



Nine Reasons IBM Sees a Shift to the Cloud

Introduction

In today's reality, businesses are continually challenged to cut costs while also increasing performance in order to remain competitive. Technology has been a key component in enabling businesses to streamline their processes and reduce waste. Organizations of all shapes and sizes are now dependent on hardware and software to run as efficiently and effectively as possible.

However, IT departments, especially those of small and mid-sized businesses (SMBs), have struggled with keeping up with the technology requirements of their business for a variety of reasons.

Cost is one of the major factors. Technology can be extremely expensive to purchase and maintain, especially when pricy servers and hardware must be purchased to run mission-critical business applications, which can also be cost-prohibitive for SMBs. Technology investments must also account for future needs, so budgeting becomes that much more difficult.

Limited resources are another factor. IT departments often struggle to find the time to handle their day-to-day activities, such as providing support and handling maintenance. Having time to keep up with advancements in technology, changing business requirements across their organization and working on more strategic initiatives is almost impossible. There are also fewer professionals coming out of school with expertise in systems like the IBM i, i5OS.

Furthermore, it is difficult for SMBs to find the time to also ensure the necessary security measures and business continuity solutions are in place on top of all their other responsibilities. Disaster recovery and the business tolerance for downtime have contributed to the necessity to have recovery and data protection measures in place. Even for the small and medium-sized business.

Infrastructure-as-a-Service

Realizing the importance of having the right technology infrastructure in place, organizations are turning to managed service providers to handle a range of IT services for their companies and leave the more strategic initiatives to their internal IT teams.

Cloud computing has made outsourcing IT services a rapidly growing trend, and according to Gartner, Infrastructure-as-a-Service (IaaS) is the fastest growing cloud service. IBM has estimated that up to 50% of its SMB customers will be using cloud services of some type with 5 years. IaaS is when computing resources, such as hardware and software, are delivered as a service over the Internet or other network via a usage-based payment model.

Essentially the IaaS provider hosts virtual (as well as physical) machines, servers, storage options, load balancers, networks, and other equipment from a secure data center and provides services, such as device management, monitoring and security. End users are able to securely access their IBM Power platforms with their data, applications and systems via the Internet.



Uses of IaaS

Different businesses have different needs. IaaS can be used by organizations in a variety of ways. One is for managing production workloads, where the IaaS provider hosts and manages programs

such as enterprise resource planning solutions, accounting software, human resource management systems, customer relationship management solutions, supply chain management software, business intelligence applications, database management systems, and more. In this case, the provider is responsible for installations, maintenance and upgrades and the end users simply accesses their application from their office, home or any other location with a secure Internet connection.

Some businesses choose to leverage the IaaS model for high availability services to ensure operational performance in the event of scheduled or unscheduled downtime. For a monthly subscription fee, the IaaS provider creates and maintains a mirror of the customer's mission-critical systems and data. If the organization experiences a power outage, faces a natural disaster or simply falls victim to human error, they can easily be "switched over" to their backup environment.

Businesses that don't have such stringent recovery time objectives are using the IaaS model for backup and recovery. With this approach, information is transferred over the Internet or on a dedicated private circuit to a secure off-site data center and is then accessible if a system failure occurs. All machines on a network (desktops, servers and laptops) are all backed up across a LAN to a storage repository in the cloud. If an organization needs to restore their data, the IaaS model provides quick and convenient restoration.

IaaS is also used for temporary requirements, such as for test environments for businesses. The pay-as-you-go model makes it perfect for building and validating new applications without making the capital expenditures needed for associated hardware and software.

Nine Reasons to Make the Move

No matter how an organization uses IaaS, there is a long list of reasons this computing model can benefit businesses. This white paper narrows it down to nine key reasons to move your computing infrastructure to the cloud.

- 1. Lower Operating Costs** With the server, storage and networking hardware off-site at the provider's location, there are no capital investments that need to be made, maintenance costs incurred or wasted office space used to store the equipment. Additionally, the pay-as-you-go subscription-based model enables an organization to pay for only what they use. This eliminates being charged the same as another organization that uses more computing power or storage space.
- 2. Scalability** The subscription model also enables an organization to easily scale up or down as their business needs grow or change. This is especially valuable for SMBs that have limited resources when they start out, but want to make the right technology investments at the beginning and be able to scale as they grow and there is more demand.
- 3. Flexibility** Every organization is different and has varying computing requirements as well as ever-changing needs. IaaS enables an organization to choose the computing power and storage capacity that is right for them. As a utility service where customers pay on a metered-basis, as more power or space is needed, it is easily available.



- 4. Reliance on Experts** Relying on off-site experts to implement and maintain an infrastructure allows internal IT resources to focus more on strategic initiatives, such as finding innovative applications to more efficiently and effectively manage certain aspects of their business. Backup management, 24/7 monitoring and other tasks can be extremely time-intensive for SMBs with limited resources. For most companies, IT is not their core competency and relying on experts enables them to focus their attention on what they do best.
- 5. Advanced Technology** An IaaS provider will want to keep up with the latest and greatest technology to best serve their clients. This is something difficult for SMBs to do; however, with the IaaS model, all organizations have access to the most advanced technology providing SMBs', for example, with an infrastructure that they would never be able to build in-house due to cost and resource limitations.
- 6. Rapid Implementation** With the provider delivering computing infrastructures to many different organizations, they already have an infrastructure in place, making it quick and easy, and therefore painless, for an organization to move to the cloud. If an organization's IT department had to take on the implementation of a new infrastructure or even one software application, it would take already limited time away from other projects. With IaaS, the implementation is essentially turnkey for the customer as it is all done on the managed service provider's end, which is already set up and being used by other organizations.
- 7. On-demand Access** A major benefit of cloud computing is the anytime, anywhere access. In

today's mobile world, being able to access data, applications and systems from any location via just an Internet connection has become commonplace and IaaS enables organizations to offer this easily and securely.

8. Security Regulatory and compliance requirements have greatly increased the need for data security, especially in industries like the financial, healthcare, legal, and life sciences. But, all businesses have data that they need to protect. IaaS providers have tight security controls in place to protect computing environments from breaches. Selecting a provider with the proper certifications and a proven track record is key, but also partnering with them to ensure all security precautions are taken is essential. By using the IaaS model that leverages data center facilities that are equipped with redundant power, 24x7 security, data-grade HVAC, fire suppression, independent water supplies, and more, is typically significantly more protection than an SMB would be able to provide in their office location.

9. Business Continuity Just as security measures protect from potential breaches, businesses also need to make sure their businesses will remain in operations in the event of a man-made or natural disaster. IaaS providers offer data backup and recovery options, as well as 24/7 monitoring that provide businesses with the peace of mind needed to ensure uptime of their systems and future business continuity.



Conclusion

A secure infrastructure is the foundation for a business' IT environment providing the most basic IT needs – servers, networking and storage. If the IT infrastructure is not operating properly, it could negatively impact the entire computing environment and hinder business operations, which could result in productivity issues and be detrimental to the bottom line. After reviewing the nine reasons above to move to the IaaS model, it would almost be considered negligent to not consider this approach to managing an IBM Power systems environment.

About Millennium Computer Group

Millennium is an Infrastructure-as-a-Service (IaaS) provider delivering comprehensive managed IaaS services to small and mid-sized businesses operating IBM environments and moving to a cloud-based model. The company is able to offer lower cost solutions as a result of its expert technical staff, robust infrastructure of networks and data centers, and its streamlined processes. In addition to being a premier IBM Business Partner in the MSP program, Millennium provides its services for other industry-leading platforms, including: AIX, iOS, OS/400 and Windows.



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