The Business Value of Cloud - Agility, Innovation, Cost Optimization

Introduction

IDC predicts that the worldwide spending on public cloud computing will increase from $67B in 2015 to $162B in 2020.[1]

Every year, Gartner releases a list of top 10 strategic technology trends. This list recommends the things that it believes the CIOs and senior IT executives should focus on. Since the year 2009, the Cloud has been on the list for six consecutive years. In 2016, it got dropped off the list. Does it mean it is no more strategic for organizations? Not really. It means that it has now matured and has become more mainstream.

The following stats and research seem to support this –

- On an average, an enterprise uses 1,427 distinct cloud services[2]
- 85 percent of enterprises now have a multi-cloud strategy as against 82 percent in 2016[3]
- Companies now run 79 percent of workloads in cloud[3]
- Hybrid cloud is the preferred enterprise strategy and public cloud adoption is growing[3]
- 74% of Tech Chief Financial Officers say that cloud will have the most measurable impact on their business [4]
- According to Gartner, by 2019, more than 30 percent of the 100 largest vendors' new software investments will have shifted from cloud-first to cloud-only[5]

What is making the Cloud such a preferred technology? In this crisp guide by InfoBeans, we try to provide an overview on the real business value of Cloud. In this guide, we will know more about –

- Why are organizations shifting to Cloud?
- What are the key characteristics of Cloud which makes it attractive for organizations of all sizes?
- The key benefits of moving to Cloud
- How Cloud helps companies be more agile and adaptable to changing business requirements
- How enterprises can drive innovation through Cloud
- Cost optimizations with Cloud

Primary Drivers of the Shift to Cloud

While the overall software market is growing at around 6% per annum, as per IDC, for Cloud, the growth rate is 20% per annum. Most of the enterprise are adopting the cloud-first approach. Undoubtedly, Cloud has brought in a fundamental shift in the way delivery is happening today. Following are some of the key factors causing the shift –

Digital Transformation

Digital services are going through a complete overhaul over the past few years. Enterprises need the ability to quickly change, run, and deliver services cost-effectively. The traditional IT structures are unable to cope up with these demands – both in terms of capability and capacity. To stay competitive in the challenging business environment, enterprises need to be agile and need low entry barriers – Cloud offers these benefits to them.

Changing Economics

Traditionally, enterprises were encouraged to spend on IT infrastructure. However, with changing markets, companies are now looking for higher returns on their capital investments and need enhanced operational efficiencies to be able to serve their customers better. The models are moving away from CapEx (capital expenditure) to TotEx (total expenditure). Technology leaders want to optimize their infrastructures to achieve the best TotEx for their business. All such changing economics are forcing the enterprises to move away from on-premises infrastructures to Cloud.

Proliferation of Big Data and IoT

With the proliferation of Big Data and Internet of Things, and everything - right from toothbrush to cars – becoming smarter, a humongous amount is data is being generated. At the same time, users need high availability and fast access to the services and data. To do so, businesses have no other option but to deploy and store their applications and data on the Cloud.

Security, Compliance and Regulatory Requirements

The highly connected world is increasingly becoming very complex with an increased risk of cyber threats. Businesses also need to take care of the constantly changing compliance and regulatory requirements. Cloud offers standardization, automation, and a high degree of security which helps them to be in a better position to achieve regulatory compliance.

Speed of Change

Today, enterprises need a faster time to market and quick releases based on the changing consumer demands and behaviors. The traditional IT infrastructure cannot keep pace with these ever-increasing demands – especially if the IT team is working on a tight budget.

Key Characteristics of Cloud

The National Institute of Standards and Technology (NIST) defines cloud computing as:

"Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction." [6]

The following are the key characteristics of Cloud -

Self-Service: Cloud allows the users to automatically provision capabilities such as server time and network storage as per the demands without the need of any manual intervention with the service provider. The self-service nature of the Cloud makes it extremely easy to use.

Multi-Tenancy: The IT resources are pooled by the cloud provider using multi-tenancy models in such a manner that it can optimally serve multiple consumers. Cloud providers use various virtualization technologies to achieve this. Through the use of technology, the IT resources are dynamically assigned based on the consumer demands.

