LOGICALIS
Architects of Change

White Paper

Invest in Power Systems for Data Reliability and Security

Platinum
Business
Partner

IBM

The Hybrid Cloud Market: Today and Tomorrow

With cyberthreats continuing to increase in both number and complexity, organizations must contend with an ever-enlarging scope of uncertainty. In spite of the threats coming at them from nearly every angle, IT enterprises remain tasked with managing growing workloads and meeting broadening client expectations, all while upholding robust security standards.

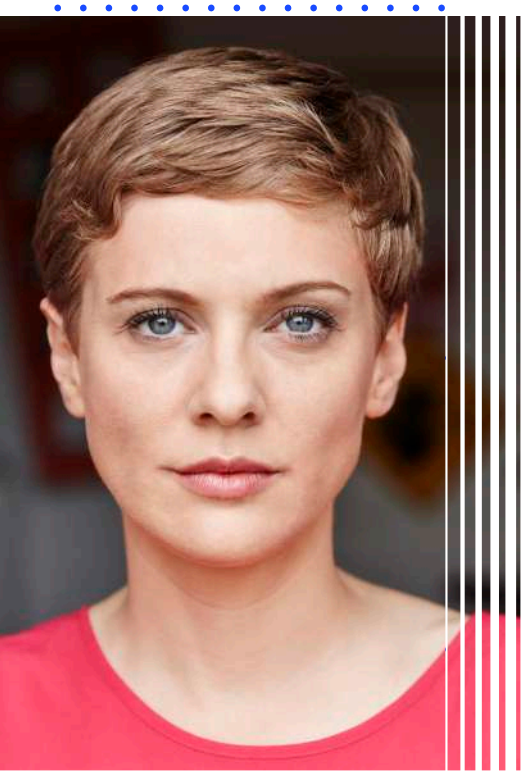
But keeping pace with clients' needs and growing workloads amidst mounting security threats proves challenging for businesses who are not sure how to adapt and modernize their IT infrastructures accordingly.

A 2020 study[1] from Forrester Consulting reveals what businesses are doing to pivot in the face of these new challenges and retain their competitive edge in the swells of changing industry. The maneuver is a swift transition to hybrid cloud environments, where public cloud, hosted private cloud, and on-premises infrastructures combine in a custom-crafted strategy to enable optimized data reliability, scalability, and security.

In an always-on world, the demands to maintain reliable, continuous operations are intense, with ever-expanding IT environments and enlarging data-intensive workloads only adding to scalability challenges. There simply is no one-cloud-fits-all means to satisfy reliability and scalability concerns without sacrificing security, which is why the industry is turning to hybrid cloud environments for a holistic approach.

Hybrid cloud environments are not just in vogue for the short term but are a key approach to operations that will prove to be a mainstay for any organization that's serious about prioritizing security in step with reliability and performance. Those who neglect or delay investing in this IT infrastructure update risk falling behind, losing their competitive edge in the market, and ultimately failing to meet customers' rising expectations. In their 2020 study1, Forrester Consulting surveyed 350 global enterprise IT decision-makers, with 56 percent revealing they were expanding or implementing new infrastructure technologies and 78 percent calling security an important consideration when making infrastructure purchases.

It's clear that infrastructure updates are top priorities for IT enterprises around the world—and hybrid cloud environments are being ticked as the strategy of choice when it comes to achieving data reliability, scalability, and security.



Benefits of a Hybrid Cloud Environment

New hybrid cloud environments offer significant benefits for organizations in the name of scalability, processing speed, security, reliability, and total cost of ownership.

Scalability

Real business growth can only be achieved when organizations are able to efficiently manage and secure the influx of data that continues to compound; however, the challenge doesn't rest at the management of large workloads. Organizations also need the flexibility to scale up and scale down in step with fluctuating and often unpredictable demand.

With a hybrid cloud environment, organizations are empowered to nimbly scale up or down, deploying workloads only on the best infrastructure for each business application in order to best serve objectives and effortlessly meet customer needs.

Processing Speed

With security an evergreen priority, processing speeds can often fall to the wayside, but to stay current and competitive with evolving technology, enterprises also need agility in their modernized IT infrastructures.

A hybrid cloud strategy that's properly optimized can deliver both robust security for data that's on-premises, as well as fast, effortless access to cloud applications. By co-locating applications close to the data, enterprises leveraging the hybrid cloud can gain faster processing and insights, alongside quick access to data that's reliable and accurate.

Security

An era with more frequent data breaches puts heightened pressure on IT enterprises to guarantee secure data storage, both to maintain customer confidence and to prove to regulators that customer data is adequately protected.

By empowering organizations to choose where and how data is housed within their organization, a hybrid cloud posture's holistic approach to security better positions organizations to defend themselves from a breadth of diverse security threats.

Reliability

Customer demands require platforms that can develop, run, and manage applications and workloads with guaranteed consistency and no risk of downtime.

With the ability to move critical services to the environment of choice for peak optimization, a hybrid cloud environment allows organizations to continue to deliver high levels of reliability to customers even in the face of evolving business and workload demands.

