

IBM PowerVM

Powering Modern Business Leveraging AI,
Hybrid Cloud with Strength Virtualization



Highlights

- Maximize Efficiency and Savings.
- Accelerate Deployment
- Scale Without Penalty
- Ensure Continuous Operations

[IBM® PowerVM®](#) delivers an enterprise-grade virtualization platform designed for businesses navigating AI-driven, cloud-integrated, and data-centric transformations. Organizations today face rising downtime costs, security threats, and infrastructure complexity. Built on decades of innovation, PowerVM helps solve these challenges by enabling high-performance, resilient, and secure operations across AIX®, IBM i, and Linux workloads—reducing risk, optimizing resources, and accelerating modernization.

IBM PowerVM offers a secure and resilient virtualization environment built on the advanced RAS (reliability, availability, and serviceability) features, extreme scalability, and leadership performance of the Power platform based on outstanding Power processors. It allows organizations to consolidate large numbers of applications and servers, fully virtualize their system resources, and provide a more flexible, dynamic IT infrastructure. IBM PowerVM is not just another hypervisor. It is a comprehensive virtualization solution that transforms [IBM Power® Servers](#) into agile platforms ready for the demands of modern enterprise computing. Whether consolidating applications, enabling cloud deployments, or optimizing AI and data analytics, PowerVM provides the foundation for high-efficiency, high-performance IT.



Key Benefits and Strategic Differentiators

Efficiency that Scales with You

Consolidate hundreds of applications on fewer servers. PowerVM supports up to 1000 VMs per server using micro-partitioning and dynamic resource sharing. Maximize utilization with features like Shared Processor Pools, and processor granularity as fine as 1/100th of a core.

Designed for Performance and Reliability

Built on the Power processor architecture, IBM PowerVM delivers the throughput and latency required for data-intensive AI, ERP, and analytics workloads. Leverage Live Partition Mobility (LPM) to migrate workloads without downtime—essential for continuous service in hybrid and multi-cloud environments.

Enterprise-Grade Security and Isolation

PowerVM is certified under Common Criteria EAL2+ for hypervisor-level security. Strong isolation between workloads ensures compliance in highly regulated industries.

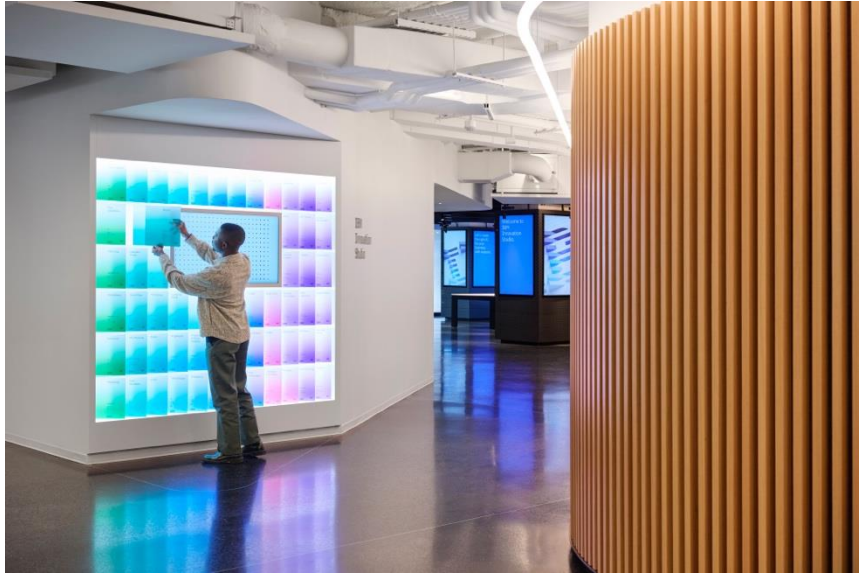
Dynamic, Flexible I/O and Memory Virtualization

Virtual I/O Server (VIOS) enables the consolidation of physical I/O, reducing adapter costs and complexity. Shared Storage Pools and NPIV support simplify SAN environments and allow scalable, secure storage access. SR-IOV support provides low-latency I/O performance ideal for high-throughput workloads.

Simplified Systems Management

Manage PowerVM through IBM PowerVC or HMC, offering intuitive VM lifecycle management and automation.





Customer Use Cases

Financial Services. Secure, high-availability infrastructure for core banking and fraud analytics.

Healthcare. Reliable platform for patient record systems and medical AI applications.

Manufacturing & Retail. Scalable ERP and SCM operations supported by resilient VMs.

Public Sector & Government. Compliant infrastructure for defense, policy, and data protection needs.

Client Needs	IBM PowerVM
High Performance	Built-in hypervisor – Power’s benchmarks are fully virtualized
Elastic Scalability	Scales to support the most demanding mission-critical enterprise workloads
Extreme Flexibility	Dynamically reallocates CPU, memory, storage and I/O without impacting workloads
Maximum Security	Embedded in Power’s firmware protected by secure access controls and encryption
Platform Integration	Designed in sync with Power processor and platform architecture
Cloud Native Support	Deploy OpenShift native directly on PowerVM at no additional charge

Additional Resources

[IBM Power Redbooks](#)
[IBM PowerVM community](#)
[IBM PowerVM Group](#)

Why IBM?

IBM has long pioneered virtualization technologies and provided services that help companies manage valuable business data. IBM PowerVM provides industrial strength server virtualization for IBM Power that run IBM AIX, IBM i and Linux workloads.

For more information

To learn more about IBM PowerVM, please [get in touch with your IBM representative](#) or IBM Business Partner, or visit the IBM PowerVM product page

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