Scalability: Cloud can automatically adjust the IT resources as per the growing or decreasing demands. With limited investment, enterprises get the flexibility to use the IT resources only as per the need with an option to scale those up as per the demand – this great elasticity results in tremendous cost savings for the enterprises.

Pay-Per-Use: Cloud offers a metered, pay-per-use billing model allowing the enterprises to optimize the utilization of the required resources. Resources such as storage and bandwidth can be very easily monitored and controlled offering a complete transparency between the cloud providers and the companies leveraging their services.

Broad Network Access: With the proliferation of the Internet and mobile devices, the knowledge workers work in "always on" mode. They need access to information anytime, anywhere – in the office or otherwise - using the choice of their device. Cloud provides an ability to the enterprises to offer broad network access across various device types to its employees, vendors, and partners.

Key Benefits of Cloud

Cloud offers substantial benefits to businesses. Let us take a look at some of the key benefits which Cloud offers

- **Cost Efficiencies**: Cloud resources are available at a much cheaper rate as compared to the traditional infrastructure requirements. Enterprises also don't need to purchase, maintain or upgrade software and hardware which help in reducing the overall IT infrastructure management costs.
- **Scalability**: Cloud offers almost unlimited storage capacity. Enterprises don't need to worry about running out of storage space. It can be increased or decreased as per the demand.
- **Cutting-Edge Capabilities**: Cloud offers the best in class IT infrastructure and access to enterprise applications, which the smaller companies couldn't otherwise afford. This allows such companies to leverage the latest technology and stay ahead of the competition.
- **Uptime Guarantee**: While in-house disruptions may be time-consuming and can turn out to be expensive, Cloud makes disaster recovery easier and Cloud also guarantees higher uptime.
- **Enhanced Collaboration**: With Cloud, since the data is not locked into specific devices or infrastructure, it fundamentally enhances the collaboration between employees and also improves the communication.

- **Quick Deployment**: Unlike traditional infrastructure which can take months to get fully functional with all the procurement formalities and set up of hardware and software, Cloud can help enterprises in getting their system up and running within a matter of few minutes.
- **Improved Security and Compliance**: For organizations which have strict regulatory and compliance obligations to follow, Cloud makes it very easy to address these requirements. The Cloud hosting providers build the resilience at an infrastructure level which limits the risk of security breach.
- **Data Integrity**: With Cloud, the files are stored at a central location, there are no issues of version control or disparate copies floating around multiple users. Every user has access to a single version of the file which maintains the integrity of the data.
- **Flexibility**: Cloud takes away the worries of capacity planning and technology upgrade from the shoulders of the enterprise IT teams. With Cloud, companies can choose to go ahead with what they need today and scale up or down as per their changing business needs.
- **It's Green**: Hosting applications in data centers means you are leveraging the energy-efficient technologies and also helping in driving more efficient utilization of energy resources.

Business Agility with Cloud

Business agility is nothing but the ability of a business to adapt to business environment changes quickly and cost-efficiently and achieve cost reductions and revenue growth. Today, businesses need the ability to respond to changing business scenarios, react to market opportunities and threats, and achieve faster time to market. While the cost benefits of the Cloud are proven and reinforced through several surveys and research, CIOs are now looking for the direct linkage between Cloud and business agility. They are looking to get answers to questions such as what are the business outcomes of agility? What is the role of IT in achieving business agility? The answer lies in the "IT-as-a-service" model of the Cloud which is more business-oriented.

The smooth functioning of IT services is critical for business services, both customer-facing as well as internal. With an increased focus on technology, IT has taken a crucial and strategic role. It is no more just a technology provider within an organization. It is the responsibility of IT to ensure optimum performance, security, and uptime of the IT infrastructure. It also is playing an important role in achieving the business goals by delivering innovative services to business users. Depending on the changing business needs, policies, and regulations, Cloud allows the IT teams to provide using its self-service Cloud model.

Cloud enables operational changes in the business environment and that's where the real value of Cloud lies. It allows businesses to achieve faster time to market and launching of new products and services – giving them more revenue growth and upselling opportunities. With anytime, anywhere access to all the important information across various device types, Cloud fosters transparent communication and enhanced collaboration. In a nutshell, Cloud enables business agility by reducing the complexities involved in the IT operations management and also helps in reducing the overall costs.

Factors such as reduced business complexity, simplified IT operations, increased employee productivity, and greater ability to respond to customer requirements contribute in making the businesses more agile.