Total Cost of Ownership

A hybrid IT strategy spells numerous advantages for improved scalability, processing speeds, security, and reliability, and it further soothes operations for enterprises by reducing total cost of ownership.

Using a hybrid cloud environment, organizations can strategically optimize the placement of workloads to both achieve efficient execution and minimize software costs. For example, organizations can take advantage of the cost-effectiveness of off-premises, third-party resources for select applications without having to expose all sensitive data and applications beyond the corporate intranet. This strategy enables enterprises to reduce system administration costs without compromising on scalability, processing speeds, security, or reliability.

Challenges of a Hybrid Cloud Environment

IT enterprises are increasingly turning to hybrid cloud strategies to realize improved business reliability, scalability, and data security. While adopting this IT infrastructure is multiply advantageous, there are certain challenges to its adoption of which enterprises should be aware.

Migration

For most enterprises, the principal challenge of a hybrid cloud environment is migration. With so much already invested in existing platforms, it can be difficult for organizations to welcome such a stark change in their infrastructure—even when presented with the bevy of ensuing benefits.

To ease pains of migration, it behooves organizations to work with IT partners who can plan and execute an efficient, frictionless migration that relieves internal staff of headaches and carefully shuttles them to the new, optimized environment.

Compliance

Meeting baselines for security requirements is an ongoing concern for IT enterprises; specifically, adhering to strict regulations about the storage of customer data is a chief concern.

Compliance woes are another challenge of transitioning to a hybrid cloud environment, as organizing migration to a mix of systems can add another layer of complexity that may caution some businesses against making the switch. The challenges of achieving compliance, however, can be mitigated by partnering with a solutions provider who can aid in management of the new infrastructure to bring new value to your business while still remaining compliant.

Standardization and Governance

In a hybrid cloud environment, new interactions between public cloud, hosted private cloud, and on-premises infrastructures can make implementation complex. Accordingly, a new IT strategy necessitates new principles and rules that determine behavior across these multiple infrastructures to ensure that systems and resources are adequately managed.

To be most effective, new standardization and governance policies for the hybrid cloud must take a holistic approach, considering how IT and business work together to best realize enterprise objectives.

Security Implementation

For many IT enterprises, the primary driver of migration to a hybrid cloud environment is the promise of improved security; however, while this new posture offers unique advantages for fortified security, if poorly implemented, organizations can risk creating holes in their new infrastructure that leave them vulnerable to bad actors.

The very nature of a hybrid cloud environment expands the attack surface, as mission-critical data and workloads are spread across multiple platforms. Without the guidance of a skilled partner who can lead proper migration to the hybrid cloud, data security will remain a risk.

Why Modern Data Centers Require Functionality and Flexibility

To effectively compete in today's market and to future-proof business for tomorrow, organizations need a modern IT infrastructure that can truly set the stage for what comes next. This puts a lot of pressure on data centers to have enough functionality and flexibility to offer end-to-end security, support mission-critical applications, deliver high levels of reliability and speed, and promote dynamic capacity.

End-to-End security

The data center is the foundation for a consistent security posture that can contend with an organization's diverse data, services, and applications across the hybrid cloud environment. To create true end-to-end security that protects data both at rest and in flight, modern data centers need the functionality and flexibility to be able to provide security at all layers of the IT infrastructure, from the processors to systems to software, firmware, and OS.

Support for Mission-Critical Applications

As the industry experiences ongoing rapid data growth, the cloud will continue to play a big role in extracting value from data, but modern data centers need to be flexible enough to support a breadth of applications, all of which may not be suited for cloud environments, such as mission-critical applications.

For this reason, modern IT data centers will also need the functionality of on-premises and/or internal private cloud infrastructures to support mission-critical applications that the public cloud can't accommodate. Only with this flexible blend of security functionalities can modern data centers support critical services and keep pace with customers' needs for data security.

Reliability and Speed

Meeting evolving customer demands means guaranteeing high levels of reliability and speed with resilient servers that have the functionality to deliver continuous operations. To that end, modern data centers must offer flexible access to both on-premises and private and public cloud infrastructures in order to enable faster processing and insights.

Dynamic Capacity

Beyond meeting today's business needs, modern data centers also need the flexibility to remain ready for what's coming next with a dynamic capacity that can pivot as needed to match evolving business objectives.

For example, modern IT infrastructures must have the capacity to handle clients' most challenging workloads; at the same time, enterprises don't want to be locked into paying for greater capacity than they really need. For modern data centers, then, the key is to enable flexible consumption consistently across public, private, and hybrid clouds to create an IT infrastructure that's fitted to an organization's unique capacity needs.

Hardware Management Console

Central to an enterprise's IT operations, modern data centers must combine high-performance functionality with a flexible ease of operation. Based on IBM®'s Power® technology, the Hardware Management Console (HMC) is a dedicated-function device that's designed to aid in operation by delivering management support to organizations that need help configuring and managing system resources on Power servers. With this console at hand, system administrators and service providers can deftly manage server hardware to determine strategies that best support their business objectives.

