



Citrix and IGEL – perfectly attuned

Optimum user experience, high performance and minimum Total Cost of Ownership (TCO): Citrix and IGEL are the ideal complement for each other with IGEL thin clients offering numerous useful additions.





Virtualization, centralization, mobility and multimedia are the four aspects that characterize the change that IT infrastructures are currently undergoing. The focus of current solutions from Citrix is, on the one hand, cost-effectiveness in the computer center and on the other hand, the flexible provision of virtualized applications and desktops. Leading thin client solutions from IGEL are ideal for the desktop. As perfectly attuned end-user devices for efficient, high-performance Citrix access, they reduce the costs of IT workstations.

Citrix and IGEL: close collaboration

Citrix has a broad range of offers to let IT become an on-demand service in the company, spanning from central application provision via Citrix® XenApp™ through to virtual desktop infrastructures by means of Citrix® XenDesktop™ to OpenCloud solutions. Thin client solutions from IGEL perfectly complement the range offered by Citrix, with their great potential for standardization. The aim of the IGEL Universal Desktop Strategy is to enable high customer performance with secure, yet flexible, access to private and public IT cloud. It is therefore no surprise that Citrix and IGEL have been collaborating for more than ten years. Since 2002, IGEL has been a Citrix Global Alliance Partner and IGEL thin clients have been certified “Citrix Ready” from 2006.

IGEL Universal Desktops – HDX Ready™

Regardless of whether in the LAN, WLAN, or via the WAN, IGEL Universal Desktops consistently distinguish themselves with their high performance and user experience when accessing Citrix environments. This performance is substantiated by the “HDX™ Ready” certificate awarded by Citrix. While the “Citrix Ready” label only identifies the ICA software client for HDX™ Broadcast, in other words, the remote connection to a Citrix environment, HDX™ Ready stands for the other features of a “High Definition User Experience”. All the IGEL models with the Advanced Feature Set are HDX Ready™ certified. In addition,

Citrix certification types for thin clients

Feature	Citrix Ready Thin Clients	HDX Ready Thin Clients
HDX Broadcast (via ICA Client)	X	X
Out of the box Integration		X
HDX Plug-n-Play: USB 2.0		X
HDX Plug-n-Play: printing		X
HDX Plug-n-Play: True Multi Monitor Support		X
HDX Plug-n-Play: Smartcard Support		X
HDX Plug-n-Play: Isochronous USB 2.0 (Webcam)		X
HDX RealTime: VOIP on LAN		X
HDX RealTime: Client Audio Recording		X
HDX MediaStream: CD Quality Audio on LAN (Server Rendered)		X
HDX MediaStream: 480x360 Quality Windows, Flash, QuickTime & Silverlight video on LAN (Server-Rendered)		X
HDX MediaStream: 480x360 Quality Windows, Flash, QuickTime & Silverlight video on LAN (Client-Rendered)		X
HDX MediaStream: 1280*720 Quality Windows, Flash, QuickTime & Silverlight video on LAN (Client-Rendered) – Optional		X

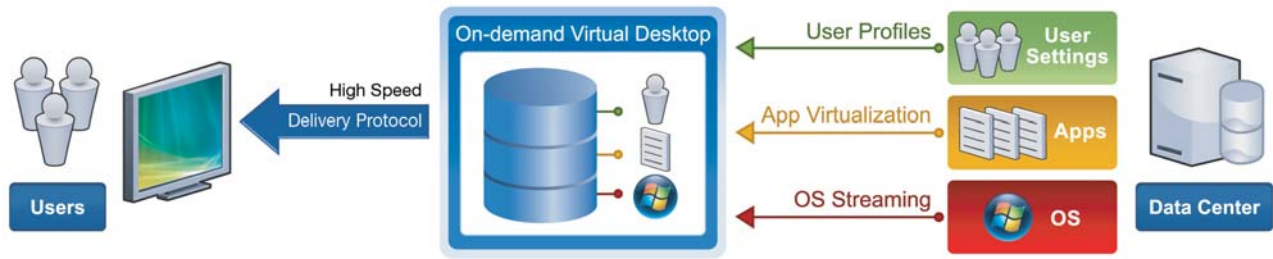


Figure: Flexible provision of virtual applications and desktops

Citrix provides a virtual desktop comprising the operating system, virtual applications and user-specific settings according to current requirements. Citrix sends this desktop to the user quickly and reliably via HDX technology (High Definition Extension).

Source: www.citrix.com, 03/2011

the devices enable dual/multi-view scenarios. The high graphics performance of IGEL Universal Desktops also help reduce the server load, because a proportion of the video computations can also be performed by the local hardware. Broad support for peripheral devices, through to digital dictation, is also characteristic of Citrix HDX™ and IGEL thin clients. WLAN options, parallel and a number of serial interfaces also enable unusual user scenarios, if required. Furthermore, IGEL thin clients also permit the local installation of special drivers, tools or software clients in certain cases.

