Company and Product Overview

www.igel.com

IGEL Technology – More than 20 Years of Thin Client Expertise

IGEL Technology is a global IT company specializing in all aspects of thin clients. In fact, our experience extends back to 1989. Since then, we have grown to become one of the world's market leaders in thin client computing. In Germany, our home market, we have been the leading thin client provider for many years. More than 10,000 companies and government agencies use our thin clients, including international and large companies such as Daimler, Akzo Nobel, United Rentals, Scania and HSBC. In addition, more and more SMEs are taking advantage of the great opportunities for savings and security offered by IGEL thin client computing.

Developed and Engineered in Germany

We design our thin client solutions at our own R&D location in Augsburg, Germany. Wherever we prepare units for our customers – in our European, American or Asian sales and distribution centers – we assemble our thin clients, load them with the latest firmware and test them before shipping. With this closely monitored in-house process, we are able to guarantee that you will get the most up-to-date, highest quality technology and first-class service, both before and after sale, all from one source.

Comprehensive Technical Support

After having registered your units online, your warranty will be extended to three-years for our Universal Desktop thin clients as well as free third-level support from highly trained, qualified technicians. Furthermore, our large global network of certified IGEL partners ensures that you can readily obtain fully qualified support wherever you may be in the world.

Free Updates

Firmware updates are free for the IGEL Universal Desktop thin clients and IGEL Universal Management Suite (bundled free with all Universal Desktop units). Updates are even available for discontinued models three years after end-of-life.

Greater Security with a Closed System

When it comes to security, IGEL thin clients set the benchmark. Because they have no local hard drives, they cannot be infected with viruses. Having no local hard drives also means that users are not able to locally install programs on their units. The USB ports can be selectively enabled to accept only certain peripheral devices. All IGEL thin clients support smartcard readers for secure two-factor authentication, personalization solutions or single sign-on (SSO) as well as selected USB token solutions.

Easy and Convenient to Use: Outstanding Design and Ergonomics

IGEL Universal Desktops not only offer outstanding design and appearance but also exceptional user ergonomics. The state-of-the-art housings are available in black, white or dark blue, allowing them to complement their surroundings and, in particular, fit right in for POS use. IGEL thin clients have neither cooling fans or local hard drives. As a result, they produce no noticeable background noise and produce minimal heat.

Firmware Offering Great Flexibility

The firmware that comes standard with IGEL Universal Desktops contains a great variety of integrated software tools, clients and protocols. These features allow users to directly access the greatest variety of centralized IT infrastructures. They include traditional server-based computing (SBC) environments (Microsoft® Windows®, Citrix® and Linux) as well as virtual desktop environments (VMware®, Citrix® or Microsoft®). This software connectivity does not just stop there. It also covers legacy and SAP host systems. In addition to Java-based or Web-based applications it also permits direct multimedia streaming or VoIP by means of thin client and headset (softphone).

IGEL Universal Desktops

Our unique Universal Desktop strategy offers the best-possible, most cost-effective connectivity. At the same time, users enjoy the benefits of a flexible range of features made possible by special hardware options along with exceptional user convenience and a high level of security. Compared to conventional thin clients, these features increase the operational economy of these units as well as their service life. Additional major advantages of the IGEL Universal Desktop strategy include efficient management of thin clients as well as their low energy consumption and operating costs.

IGEL Universal Management Suite (UMS) 3

With IGEL thin client computing, the total cost of ownership (TCO) of the desktop environment can be cut by up to 70%. A substantial portion of this potential for optimizing computing environments is due to powerful features of the IGEL Universal Management Suite, which comes standard with all IGEL units. It offers numerous local protocols, software clients, tools and security features, undergoes continuous development and refinement and sets the standard when it comes to secure and fast management of extensive thin client installations located across several countries/regions. The IGEL Universal Management Suite supports a wide variety of operating systems, databases, and directory services, such as Microsoft® Active Directory, making it very easy to integrate into existing installations. Furthermore, the IGEL Universal Management Suite also permits problem-free, compatible management of earlier IGEL models.

Benefits of the IGEL Universal Desktops at a glance:

1. **Low investment costs:** no unnecessary hardware or software (modular design, management solution included at no extra cost)
2. **Low operating costs:** energy-efficient hardware, an intuitive management solution, no licensing or update costs; long service life (3 years of firmware updates even after model end-of-life)
3. **Free support and service** (during the warranty period)
4. **Very flexible deployment:** full connectivity for peripheral devices as well as centralized IT systems and Web/VoIP/multimedia applications
5. **Well-prepared, future-ready investment:** high processor and graphics performance, large RAM and flash memory, continuously developed firmware including technology and security updates
6. **Real potentials for consolidation:** PC, terminal, telephone and print server combined into one economical end-user device means less need for middleware
7. **Outstanding user convenience:** top-notch design and careful assembly, stable firmware, high performance due to direct access to server-based applications; no cooling fans mean no noise, minimal generation of heat

Choosing the Right IGEL Universal Desktop

Every IGEL Universal Desktop is composed of the components hardware, operating system and firmware pack:

Step 1	**Operating systems**	**IGEL Linux**
		Windows Embedded Standard
		Windows Embedded CE

Three Operating Systems

IGEL Linux is the most cost effective operating system with the best performance. IGEL Linux comes with a broad set of software clients, tools and protocols giving the user the possibility to access the required application with the best protocol. IGEL's embedded Linux operating system offers maximum stability and security. Having a strong in-house development team, IGEL customers can be sure they always have the latest updates and features integrated, in a rock-solid firmware.