IBM Power Systems | How Logicalis + IBM Combine All the Right Tools into a Single Platform

Hybrid cloud deployment is critical for business reliability, scalability, and data security, but achieving a seamless transition to a hybrid cloud environment can be challenging for organizations who are not sure how to execute this digital transformation. And with worries about compliance and implementation of new standardization and governance policies alongside robust security measures, managing a smooth migration is even more daunting for those who try to go it alone.

Logicalis + IBM are in a unique position to provide joint solutions to help enterprises overcome these challenges to achieve big data insights and, ultimately, realize successful hybrid cloud deployment. With deep technology expertise, global reach and resources, and long-standing relationships across the technology supplier ecosystem, Logicalis has partnered with IBM to combine all the right tools into a single platform to provide the big-data insights needed to successfully take on data center transformation.

IBM Power Systems is a modern infrastructure foundation that facilitates swift digital transformation with streamlined costs, deployment, automation, and management of hybrid cloud environments.

The IBM Power portfolio comprises three classes of servers:

Scale-Out Servers

Open, flexible, and secure, these scale-out servers were built to handle the most advanced and diverse data-intensive workloads and mission-critical applications.

Today's businesses need a computing platform that can provide continuity for key business operations and processes. Moreover, to remain agile and competitive in the market, they need one that enables digital transformation by effortlessly extending workloads to private, public, or hybrid clouds. With high performance, security, and top-ranking reliability, these scale-out servers are primed to do both, helping businesses transform to meet their unique technology needs.

Enterprise Servers

Designed with OpenStack-based cloud management and open source automation, IBM's enterprise servers empower businesses to accelerate their enterprise server hardware with a future-forward infrastructure.

Digital demands continue to intensify and building a hybrid cloud foundation is now a critical component of successful business operations. For enterprises that are ready for a digital transformation, IBM Power enterprise servers have the security, reliability, and affordability to make modernization frictionless.

Accelerated Servers

A new breed of server, IBM's accelerated servers were built with an innovative accelerator technology to offer unprecedented performance for modern analytics, HPC, and AI workloads.

Power Processors

Remaining agile in the face of new business demands requires high-speed performance, security, and reliability. The next generation of IBM Power systems, Power10 brings new innovation to hybrid cloud to meet these demands with an innovative 7nm processor that delivers 3x greater processor energy efficiency and workload capacity.

In addition to enhanced core and chip architecture, Power10 integrates support for OpenCAPi interface with the new Open Memory Interface (OMI), delivering higher bandwidth and more memory to ensure continuous availability in the face of soft errors. With next-generation sub-system technologies at work, Power10 is the single platform that can help organizations digitally transform to create modern infrastructures and future-proofed businesses.

Build an Infrastructure for the Future

Delivering enterprise-class compute with the flexibility of hybrid cloud deployment for on-premises, private cloud and public cloud infrastructures, IBM Power10 was engineered with agility to empower organizations to get the most out of their existing infrastructure while also building an infrastructure for the future.

PowerAI

With a single platform, IT enterprises can easily deploy common frameworks, optimizing them and their libraries for peak performance within hours and customizing PowerAI for CPUs, GPUs, interconnect and other modern architectures.

DTI framework

A value-based framework for AI efforts, the Data-Train-Inference (DTI) framework positions enterprises for long-term success by helping them find meaningful results faster with a purpose-built enterprise AI infrastructure that adapts to changing business priorities for machine learning, deep learning, and inference.

SAP HANA support

A single in-memory platform, SAP HANA leverages data so that businesses can take fast action and accelerate innovation. With infrastructure for SAP HANA support, IBM Power10 servers simplify and accelerate SAP HANA deployments, allowing enterprises to maintain the reliability and flexibility they need for hybrid cloud.

With a new breed of secure, reliable servers and a powerful, innovative processor, IBM Power Systems combines high processing speeds, top-ranking reliability, and on-the-mark security into a single platform that empowers enterprises to overcome migration challenges and successfully transform their business for new levels of scalability and performance, all while helping reduce total cost of ownership.

White Paper

Respond to Changing Business Demands with Logicalis + IBM

An IBM Platinum Business Partner, Logicalis has spent more than 25 years working closely with IBM to empower businesses to rethink their IT infrastructures and develop modernized approaches to achieve optimized data reliability and security.

Now with Power10, Logicalis + IBM take server performance to new levels, enabling enterprises to achieve superior core performance, attain maximum memory bandwidth, and acquire industry-leading reliability and security with end-to-end encryption, all while reducing data center footprints via scalable core operations and new AI applications.

Working with Logicalis, you can be ready for now and for what's next by digitally transforming your business through hybrid cloud deployment with IBM Power Systems.

To start your seamless hybrid cloud deployment with Logicalis + IBM, sign up for a demo or book a meeting to learn more at: https://www.us.logicalis.com/.

[1] A commissioned study conducted by Forrester Consulting on behalf of IBM, September 2019

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