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Michael Paga,  
IT Manager,  
Intensiv-Filter GmbH & Co. KG

## Intensiv-Filter virtualizes CAD workstations globally with XenDesktop

Intensiv-Filter GmbH & Co. KG, with headquarters in Velbert in Nordrhein Westfalen, is one of the largest system suppliers of dust removal technology and product recovery. Founded in 1922, the company produces high-grade components like process tubular filter systems and secondary dust removal or CIP filters, and also offers its customers extensive services—from planning and engineering to system startup. Demand for services provided by Intensiv-Filter is increasing in view of ever more stringent pollution abatement guidelines. In past years, the company was able to continuously open up new business areas and build up its international presence. Today, Intensiv-Filter is not only represented in Germany and Europe, but also by affiliates in Brazil, India and Korea.

### The Challenge – Increasing IT requirements by company expansion

In order to be able to support dynamic development of the company as efficiently as possible, the IT department set up a largely centralized IT infrastructure at an early time. “In principle we try to keep current administration expenses as low as possible and therefore have been using Citrix technologies for many years to provide applications,” says Michael Paga, IT manager at Intensiv-Filter. Business applications like Microsoft® Office and the client software for the ERP system units are made available to users in the individual branches via a central Citrix® XenApp™ server farm. “We originally introduced the technology in order to enable developers on UNIX workstations to also have access to Windows® applications,” explains Paga. “However, we then quickly recognized that we save a lot of work if we move standard applications in general from the distributed end equipment to the server farm. Thus, we only have to maintain and keep updated one instance of each application. The principle of centralized data also simplifies the backup process enormously and ensures continuous data consistency.”



## Key benefits

- Simplifies provisioning of standard and high performance desktops
- Permits high performance remote access to CAD applications
- Increases data security by centralized data and SSL-VPN
- Simplifies administration of support processes
- Reduces costs by optimal hardware unloading and license utilization

## Applications delivered

- Microsoft Office
- ERP system unipps®
- SolidWorks®
- Keytech pro
- CoCreate® ME10
- Adobe® Acrobat® Reader
- Further standard applications

## Networking environment

- Citrix® XenApp™, Enterprise Edition running on Dell® PowerEdge® 2950 servers
- Citrix® XenDesktop™, Enterprise Edition running on IBM® BladeCenter® HS21 8853 with 2 servers and 12 Blade PCs
- Citrix Access Gateway, Enterprise Edition
- Citrix GoToAssist
- Microsoft Windows Server® 2003

However, not all applications can be virtualized via the central server farm. In particular, the graphics-intensive 2D and 3D CAD applications were still installed locally on workstations with high performance hardware equipment for performance reasons. This developed into an increasingly greater challenge when, in the course of internationalization of Intensiv-Filter, additional developer workplaces were added at different locations. “On the one hand, the running administration expense rose very quickly—software updates and patches had to be installed on each individual end device. On the other hand, there are also security aspects,” says Paga. “Protection of sensitive design data has the highest priority here but is not that easy to implement in a distributed client architecture.”

## Desktop virtualization for CAD developers

The IT employees of Intensiv-Filter were therefore very interested when Citrix presented a new solution for the central operation of complex user desktops last year. With Citrix® XenDesktop™, not only standard desktops can be virtualized. The technology also makes it possible to provide high performance desktops via the datacenter. XenDesktop directs the connection to a dedicated physical computer, for example, as a Blade PC in a server rack. For operation of more resource-hungry applications, this computer is equipped with corresponding CPU power, sufficient working memory and, if necessary, a special graphics chip. Access to the Blade PC occurs via the Citrix ICA® protocol, which provides special optimization and acceleration methods for graphics applications by the integrated Citrix® HDX™ technologies.

“Together with our IT partner of many years, arvato systems, we set up a test with Citrix XenDesktop and Blade PCs from IBM and very quickly found that the solution corresponds to our requirements,” says Paga. “With it we can provide complete CAD workplaces via standard DSL connections at any location. At the same time, we have complete control in the datacenter over the developer desktops and are in a position to execute all administrative activities very efficiently.” Intensiv-Filter therefore decided to gradually introduce the solution in its international branches for all 30 CAD workplaces.

Instead of high performance workstations, the developers of Intensiv-Filter work on normal PCs, notebooks or thin clients. After logging on to the terminal device, XenDesktop connects the user to one of the Blade PCs in the computer center on which the applications are executed. No application data is exchanged via the network between the client and server but only screen updates, keyboard inputs and mouse movements. During access via the Internet all communication is encrypted by the SSL-VPN solution Citrix® Access Gateway™, Enterprise Edition. “We therefore achieve a very high degree of security and make sure that design data do not leave our computer center in Velbert,” says Paga.

According to Paga, the feedback of the first users was quite positive. “The developers can work with the centrally provided CAD tools almost as they do with locally installed applications—even in Brazil the response times are fully sufficient.” For a fluid representation of the screen surface, Paga recommends that sufficient dimensioned graphics memory also be installed in the terminal devices.

## Lower costs, greater flexibility

Central operation of the CAD workplaces has significantly reduced the administration cost in many areas. “For example, we no longer have to give much thought to how we will bring the workstations to our users and what will be done during hardware failures—if a terminal device fails, the user can immediately continue working on another computer,” says Paga. For user support Intensiv-Filter utilizes the online service Citrix® GoToAssist®. The user grants the help desk employee access to his workplace in a protected support session. Technical questions can be solved reliably and quickly via the Internet.

Through more efficient administration and support processes, Intensiv-Filter can consistently reduce the costs for its CAD workplaces. Moreover, the company is achieving significant savings in client hardware. Since the developers are active in different time zones, several users within a day can work with the same physical Blade PC. A central license pool also makes sure that only as many software licenses are called up as are actually necessary.

“We used to have to estimate total costs of 28,000 Euro for a single new developer workplace. Through the use of XenDesktop these costs are reduced to a fraction” says Paga. “With this solution, however, we are not only saving money but are especially gaining flexibility. In the future we will be able to temporarily involve external developers without having to be concerned about the security of our data.”



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### About Citrix

Citrix Systems, Inc. (NASDAQ:CTXS) is the leading provider of virtualization, networking and software as a service technologies for more than 230,000 organizations worldwide. Its Citrix Delivery Center, Citrix Cloud Center (C3) and Citrix Online Services product families radically simplify computing for millions of users, delivering applications as an on-demand service to any user, in any location on any device. Citrix customers include the world's largest Internet companies, 99 percent of *Fortune* Global 500 enterprises, and hundreds of thousands of small businesses and prosumers worldwide. Citrix partners with over 10,000 companies worldwide in more than 100 countries. Founded in 1989, annual revenue in 2008 was \$1.6 billion.

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