Free Featured Ebook

Transforming Your Business

through the cloud

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Introduction

More and more these days, you hear about firms moving to the cloud. You've probably already heard you can save money. But, is the cloud safe and reliable? Why else might you consider moving your environment to the cloud?

Let's examine the benefits of the public cloud and evaluate some potential cloud adoption strategies that enable digital transformation.

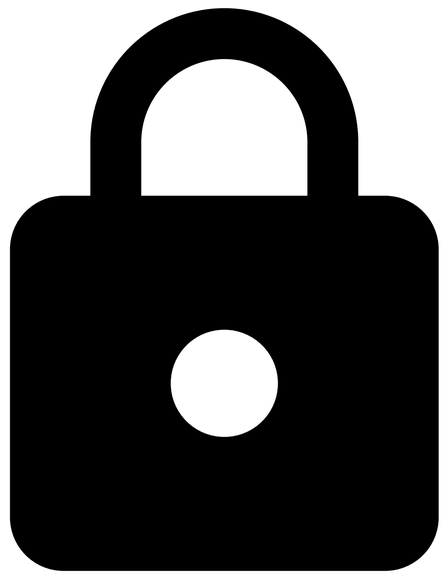
Defining the Cloud

Gartner® defines cloud computing as “a style of computing where scalable and elastic IT-enabled capabilities are delivered as a service to external customers using Internet technologies”. The cloud enables organizations to procure a secure and cost-effective IT infrastructure through shared computing and storage resources.

An alternative to building, operating, and improving infrastructure on your own, the cloud allows you to quickly deploy resources with no long term commitments, significantly reducing the risk and up-front costs of infrastructure in what can often be an unpredictable market.

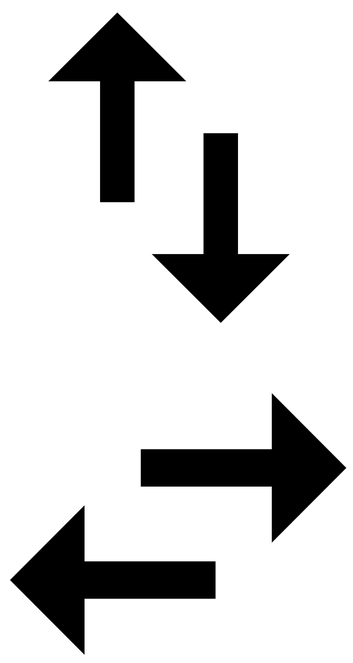
When it comes to reliability, cloud providers offer consistent performance with various CPU, memory and disk options, with high Input/Output Operations per Second (IOPS) available, as well as robust storage and data archiving solutions. They offer global networks with regional datacenters and “zones” to facilitate redundancy and failover for continuous availability of resources.

From a security perspective, cloud providers offer physical, operational, data and infrastructure security at a level not feasible to most companies. Highly secure data centers are available with state-of-the-art technologies such as secure access, firewall controls, multi-factor authentication (MFA), and encryption while at rest and in transit.



Google Cloud Platform and Amazon Web Services (AWS), two leading cloud providers, have demonstrated a commitment to IT security. Google has completed ISO 27001, SSAE-16, SOC 1, SOC 2, and SOC 3, FISMA, and HIPAA certifications. AWS has completed the same, plus PCI DSS Level 1, ISO 9001, ITAR, FedRAMP (SM), IRAP, FIPS 140-2, DoD CSM Levels 1-2, 3-5, DIACAP and MTCS Tier 3 Certifications. Additional security tools and services may be layered in to improve your security posture.