Standardization and safeguarded investment

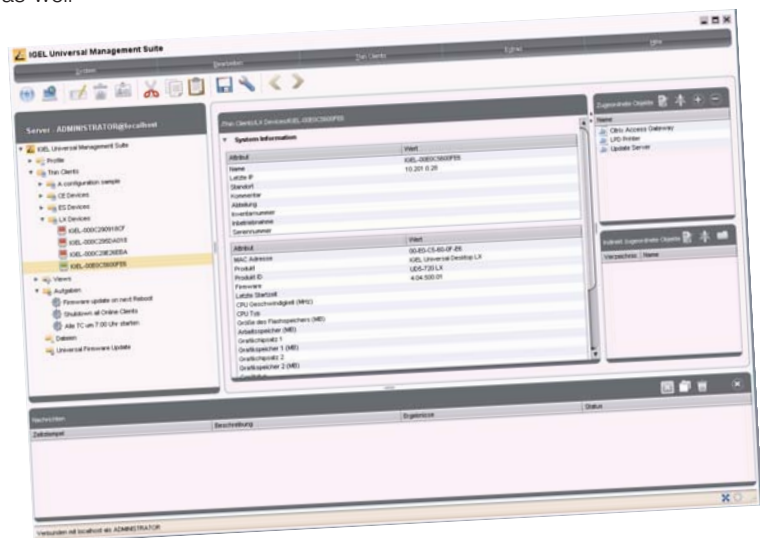
The Citrix XenDesktop Appliance Mode offers a perfect user experience with PC-identical registration. The user is no longer in contact with the local operating system and accesses his or her virtualized Windows® desktop immediately after switching on. Furthermore, the high-quality and rugged device design as well as the continuous development work of IGEL ensures a long service life and safeguarded investment. IGEL continues to update operating systems with all the software clients and Citrix features for another three years after the product has been discontinued, ensuring a safeguarded investment that is unique in the sector.

IGEL Universal Desktops collaborate seamlessly with Citrix XenApp™ or XenDesktop™. If desired, users can also access IBM host systems or cloud services in parallel, if not (yet) integrated. In keeping with the easy management of the Citrix environment, the IGEL Universal Management Suite (UMS) management software included with the IGEL thin clients is also easy to use to assign and access configure Citrix applications and virtual desktops. For example, virtual desktops can be assigned by means of the various group profiles of a department, while

other departments might only be able to obtain access to Published Applications by means of XenApp. The Citrix XenDesktop Appliance Mode can be activated with equal ease. Furthermore, the IGEL UMS provides simple update and asset management. Firmware updates are fail-safe, time-controlled and conserve resources. In the event of an ICA update, not all the firmware needs to be distributed. Under both IGEL Linux and Microsoft® Windows® Embedded Standard, only the new components of the firmware can be sent to the devices via the network.

Security: secure end-user devices

In addition to the security features and solutions offered by Citrix, IGEL provides its customers with security features such as the support of Virtual Private Networks (VPN) and smartcard authentication, each of which is highly integrated. For example, all the IGEL models enable ICA sessions via VPN by means of L2PT, Cisco Secure Client or NCP Secure Client.



Screenshot IGEL Universal Management Suite (UMS): profile-based administration, rapid assignment of Citrix features by means of drag-and-drop



The Citrix Secure Access Gateway is also supported as a standard feature. Efficient authentication is possible via the optional IGEL smartcard, using a space-saving reader integrated into the device or one of the many supported external readers. Furthermore, IGEL thin clients still support many additional smartcard or USB token-based authentication solutions. To protect sensitive data, USB ports must first be released by the administrator. Thin client management is always encrypted and certificate-based.



Soft migration with full Citrix support

Projects to centralize and / or virtualize IT are usually accompanied by major investments in the server area. To compensate for these costs, some Citrix customers decide not to invest in new thin client hardware immediately but instead updating their existing PCs or thin clients at logic level and continuing to use them temporarily. The solution here is IGEL Universal Desktop Converter (UDC) software, which transfers IGEL Linux firmware to the devices as the sole operating system and enables the same Citrix features as the current IGEL thin clients. An additional effect is the reduction of the management workload – by up to 70 percent in the case of PC conversions. The reason for this is that all the PCs converted by means of IGEL UDC software can be remotely managed and updated efficiently with the IGEL Universal Management Suite (UMS). Due to the significantly lower operating and management costs, migration costs are recouped faster as a result.

Summary

With Citrix and IGEL, companies and government agencies can adjust to future challenges with great flexibility and standardize their IT according to demand as well as optimize overall costs. On the one hand, private and public organizations benefit from a high degree of operational relief and better availability of their IT environment and on the other hand from secure, ergonomic, high-performance IT workstations. At the end of the day IGEL makes the maximum thin client quota with minimal operational costs possible through meaningful additions to Citrix features.

