Cloud

Gyper

Our proprietary sovereign hypervisor technology in the Gigas cloud.

Gyper is our optimised KVM-based platform, which combines the power of the Linux kernel with our own management layer that eliminates the complexity of VMware.

What is KVM?

KVM is a **one-of-a-kind Type 1 (bare-metal) hypervisor,** as it transforms the Linux kernel into the hypervisor itself.

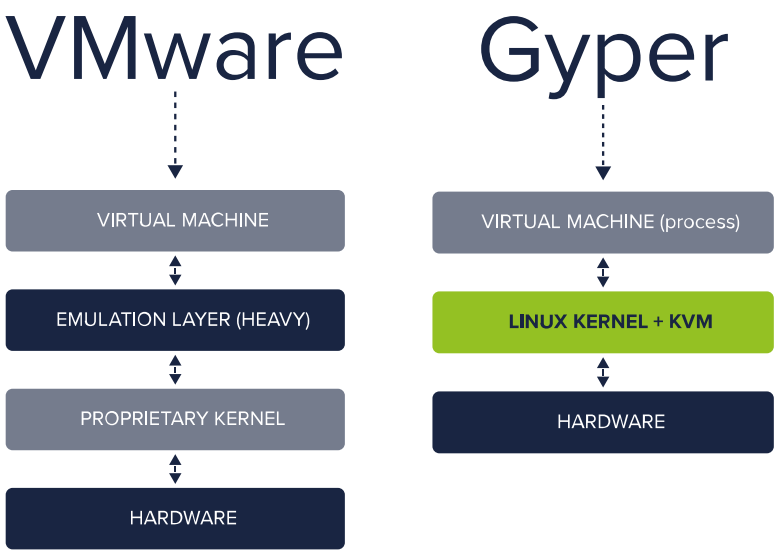
Unlike Type 2 hypervisors, which run on top of a host operating system, KVM has direct access to hardware resources, eliminating unnecessary layers of abstraction that impact performance (2–3% vs 10–15% in VMware environments).

Key features

- **Kernel integration:** KVM's architecture allows each virtual machine to be managed as a standard Linux process, facilitating the use of open-source orchestration tools such as Docker and Kubernetes, positioning Gigas at the forefront of application modernisation and cloud-native computing.
- **Hot scaling:** Allows you to increase CPU and RAM in real time from your control panel without restarting the instance
- **Interoperability:** Because KVM is the public cloud standard with native integration.

> *"The technical and economic advantages of KVM over VMware's proprietary model.*

On top of this hypervisor architecture, Gigas has developed its own orchestrator for the dynamic management of VMs.



Comparison with VMware

	Gyper	VMware
Licence fee	**0€** Included in the service	High (Mandatory annual subscription per core)
Purchasing model	Pay-as-you-go	Large minimum packages (72 cores)
Performance	Almost native (3–5% overhead)	Higher overhead (5–15%)
Dependency	Open standard (No lock-in) Multi-vendor strategy	Closed proprietary ecosystem Locked-in supplier
Management	Basic (Cloud/API Panel) **Free**	Complex (vCenter, requires specialists) At a cost
Architecture	Integrated into the Linux kernel	Owner
Hardware	Pre-configured hardware, with the option to customise	Closed compatibility; enforced by HCL
Hypervisor type	Type 1 – Integrated into the Linux kernel	Type 1 – Proprietary microkernel
Scalability	Linear and predictable growth	Penalty for growth

Advantages

The choice of hypervisor is no longer simply a matter of technical preference, but has become a decision affecting financial survival and legal compliance. Gyper technology, integrated into the Gigas cloud, offers a superior alternative to VMware in three key areas: technical performance, cost-effectiveness and legal sovereignty.

Predictable costs

Gyper is the most sensible choice in terms of financial and technical efficiency.

No hidden costs and billing based on allocated resources.

Flexibility and performance

Gyper offers the best performance, with greater flexibility for growth and complete technological independence.

Agile solutions implemented for machine recovery in the event of physical hardware failure.

Specialist support

Gigas offers local technical support and managed services in your language, 24/7.

The IT manager speaks directly with specialists at Gyper.

Accessibility and reliability

With our own data centres in Spain, Portugal and Latin America, we guarantee that data never leaves the region.

Why Gyper and why Gigas?

- **Independence.** The adoption of Gyper technology, based on KVM (Kernel-based Virtual Machine), represents not only a superior technical choice, but also a declaration of independence from proprietary licensing models and a commitment to near-native performance.
- **Sovereign and Flexible.** KVM has established itself as the de facto standard for the world's most advanced cloud service providers (CSPs), enabling Gigas to offer a flexible, secure and fully sovereign infrastructure under Spanish jurisdiction.
- **Stability.** Gyper is the most stable and secure way to virtualise your servers.
- **Simplicity.** Gyper by Gigas removes the technical barrier to entry for KVM by providing a user-friendly management interface and fully managed support.

Technical specifications: Gyper

	VMware (ESXi/vCenter)	Gyper (QEMU/Libvirt)	Advantages of Gyper
I/O Stack	Proprietary drivers	VirtIO (Network and disk drivers)	**Near-native network performance (passthrough)**
Storage	VMFS (Closed file system)	LVM, Ceph, Gluster, NFS	**Complete flexibility for Software-Defined Storage (SDS)**
Live Migration	vMotion (Requires Enterprise licences)	Native live migration via Libvirt	**Available as standard with no hidden costs**