Windows® Embedded® Standard delivers the power of Microsoft® Windows® in a thin client, with 32-bit Windows compatibility for local applications and drivers. With a full-featured local Internet Explorer (Standard and Advanced) and Media Player (Advanced), users have all the required capabilities and maximum flexibility.

Windows® Embedded® CE uses the familiar desktop interface without the high cost of a Windows Embedded Standard operating system. Due to the fact that no local applications or drivers can be added by the user, the system offers high security and stability. The footprint of the Windows CE operating system is the smallest of any Windows embedded operating system.

Step 2	**Feature Packs**	**Entry**
		Standard
		Advanced

Three Feature Packs

Entry – This Feature Pack is designed for customers wanting to access just server-based Windows applications using the Citrix® ICA or Microsoft® RDP protocols. The IGEL Linux and Microsoft Windows Embedded Standard versions also have a Java SE Runtime Environment.

Standard – This Feature Pack has all the features of the Entry Pack plus many more local tools such as virtualization support, local web browser, PDF Reader, and terminal emulation. It also supports remote access using a variety of VPN protocols and the ThinPrint client for enhanced network printing.

Advanced – This Feature Pack is an extremely powerful collection of features that can connect you to almost any application, media or peripheral. In addition to the Standard Pack it supports more specialized features such as, Media Player, Flash, VoIP, a native SAP GUI, NoMachine NX and ThinLinc printing. For customers wanting to deploy the toughest server-based computing applications such as Adobe® Flash® multi-media or peripheral control, that often do not work well using standard Windows protocols, the Advanced Pack on Microsoft Windows Embedded Standard supports reverse publishing of applications. For advanced peripheral support, the Advanced Pack also supports USB re-direction so USB devices can connect seamlessly to the server-based Windows desktop.

Step 3	**Hardware series**	**UD2 Series**
		UD3 Series
		UD5 Series
		UD9 Series

The Hardware Series

UD2 Series – A small, affordable, energy efficient hardware platform that can be VESA mounted on the back of a monitor. The DVI-I port supports dual monitors with an optional Y-Cable and it can connect to common peripherals with its four USB ports.

UD3 Series – An affordable, compact, versatile mid-range hardware platform. The UD3 series is available with an integrated smartcard reader and a connectivity foot that offers wireless network connectivity and/or an additional serial port for legacy peripherals.

UD5 Series – A powerful and expandable hardware platform. It's high speed processor and graphics can support demanding applications or many applications running simultaneously. It supports the broadest set of connectivity to peripherals. Optionally you can add an integrated smartcard reader and a connectivity foot for WLAN and/or a parallel port.

UD9 Series – An integrated 21.5" (54.6 cm) LCD platform with a broad range of I/O ports. Ideal for customer-facing situations or space-constrained environments. The UD9 offers optional WLAN, touch screen and smartcard reader. Only available with the Advanced Feature Pack.

UNIVERSAL DESKTOP CONVERTER

IGEL Universal Desktop Converter (UDC) Software
This product (UDC) allows you to migrate your existing PC or old thin client hardware to a fully manageable IGEL Universal Desktop thin client like device, capable of delivering Citrix, VMware and Terminal Server desktop applications. You can then use the full software functionality of our Entry, Standard or Advanced IGEL thin client firmware packs. Additionally you receive our specialized thin client deployment and management software allowing you to quickly and securely manage and administer your converted desktop infrastructure. The IGEL Universal Desktop Converter allows a step-by-step introduction of these technologies and minimizes the initial procurement costs for new client hardware.

FREE evaluation!
Order yours today: **www.igel.com/en/eval**

Product Specifications

www.igel.com

IGEL® TECHNOLOGY

Software

UNIVERSAL DESKTOP CONVERTER

IGEL Universal Desktop Converter (UDC) Software

System requirements
- RAM: 512 MB
- Flash- / HDD-Memory (IDE or SATA): 512 MB
- BIOS: USB boot support / CD boot support

IGEL hardware migration
- IGEL Smart 2110 LX
- IGEL Compact 3210 LX
- IGEL Winestra 4210 LX
- IGEL Premium 5210 LX
- IGEL Premium 5310 LX

Neoware hardware migration
- Neoware c50 (DE-*2-GD)
- Neoware e90 (DC-*2-GD)
- Neoware e140 (DD-*2-GD)

Third party hardware migration
- Acer Veriton N260G
- DELL Optiplex FX160
- Fujitsu Futro S100 / Futro S450 / Futro S500 / Futro S550
- HP t5545 / t5735 / t5745
- Samsung TC190 / TC240
- Wyse C90LEW

