

DER Reisebüro GmbH & Co. OHG with Virtual Desktops from VMware® – Smart Traveler's Choice



“VMware is the only provider of desktop virtualization solutions that meets all our requirements. Our sales platform, Amadeus, is absolutely essential for doing business. Travel agencies depend on it for their entire booking process. However, Amadeus is not Terminal Server-ready. Only desktop virtualization via VMware® View from VMware can make all of Amadeus’ functionalities available. We looked all over, but when it comes to quality, no one can hold a candle to VMware.”

– Michael Klein, IT Manager, DER Deutsches Reisebüro GmbH & Co. OHG

KEY HIGHLIGHTS

Challenges

- Accelerate processes to make customer service in travel agencies even better
- Implement a flexible and central desktop infrastructure that can be easily managed for all branches
- Observe corporate compliance policies
- Increase IT security
- Make data and systems highly available and make their recovery rapid
- Reduce IT costs
- Provide secure access to applications and data for all employees independent of their location – even from home offices and for traveling regional directors
- Make sure all functionalities of the sales application Amadeus, which is not Terminal Server-ready, are provided in the new IT infrastructure

Solution

- vITA – virtual Infrastructure for Travel Agency
- FAT client desktops will be replaced by thin clients – Pilot project with 120 clients, rollout to 2,300 clients by the end of 2010
- The data center will also become a unified resource pool for processing, storage and network performance and it will also be virtualized
- VPN infrastructure will remain intact

New IT for improved customer service – Central management of 2,300 desktops in 580 branches

DER Reisebüro GmbH & Co OHG is the largest travel agency chain in Germany, with approximately 580 offices operating under the names ATLASREISEN, DER Reisebüro and FCm Travel Solutions and comprising a portion of the tourism sales within the REWE Group.

This company's strength is its reputation for service. The central task for on-site employees on site is to provide customers with swift service. In order to accomplish this task they need the proper technical structure in place, specifically the sales application for travel agencies, Amadeus Selling Platform. Originally the IT infrastructure setup for travel agencies was decentralized. Individual offices had workgroups of 2-15 desktops, which could access the internet and the central office using a dedicated VPN line. This situation posed an ever-growing challenge for the IT department, since some servers were not available in the offices. If a desktop failed or if a new one had to be set up, IT support had to take care of this on site, which took up an enormous amount of time. Also, office supervisors saved a great deal of data, such as staff planning or local marketing campaigns, locally on desktops or laptops which created a definite security risk in the event data was lost or hardware failed.

It became imperative to set up a central infrastructure for all offices to best meet the following requirements: clear improvements for high rates of availability, security, home access, fast recovery and simple management with low expenditure of personnel time. The most obvious solution was to consolidate the physical desktop workplaces into a virtual infrastructure. Plans had already been developed in 2008 for a pilot project on desktop virtualization which would be put into action during the move of the DER central office from Cologne to Frankfurt at the beginning of 2009. This was when vITA (virtual Infrastructure for Travel Agency) was born.

The first step in 2009 was to equip 40 workplaces in the central office and an additional 80 workplaces in branches or home offices with virtual desktops running VMware View (formerly VDI). This step was preceded by a feasibility study in cooperation with the IT consulting firm Mightycare Solutions GmbH.

Only VMware View provides sufficient support for the sales application Amadeus Selling Platform.

When selecting the virtualization software, several providers were considered. But it soon became clear that only VMware View was able to adequately provide the functionalities of the Amadeus Selling Platform - mission-critical sales application that is not yet Terminal Server-ready. Configuring the Amadeus Selling Platform is a simple task carried out in the data center. As a sales application, Amadeus is essential for all booking processes. “On virtual desktops Amadeus runs much more quickly than before. This meets our requirement of offering our customers the best service possible,” says Michael Klein, IT Manager, DER Deutsches Reisebüro GmbH & Co. OHG

VMWARE VIRTUAL INFRASTRUCTURE AT WORK

VMware in use

- View 4.0
- ESX 3.5 and vSphere 4.0
 - vCenter
 - VMware DRS/HA
 - VMware vMotion
 - VMware Storage vMotion
- VMware ThinApp

IT environment

- Hardware basis: Wyse P20 Thin Clients, server: Dell R710 Server with 96 GB RAM and 10Gbit FCoE network adapter
- Operating systems: MS Windows Server 2003/2008, Windows XP
- Applications: My SQL, Microsoft SQL Server 2005/2008, Terminal Services, Microsoft Exchange 2003/2007, Amadeus Selling Platform, Microsoft Office 2003/2008
- Security: Sophos Endpoint Security on clients

Simplified IT Management

The pilot project resulted in a major reduction of expenditures for IT management. By using virtual desktops it is possible to centralize and standardize the IT landscape. Defining policies in accordance with general compliance requirements and monitoring them is easier, as is managing licenses and purchasing software. This is because tasks can now be processed centrally. Defined performance parameters indicate to what extent virtual equipment is being used. This helps prevent capacity bottlenecks. When it comes to servers, DER is also betting on VMware. In the background, VMware ESX™ 3.5 and VMware vSphere™ 4.0 provide reliable services.

“From an IT perspective employees did not notice the central office move from Cologne to Frankfurt.” They left their clients on Friday in Cologne and resumed their work on Monday in Frankfurt. Thanks to VMware View this transition was smooth and nothing went wrong,” Klein added. “But there are also important advantages for the branches. Here, the time savings for the IT team is immense. If someone at a branch or home office needs a new desktop we send them a thin client via courier and set up the desktop here in the central office. IT employees no longer have to travel anywhere to install or maintain a desktop. Incidentally, the time and money saved as a result have not yet been taken into account in the present return on investment calculation.” (ROI; see below)

Virtualizing the operating system makes it possible to be less dependent on release cycles for the client/operating system. Migrating to the VITA environment is much simpler since clients in the data center are prepared and are activated on the designated day. Large-scale updates to hardware and operating systems no longer require the time and effort previously needed.

