

WHAT IS A HYPERVISOR?

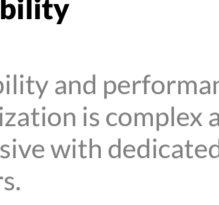
SERVER UTILIZATION BY DESIGN

Hypervisors work by providing a layer of virtualization that allows multiple virtual machines (VMs) to run on a single physical server, each behaving as if it were running on dedicated hardware, thereby optimizing resource utilization and maximizing server efficiency through virtualization technology.

By abstracting the underlying hardware and creating isolated virtual environments, hypervisors enable businesses to harness the benefits of virtualization, streamlining IT infrastructure and enhancing the agility and scalability of their operations.



THE TOP 3 CHALLENGES WITH DEDICATED SERVERS TODAY



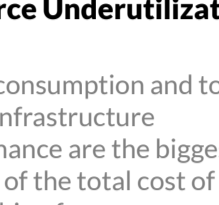
Scalability

Scalability and performance optimization is complex and expensive with dedicated servers.

The **global data center server market size** reached US\$ 52.3 billion in 2022 and is **expected to grow to US\$ 69.7 billion by 2028**, indicating that scalability is top of mind for many businesses.

Hypervisors simplify server scalability and hardware resource utilization.

[Data Center Server Market](#)



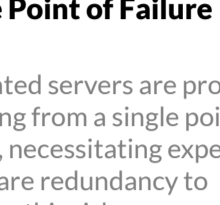
Resource Underutilization

Power consumption and total server infrastructure maintenance are the biggest portion of the total cost of ownership of a server.

Monitoring of **servers in big data centers** like Google and Twitter has shown that the **current resource utilization is less than 50%**.

Hypervisors allow full, or near full utilization of servers, resulting in more effective resource utilization and cost efficiency.

[Consolidation of Underutilized Virtual Machines to Reduce Total Power Usage](#)



Single Point of Failure

Dedicated servers are prone to suffering from a single point of failure, necessitating expensive hardware redundancy to mitigate this risk.

In 2020, 25% of businesses reported the **average cost per hour of enterprise server downtime** was between **\$301,000-\$400,000 USD**.

With hypervisor managed VMs, businesses can take snapshots of servers and re-deploy them in minutes.

[ITIC 2020 Global Server Hardware, Server OS Reliability Report](#)

WHY USE A HYPERVISOR?

Using hypervisor servers can save your company money. It lets you use one physical machine to run multiple VMs for different services, which translates to significant cost savings.

A hypervisor VMs can run services like email, web services, and databases. These services can all run alongside one another and are deployed by one physical machine. Not only do they run the applications and services they are meant for, but they also run their own unique operating systems.

ADVANTAGES OF A HYPERVISOR

ISOLATION AND SECURITY	COST EFFICIENCY	RESOURCE OPTIMIZATION	FLEXIBILITY AND SCALABILITY	DISASTER RECOVERY
Create isolated virtual environments and enhance security by keeping applications and data separate, reducing the risk of one affecting the other in case of issues or security breaches.	Consolidate multiple servers into virtual machines on a single physical server and save on hardware, electricity, floor space, and maintenance management costs.	Run multiple virtual machines on a single physical server, efficiently using CPU, memory, and storage resources and taking advantage of the full computing capability of the machine.	Quickly create, clone, or delete virtual machines, making it easy to scale up or down based on workload demands or testing needs. Transfer from one physical machine to another, if needed.	VMs are software files, and these files can be backed up and uploaded to multiple physical machines. If a machine is down, the other machine will be there to take over from the faulty one.

TYPE-1 VS TYPE-2 HYPERVISORS

TYPE-1	TYPE-2
<p>Type-1 or native or bare metal hypervisors are put directly on hardware and come with their own operating system. These machines have no pre-existing operating systems (like Windows or Linux) or any other software.</p> <p>Type-1 hypervisors typically offer superior performance compared to their Type-2 counterparts and keep the machine secure from Hyper-V-based attacks.</p>	<p>Type-2 or hosted hypervisors are installed on an existing operating system and are typically more user-friendly and flexible.</p> <p>Type-2 hypervisors are considered effective when it comes to ease of installation and are often used for development, testing, or personal virtualization needs.</p>
USE CASES	USE CASES
<ul style="list-style-type: none"> Server Virtualization and Consolidation Resource Efficiency and Flexibility High Availability and Redundancy Disaster Recovery and Business Continuity Test and Development Environments Desktop Virtualization (VDI) Enhanced Security and Isolation Efficient Resource Allocation and Optimization Multi-Tenancy Support 	<ul style="list-style-type: none"> Development and Testing Training and Education Legacy Application Support Demonstrations and Presentations Cross-Platform Development and Testing Hardware Resource Limitations Temporary or Ad Hoc VM Requirements Software Compatibility Testing Remote Work and Mobility

SERVERMANIA'S HYPERVISOR SOLUTIONS

In today's fast-paced digital landscape, hypervisors have emerged as the linchpin of modern server infrastructure, empowering organizations to maximize resource utilization, streamline management, boost scalability, and enhance overall system reliability.

Elevate your IT infrastructure with our cutting-edge hypervisor solutions, unlocking unparalleled efficiency and flexibility. By harnessing the power of virtualization, our hypervisor solutions will empower your business to optimize resource utilization, reduce hardware costs, and bolster data security, ensuring a future-proof foundation for your digital success.



7 BENEFITS OF USING A SERVERMANIA HYPERVISOR SOLUTION



THE SUPPORT YOU DESERVE - 24X7

Unlike other hypervisor server providers, support is not an afterthought for us; it's part of the solution. With 24/7 support included, you'll experience faster deployment times, allowing you to focus on what you do best. With ServerMania you can always count on:

- 24x7 Expert Support**
- Contact us via live chat, email or phone**
- Affordable Server Management Options**
- 15 Minute Response Times**

ARE SERVERMANIA HYPERVISOR SOLUTIONS WORTH IT?



The global **server virtualization market is forecast to grow** from around 7 billion U.S. dollars in 2020 to around **14 billion U.S. dollars by 2030**. By deploying a hypervisor solution, your business will benefit from cutting edge technology and infrastructure tailored to security, scalability, and efficiency. Consider working with a trusted partner that can help build your network so that it grows with your business.

ServerMania has experience developing enterprise solutions for over 20 years and can guide and support businesses of all sizes in establishing secure, reliable and powerful hypervisor solutions to meet or exceed their needs.

If you would like to know more about how we can help you, [book a free consultation](#) with one of our account managers today or learn more about ServerMania's hypervisor solutions.

[BOOK A CONSULTATION](#)