White Paper

VMware View Business Process Desktops

Improving Productivity while Cutting Costs

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Contents

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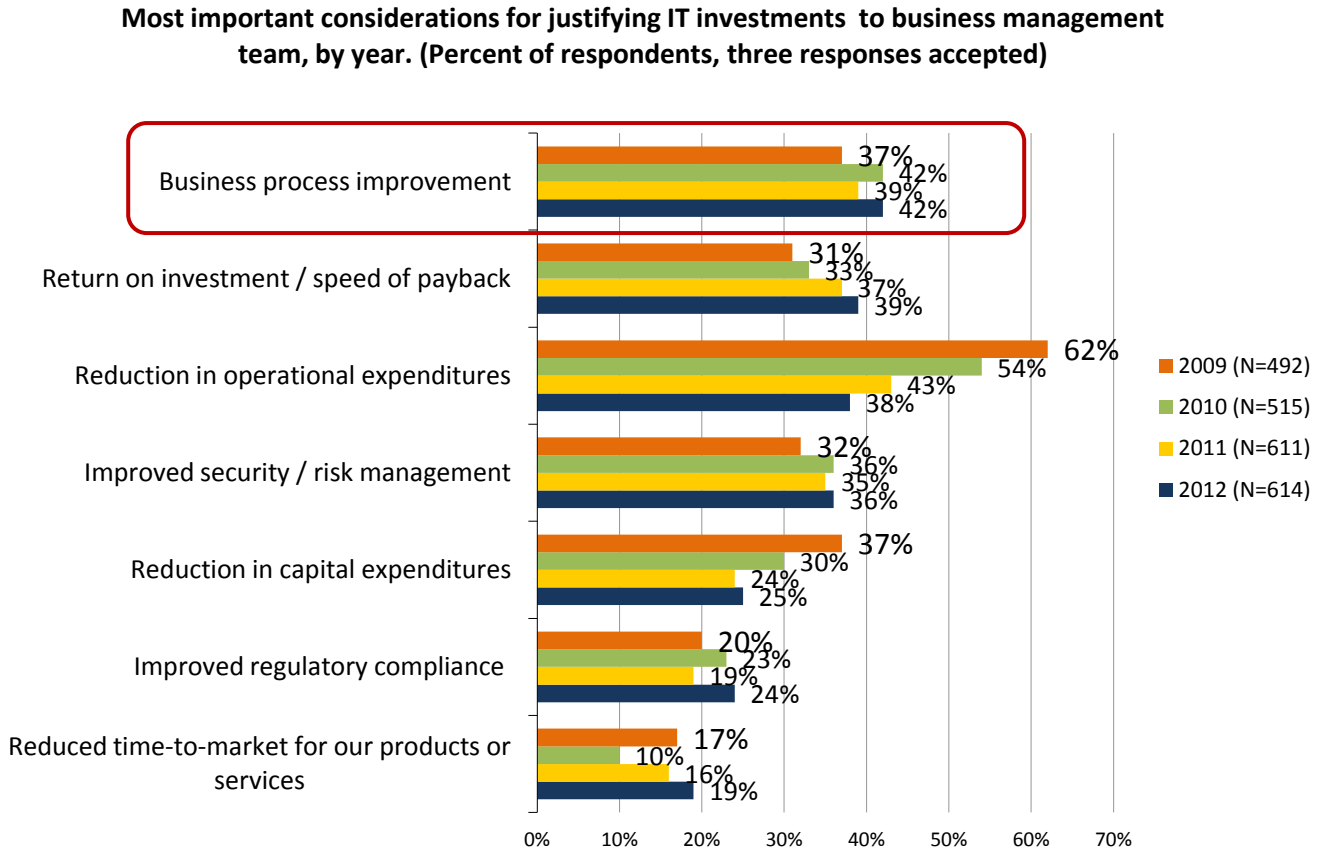
Introduction

ESG recently spoke with IT personnel at several organizations about their implementations of VMware View to deliver virtual desktops to end-users. This report focuses on the Business Process Desktop use case, and documents IT professionals' successes using VMware View to deliver desktops as a service to users.

