

Server Virtualization – Ensure High Availability, Scalability, and Performance!



Every organization has to be fully equipped to meet the challenges of a competitive market that thrives on excellent product/service delivery.

Being backed by seamless technology and multiple backup resources gives an organization the much-desired edge over similar service providers.

Among many such technologies that bolster a company on its journey to growth is an effective solution with immediate response to the organization's scalability needs i.e., [Server Virtualization](#).

What is Server Virtualization?

Server Virtualization is the distribution of a single server into multiple virtual servers with their own set of Operating Systems (OS) and applications. These servers are commonly referred as **Virtual Machines (VMs)**.

To setup virtual servers, the server administrators utilize a software application such as a hypervisor to divide one physical server into numerous isolated virtual environments.

Each VM is an independent server, even though it is running on just a part of the actual underlying computer hardware. This aspect enables businesses to efficiently utilize physical computer hardware and realize a greater return on their hardware investments.

Moreover, the server virtualization arrangement helps a company divide its operations to manage complex workflows. For example, a team of graphics personnel can work on a Mac OS, whereas a team of accounting professionals will use a Windows environment and this diversified usage won't be an impediment.

Useful Link: [Virtualization Services Made Easier with Veritis Consulting](#)

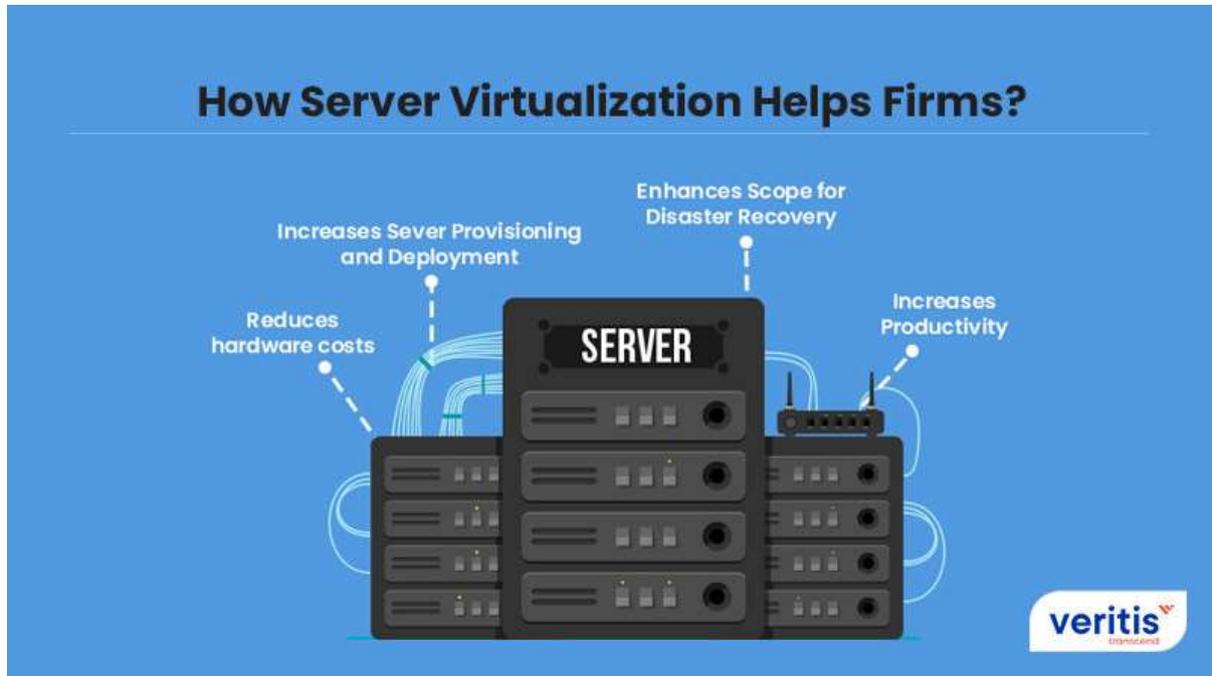
Challenges That Paved the Way for Server Virtualization

Without virtualization, enterprises face challenges including server sprawl, where resources are not utilized to the fullest while still consuming significant floorspace.

Moreover, the manual process failed to meet the rising production demands and data center management became a cumbersome task.

But today, server virtualization has transformed the way a company manages its resources to fulfill its business growth needs.

How Server Virtualization Benefits Businesses?



Driven by the need for growth, cost savings and technological advancements, organizations adopt server virtualization owing to its following benefits:

- **Reduces hardware costs:** Winning in the area of operational costs is what most organizations look for. With server virtualization, hardware utilization has improved significantly because one physical server can now power multiple virtual machines. This also boosts application performance since each application has its own virtual server. For companies with thousands of servers, the need for physical space reduces drastically, in turn bringing down maintenance costs. Recently, the International Data Cooperation (IDC) reported a 40 percent reduction in hardware and software costs for IT departments who adopted server virtualization. According to VMware, server consolidation reduces energy costs by up to 80 percent.

