

STATE OF THE CLOUD IN 2020



Technology continues to drive our world into the future with each passing day bringing news of change just around the corner. While new technologies are introduced with increased frequency, it still takes time for their true potential to be realized and integrated into society. However, once a technology shows its promise, leading organizations across the world are quick to lead the charge with the hopes of being the first to capitalize on these new possibilities.

One such technology that showed its possibility and saw massive investment from IT leaders over the past decade is the cloud.

Basics of the Cloud

The core concept of the cloud (also called cloud computing or cloud storage) is that data such as photos, music, and documents is stored on a computer device that is separate from the one from which you access that data. This idea was introduced to the public at large when Microsoft and Apple started putting out advertisements which mostly demonstrated using the cloud as a sort of backup hard drive for storing user information in case of local files being damaged or lost to the user.

The cloud allows users to access their information from any device connected to the internet and the fear of local loss of data was drastically minimized thanks to cloud backups. The technology is also leveraged to provide users with access to applications like Google Docs, which allows users to create, edit, and share different types of documents from a web browser on practically any modern

device.

In more recent years, [cloud offerings](#) have been expanded beyond simply storing information, now providing users with access to computing resources for all kinds of different use cases such as improved service availability, on-demand computing power, and virtual test environments.

Mass Adoption of Cloud Computing

As with most new technologies, the cloud wasn't adopted and implemented overnight. It took time for people to grasp what the cloud was and it took even more time for tech companies to build out the infrastructure and technologies that would support the cloud, taking it from a concept to a fully realized business offering.

Today, organizations around the world have harnessed cloud computing technology to provide a massive and diverse array of service offerings. Three primary business models provide users with access to cloud services: [Infrastructure-as-a-Service \(IaaS\)](#), [Platform-as-a-Service \(PaaS\)](#), and [Software-as-a-Service \(SaaS\)](#).

Cloud IaaS

IaaS primarily deals with providing users with access to cloud servers for on-demand storage and computing capacity. IaaS business use cases include:

- Development testing environments.
- Website hosting with on-demand scalability.
- Data storage, backup, and recovery.
- On-demand high-performance computing for things like analyzing Big Data or running complex simulations.

Cloud PaaS

PaaS offerings allow organizations to build additional services or applications on top of existing cloud platforms. IT organizations can develop customized cloud applications to amplify the platform's capabilities and provide tailored solutions for internal use or as a service to other organizations.

Cloud SaaS

SaaS deals with the primary cloud use cases that have been introduced to the public. Web-based applications such as Microsoft Office 365, Google Docs, or any number of email services are all examples of widely adopted cloud SaaS offerings.

The Whole World in the Cloud

The adoption rate of cloud solutions has steadily risen since their introduction in 2011 with most organizations now employing some form of cloud computing. As of mid 2020, "81% of organizations have at least one application or a portion of their computing infrastructure in the cloud, which is up from 73% in 2018." This data comes from [IDG's 2020 Cloud Computing Study](#), which collected the 551 tech buyers' responses to an online questionnaire of 29 queries.

Fifty-five percent of respondents said their organizations currently make use of multiple public clouds with 11% using more than three. [This summary](#) of IDG's report says, "59 percent of respondents said their organizations would be mostly or all in the cloud within 18 months." Cloud computing adoption hasn't come without its own set of risks and difficulties, however. One of the primary obstacles preventing organizations from fully utilizing public cloud resources are managing costs with respondents saying "32 percent of their organizations' budgets are being spent on cloud computing."

Another issue facing cloud adopters is the development and implementation of cloud-based applications. Many organizations are hard at work creating applications from the ground up with the cloud in mind while others are migrating their applications to the cloud. According to respondents, roughly 54% of cloud-based applications were previously deployed on-premises and then moved onto the cloud. The percentage of applications purpose-built for the cloud is rising as the technology continues to prove its merit and organizations develop new applications that can best leverage the new technology.

According to the [Flexera 2020 State of the Cloud Report](#), which surveyed 750 IT professionals, "93 percent of enterprises have a multi-cloud strategy" while "87 percent have a hybrid cloud strategy." Flexera's report also shows that cloud adoption is continuing to accelerate with "20 percent of enterprises spend more than \$12 million per year on public clouds." Furthermore, "59 percent of enterprises expect cloud usage to exceed prior plans due to COVID-19."

The accelerating adoption of cloud technology has a lot of organizations going over their cloud spend budget by an average of 23 percent with expected increases of cloud spend by 47 percent next year. Echoing the sentiment of IDG's study regarding cloud spend being a major concern, "Respondents estimate organizations waste 30 percent of cloud spend."

It's clear that the cloud has become a technology that organizations can't afford to ignore; however, it's also becoming a technology organizations are struggling to capitalize on in terms of ROI. Making the most of the cloud is no simple task, but many organizations are finding ways to optimize their cloud spend without decimating their budgets. The massive array of offerings leveraging the power of the cloud continues to grow as more businesses experiment with the new technology, finding ways to maximize its potential.