



Highlights

- Simplified virtualization and cloud management for IBM® Power Systems™
 - Easily replicate virtual machines for consistency and fast deployment
 - Self-service portal enables provisioning of new workloads easily into a cloud
 - Automated configuration of I/O resources enables mobility and highly available configurations
 - Policy-based workload placement simplifies and automates administration
 - Virtual image management, including virtual machine capture, deployment and catalog
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IBM PowerVC

Virtualization and Cloud management solution for IBM Power Systems

IBM PowerVC is an advanced virtualization and cloud management offering, built on OpenStack, that provides simplified virtualization management and cloud deployments for IBM AIX®, IBM i and Linux virtual machines (VMs) running on IBM Power Systems. PowerVC is designed to improve administrator productivity and simplify the cloud management of VMs on Power Systems servers. PowerVC provides the foundation for Power Systems scalable cloud management, including integration to higher-level cloud orchestrators based on OpenStack technology.

PowerVC helps Power Systems customers lower their total cost of ownership with a simplified user experience that allows simple cloud deployment and movement of workloads and policies to maximize resource utilization. PowerVC has been built to require little or no training to accelerate cloud deployments on Power Systems. PowerVC has the capability to manage the existing infrastructure by automatically capturing information, such as existing VM definitions, storage, network and server configuration information.

PowerVC allows clients to capture and manage a library of VM images, enabling IT managers to quickly deploy a VM environment by launching a stored image, instead of having to manually recreate that particular environment. By saving virtual images and centralizing image management, IT managers and administrators can migrate and move virtual images to available systems to expedite deployment.

PowerVC allows IT managers and administrators to create groups of resources that are needed to support workloads. These can then be quickly leveraged to support workload demands to increase utilization and help lower administrative costs, while making IT nimbler when reacting to business needs and market trends.



IBM Power Systems Data Sheet

The architecture of PowerVC uses the OpenStack platform to provide virtualization and cloud management customized for Power Systems. This includes an IBM Power-specific user interface, and IBM-specific OpenStack drivers for Power Systems management interfaces like the Hardware Management Console (HMC), plus scheduling capabilities.

Additionally, PowerVC offers the following value to clients:

- Installation and configuration for the entire hardware stack (host, storage and network) and software stack (PowerVC components)
- Can be installed and configured in hours by administrators of any skill level
- Small footprint and excellent client experience throughout the solution lifecycle, including deployment, operation and support
- Reliable, extendable and cost-effective platform that provides virtualization and cloud capabilities for Power Systems

- Industry-standard APIs that are extendable for adding on higher level cloud capabilities on Power Systems simple to operate and maintain virtualization and cloud management solution
- Dynamically balances workloads based on policy-based optimization by either moving resources to workloads or by moving workloads to underutilized systems

PowerVC is available as two standalone offerings.

1. **PowerVC**, which provides comprehensive virtualization management for Power servers running the PowerVM hypervisor.
2. **PowerVC for Private Cloud** provides all the virtualization management features of PowerVC plus the private cloud capabilities, which includes a self-service portal, role-based access, single-click VM deployment, resource quotas, policy approvals and metering.

PowerVC Features	PowerVC Benefits
Simple installation and configuration	<ul style="list-style-type: none"> • Quick time to value
Intuitive user interface	<ul style="list-style-type: none"> • No training required • Reduces implementation time and cost • Activities can be performed by less skilled personnel, saving the time of more skilled resources
PowerVM support	<ul style="list-style-type: none"> • Full virtualization of PowerVM via HMC/vHMC and/or NovaLink
Image import/export	<ul style="list-style-type: none"> • Seamlessly import workload images into PowerVC and start deploying them immediately. • Easily export images and transport them to new environments (e.g., new data centers, cloud providers, etc.)
Resource pooling and placement policies	<ul style="list-style-type: none"> • Improves resource utilization to help save costs • Reduces the burden on IT staff to help save costs

IBM Power Systems
Data Sheet

PowerVC Features	PowerVC Benefits
Dynamic Resource Optimizer (DRO)	<ul style="list-style-type: none"> • Policy-based automation that actively balances workloads within a host group based on CPU or memory usage • Balances workloads by either moving them to a less busy server or moving capacity-on-demand (CoD) compute and memory resources to the workload
Host grouping	<ul style="list-style-type: none"> • Provides separate policy-based control for a subset of the total managed resources
VM remote restart	<ul style="list-style-type: none"> • Allows VMs to be automatically restarted on a new server after a server failure
Affinity rules	<ul style="list-style-type: none"> • Provides mechanism to collocate VMs within a server or to separate VMs between servers
Automated configuration of I/O	<ul style="list-style-type: none"> • Simplifies and automates setup for mobility and highly available I/O configurations
Virtual image management	<ul style="list-style-type: none"> • Accelerates repeatable deployment of VMs
Targeted VM placement for deployment	<ul style="list-style-type: none"> • Reduces complexity
Third party-supported OpenStack drivers	<ul style="list-style-type: none"> • Accelerates management of third party I/O devices
One-click system evacuation	<ul style="list-style-type: none"> • Simplifies system evacuation for maintenance
VM templates	<ul style="list-style-type: none"> • Enables consistency to maintain standards and enable deployments to help reduce labor costs

In addition to the listed feature above, PowerVC for Private Cloud provides the following features

PowerVC for Private Cloud — Features	PowerVC for Private Cloud — Benefits
Self-service Cloud portal	<ul style="list-style-type: none"> • Accelerates workload deployment
Policy-based approvals	<ul style="list-style-type: none"> • Provides controls for the self-service portal
Metering data	<ul style="list-style-type: none"> • Provides data to bill for cloud resources
Deploy templates	<ul style="list-style-type: none"> • Enables cloud admin to preconfigure workload characteristics for self-service users

Why IBM?

IBM is the trusted advisor for thousands of the world's leading businesses and governments. IBM offers a complete range of server, storage, application and services offerings that have been created with virtualization at the core of their designs.

IBM's depth and breadth of expertise in virtualization systems management with Power Systems is virtually unmatched.

IBM also has technical consultants worldwide who have broad experience in deploying IBM virtualization and private cloud solutions to optimize IBM Systems. When working with IBM to implement PowerVC, clients can benefit from the extensive intellectual capital that the entire IBM Global Services team has accumulated, tested and proven.

For more information

To learn more about IBM PowerVC, contact your IBM representative or IBM Business Partner, or visit the web site <https://www.ibm.com/us-en/marketplace/powervc> or follow the PowerVC LinkedIn group at <http://tinyurl.com/linkedinpowervc>

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