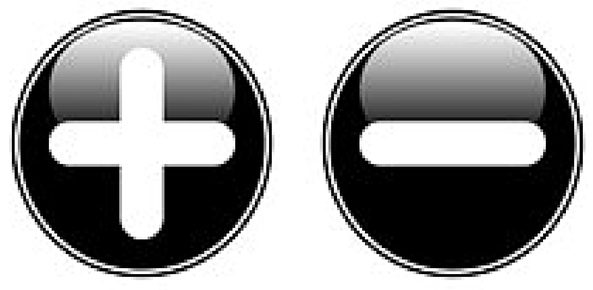
Elasticity & Agility of the Cloud



Two key tenets of cloud computing are elasticity and agility. Elasticity is the ability of cloud resources to quickly grow or shrink based on actual usage patterns and customer demand. This permits just-in-time deployment, and enables resources to be fully utilized all the time. Public cloud providers offer near-limitless scalability due to their massive size of infrastructure, allowing you to support a workload of any size.

Such is not the case in traditional hardware server environments. Resources are provisioned based on anticipated workloads, and cannot be changed on-the-fly. Seasonal, bursting, and unpredictable workloads are very difficult for which to provision resources. Under-provisioning poses a major risk to the ability to scale in order to handle customer demand. Over-provisioning can be very costly.

Agility is equally as important, and is a key differentiator regarding cloud computing. With no long term commitments and up-front capital expenditures, computing resources can be added and removed within minutes. This creates a significant opportunity to reduce time-to-deploy and risk of capital expenditures.

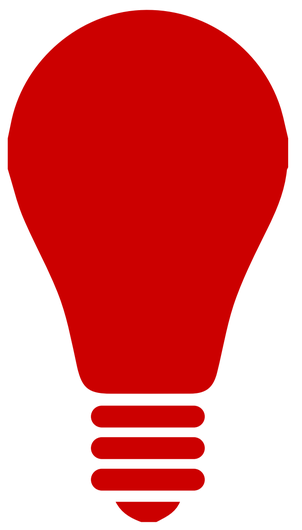


Entire resource stacks can be cloned and templated, allowing you to provision an environment in minutes. This makes the cloud ideal for development, test, staging, and disaster recovery environments.

Finally, by spending less time and resources managing IT infrastructure, the cloud allows firms to focus more on their core competencies, improving customer experience and delivering strategic value to their customers.

Innovation through Experimentation

In an agile cloud environment, resources are deployed on-demand, and are interchangeable. If a resource configuration doesn't work, you can "rip and replace it" with little or no risk. You pay only for what you use, with no long-term commitments. This creates unprecedented opportunities for innovation through experimentation.



Compare this to the traditional IT infrastructure. Capital expenditures come with higher cost of failure; if an idea doesn't work, if a startup product or service doesn't receive market acceptance, or if an environment is over-provisioned,firms may be left with huge investments without the profits to recoup them, resulting in potentially debilitating losses.

In our next blog post we'll analyze some potential use cases to "test the waters" and prove the concept without significant investment, while offering an opportunity to experiment, options not possible within the traditional infrastructure.

The low risk, low investment and potentially high reward workloads below, listed from simplest to most complex provide a conservative approach to cloud adoption::

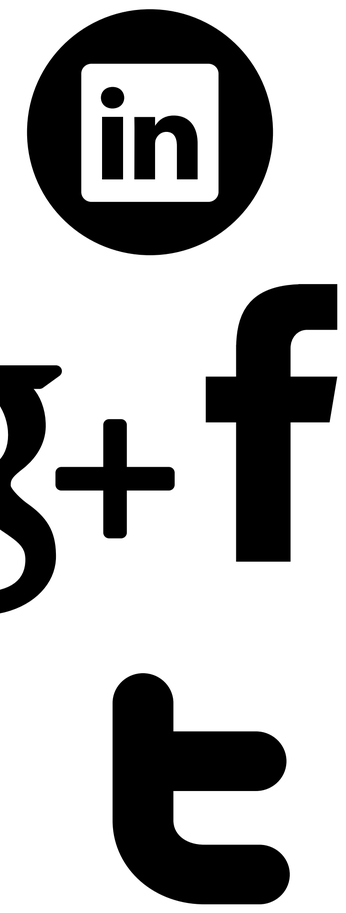
* Application Test, Development and Staging environments
* Data Archival and Storage
* Data Backup and Recovery
* Migrating legacy and peripheral applications to the Cloud
* Building new cloud-ready applications
* Disaster Recovery and Business Continuity