Business Process Improvement Dethrones OPEX Reduction as Top IT Investment Justification Metric

For the first time in four years, ESG research found that the ability to demonstrate a reduction in operational costs is not viewed by respondents as the biggest impediment to gaining management's approval for IT investment funding (see Figure 1)[1]. Indeed, business process improvement and return on investment (ROI) were both cited by more organizations as the primary means of justifying IT spending. The steady increase in the usage of ROI as a metric for IT investment validation nearly mirrors the pattern of organizations purchasing technologies with improved ROI as a means of cost mitigation. In fact, nearly half (49%) of the organizations that employ cost containment strategies predicated upon ROI-inducing technology rely on ROI for investment justification purposes. This suggests that these strategies—forged out of necessity back in 2009—have likely borne out meaningful results for many organizations by enabling them to optimize their technology investments.

Figure 1. Most Important Considerations in Justifying IT Investments, Four-Year Trend



Source: Enterprise Strategy Group, 2012.

Understanding this strategy is key when assessing and integrating desktop virtualization technology and workforce enablement. IT organizations have a unique opportunity to make a tremendous impact with desktop virtualization technology if they align it with business process improvement initiatives that have a favorable economic impact. A key factor to success is consideration beyond the desktop—including VoIP, collaboration, and simply a better end-user experience that delivers highly productive results.

[1] Source: ESG Research Report, *2012 IT Spending Intentions Survey*, January 2012.

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VMware View Business Process Desktop

VMware offers desktop solutions designed for a variety of use cases. The VMware View Business Process Desktop includes solutions for desktop delivery and management; authentication and customization; security; and redundancy and high availability Additionally, VMware View provides integration between IP-based telephony and the desktop, enabling IT to join desktop virtualization and unified comminications on a single platform. It is designed for business users such as call center employees, back office workers (HR, finance, legal), offshore developers, and work-at-home employees. It can help increase productivity, drive down costs of equipment and support, and improve security.

Call centers and offshore facilities often grow rapidly, require dedicated infrastructure, and pose some level of risk to the business. Companies must balance where the data resides, the role of the employee, and the risk at hand. Additionally they often result in infrastructure being siloed to serve different segments of the business, adding cost and complexity, as well as inefficiencies. IT is also left dealing with how to reliably deliver VoIP alongside the desktop environment. What if IT could bridge the gap and deliver them together?

The VMware View Business Process Desktop has the capabilities to not only drive down costs, improve SLAs by increasing productivity, and mitigate risk , but also to arm IT with the ability to marry VoIP and desktop virtualization technologies. When businesses holistically integrate desktop, applications, collaboration, and communications, they are in a position to roll out some pretty amazing solutions that efficiently improve upon and solve key business goals. A VMware View strategy should consider all these factors, as we have seen great success demonstrated in the companies we spoke with below.

Customers Demonstrate Success with VMware View

Amway Consolidates Finance Processing with VMware View

ESG spoke with Josiah Becker, senior systems support specialist for Amway. Becker is responsible for the client-facing aspects of application and desktop virtualization, including strategy and global implementation.

Amway is one of the world's largest direct selling businesses with more than 20,000 employees and 3 million distributors in over 100 countries and territories around the world. In 2009, the company evaluated desktop virtualization technologies, and the decision to relocate financial operations provided an opportunity for real-life application. IT wanted to move the users responsible for expense management, treasury, analysis, and other financial processes—but keep the data in the U.S., while still offering a LAN-like user experience. The company was already comfortable with VMware, having five years of server virtualization experience.

> "We have had no blue screens of death since View has been running. We don't even need anti-virus or spyware because the VMs are deleted at log off."
>
> —Josiah Becker, Senior Systems Support Specialist

Amway was challenged since it's markets have different financial needs and staffing requirements. Some sales geographies didn't need dedicated staff. Others retained multiple staff members solely to provide adequate checks and balances, leaving them largely underutilized. To improve efficiency, Amway centralized finance processing to a single location in Costa Rica, and moved staff there from the U.S., Canada, Mexico, Brazil, and Central American locations. However, with line-of-business applications based in the U.S., management didn't want to move applications and data.