Driving Innovation through Cloud

Cost reductions and productivity gains are just the starting points when it comes to the real business benefits of adopting the Cloud. For enterprises of all sizes, the Cloud has now become the gateway to digital transformation. Enterprises are leveraging Cloud to ride on the new initiatives such as IoT and cognitive computing and capture newer markets.

Cloud fosters business innovation by allowing enterprises to rapidly and cost-effectively explore new business opportunities and IT-enabled business enhancements that can help them grow rapidly.

It allows businesses to quickly enhance existing product or service features or add new features. Based on the customer preferences and context, it helps in designing more relevant customer journeys which are tailored to address the unique customer needs. Rapid prototyping, development, and deployment of new products and services help in addressing the untapped market and reach out to new customers.

The Cloud allows enterprises to change the status quo and create new business models and create revolutionary value propositions. With fully-integrated cloud initiatives, enterprises can be transformative and can build future-ready businesses which can create a larger global impact.

Business Cost Optimizations with Cloud

Cloud brings the natural economies of scale. According to a Deloitte study, cloud deployments deliver higher returns on investment within a shorter payback period as compared to the traditional on-premise delivery options.[7]

- There are zero up-front capital costs and enterprises need to pay only for the use as per the business requirements. Companies can choose to invest that money in other parts of the business and address other pressing business demands.
- The IT staffing budget is usually the biggest single line item in any organizations' computing costs. Hiring, training, and retaining good IT resources is expensive. However, with Cloud, this cost is substantially reduced because the complete infrastructure management is the responsibility of the cloud provider and enterprises can divert the bandwidth of their IT staff to more innovative and business goals driven tasks.
- Cloud takes away the need of redundant data storage. Typically, the Cloud providers mirror the data and applications across multiple data storage and help the enterprises deal with the redundancy requirement.
- Depending on the workloads, the Cloud ensures full utilization of hardware resources by way of sharing the infrastructure between several organizations. This allows the cloud providers optimize the hardware needs of their data centers, which ultimately mean higher efficiencies for cloud customers.

- Cloud is far more efficient than an in-house IT set up in terms of power consumption needs. Through optimal hardware utilization, it improves the power utilization and thereby optimized the overall costs.
- When the demand for services goes down, the expenses on Cloud services can also substantially go down. Such high degree of cost variability helps in overall cost reduction.

Conclusion

Cloud adoption is on everyone's mind. It is fast approaching no-brainer territory. Changing economies, greater demand for faster time to market, various digital transformation initiatives, the proliferation of IoT and Big Data, and stricter security and compliance regulations have forced companies to consider the option of Cloud. Enterprises of all sizes are now moving to Cloud to achieve foster innovation, reduce costs, be more agile, enhance collaboration and communication, and so on. The Cloud is having a measurable impact on businesses in terms of improvement in time to market, enhanced process efficiency, reduction in operational costs, reduction in IT spending, and reduction in IT maintenance costs. Companies are able to significantly reduce their IT costs without hampering their IT capabilities. By making the most cutting-edge and innovative technology available, Cloud gives companies a competitive advantage.

About InfoBeans

InfoBeans is a technology service provider offering development and implementation of cutting-edge software solutions for various small and large enterprises across all verticals. With our extremely innovative, dedicated and experienced team, we have helped organizations worldwide in developing robust and ascendable solutions.

InfoBeans has worked with enterprises in the automobile, engineering, telecom, currency printing, and storage domains and helped them with their custom software development, storage and virtualization, UI/UX, eCommerce, and automation engineering needs.

InfoBeans has helped several organizations migrate to a cloud-based platform. We help our clients with the assessment of cloud platforms, setup of staging and production platforms on Cloud, and migration of data and code to the cloud.

The InfoBeans AWS Cloud experts have expertise in Elastic Compute Cloud, Simple Storage Service (S3), Elastic Block Storage, RDS, Cloud Watch, Elastic Load Balancing, and many more. As for Microsoft Azure Cloud, InfoBeans has helped organizations with extensive use of Azure Virtual Machines, Azure SQL, Azure Storage, Azure Storage Disks, Azure Monitor, Service Bus, Event and Notification Hubs, Redis Cache, and Load Balancing.

For more information, visit us at http://www.infobeans.com

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