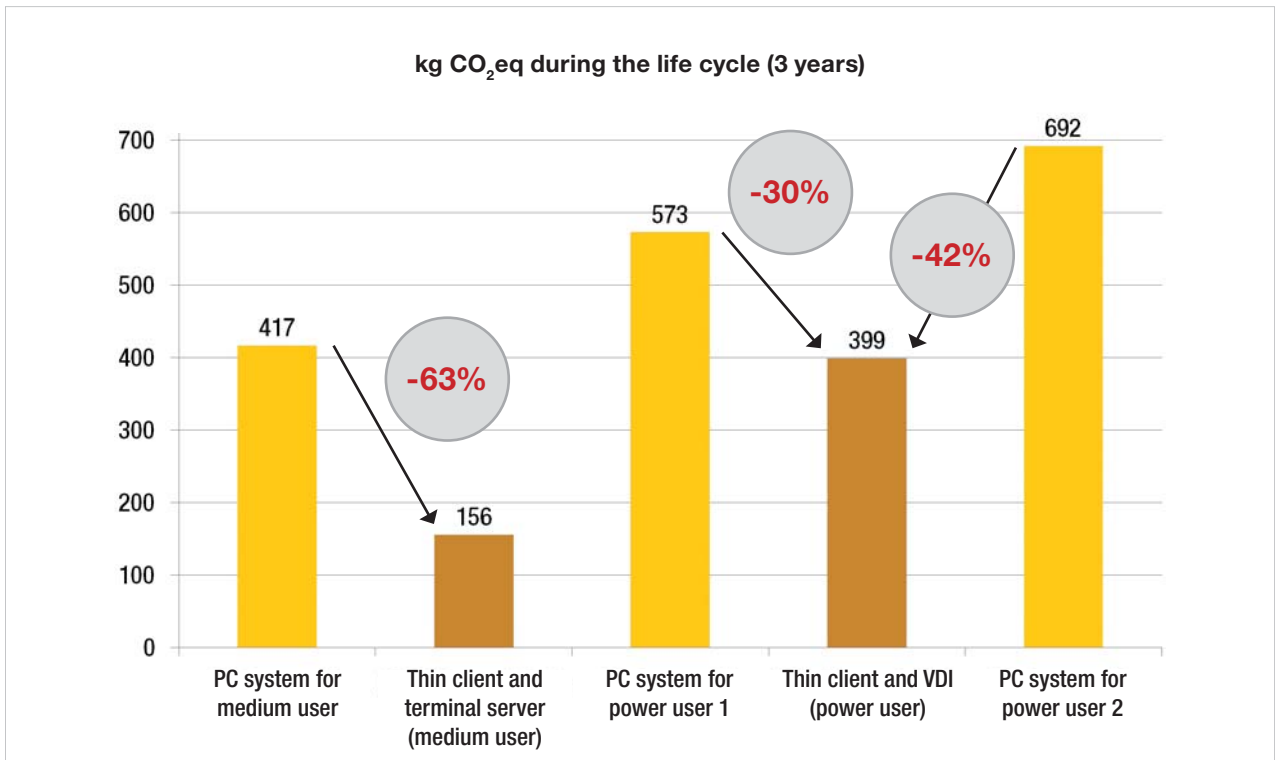


Figure: Greenhouse gas emissions released during the life cycle (including calculated terminal server share)

Source: Fraunhofer UMSICHT, 01/2011

Green IT: results of the 2011 Fraunhofer study

The combination of Citrix and IGEL also promises a high degree of efficiency from an ecological aspect. In the study "Thin Clients 2011 – Ecological and economic aspects of virtual desktops", the Fraunhofer Institute for Environmental, Safety and Energy Technology (UMSICHT) investigated a real installation with Citrix XenApp™ and Citrix XenDesktop™ with regard to its power consumption and global warming potential over the entire life cycle. The

result is that for a service life of three years, the global warming potential (GWP) is reduced by up to 63 percent compared with a control scenario with conventional workstation PCs – including the power consumption of the server.

The power consumption in the operating phase is reduced by up to 77 percent, which means an annual saving of more than \$5,000 for every 100 thin clients.

About Citrix Systems

Citrix Systems, Inc. (NASDAQ:CTXS) is a leading provider of virtual computing solutions that help people work and play from anywhere on any device. More than 230,000 enterprises rely on Citrix to create better ways for people, IT and business to work through virtual meetings, desk-

tops and datacenters. Citrix virtualization, networking and cloud solutions deliver over 100 million corporate desktops and touch 75 percent of Internet users each day. Citrix partners with over 10,000 companies in 100 countries. Annual revenue in 2010 was \$ 1.87 billion.

About IGEL Technology

A world leader in thin client solutions, IGEL Technology helps organizations improve the agility, efficiency, and security of their virtual desktop and application delivery systems. We produce one of the industry's widest range of thin clients, based on Linux and Microsoft Windows, allowing customers to access to a broad spectrum of server-based infrastructures and applications. We also offer our powerful and intuitive management software for easy deployment and administration of thin clients throughout

any-size organization. Partnerships with industry leaders like Citrix, Red Hat, VMware, and Microsoft ensure that we provide the most up-to-date technology and trust-worthy security to our clients in industries that include Healthcare, Education & Research, Public Sector, Financial, Insurance, Retail, Logistics, and Manufacturing. IGEL Technology has offices in the United States, Germany, Great Britain, Hong Kong, and Singapore, and our award-winning, in-house R&D team is located in Augsburg, Germany.

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