



## APP NOTE

# VIBRANT, IMMERSIVE MULTIMEDIA USER EXPERIENCES WITH IGEL

Multimedia - for several years a buzzword often used for combined audio and video applications - has become a must-have staple within organizations that need to keep their people informed, productive, and virtually “together”. By definition, multimedia means “to refer to computer programs and products which involve sound, pictures, and film, as well as text”<sup>1</sup>.

In private life, everybody “lives” multimedia by taking and posting photos, reading eBooks, having a Zoom meeting with friends or family, or binge-watching the latest series or hit movies on different streaming platforms. Without multimedia technology, no influencers would have emerged via their content we consume on YouTube, for example.

Within corporate environments, multimedia plays a large part in the typical working day of most people. Consider the following scenarios:

- Many people prefer to use several endpoint devices to accomplish their daily workload - at least a notebook and a cellphone.
- Unified communication and collaboration tools are often used to dynamically share documents or use chat functionality to enable geographically distributed teams to effectively work together.
- Video conference calls among geographically distributed teams.
- Content creation, including assets with voice and video, such as product videos, customer testimonials, and recorded webinars.
- Video consumption for info gathering or training. Many people prefer watching an explanation video on YouTube instead of reading a handbook, for example.
- Work on computer-aided designs for the creation of schematics, construction layouts and elevations, and technical drawings.
- Advanced 3D design for simulation and modeling and product development.
- Use of 2, 3, or 4 displays for more immersive, informative content presentation (e.g., engineering design or securities trading).

The above is just a subset of the many common uses of multimedia, this list could go on and on!

<sup>1</sup> Definition by collinsdictionary.com



Most of these examples have one thing in common: they usually require high-performance endpoint devices with plenty of memory and storage. Graphics-intensive applications can be severely deficient when working with a low-performance device—jittery images, poor resolution, or long response times frustrate end-users and negatively impact progress.

Increasing endpoint performance demands continue to place a burden on endpoint device hardware that has to be renewed at ever shorter intervals. Regular, costly purchases like these are simply not feasible in many companies, and chip or component shortages can leave organizations in an endpoint equipment performance bind.

In spite of these endpoint performance pressures, IGEL OS can save organizations considerable money by enabling them to continue to use their existing endpoint devices for years longer before replacement. The classic costly and disruptive endpoint “hardware refresh” process can be delayed or bypassed altogether since IGEL OS requires very little endpoint CPU and memory resources compared to traditional fat clients. As such, it can also provide a great user experience using lower cost, more compact thin client devices that are “greener” than PCs, have fewer moving parts, convection cooling, etc. for greater reliability and even longer life. All while reducing an organization’s overall carbon footprint.

## Why is IGEL the perfect partner for companies pursuing a high-fidelity multimedia experience for their employees?

IGEL enables the foundation for working with multimedia content:

- IGEL OS supports the **most unified communications software solutions** over VDI and cloud workspaces. These include Zoom, Microsoft Teams, Cisco WebEx Meeting & Teams, and Avaya.
- **Firmware updates of headsets** from EPOS and Jabra are possible via the IGEL Universal Management Suite.
- IGEL OS allows **hardware acceleration for H.265 (HEVC)**, with twice the compression of audio and video with the same quality.
- IGEL OS allows **multimedia redirection** for Citrix, Microsoft, VMware, and AWS.
- IGEL OS **supports the NVIDIA virtual GPU technology** which delivers host-accelerated, graphics-rich virtual desktops and workstations.
- The **use of up to eight displays** is supported by IGEL OS. According to a study by the Fraunhofer Institute, workstations with three monitors increase productivity by 35.5%.
- IGEL OS **includes a robust multimedia codec pack** offering a multimedia streaming capability to rival any PC.
- A **local media player and local browser rendering** multimedia content offer an even better user experience.



# IGEL offers the essential components needed to enable people to work and prosper in a multimedia environment.

## IGEL OS

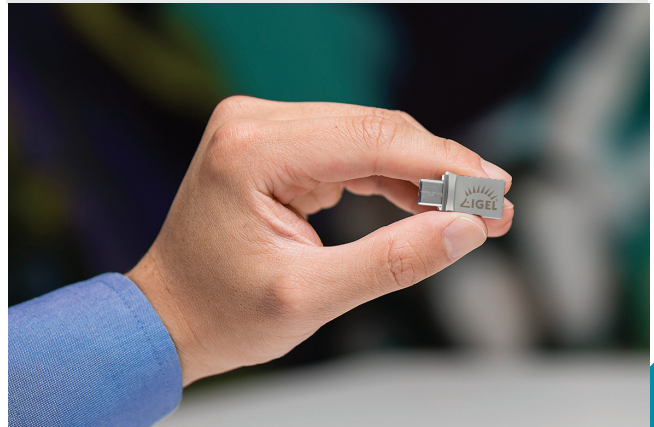
A platform-independent, lean, and modular Linux-based next-gen endpoint operating system designed for simple, smart, and secure endpoint control and optimization, IGEL OS allows access to cloud services, server-based computing applications, or virtual desktops, and provides outstanding audio, video, interactive graphics, and unified communications.

