



Unlock the promise
of hybrid multcloud
with the flexibility and reliability
of IBM Power Systems

IBM Power Systems



Complexity is the new reality in a hybrid multicloud world

Modern IT environments are increasingly becoming an interconnected network of private cloud resources and public cloud partners. Currently, 81 percent of enterprises are pursuing a hybrid multicloud strategy in hopes of gaining the benefits that a dynamic architecture can provide.¹ However, there's a catch. The added flexibility of a multicloud architecture has inherent complexities, for two key reasons:

1. Layers upon layers of integration

Enterprises are combining various aspects of public, private and hybrid clouds along with IT architectures that function like the cloud. When these enterprises rely on more than one public cloud provider, each provider could push services and resources from across multiple architectures as well.

2. Ongoing experimentation

Enterprises are experimenting with the “right place” for workloads and services. They’re deploying workloads in one environment, like a public cloud,

and then migrating them to another for comparison, either the public cloud of a different vendor or an on-premises environment. Sorting out where workloads and services are best suited in a hybrid multicloud architecture can be a lengthy trial-and-error process.

As an enterprise expands its hybrid environment—comprised of its own unique blend of private cloud resources and multiple cloud vendors—and continuously shifts workloads around, an unintended byproduct will be a tangled web of IT complexity.

Simplify your hybrid multicloud complexity

Can enterprise businesses simplify hybrid multicloud complexity? Yes—with the right architecture, projects can span private and public clouds as you seamlessly move workloads back and forth across a hybrid environment.

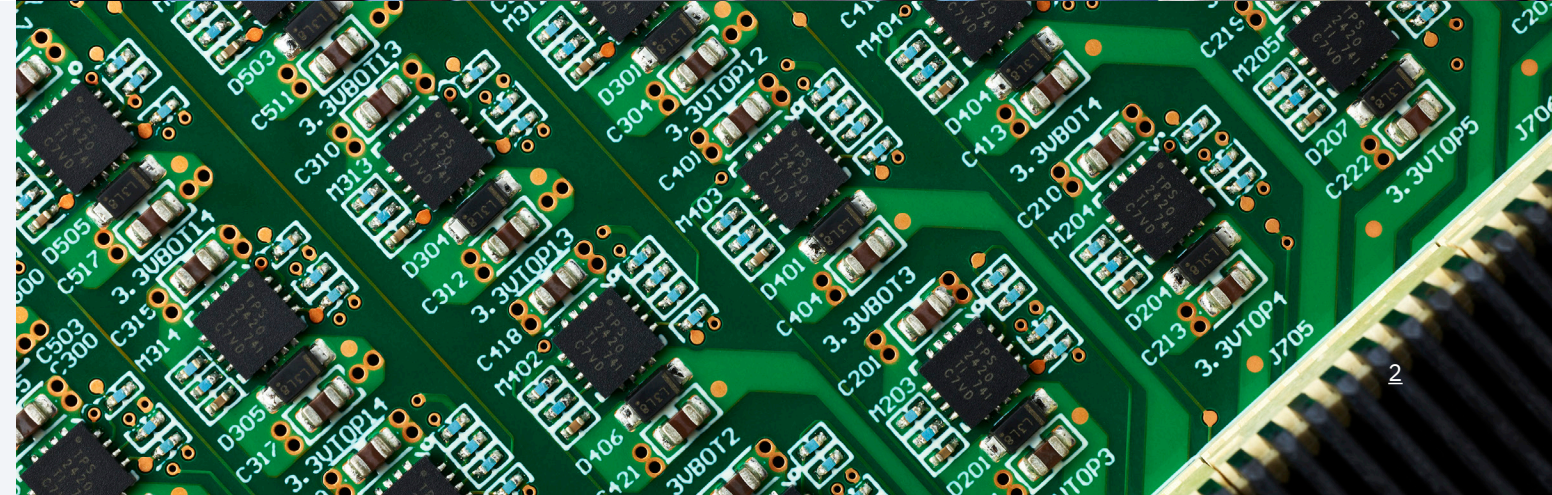


91%

of public cloud adopters will use some degree of internal private cloud¹

4.8

different clouds are used on average by a single organization²





Simplification requires a strong foundation

The architecture of [IBM Power Systems™](#) provides the foundation you need to simplify hybrid multicloud. To achieve this, Power Systems has tailored solutions around three unique components:

1. Capacity on Demand: Capacity on Demand lets you rapidly access and provide additional resources, like compute power and memory, as the needs of a service or application fluctuate. You can closely track usage and pay-as-you-go for resources only when they're needed — gaining immediate savings on idle workloads.

