Top 5 Reasons to Deploy Private Cloud Infrastructure

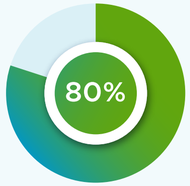
An executive guide

Get Started

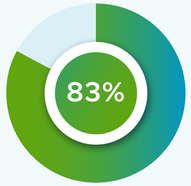
Executive summary

In today's digital-first era, organizations must prioritize rapid innovation to remain competitive and align with changing market needs. This demands IT infrastructure solutions that offer flexibility, scalability and agility while maintaining security, performance and control. When measured against these criteria, private cloud infrastructure emerges as a smart strategic choice for enterprises seeking to balance agility and security.

Today's organizations are embracing private cloud



According to IDC, **more than 80%** of companies are expecting to undergo some repatriation of compute and storage resources to private cloud or non-cloud environments after one year of public cloud migrations.[1]



As per Barclay's CIO Survey 2024, **83% of enterprises** plan to move workloads back to private cloud from public cloud.[2]

But, why are organizations investing in private cloud infrastructure?

This executive guide highlights the top five reasons to choose private cloud infrastructure over traditional or public cloud solutions, with emphasis on how private cloud helps meet the evolving demands of today's businesses.

1. IDC, "Assessing the Scale of Workload Repatriation: Insights from IDC's Server and Storage Workloads Surveys." 1H23 and 2H23, doc #US50903124. June 2024.
2. Barclays. "IH24 CIO Survey: 2024 Outlook Sustained." 2024.

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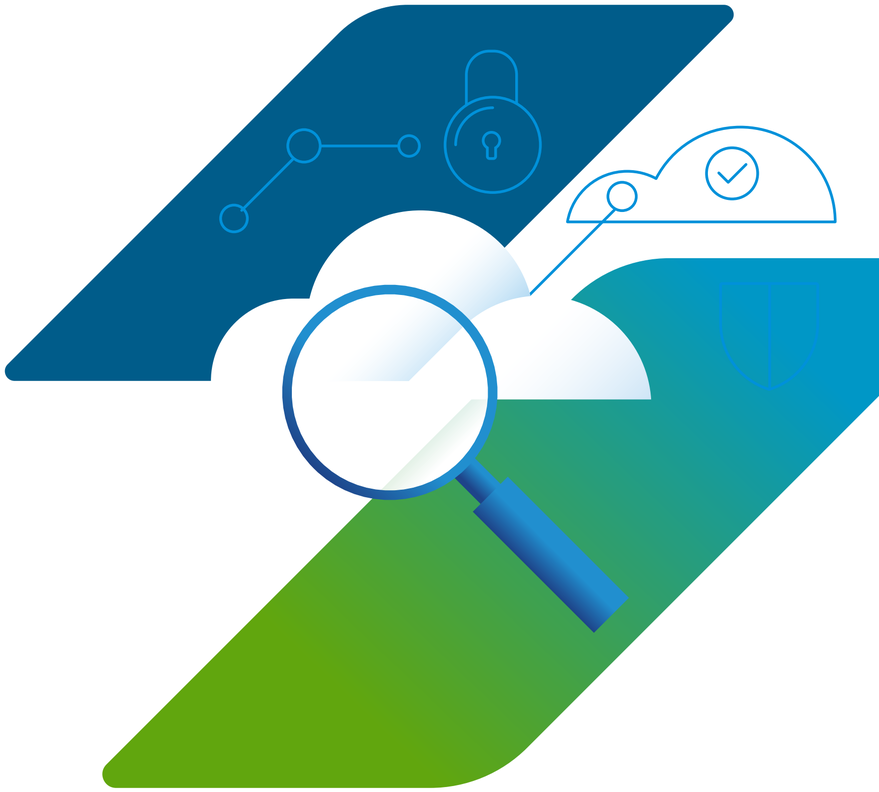
What is a private cloud platform?

Private cloud computing is a form of cloud computing used by a single organization and managed by the organization's IT team in a dedicated or hosted environment, completely isolated from others. Let's break down the individual pieces of the term "private cloud platform."

Private	Cloud	Platform
The solution is for the sole use of a single organization, and offers customizations to apply organization-specific controls for security and compliance.	It provides a cloud operating model that supports intra-organizational multi-tenancy and delivers full infrastructure lifecycle management, intelligent management and analytics, and automated infrastructure for self-service consumption.	It serves as a platform that can run traditional as well as modern workloads and applications with large-scale native support and compatibility for existing and new workloads/applications.



A true private cloud platform delivers the cloud operating model typically associated with public clouds along with the enhanced privacy, security and control associated with privately hosted IT services.