## Universal Management Suite (UMS)

A single management and control solution for just a few to up to 300,000 distributed IGEL OS-powered endpoint devices, the UMS is purpose-built to simplify complex enterprise environments, supporting diverse operating systems, databases, and directories. The UMS server can be located on the corporate network or in the cloud.

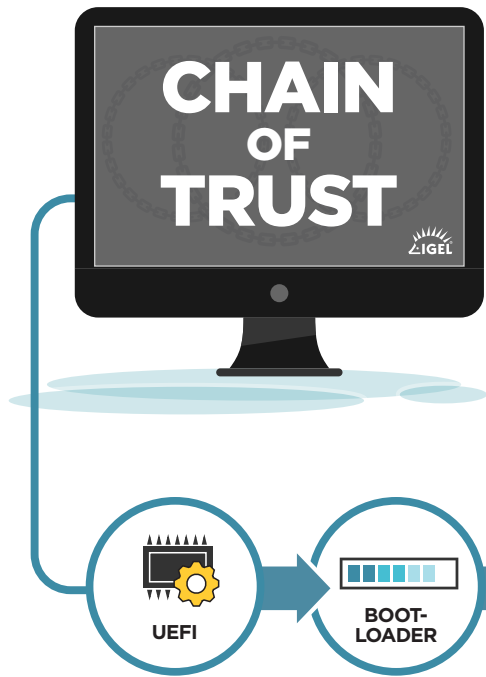
## IGEL UD Pocket

A portable and powerful USB pluggable endpoint solution that is no larger than a paper clip, the UD Pocket is essentially “IGEL OS on a stick”, and offers secure high performance for remote and mobile workers. IGEL OS boots from a PC, laptop, or any compatible x86-64 based endpoint device. The UD pocket temporarily converts the device into a user’s digital workspace, and then that device reverts back to its original environment when the UD Pocket is unplugged.



## Enhanced multimedia that is safe to use

The use of different multimedia applications can make work highly productive and enjoyable, while it facilitates daily business. But is it secure? Will this give the IT admin indigestion? Rest assured that with IGEL, it will not. Moving Windows workspaces and most of the storage burden to the data center or cloud with lean IGEL OS on endpoints delivers immediate security and compliance benefits. IGEL extends this added assurance to endpoints by creating a complete “chain of trust” from device boot to cloud workspace execution.



## THE IGEL CHAIN OF TRUST

- Ensures all components of a VDI/cloud workspace scenario are secure and trustworthy.
- As each component starts, it checks the cryptographic signature of the next, only starting it, if it is signed by a trusted party (e.g., IGEL, UEFI Forum).
- If a failure condition at any step is detected, the end-user is alerted, and IT can take appropriate action.

### THE PROCESS

- 1 The software-related IGEL Chain of Trust starts at UEFI.
- 2 UEFI checks the bootloader for a UEFI Secure Boot signature.
- 3 Bootloader then checks the IGEL OS Linux kernel.
- 4 If the OS partitions' signatures are correct, IGEL OS\* is started, and the partitions are mounted.
- 5 For users connecting to a VDI or cloud environment, access software checks the certificate of the connected server.

\* IGEL OS 11.03 or later

IGEL OS keeps end-users **productive and happy** by delivering a great user experience. It offers excellent performance given its lightweight architecture and lack of “overhead”. IGEL OS stays current with the latest releases of VDI client software from Citrix, VMware, AVD, AWS, and others. It supports the latest available Linux clients for all the primary unified communications software including MS Teams, Zoom, WebEx, and others. Being extremely efficient per device CPU and memory resources, IGEL OS offers outstanding performance for demanding multimedia workloads like CAD/CAM and video editing.

Additionally, IGEL’s **broad IGEL Ready technology partner ecosystem** of more than 110 leading technology providers ensures integration of the latest technologies: VDI client, authentication, dictation, e-signature, printing, USB management, and many more.

IGEL has emerged as an ideal endpoint OS partner in these times of evolving multimedia work. IGEL customers can benefit from a unified, coordinated end-user computing solution that enables secure and productive work with a wide range of media and performance requirements from anywhere - quickly and easily. With an emphasis on security and performance, IGEL delivers a great user experience for end-users while giving both IT administrators and the CFO peace of mind!

**Experience more about how IGEL supports companies with different requirements to keep their employees productive at**

[igel.com/resources](https://igel.com/resources)