2. Flexible cloud deployment: Through a flexible cloud deployment model, you can run workloads in the environment that makes the most sense for you, whether that is on-premises or in the public cloud. Plus, you can do so without performance disruption.

3. Seamless cloud management: IBM Power Systems provides you with a unified cloud management console via integration with leading cloud orchestration tools, such as VMware® vRealize® and SAP® Landscape Management, and with industry-leading Platform-as-a-Service (PaaS) technology like Red Hat® OpenShift®.

Optimize for a hybrid multicloud world with POWER9™

[POWER9](#) has been developed for the kinds of rigorous performance demands that come with a hybrid multicloud architecture. It boasts innovative technology and has been geared to support modern cloud environments, tools and management systems. With the flexibility and choice of cloud solutions on Power Systems, you can run your applications in the cloud environment that best suits your needs.

IBM PowerVC

Each POWER9 server includes [IBM PowerVC](#). This provides comprehensive virtualization and cloud management for IBM Power servers, making it easy to move virtual machines (VMs) between private and public cloud environments. With IBM PowerVC, you can accomplish the following:

- Rapidly spin up sets of standardized VMs and then shut them down when finished
- Move any VM between clouds or data centers as needed, for seamless hybrid cloud agility
- Easily access and manage multiple hypervisors

IBM PowerVC is also a critical element to deploying cloud-like technology across a software-defined infrastructure (SDI):

Software-defined networking

Virtualize your network resources with the incredible flexibility and speed of I/O accelerators.

Software-defined storage

Tap into and connect a wide range of storage resources, such as flash storage, across hybrid environments.

Software-defined computing

Select the appropriate hypervisor for each platform and workload through IBM PowerVM® or kernel-based virtual machines (KVM) on Power.





IBM PowerVC is available in three versions

IBM PowerVC Standard Edition: Provides full end-to-end lifecycle management of VMs on any OS that runs on IBM Power Systems.

IBM Cloud PowerVC Manager: Building upon IBM PowerVC Standard Edition, IBM Cloud PowerVC Manager provides a portal where users can provision their own workloads from a standard library of images.

IBM Cloud PowerVC Manager for SDI: Bundles IBM Cloud PowerVC Manager together with IBM Spectrum® Scale to give you the added capabilities of software-defined solutions.

IBM Cloud Paks™ on Red Hat OpenShift

Red Hat [OpenShift](#) is fully enabled and supported on IBM Power Systems to rapidly build, deploy and manage cloud-native apps. This gives you the power to manage and move containerized resources from a single user interface — no matter where those resources live in your hybrid multicloud architecture.

Paired with IBM Cloud Paks, you gain enterprise-ready, containerized software solutions for an open, faster and more secure way to move core business applications to any cloud. Each pak includes a container platform, containerized IBM middleware and open source components, and common software services for development and management, on top of a common integration layer.

[IBM Cloud Paks](#) include solutions, such as Cloud Automation Manager and IBM Multicloud Manager, that allow customers to adopt VMs and containers in a hybrid multicloud environment to build next generation applications (like cloud-native microservices) while leveraging your current infrastructure investments.

VMware vRealize Suite

IBM's partnership with VMware provides clients with the vRealize Suite to unify apps and infrastructure management across IBM Power Systems, x86 servers and IBM Z® environments.

The VMware vRealize Suite delivers a similar lifecycle management experience across multiple architectures with two key components:

vRealize Automation: Provides a user interface to manage the entire lifecycle of your VMs running on [IBM AIX®](#), [IBM i](#) and [Linux®](#) on IBM PowerVM or KVM. You can easily start, stop, suspend or move VMs across any of these environments from a single dashboard.

vRealize Operations: Places an agent inside each VM to give you detailed metrics unique to each workload. It also provides predictive analytics, so you can improve performance and identify savings.