Amway implemented the VMware View solution. Finance desktops were hosted in Ada, Michigan, and delivered via the WAN using PCoIP protocol to zero-client machines in Costa Rica. A dedicated 45 MB DS3 line between the U.S. and Costa Rica resulted in 110ms latency. All desktops were floating or virtual machines (VMs) that are provisioned uniquely at startup based on end-user profiles (using VMware Persona Management), and deleted at log off. The

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environment is stateless, with applications and operating systems composed on-the-fly at login and requiring only about 30 seconds. Applications are virtualized using VMware ThinApp, so no applications are installed on the desktop image.

Results and Future Plans

Today, the Costa Rican finance processing location has been in production for more than two years with excellent results: of their 150 devices, only one has failed. Reliability has been excellent, and anti-virus applications are no longer necessary since VMs are deleted as users log off. Many applications actually run better inside the View desktop environment than just over the WAN, and finance users enjoy greater productivity. Each VMware View update has cut bandwidth requirements in half, so Amway finance currently uses 15 MB or less for 150 concurrent users. Costs are reduced while maintaining a good user experience, adding flexibility, and improving data security. USB devices are blocked at the hardware level so that data cannot be removed from the machine, which is difficult to do with a traditional PC deployment.

Given the success of VMware View for finance processing, Amway might bring this technology to its processing center in Malaysia and is in the process of completing an exciting pilot program in China. The business model in China uses retail stores in addition to direct sales. Currently, there are about 280 stores with 2,500 point-of-sale machines. There is no IT staff at any store, so if a machine fails, IT staff must be sent to repair it. The plan is to equip the retail stores with zero-client devices. These can be managed remotely from a central location, eliminating the risk of data loss if a device is lost or removed. Users are expected to transition easily from thin clients running Windows XP and accessing the system using IE6 to zero-client machines with VMware View.

Seven Corners Cuts Costs and Improves Productivity with VMware View

Seven Corners is an international third-party administrator and managing general underwriter for multiple lines of travel and medical insurance, as well as travel assistance. The company was started in 1993 by three international insurance professionals and now employs more than 170 people. It uses a network of 15,000 medical service providers around the world and a call center staffed 24X7X365. ESG spoke with CIO George Reed and Virtual Operations Manager Mike Ellis. Ellis's previous role as Technical Services Lead has transitioned into responsibility for designing and implementing the environment to ensure that all virtual infrastructure tools operate effectively.

The company uses a virtual private cloud to deliver services and interact with carriers, providers, traveling customers, and its distributed workforce. Before implementing the VMware View solution, the IT department was dealing with aging desktop machines on a rolling maintenance cycle. Power users (such as IT and finance) would be upgraded to the latest machine with the best performance, and their old machines would be redeployed to other users. This meant a tremendous amount of device re-imaging. Managing desktops was also complicated by differing desktop needs as well as offsite testing and development resources in India. In addition, the company began to deploy more laptops, and employees increasingly worked from home. Eventually, alternate endpoints such as tablets and smartphones also had to be supported.

> "We were transforming the way the company did business and were going to re-engineer all the business processes, and then re-engineer the technologies to facilitate that."
>
> —George Reed, CIO

The first 30 VMware View desktops were deployed in India for test and development personnel, and another 40 were deployed at corporate headquarters. By offering two floating desktops per machine (instead of persistent desktops), Seven Corners optimized performance and ROI. Using VMware ThinApp application virtualization, Seven Corners can run about 60% of the environment from a single desktop image. Today technical services analysts,

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project managers, and users in the claims, administration, and customer service departments all use the standard image. Symantec anti-virus clients and Insight Cache reduce the impact of boot storms and start-up virus scans.

The entire virtual desktop environment runs on 12 450GB flash drives with 256GB of flash cache, with another disk shelf due soon. Network switches were ready for View as they had already been upgraded for IP phone services. The company reports excellent deduplication rates for virtual desktops using linked clones—it is only using 2.8TB of the 3.6TB of storage available.

Results and Future Plans

The first View base images were built for offsite testers—the plan was to try those out and then standardize on a generic image. But as soon as the first one was deployed, the connection was so much faster that all employees in India wanted it immediately. Testing went from an average of 30 cases per night to 200. In addition, a 15-month application development project is being delivered in 5 1/2 months, providing savings of $330,000, due to better productivity, hardware licensing savings, and systems replacement. Also, a data cleansing project that a consultant quoted at $3 million over two years took the offshore team less than five months to complete at a cost of $270,000. Deploying desktops is so fast and efficient that IT has been able to eliminate a position on the desktop support team.