One important thing to note is that **a private cloud does not have to be on-premises or owned or managed by an enterprise.** While private cloud infrastructure and services can of course be hosted at an organization's own data center, they can also be hosted in a third-party colocation facility or by a cloud provider that offers private cloud hosting services (and may or may not also offer traditional public shared multi-tenant cloud infrastructure), and can extend to edge locations.

Now that we've defined what a private cloud platform is, let's take a look at the top five reasons to deploy one.

Reason #1: Enhanced security and compliance

Legacy systems are prone to security risks because of delayed or unavailable security patches, while public clouds face privacy and potential vulnerabilities arising from the use of shared infrastructure. In contrast, private cloud infrastructure provides your organization with granular control, reduced attack surface, and improved compliance to safeguard sensitive data.

Granular control

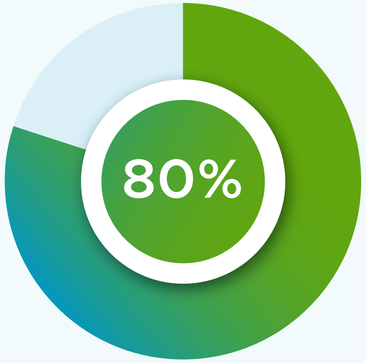
With dedicated resources, network segmentation and strict access controls, your organization has complete control over your infrastructure, allowing you to implement strict security policies tailored to your specific needs and reduce the risk of data breaches and data loss.

Reduced attack surface

By isolating your environment from the public internet, your organization can significantly reduce the potential attack surface and minimize exposure to external threats, cyberattacks and vulnerabilities.

Improved compliance

A private cloud environment allows your organization to implement and customize security policies and controls to meet specific regulatory requirements, such as HIPAA, GDPR, or PCI DSS, ensuring that compliance measures are directly aligned with your business needs. With a private cloud, your organization can customize continuous auditing and monitoring tools to provide detailed compliance reports and meet auditing requirements without relying on a third party. In addition, private clouds offer complete control over data location and movement, ensuring compliance with data sovereignty laws.



Over **80% of data breaches** in 2023 involved data stored in the cloud,[3] while the global average cost of a breach was $4.45 million.[4]

3. Harvard Business School Publishing. "Why Data Breaches Spiked in 2023." Stuart Madnick, February 19, 2024.
4. IBM Corporation. "Cost of a Data Breach Report 2024." July 2024.

Reason #2: Greater control and customization

Private cloud offers a high degree of control and customization over IT infrastructure, setting it apart from public cloud solutions.

Dedicated resources

With private cloud, your organization has exclusive access to dedicated hardware and software, eliminating the need to share resources with other tenants and ensuring full control over how these resources are allocated and managed.

Tailored infrastructure and custom security policies

Private cloud allows your organization to design and configure the infrastructure (hardware, software, network configurations, etc.) to meet specific business needs, which isn't always possible in public cloud environments. Private cloud also allows you to develop and enforce custom security policies to harden your security posture according to your organization's specific requirements.

Integration with existing systems

Private cloud can be seamlessly integrated with your existing IT systems, reducing the complexity of migration and minimizing disruptions to business operations.

Network and storage customization

Private cloud solutions allow for personalized network setups as well as scalable storage solutions to suit diverse workload demands.

of customers consider cloud migration expensive and complex to manage.[5]

5. Forrester Research, Inc. "Cloud Security — Reality Strikes After Migration." Naveen Chhabra, Andras Cser, July 14, 2024.

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Reason #3: Cost efficiency and predictability

By consolidating siloed infrastructure components, optimizing resource utilization, reducing operational overhead and eliminating the need for over-provisioning, private cloud offers significant long-term cost savings compared to a traditional three-tier infrastructure.

Predictable CapEx and OpEx

While private clouds often involve significant upfront investment in hardware and infrastructure, these costs can be planned and budgeted more accurately based on anticipated demand, leading to long-term savings with reduced risk of unexpected expenses when compared to public cloud. With private cloud, your operational costs are more predictable, as they primarily include maintenance, energy and personnel, rather than fluctuating public cloud usage fees.

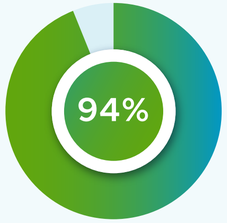
Transparent pricing

Private clouds provide transparency in pricing, so your organization can avoid the hidden costs often associated with public cloud services, such as data transfer fees, egress charges, and unexpected usage spikes.