With its free service tiers, pay-as-you-go pricing, and no long-term and up-front commitments, the cloud offers an excellent opportunity to try before you buy. This level of experimentation is simply not possible with traditional infrastructure. Therefore, we recommend considering workloads that allow you to investigate and experiment with the cloud as a first step to proving the concept and to begin enjoying the associated benefits.

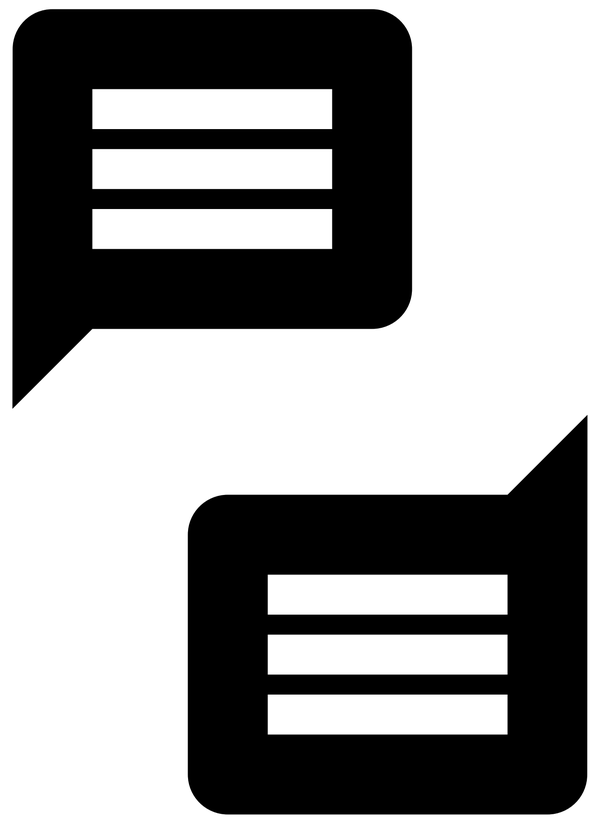
Digital Transformation through the Cloud

Investigation and experimentation are key phases to a customer's cloud adoption journey. Cloud technologies enable digital transformation by making data and tools more accessible to employees, options not easily possible within the traditional infrastructure.

With a lower cost and time-to-market to deploy IT infrastructure, cloud technologies enable employee collaboration and access to data, mobility for remote and field workers, and the ability to analyze large data sets for insights to drive decisions. Technologies such as social media, data analytics, and embedded devices allow firms to change their customer and employee engagement, internal operations, and even the business model.



Some examples are cloud-based messaging, collaboration, social networking, and Big Data analytics platforms. For example, Google BigQuery packages MapReduce, BigTable, Dremel, Spanner and Flume technologies into a simple-to-use Big Data analytic solution. Building an environment with these technologies using traditional methodologies could otherwise take months.



Digital transformation can offer companies a distinct advantage. In a study of nearly 400 large companies over two years, “The Digital Advantage: How Digital Leaders Outperform Their Peers in Every Industry”, the MIT Center for Digital Business and Capgemini Consulting concluded that mature digital companies outperform their competition financially in both revenue and profit, regardless of industry vertical, while firms that don’t transform through technology will be overcome by competitors that do so.

Conclusion

In this eBook, we have discussed how the cloud enables digital transformation through elasticity, agility and innovation through experimentation. By leveraging cloud technologies, organizations can enjoy a competitive advantage thanks to improved employee access to data — and the ability to analyze data and drive decisions that improve customer engagement and overall business model.

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