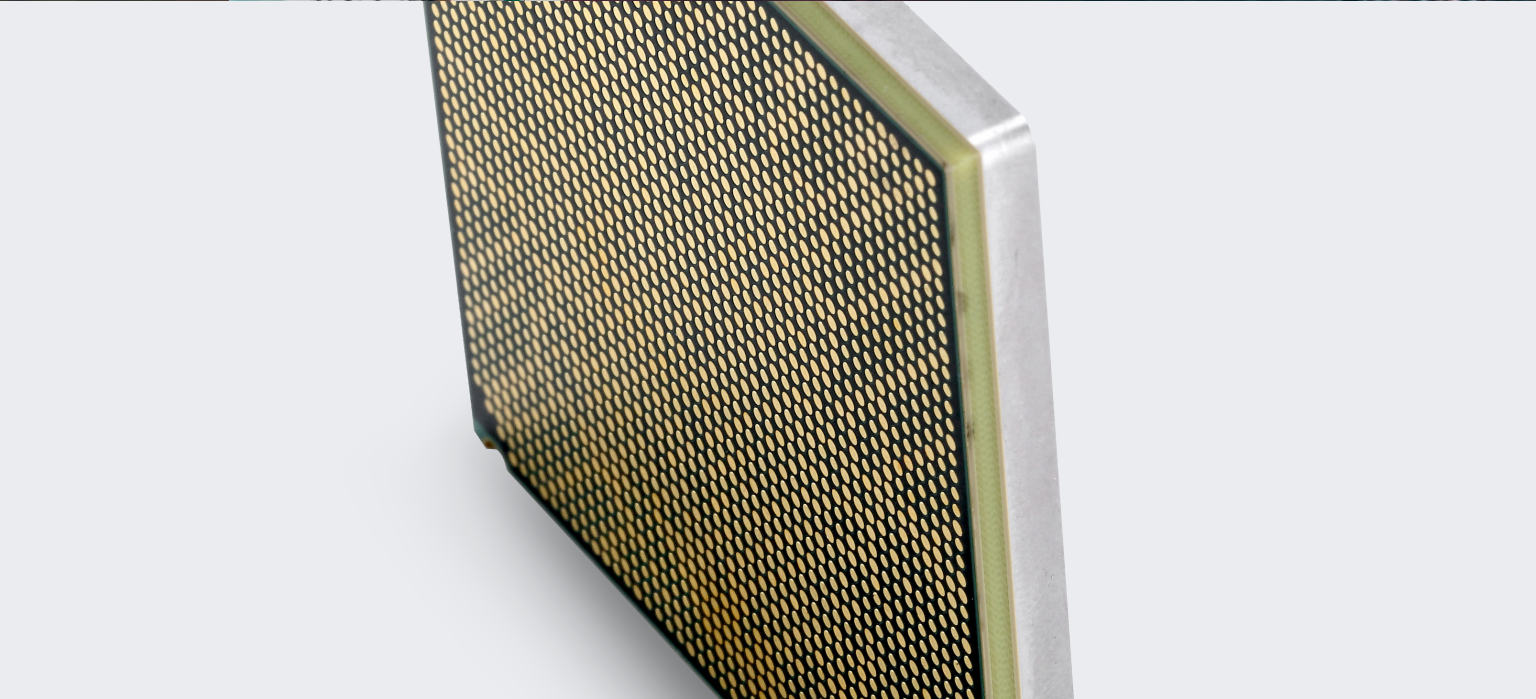
Succeed in today's hybrid multicloud world with Power Systems

Hybrid multicloud adoption requires a measured approach. If you expand your architecture with multiple, diverse cloud environments on an ad-hoc basis, you're hindering the rate of your own innovation—and getting bogged down in needless complexity.

As your IT expands across on-premises and multiple public cloud environments, IBM Power Systems can help reduce complexity and create a secure hybrid multicloud architecture that allows you to succeed in the modern era.

Gain full control over management and consumption of resources to fully realize the promise of hybrid multicloud. By utilizing IBM Power Systems solutions, you can capitalize on tools that help simplify your entire hybrid multicloud experience.

To learn more about how Power Systems can streamline your hybrid multicloud journey, [schedule a consultation today.](#)



1. Source: Forrester Data Global Business Technographics Infrastructure Survey, 2017
2. Source: RightScale 2018 State of the Cloud Report

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