At the beginning of the pilot project there were problems with graphic-intensive multimedia applications. These problems have been eliminated entirely thanks to PCoIP, the high-performance display protocol designed especially for deploying virtual desktops. This protocol has already been completely integrated into VMware View 4.0 (as of fall 2009).

“Without PCoIP, some problems arose via the WAN connection to the branches, especially when displaying Flash content, which is frequently used to provide customers with short hotel videos and destination information. PCoIP and the VMware Flash optimization now enable us to achieve very good results that are cost-effective and presentable.” - Sascha Karbginski, IT Systems Engineer, DER Reisebüro GmbH & Co. OHG

Many benefits for users – More time for customers

One of the many positive effects of desktop virtualization is that less space is required in the travel agencies when using thin clients. Also, the noise generated by computers is no longer an issue with thin clients. Other positive aspects include no longer being dependent on a specific location, as well as added flexibility and data security. For instance, regardless of which travel agency a regional director is currently visiting, he has the flexibility of logging on to his desktop from any office. Thus, bringing along a laptop is no longer a requirement. And documents involving staff planning or local marketing campaigns, for example, are now saved on the central servers and no longer on local computers or laptops. A Fiber Channel SAN ensures the data has the redundancy required. This substantially increases data security and availability.

“For upcoming critical updates to applications that are installed locally or for changes to the operating system, the VMware snapshot technology is also very accommodating when troubleshooting or doing software tests on the clients. This technology enables me to perform a swift and smooth rollback.” Sascha Karbginski reported

“Now, increasing system demands made by applications or the operating system no longer require technicians to make expensive service calls on site. For instance, providing each client with more memory can be carried out centrally in the data center. Best of all, these steps can be done during normal working hours and while the systems are running. Downtimes for this type of work are a thing of the past. And so now when I think about Windows 7 migration, all I can do is smile.”

– Sascha Karbginski, IT System Engineer, DER Reisebüro GmbH & Co. OHG

The multi-desktop function is also a thing of beauty, since users with several clients now have their various desktops on just one piece of hardware, which comprises several windows on the monitor, allowing users to jump back and forth comfortably between these windows. Amadeus has become faster. In addition, users no longer have to take care of problems with their desktops on location by themselves. This means that employees in travel agencies can focus more on their core task – customer service.

Saving energy also reduces costs significantly

With regard to costs, the company has a return on investment (ROI) of 18-19 months based solely on the energy saved by using thin clients. 90% of power costs can be saved per workspace per day in the travel agency.

However, the costs previously incurred by computers failing or technicians traveling to various locations have not yet been included in this calculation. By using the VMware cluster function in the future, even more savings in power costs can be realized, such as by automatically shutting down servers overnight if they are not being used.

In the future, only three IT employees will manage 2,300 desktops

After successfully concluding the pilot project at the end of 2009, the complete rollout for all 580 travel agencies is scheduled by the end of 2010. From that point onward, only three IT employees will manage 2,300 virtual desktops, thereby providing employees in the travel agencies with a much more flexible, secure and available IT environment than ever before. There are 80 desktops planned per server for now. Ultimately, 45 physical machines are to be made available and housed in just one cabinet with two shelves located in the new data center in Frankfurt.

What the future holds for the vITA project

In the future, DER travel agencies want to profit from VMware virtualization solutions with regard to applications. All applications are to be provided on virtual desktops. ThinApp™ has already been implemented; it is used to provide and migrate applications easily by packaging and disengaging from the operating system. This way, distributing application software and related update processes will be significantly simplified and accelerated throughout the entire company in the future and the related expenditure of personnel time will be kept to a minimum. Applications packaged with ThinApp can easily be displayed on many Windows platforms, even Windows 7. “Migrating to Windows 7 is too much for us at the moment; one reason is because Amadeus is not yet compatible with it. But we will be faced with Windows 7 within the next year, of course. It is good to already be properly prepared with ThinApp when it comes to providing applications,” explains Klein.

Once the entire rollout has been successfully completed, the second step will entail further automation, giving users more options to use and manage their own desktops. For instance, it should be possible in the future for regional directors or employees to push a button and create their desktops themselves and have an automated invoice created via defined processes.

“For ThinApp, it would be nice in the future if you could check how often a user calls and uses a certain application, like with the chargeback function for the VMware vCenter™ management console in the data center. This would be useful to simplify distributing application costs to individual offices both fairly and according to usage, while avoiding bottlenecks in providing licenses,” says Klein.

Since the company’s regional directors and Key Account Managers travel a great deal and are often offline, an offline desktop feature is needed; this will be offered in the next View release. For that reason, DER volunteered to be a beta tester and is very excited about this future function.

“It seems utterly absurd when you first hear that only three employees are supposed to manage 2,300 live desktop workplaces distributed across the country. But it is true! Our prior experience with View has made me completely confident in the solution we have selected. Software updates, installations or data backups do not belong at the counter. We are giving our colleagues more time for the most important things. They now have more time for their core business of providing customers with high-quality service.”

— Michael Klein, IT manager, DER Deutsches Reisebüro GmbH & Co. OHG

Results / Advantages

- Reduced time and effort required for on-site IT deployment plus faster applications equals more time for the core business of providing customer service
- Simplified and swift implementation of new desktops
- Centralized technology and management – decentralized installation is made obsolete
- Standardized desktop environment
- Improved data security
- High availability
- Meeting compliance requirements
- More secure access from the home office
- Multi-desktop application
- Hardware independence
- Location independence
- Sustainability by using energy-saving thin clients – 90% savings for power costs per workplace per day

