How Cloud Innovation is Enabling Business Growth

Before cloud computing, it was the norm for companies to own and operate on-site data centers. But the past few years have seen more businesses making the shift to the cloud. Business Insider reports that by 2022 only 32% of all enterprise applications will run on traditional servers.

The COVID-19 pandemic has also contributed to the shift. In a <u>Gartner survey</u>, 70% of organizations indicate they plan to increase cloud spending because of the pandemic.

Shaky economies have caused businesses to reevaluate their IT priorities. Cloud-based solutions will become the new normal as organizations move to a more resilient digital business model.

Benefits of Cloud Services

Before we look at emerging cloud innovations, let's consider some benefits of cloud services.

1. Enhanced Collaboration

Businesses are taking advantage of the enhanced collaboration benefits that come with cloud-based solutions. Whether employees need to meet in real-time using online video conferencing or share team resources via cloud storage, team members in different locations can collaborate no matter what platforms they use.

Businesses across all industries are using innovative cloud-based technologies to bring distributed teams together.

2. Security

Data security is a major concern of every business (or at least it should be). Data breaches and ransomware attacks can be costly in terms of lost revenue, or compliance penalties. Security breaches can also affect customer loyalty and the company's reputation.

Cloud-based Security-as-a-Service (Saas) solutions come with advanced security controls such as authentication, access control, and encryption features to give you peace of mind that your data is secure and protected.

3. Scalability

Cloud computing makes it easy to grow your business. No need to worry about running out of hard-drive space on workstations or backup drives. With cloud solutions, you can scale your operation and storage needs up and down as needed. Simply provision the additional processing power, storage, or memory and pay only for the resources you need.

Cloud services also present a cost-effective option for start-ups and small businesses. You need only pay for the IT infrastructure to meet current needs without worrying about extra resources for the future. If necessary, you can add resources as the business grows.

4. Increased Productivity

Cloud solutions take some of the burdens off of in-house IT support teams relieving them of day-to-day maintenance. Because service providers handle the management and maintenance of IT components, in-house IT resources can focus their attention on more strategic business activities.

Most cloud providers also offer 24/7/365 support services backed by dedicated teams who keep your applications and services running smoothly. If a network issue occurs, it can be resolved as quickly as possible so that employees aren't affected by long periods of downtime.

Emerging Cloud Innovations

There are several emerging cloud innovations that are promoting business growth. Let's take a few of them.

1. Serverless Computing

Serverless computing allows organizations to build and run applications without the responsibility of provisioning, maintaining, and scaling the IT infrastructure. Development teams can focus on creating applications without also having to understand how underlying IT infrastructure works.

With serverless computing, backend services are provided by a vendor and paid for based on the amount of compute and storage resources used. Never mind the name, serverless computing does actually use physical servers, but developers don't have to interact with them.

2. Distributed cloud computing

As the cloud becomes more and more distributed, providers are moving from the data-center-based cloud model to a geographically distributed system of cloud infrastructure components.

Distributed cloud computing lets a business run public cloud infrastructure from the locations that best meet their requirements for performance or regulatory compliance including on-premises and multiple cloud provider data centers. The entire solution can be managed centrally using a virtual interface.

3. Artificial Intelligence

<u>Investopedia defines</u> Artificial Intelligence (AI) as "the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions." Cloud services and flexible payment models make new and advanced technologies like artificial intelligence (AI) more accessible to businesses.

With the built-in AI capabilities in the cloud, businesses can now access advanced analytics tools, like predictive analytics, formerly only available to larger enterprises. Predictive analytics models use AI to help businesses identify trends in data to make better business decisions.

4. Edge Computing

Edge computing is a distributed computing model that brings data processing and storage closer to the devices that are using it instead of from a centralized data center in a different location. The main benefit of Edge is that it reduces latency issues and bandwidth issues that could affect the performance of real-time applications.

The terms edge computing and Internet of Things (IoT) are often used in conjunction. IoT devices are physical devices that receive and send data to the cloud. Edge computing was developed to support the growing demand for IoT devices.

5. Cloud Portability

Cloud portability is a technology that allows you to migrate applications and data between a private and public cloud, or between cloud providers with minimal disruption. This makes it easy to switch to a different service provider to take advantage of new technology or fulfill a business need or geographical requirement.

Cloud portability prevents vendor-lock in and gives you the benefit of using multiple clouds instead of relying on a single one.

6. Site Reliability Robots

Site Reliability Robots (SRRs) are one of the newer cloud innovations. SRRs are used to predict and suggest insights for configuration changes and resource settings across virtual machine instances and operating systems for maximized performance.

In DevOps site reliability robots are used to deploy new code, evaluate infrastructure changes and adjust environments according to changes in usage patterns.

SRR makes it easy to implement cloud automation solutions and offers several other benefits including continuous optimization and advanced real-time monitoring of configurations and infrastructure.

7. Blockchain

Blockchain technology is moving beyond cryptocurrency transactions and is now being used to implement all kinds of secure transactions. This has resulted in a greater demand for Blockchain as a Service(BaaS).

BaaS provides cloud-based infrastructure and management services for companies that build and operate blockchain applications. It functions as a web host for running back-end platforms and applications.

Managed block services like BaaS make blockchain more commercially accessible to businesses, which is expected to lead to increased adoption of the technology.

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