> "We haven't found a reason why somebody needs to be on a physical machine."
>
> —Mike Ellis, Virtual Operations Manager

Seven Corners immediately saw business value in a device-independent desktop solution. For example, zero-client View machines are now in conference rooms, enabling users to log in and find information quickly. Commented Reed, "It allows for immediate resolution of what you're trying to find out as opposed to 'I'll get back to you later with an e-mail,' which is frankly a 1995-type solution. If you've got a business moving fast, you can put the right facts in front of decision-makers at the right time, and View has kind of engineered an evolution around the company, allowing people to do that."

"Profitability isn't just in sales and claims, it's in how fast you can process a claim," Reed continued. He noted that at Seven Corners, the View infrastructure sped up claims processing by half. In addition, he was able to reduce the hardware budget by 50% using thin and zero clients, and management costs have been reduced by eliminating the continual re-imaging efforts. Today, the default desktop for new end-users is a VMware View desktop. When ESG asked about the biggest challenge in deploying VMware View, Reed responded that it had been organizational change management: users were initially uncomfortable without the computer tower under their desks, but once they realized how well it worked, the discomfort disappeared.

Seven Corners is currently evaluating VMware vShield for the virtual data center and desktop environment.

TrialCard Serves Customers Better with VMware View

Pharmaceutical marketing company TrialCard manages promotional programs such as medication discount and co-pay cards. The company tracks data and manages a call center that responds to questions from pharmacists and customers about card activation and benefits. ESG spoke with Jamey Westmoreland, Infrastructure Manager, who oversees all internal IT, and with Systems Administrators Thomas Brown and Brandon Sabol.

TrialCard had been virtualizing servers using VMware for a few years, and when its call center began to grow, the IT department realized that VMware could help them virtualize desktops and eliminate desktop PCs. Hardware was recycled among staff, but machines were beginning to fail and needed to be replaced. The costs of hardware and management were increasing, so virtual desktops would essentially take hardware out of the equation and help improve security.

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TrialCard has all 150 call center personnel (about half of its total employees) on VMware View virtual Windows XP desktops accessing the company's internally built web application using zero clients. Dedicated hosts support the implementation. The deployment very quickly went from lab to full production—the company started with individual static desktops for each employee, but realized it could reduce management efforts using linked clones. The initial deployment used a good chunk of storage and was not benefitting from deduplication, but with linked clones, the storage use is minimal. The call center employees don't need many files and, as a result, the company is not using Persona Management to manage user settings and profiles, but is looking into it for future deployments with other employees. TrialCard did use anti-virus software for the static VMs, but that need was eliminated with linked clones—this was a major cost savings and IT headache they were able to eliminate. The WAN connection is critical, and TrialCard prioritizes bandwidth for voice, then PC over IP, then other web traffic. As soon as possible Westmoreland plans to deploy soft phones over the same network as the PC over IP—prioritizing voice traffic first will ensure that voice quality is not sacrificed. This will enable the company to avoid purchasing phones for agents, saving on set-up costs by about $400 per agent.

Results and Future Plans

The company found deploying the View solution to be very straightforward. The ability to use zero-client devices with linked clones not only saves on capital costs, but operational costs. TrialCard no longer recycles hardware and can instead simply take a machine off the shelf, plug it in, and entitle the account—it's ready in minutes. In a call center where employees come and go with some frequency, this is a big help.

Time savings are also enabling TrialCard to serve its customers better. "A customer might ramp up a program and suddenly drop 20 agents on us that need to be up and running the next day—with traditional desktops, that was virtually impossible, but VMware View and linked clones made it easy," said Brown. It also made it extremely fast and easy to relocate the call center—only minimal testing was required since only a WAN connection was needed for the desktops to be viable.

Troubleshooting for the call center has also diminished significantly. Brown explained that with static VMs, a problem might mean moving employees between VMs, but now they just log off, the VM is deleted, they log back in, and a new instance of the gold image comes up. If there is a problem, it affects everyone—but can therefore be remedied centrally.