Legacy PC migration
- Standard x86-compatible PC hardware

Available components
- **UDC-Token** (USB)
- **Entry**: UDC-120 LX
- **Standard**: UDC-420 LX
- **Advanced**: UDC-720 LX

Software features
- see Firmware Packages Linux[1]

[1] The functionality available will depend upon the specifications of the original hardware device

Hardware Series

IGEL UNIVERSAL DESKTOP

IGEL Universal Desktops

Hardware		UD2	UD3	UD5	UD9
Power supply		External	External	External	External
Power consumption		13 W (Idle) 2 W (Sleep)	12 W (Idle) 2 W (Sleep)	18 W (Idle) 4 W (Sleep)	42 W (Idle) 2 W (Sleep)
Flash		1 GB (LX) / 2 GB (ES) / 512 MB (CE)	1 GB (LX) / 2 GB (ES) / 512 MB (CE)	1 GB (LX) / 2 GB (ES)	2 GB (LX / ES)
RAM		512 MB (LX) / 1 GB (ES) / 512 MB (CE)	512 MB (LX) / 1 GB (ES) / 512 MB (CE)	512 MB (LX) / 1 GB (ES)	1 GB (LX / ES)
CPU		VIA Eden 500 MHz	VIA Eden ULV 1 GHz	VIA C7 1,5 GHz (LP)	ATOM n270 1,6 GHz
Video memory		16 – 64 MB	16 – 64 MB	64 – 128 MB	32 – 128 MB
Max resolution		1920 x 1200, Dualview (LX / ES), 1280 x 1024 (CE)	1920 x 1200, Dualview (LX / ES), 1280 x 1024 (CE)	Dualview, 1920 x 1200	Dualview, 1920 x 1080
Linux	1	**UD2-121 LX**	**UD3-121 LX**	**UD5-120 LX**	
	4	**UD2-421 LX**	**UD3-421 LX**	**UD5-420 LX**	
	7	**UD2-721 LX**	**UD3-721 LX**	**UD5-720 LX**	**UD9-730 LX** **UD9-731 LX[2]**
Windows Embedded Standard	1	**UD2-121 ES**	**UD3-121 ES**	**UD5-120 ES**	
	4	**UD2-421 ES**	**UD3-421 ES**	**UD5-420 ES**	
	7	**UD2-721 ES**	**UD3-721 ES**	**UD5-720 ES**	**UD9-730 ES** **UD9-731 ES[2]**
Windows Embedded CE	1	**UD2-121 CE**	**UD3-121 CE**		
	4	**UD2-421 CE**	**UD3-421 CE**		

[2] with touchscreen

Operating Systems / Firmware Packages

IGEL UNIVERSAL DESKTOP

UNIVERSAL DESKTOP CONVERTER

Firmware Packages:

- 1 = Entry
- 4 = Standard
- 7 = Advanced

IGEL UD5-420 LX
= IGEL UD5
+ Firmware Package Standard 4
+ Linux OS

Operating Systems	Firmware Packages	Management: Local and Remote Management (UMS)	Management: Fail-safe Firmware Update	Management: Power Management	Network: Standard: TCP/IP, PXE, Wake-on-LAN, DNS, DHCP	Network: SNMP	Network: PPTP	Network: L2TP	Network: Third Party VPN: Cisco, NCP	Network: PPPoE (DSL via onboard LAN)	Communication: RDP / ICA	Communication: Microsoft RemoteApp support	Communication: X-Access (XDMCP)	Communication: Citrix XenDesktop	Communication: VMware View	Communication: Appliance mode for virtual desktops	Communication: Ericom PowerTerm WebConnect	Communication: Ericom PowerTerm Terminal Emulation	Communication: Native IBM 5250 Emulation	Communication: Local web browser	Communication: Leostream	Communication: NoMachine NX	Communication: Quest vWorkspace	Communication: SPICE (e.g. for Red Hat virtualization solution)	Communication: ThinLinc	Print Services: Line Printer (LPD)	Print Services: Internet Printing Protocol (IPP)	Print Services: Windows Shared Printer	Print Services: ThinPrint	Additional Software Features: Multimedia Redirection for VMware View and Citrix HDX[3]	Additional Software Features: Java SE Runtime Environment	Additional Software Features: PDF Reader	Additional Software Features: SAP GUI	Additional Software Features: Extended USB Redirection	Additional Software Features: .NET Framework	Additional Software Features: Voice over IP	Additional Software Features: Media Player	Additional Software Features: Flash Player
Linux	1	☑	☑	☑					☑		☑	☑	☑														☑	☑				☑						
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Windows Embedded Standard	1	☑	☑	☑	☑				☑		☑	☑															☑				☑			☑				
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Windows Embedded CE	1	☑	☑								☑																☑											
	4	☑	☑								☑			☑	☑	☑	☑	☑		☑							☑	☑								☑		

[3] except for UD9