

Key Benefits of Cloud Deployment for Today's Digital Enterprise

Introduction

Understanding Today's Landscape of Digital Transformation

Today businesses are finding that they need to change and adapt quickly in order to win and retain customers. Cloud computing has become a major driver of growth for businesses desiring to win in customer experiences, and is quickly becoming a necessary component of enterprise business strategies in order to accelerate digital transformation. Gartner analysts predict that more than 85% of organizations will embrace a cloud-first principle by 2025 and will not be able to fully execute on their digital strategies without the use of cloud-native architectures and technologies.

Deployment Options and Your Business

As an IT department, there are many different types of deployment options and infrastructures from which to choose. The plethora of tools and technologies have made the landscape a more flexible playground for application developers, and have consequently complicated and increased the infrastructure needs maintained by internal DevOps teams. In addition to other factors that must be accounted for when considering a cloud solution, enterprise leaders need to fully understand the deployment options they have available in order to better meet the needs of the business and its customers.

These deployment options can take many forms including:

- On-premise
- Managed services/hosting
- Private cloud
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- Using a hosting partner
- Hybrid cloud
- Public cloud

Here, we will explore the benefits of a public cloud deployment solution over the traditional on-premise deployment option.

Cloud Deployment for Enterprise IT

The momentum behind investments in cloud computing from recent years is expected to continue as businesses experiment and realize the benefits of the cloud. The global cloud computing market size is estimated to reach \$2,297.37 billion by 2032, reflecting a Compound Annual Growth Rate (CAGR) of 17%. This surge is mainly fueled by the growing adoption of cutting-edge technologies like artificial intelligence and machine learning.

Enterprise investments in cloud point to the alignment between cloud deployment's main business benefits of increased agility and speed in time-to-market with today's enterprise priorities. The ease of being able to quickly expand infrastructure on the cloud is a great driver of speed. This is in contrast to traditional on-premise hosting, which requires dedicated IT support and may not be equipped to manage modern applications.

When considering cloud adoption, businesses must be prepared to face various challenges such as resource and capability planning, working within legal compliance requirements and developing new processes for governance. However, if the business decides to address these challenges in order to adopt cloud solutions more fully, there are a number of areas from which businesses can benefit.

Market research company Vanson Bourne quantified some of these benefits in "The Business Impact of the Cloud" report, which surveyed 460 senior decision makers in finance roles at their companies. The report documents improvements the companies made by deploying cloud services, including faster time to market and reduced costs.

Average improvement in time to market	20.66%	16.18%	Average reduction in operational costs
Average increase in company growth	19.63%	15.07%	Average reduction in IT spending
Average increase in process efficiency	18.80%	16.76%	Average reduction in IT maintenance cost

Source: Vanson Bourne "The Business Impact of the Cloud"

Below, we detail what we see as the key benefits of cloud deployment for enterprises today.

Direct Benefits of Cloud Deployment:

1. Less critical reliance for a dedicated IT team:

Organizations with limited DevOps resources benefit as they no longer have to spend time maintaining server or infrastructure resources, but can use that time saved to work on more business-critical features. Cloud deployment solutions not only speed up the rate of business applications being implemented for the people who need to use these tools, but they also empower your current IT team to self-service the infrastructure they need instead of being road-blocked or delayed by lack of IT resources and staffing.

2. Replication, redundancy and disaster recovery:

Being able to have a datacenter local to each region is easily accomplished with a cloud provider/solution. Oftentimes, a cloud-based solution offers dispersed and redundant data centers, helping ensure that not all environments are affected by a regional disaster. This allows for faster recovery times as a result of this multisite availability factor.

3. No capital expenses:

For a cloud infrastructure, the expenses are usually considered to be an operating expense, as it doesn't require a large capital purchase of both hardware and software. Expenses usually happen on a recurring basis, which is easier on corporate finances and cash as it allows for cash reserves to be used for more mission critical initiatives.

4. Data security, privacy and compliance:

Usually vendors have to comply with more standards and regulations in order to accommodate various businesses in highly regulated industries and countries. Having data security handled by the vendor removes the need for the client to ensure every part of their infrastructure are compliant, as some will have already been completed. Along with compliance with industry regulations and standards, a cloud-based service is continuously gathering information and learning and improving, making it less likely to provide false positives as the platform is continuously learning to adapt to evolving threats.

5. Lower overhead for infrastructure-related resources and costs:

When the vendor handles all the infrastructure-related resourcing, you can save a lot on the actual hardware costs and physical storage costs. On-premise deployments require physical server and storage space, cooling and other related maintenance costs associated with it that you don't have to worry about with a cloud solution.

