

This know-how puts us in a unique position to help clients successfully transition to a virtualized desktop environment. We work with organizations to select the right combination of services, tools and policies that make their transition a success and generate a long-term ROI.

To learn more, visit us at www.cgi.com/GIS or contact us at info@cgi.com.

VDI: What lies ahead

Very often, a struggle exists between IT and business: IT wants to control the computing environment and business wants flexibility and freedom. VDI provides a win-win for these two often competing forces. In a VDI environment, IT controls exist and everything, including applications and data, is centralized and secured in a data center while end users can access their workspaces from any device, at any time.

So, what's ahead? As strides in server and storage virtualization demonstrate, an engineering workstation is closer at hand than ever before. The next level of VDI breakthrough will likely focus on mobile handsets. In just a few years, the ability to virtualize mobile devices, such as a smartphone, tablet or iPad, will occur as easily as virtualization does today on a desktop and laptop. So just imagine: in the VDI world of tomorrow, VDI on a smartphone will allow the same device to be shared for both personal and business use with no fear of one environment impacting the other.

More agility and cost savings—these are the holy grail for the enterprise of today. At times, this pursuit was waged in fits and starts in the move to a VDI environment. But as the technology matures, so does ease of flexibility—and options. In the midst of these new avenues of choice, one constant is sure to remain: the future enterprise can indeed realize the goal of seamless integration through cost-effective means. It is through this realization that the promise of VDI will—and is—finally being revealed.