- **Increases Server Provisioning and Deployment:** Setting up virtual servers is now a matter of minutes, reducing the time and money spent on provisioning physical servers. Companies do not have to waste time on filling out purchase order forms, waiting for physical servers to arrive or wait for operating systems and applications to be installed.
 - **Enhances Scope for Disaster Recovery:** Server virtualization greatly boosts disaster recovery as backing up critical company data on a virtual server becomes easy, quick and safe. Most enterprises have dedicated software for automating a failover during a disaster. When your data center is affected due to a disaster, your infrastructure is quick to take action based on its programming to deal with an emergency.
 - **Increases Productivity:** Having to do away with physical servers equals to directing your staff to more business growth-driven tasks. When IT staff does not have to invest their time in provisioning applications or OS that used to take weeks, they are naturally driven to taking new business initiatives and revenue-generating tasks.
-

Useful Link: [Virtualization Services Made Easier with Veritis Consulting](#)

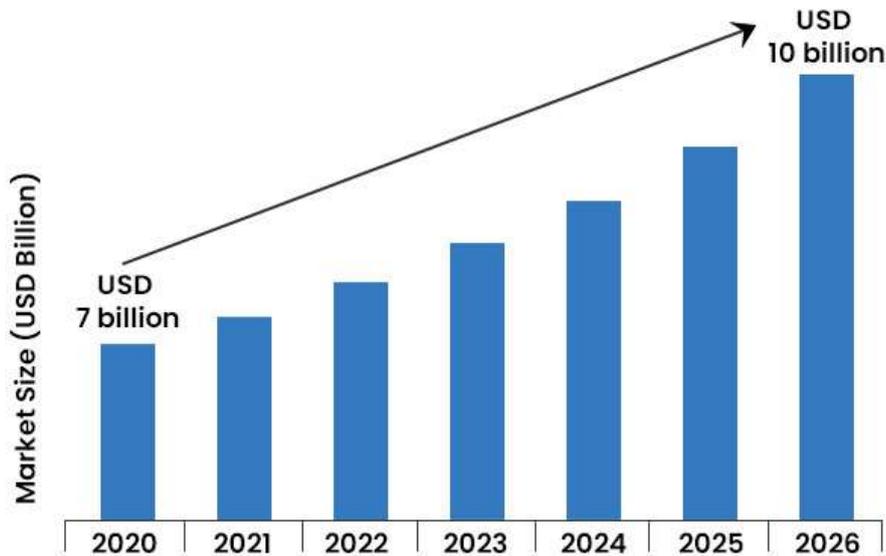
Types of Server Virtualization

Server virtualization has several variations including:

- Standard hypervisor-based Virtualization
- Para Virtualization
- Hardware-assisted Virtualization
- Kernel-level Virtualization
- System-Level or OS Virtualization

The Future of Server Virtualization

The global server virtualization market is forecast to propel from USD 7 billion in 2020 to USD 10 billion by 2026.



Factors that drive server virtualization include:

- Software maintenance revenue with increased adoption of on-premise server virtualization software
- Proliferation of technology such as cloud and OS container-based virtualization
- Hyper-converged integrated system and emergence of software-defined data center solution

Despite the dawn of containerization and serverless computing, server virtualization is still an important technology for large enterprises.

The **Global Server Virtualization** market is driven by some leading companies including Citrix, Oracle, Microsoft Corporation, Red Hat and VMware, among others. The VM saturation estimation is as high as 90 percent.

Thinking about the future of moving mission-critical data, it is difficult to move mission-critical applications on VMs to containers or serverless platforms.

Users with heterogeneous environments will likely continue to use VMs because containers need to run on all the same OS and can't be mixed between two OS platforms.

Useful Link: [IT Infrastructure with Virtualization and Server Maintenance](#)

In Conclusion

Server virtualization is an imperative technology that helps relieve infrastructure overhead while improving cost savings, scalability, and efficiency. Despite being created decades ago, the road to successful virtualization remains bumpy. There is more to server virtualization than meets the eye. That's why clients seek the services of [IT Virtualization Consulting Services Providers](#) like Veritis.

[Veritis Group Inc](#) holds sound expertise in [virtualization solutions](#) and has deployed its skills and services to the benefit of many clients. With our deep experience in market leading virtualization platforms including VMware, Veritis is well positioned to guide your organization through the journey to a virtualized IT environment.

Whether it be virtualizing your network and server infrastructure or introducing virtual desktops and applications, partner with us and realize scalable virtual solutions to accommodate your evolving needs.

Looking for a trusted consulting partner to help you with your server virtualization project.

Contact Us →