6. Customizability of business and application logic:

The customizability of business and application logic is a lot easier with a cloud solution, as a lot of the infrastructure customization actually gets handled by the vendor. Because there are some of these limits and best practices already in place with going with a cloud vendor, there's greater stability and a greater commitment to making sure the infrastructure platform is continuously updated and working.

Indirect Benefits:

1. Potential cost savings:

Generally, there are cost savings when choosing a cloud solution over hosting your own on-premise. With on-premise deployment methods, purchasing additional servers and other infrastructure is usually required. In addition, once you factor in the associated personnel expenses, associated hardware expenses (electricity bills, cooling, maintenance, regular upgrades), downtime and customizations, the costs are usually higher when compared to a cloud solution. Additionally, with cloud, there is potential to deliver business value faster, which, in turn, should allow for faster revenue generation. The total cost of ownership will still vary and depend on each organizations' needs and priorities and how their digital strategies are executed.

2. Ease of use:

Maintaining physical servers can be a tedious process. You're normally working with setting up many traditional programs and creating your own automated scripts and if it's not that, you're trying to figure out what configuration went wrong, all before you can even begin to think about uploading/deploying that new application a developer built. In addition to providing the actual infrastructure for application deployment, cloud solutions often provide a convenient interface that allows for configuration, management and monitoring of the services being used.

3. Faster time to market:

Implementation is generally a lot easier with cloud infrastructure and allows for a decreased time to market, by offering your DevOps team everything you need from the start. Internal developers can quickly self-provision the infrastructure and environments they need, without the need to wait on those processes as you typically would with an on-premise solution. The tooling to configure and setup the infrastructure is readily available from the start without the need to depend on other people.

4. Benefit from solid computing/network infrastructure:

The pressure to either work with existing hardware and making sure that it works with more modern software is non-existent on most cloud platforms. Cloud providers are able to invest in and provide the latest hardware technologies, while organizations can choose and select the services on an as-needed basis. Organizations can focus on leveraging and using the cloud provider's infrastructure/ software development best practices.

5. Better growth strategy:

Cloud solutions are better suited to handle the volatility or seasonality your business is likely subject to. To support the demands of the business, it is important to have the flexibility to expand or scale back quickly, in the event that things don't go according to plan for the future. A recent Forrester Research study found that an enterprise would spend an additional \$5 million (including the addition of 15 FTEs) over three years to expand an on-premises application security solution to match the scale of a cloud-based solution, according to a Veracode report.

6. No additional hardware investments over time:

Moving to the cloud will significantly reduce the costs it takes to maintain an onpremise data center. There is no need to purchase more hardware in order to expand and scale to accommodate new business applications and growing data, or even additional spending to support and maintain the data center. Scalability is seamless and simple, there are no additional resources required when needs arise for more or less infrastructure, in order to accommodate for faster performance or to scale.

7. Improved visibility into IT operations:

Although cloud-based services do not allow for as much customization in comparison to on-premise solutions, most cloud solutions are configurable, and the ability to customize and integrate other services is improving. These solutions often provide an interface to display metrics and information about the infrastructure running your applications. You can better monitor your server and storage usages in addition to seeing analytics about load and availability.

8. Lower barriers to experimentation/research:

It is a lot easier for developers to self-service their own test infrastructure for their development and research. There is no longer a bottleneck or wait for IT and organizational red tape in order for a developer to test and try out something. Because cost is typically based on usage, which can be configurable, there is less of an investment risk and more of an isolated sandbox that is easily available for further innovation.

Conclusion

There are many benefits to a cloud solution, these include: possible cost savings with the long-term total cost of ownership, ease of use and typically more modern interfaces, faster time to market, continuous innovation through the use of the latest capabilities, lower barriers to experimentation/research, ease of scaling (up and down) for marketing campaigns, ability to benefit from solid computing/network infrastructure required for emerging technologies, and partner ecosystem for ISVs and service providers.

These benefits aren't only limited to the business itself, but IT also can stand to gain from the enterprise adopting cloud practices/solutions. Your IT will gain agility in development, scalability in applications and delivery tiers, improved security and compliance through industry certifications, improved visibility into IT operations, lower overhead for infrastructure-related resources and costs, DevOps support via self-service tools, potential cost optimization for IT budgets, and customizability of business and application logic.

Take the Next Step with Liferay SaaS

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