> "We moved the call center in record time, with zero downtime—it was ridiculously fast, mainly because of VMware View."
>
> —Jamey Westmoreland, Infrastructure Manager

Westmoreland's next View project will be creating a better environment for application staging and QA. Current testing is often done on an environment that is significantly behind production. In the future, he wants to build an isolated "bubble" of cloned production servers, refreshed weekly, that developers can access with View brokering a connection. This would enable them to test against almost-live product systems, making testing much more legitimate and effective.

CCI Call Center Gains Competitive Advantage with VMware View

ESG spoke with Dave Clarke, IT Director for CCI Call Centres in Durban, South Africa. Clarke manages IT and ensures that IT strategy is in line with business requirements and call center performance goals. The four-person IT department supports about 2,000 employees in two call centers focused on both direct sales and customer service.

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> "We have a small team for the amount of staff we look after, and we certainly attribute a lot of that to the VMware virtualization technologies, because most of that can be centrally managed."
>
> —Dave Clarke, IT Director

CCI call center agents use a wide variety of telephone- and web-based applications, most of which are dictated to CCI by customers. In the past, these have been managed using Microsoft Terminal Services/RDS. Recently, one of CCI's largest customers (occupying 700 call center seats) deployed a new telephony platform that was incompatible with Windows Server 2008, forcing CCI to find a way to run the application outside of RDS. This prompted the move to VMware View.

> "View just fit in perfectly. It ran really well, and of course the rollout was incredibly simple once we got the basic template right."
>
> —Dave Clarke, IT Director

Currently about 350 of CCI's 1,600 call center agents use VMware View virtual desktops presented on thin client machines. Clarke indicated that the transition was completely seamless with no disruption to operations. Team managers are beginning to use virtual desktops as well—they have a need to shift seating positions as teams grow, and using View is much easier than continually moving their desktop PCs and data around. With View, team members can sit anywhere and just boot up their desktop. Desktop templates are role-based and authenticated using Active Directory. Agent desktops are basically locked down, while management desktops are able to be somewhat personalized.

> "Our customers often need a quick turnaround to change products, pricing, and campaigns agents are working on, so we have to be extremely flexible. The VMware View solution gives us a great selling point to demonstrate to new customers how quickly we can turn changes around to meet their requirements—it's a key in winning us new business."
>
> —Dave Clarke, IT Director

Results and Future Plans

A significant benefit for CCI is the fact that they no longer need to add support and operational staff at the same rate as the business grows. Clarke indicated that previously a new back-of-the-house team member was added for every 200 new agents, but with View that is no longer necessary.

While Clarke feels that the acquisition cost of virtual desktops can be currently comparable to traditional desktops because of combined licensing costs, the management costs are dramatically different. Centrally managed virtual desktops on thin clients are simpler to manage, more flexible, and easier to scale, keeping costs down. The next task for Clarke is to double the number of View desktops to 700, and ultimately get all 1,600 agents using them.

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The Bigger Truth

The desktop infrastructure is a perfect target for virtualization, offering the cost, efficiency, and security benefits of consolidation and increased IT control while improving the end-user experience. Instead of having a desktop image for each employee that must be managed individually, desktop virtualization enables IT to create a gold image and distribute it over the network all while maintaining and securing it centrally.

The VMware View Business Process Desktop provides a robust platform for call center, offshore development, and work-at-home users, driving business process improvements and a greater return on investment, simplifying desktop management and improving the user experience. The customers ESG spoke with all offer concrete proof of real business value. Amway was able to relocate financial processing employees to a central location without moving data, and the plan to replace PCs in China will result in dramatic improvements in both reliability and security. Seven Corners reported huge reductions in claims processing and development time that are returning enormous savings. TrialCard uses VMware View as a competitive differentiator—it can offer a higher level of service to customers because it can add new call center staff immediately to accommodate new programs. CCI dramatically transformed its call center with a seamless transition and no disruption to operations using VMware View. The company's new telephony platform integrated quickly with View and enabled them to quickly scale and streamline management costs.

Every company that implements VMware View will have the opportunity to address the costs and complexity of desktop management, but customers often find new and innovative ways to use it, such as TrialCard's plan to create a production "bubble" to improve the quality of testing. VMware View's Business Process Desktop has led customers to invent new uses that improve their businesses—a great compliment to any technology. VMware View may just be the gift that keeps on giving.

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