Significant long-term cost savings

For organizations with steady or predictable workloads, private clouds can achieve impressive economies of scale over time. With fixed infrastructure costs spread over consistent usage, private cloud becomes more cost-effective than public cloud, which uses variable pricing.

see public cloud costs as a major issue.[6]



of technology practitioners and decision-makers reported incurring unnecessary expenses because of the underutilization of cloud resources.[7]

6. IDC. "IDC FutureScape – The Infrastructure and Cloud Impact: 2024 Predictions." Franco Chaim, Simon Piff, 2023.
7. HashiCorp. "HashiCorp 2024 State of Cloud Strategy Survey: Connecting cloud maturity to business success." June 2024.

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Reason #4: Improved performance and reliability

A number of factors such as exclusive resource access, built-in resiliency, and low latency give private cloud the edge over public cloud when it comes to performance and reliability.

Exclusive access to resources

Unlike public cloud, private cloud provides your organization dedicated resources such as CPU, memory and storage, so there's no resource contention with other users. This gives you consistent performance while minimizing the risk of "noisy neighbor" effects, in which other tenants' activities impact your workload performance.

Low latency

Private clouds are usually deployed closer to an organization's physical location or within on-premises data centers, reducing network latency and enhancing performance compared to public cloud services, which are more likely to be geographically distant.

Hardened infrastructure with built-in resiliency

With private cloud, your organization has complete control over the design, deployment and management of your cloud environment, allowing you to implement tailored redundancy, failover, and disaster recovery solutions to meet your specific needs. What's more, your IT staff can schedule maintenance at convenient times, avoiding unplanned disruptions that might occur with shared public cloud infrastructure.

> "We'd have to go through about 1,800 miles of fiber to reach the nearest hyperscaler. So, we've got latency challenges. We've improved latency through various bits of technology, but you can only improve it so much."
>
> **Roger Joys**
> Vice President of Enterprise Cloud Platform
> at GCI Communications

Reason #5: Flexibility and scalability with governance

Private cloud gives your organization all the flexibility and scalability of the public cloud, but with more control and less risk of vendor lock-in.

Dynamic scaling with full control

In a traditional three-tier infrastructure, scaling typically requires purchasing and installing new hardware, which is time-consuming and often leads to over-provisioning. Private cloud, on the other hand, enables your organization to easily scale resources up or down based on demand using virtualization and automation, without the need for physical hardware changes. With full control over the scaling process, your organization can plan and allocate resources based on your unique business needs.

While public cloud also offers scalable resources, the costs can fluctuate based on usage, and there might be limitations during peak usage times due to shared resources.

Hybrid cloud integration

Unlike traditional siloed infrastructure, private cloud can seamlessly integrate with public cloud, enabling your organization to scale up temporarily for additional infrastructure needs while maintaining control over your core workloads.

No vendor lock-in

A private cloud environment mitigates vendor lock-in by offering greater flexibility to tailor infrastructure and integrate with various tools or platforms. With public cloud, users are often tied to the vendor's ecosystem and pricing structures.

VMware Cloud Foundation: A unified private cloud platform

If you'd like to start reaping the benefits of private cloud, look no further than VMware Cloud Foundation™, a comprehensive private cloud platform that delivers virtual infrastructure with integrated, enterprise-class compute, networking, storage, management and security, spanning across on-premises, private cloud, public cloud, partner clouds, sovereign clouds, edge, and colocation facilities. It combines the scale and agility of public cloud with the security and performance of private cloud, enabling faster time to market, increased innovation, lower TCO, and re-educated operational FTEs with automated deployment and lifecycle management.

With robust security measures, resilient infrastructure and maximum visibility, VMware Cloud Foundation helps your IT teams protect your organization from threats, minimize business disruptions, continuously optimize performance and costs, and focus on outcomes instead of operations.

"I don't have people patching in the middle of the night. I'm not spending months trying to get a patch in place because we've got multiple dependencies to secure. We know maintenance windows in advance, and everything is much simpler."

Roger Joys
Vice President of Enterprise Cloud Platform at GCI Communications

"From concept to deployment, VMware Cloud Foundation allowed us to get up and running with private AI in just a matter of days, giving us the agility we need to stay ahead."

Michele Collauto
Senior Systems Engineer, U.S. Senate Federal Credit Union

"The automation in VMware Cloud Foundation has enabled us to remove infrastructure hurdles and the human barrier, so that we can provide IT infrastructure as a service."

Nguyen Minh Hiep
Deputy Director, Service Operation Center, Information Technology Division, MB

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Learn more about the benefits of private cloud infrastructure and VMware Cloud Foundation, the comprehensive platform that provides the scale and agility of public cloud with the security and performance of private cloud.

Check out these helpful resources to get started:

Why Private Cloud? website

IDC white paper: Essential Elements for Private Cloud Strategies

VMware Cloud Foundation website

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