

IBM Cloud

Virtual Private Cloud (VPC)

IBM Cloud for VPC

Modernize your infrastructure with a high-performance private cloud you need, while retaining the public cloud flexibility and innovation.

Highlights

Purpose-built for workloads like AI, SAP, HPC & Virtualization

99.99% SLA availability across MZR's

Built-in High Availability (HA) and Disaster Recover (DR)

Rapid provisioning – 1000 VM's in less than 4 mins consistently

Full network-control experience just like in your own data center

Enterprise-grade security meeting the highest regulatory standards

Discover how organizations are using IBM Cloud VPC Infrastructure:

[Cadence Design Systems](#)

[Harvard Research](#)

Today's enterprises are moving fast to innovate, but their IT environments often struggle to keep up. Teams need stronger security and isolation to protect critical data, the flexibility to design networks like they would on-premises, and a reliable platform to run modern applications such as web services, databases, APIs, and microservices—while staying seamlessly connected to existing infrastructure and controlling costs.

IBM Cloud Virtual Private Cloud (VPC) was purpose-built to enable this modernization journey. It supports demanding workloads like SAP, HPC, and virtualization with 99.99% availability across multizone regions and the ability to provision thousands of virtual machines in minutes.

Backed by enterprise-grade security, the world's first financial-services-ready public cloud, and industry-standard REST APIs that boost developer productivity, IBM Cloud VPC helps organizations to modernize with confidence, control and speed.

IBM Cloud for VPC Solutions

Compute Portfolio

- IBM Cloud Virtual Servers Instances (VSI) for VPC
- IBM Cloud Bare Metal (BM) Servers for VPC

Storage Portfolio

- IBM Cloud Object Storage
- Block Storage for VPC
- File Storage for VPC

Network Portfolio

- IBM Cloud Direct Link
- IBM Cloud VPN
- Transit Gateway
- IBM Cloud Internet Services (CIS)
- Cluster Network for GPU



Feature	IBM Cloud VSI (Virtual Server Instances) on VPC	IBM Cloud Bare Metal on VPC
<i>Compute</i>	Virtual machines on shared hosts	Dedicated physical servers
<i>Provisioning</i>	Rapid (~ 1000 VM's in under 3 mins)	Fast (~10 minutes)
<i>Performance</i>	Flexible, shared performance	Maximum, dedicated performance
<i>Isolation & Security</i>	Logical isolation; optional single-tenant host	Full physical isolation
<i>Scalability</i>	Instantly scale up or down	Scale by adding servers
<i>Pricing model</i>	Pay-as-you-go or reserved	Pay-as-you-go or term contracts
<i>Typical workload</i>	Cloud-native apps, dev/test, general workloads	HPC, analytics, low-latency, I/O-intensive apps
<i>Customization</i>	Flexible CPU, memory, storage, GPUs	Full hardware and OS control
<i>Networking</i>	Up to ~200 Gbps	Up to ~200 Gbps
<i>Management</i>	IBM manages hypervisor	Full OS Level Control provided to the client
<i>Ideal for</i>	Agility and fast innovation	Predictable, peak performance

Use Cases

AI Workloads with GPU Compute

Choose from the latest GPU instance from NVIDIA and Intel with high bandwidth networking

Accelerate AI workloads with high-performance GPU compute and secure, isolated infrastructure. You can now choose from NVIDIA L40s, H100, H200 GPU and Intel Gaudi3 AI Accelerator profiles for AI training, inference, and data-intensive workloads.

Virtualization Workloads

Migrate your legacy VM's to IBM Cloud VPC to save on licensing cost and create a clear path for modernization

Now is the time to seamlessly lift and shift your legacy VM's from on-prem hypervisors like VMware to IBM Cloud VPC to save on licensing cost while creating a clear path to application modernization via containers and microservices.

Cloud-native application hosting

Migrate and modernize your applications securely

Migrate your existing applications from on-premises or legacy cloud environments while modernizing them at your own pace. You can re-host workloads quickly using Virtual Server Instances, then progressively refactor them into cloud-native architectures with containers, microservices, and managed services.

Mission critical & Regulated workloads

SAP certified profiles for running SAP ECC and S/4 HANA production workloads.

Run mission-critical and regulated workloads with high availability, strong isolation, and enterprise-grade security. Designed for compliance-driven industries, it delivers predictable performance, resilient multi-zone architectures, and granular network control—helping you meet regulatory requirements while maintaining reliability.

High-Performance Computing

High throughput networking with low-latency traffic; Isolated and secure

Run large-scale simulations on GPU-powered VPC virtual servers optimized for parallel processing. With high-throughput, low-latency networking and secure, isolated environments, teams can accelerate modelling, simulation, and analytics workloads—achieving optimal performance and meeting regulatory requirements.

Hybrid Cloud and Private Connectivity

Securely extend your on-prem and private cloud environment.

Bridge your on-premises and cloud environments using IBM Cloud VPC to build secure, high-performance hybrid cloud architectures. By connecting data centers to VPC using VPN, Direct Link, or Transit Gateway, organizations can extend existing networks into the cloud with consistent IP addressing, routing, and security controls.



Why IBM

IBM brings deep industry knowledge, AI innovation, and open-source agility to complex digital transformations—backed by IBM Cloud’s enterprise-grade security, compliance-ready infrastructure, and hybrid cloud platform built to run mission-critical and regulated workloads with confidence.

IBM Cloud VPC enables organizations to host cloud-native applications, migrate and modernize existing workloads at their own pace, and run regulated production environments with confidence. With SAP-certified profiles, strong isolation, multi-zone resilience, and granular network control, it’s designed to meet the needs of compliance-driven industries while delivering predictable performance and high availability.

Built to support the most demanding use cases, IBM Cloud VPC powers AI and HPC workloads with GPU-accelerated virtual servers from NVIDIA and Intel, high-throughput low-latency networking, and secure environments for large-scale simulations and analytics. It also simplifies virtualization migrations by enabling seamless lift-and-shift of legacy VMware workloads to reduce costs and create a clear path to modernization.

With native support for hybrid cloud and private connectivity using VPN, Direct Link, and Transit Gateway, IBM Cloud VPC securely bridges on-premises and cloud environments—helping enterprises modernize, scale, and innovate without compromise.

Discover how our clients have achieved success with IBM Cloud VPC:

Cadence Design significantly enhanced its chip design and verification capabilities by using IBM Cloud’s HPC and scalable VPC Infrastructure. [Learn more](#)

Harvard accelerated AI safety research by partnering with IBM Cloud to train and run large models at scale. [Learn more](#)

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