



## Trends Affecting Cloud Adoption Now and In the Future

With the rapid increase in adoption of cloud computing in enterprise IT, CIOs must analyze factors that will affect their decisions regarding cloud adoption services in 2020. There is no doubt that cloud computing has become the new normal for enterprise IT and continues to grow exponentially across industries as cloud takes the major share in IT spend. This year too, cloud computing is expected to dominate the IT spend market, as it will continue to be the platform for emerging technologies such as artificial intelligence (AI), blockchain and Internet-of-Things (IoT).

With greater spend, however, comes greater responsibility for CIOs who are accountable for the ROI on their IT spend. “CIOs looking to prepare their organization to thrive in the upcoming turns must take a differentiated approach to cloud computing,” says Gregor Petri, Vice President Analyst, Gartner. “It will be essential for CIOs to develop a formal strategy that helps to put individual cloud decisions in the context of the enterprise’s strategic goals.”

The following are some of the biggest cloud computing trends that are expected to steer the future of Enterprise IT:

- By 2023, the leading cloud service providers will have a distributed ATM-like presence to serve a subset of their services. Hybrid cloud will become the norm driven by factors like cost efficiency, flexibility, scalability, agility and security. Multi-cloud strategies will warrant provider independence, address concentration risk, reduce vendor lock-in and mitigate service disruption risks.
- A survey by Cisco predicts that the number of devices connected to IP networks will be more than three times the global population by 2022. Similarly, a Gartner study forecasts that 14.2 billion connected things will be in use in 2019, and that this total will reach 25 billion by 2021, producing immense volume of data. This has led to the increase in demand for edge computing wherein enterprises choose edge locations and nearby co-location facilities versus core data centers to deliver digital services to local users and things. “Micro data centers” will be located in areas where a high population of users congregates, while “pop-up” cloud service points will support temporary requirements like sporting events and concerts.
- Equipment supporting an appropriate subset of public cloud services will be housed in locations close enough to the point of need to support the low-latency requirements of the applications that use them leading to an ATM-like network of cloud service points. This will enable applications with such requirements to run directly from the cloud providers’ native services without having to build infrastructure.
- The presence of in-house cloud skills will be a key indicator of enterprise agility, including the ability to distribute cloud services where customers want to consume them, on-premises and on the edge.
- Through 2024, nearly all legacy applications migrated to public cloud infrastructure as a service (IaaS) will require optimization to become more cost-effective. Cloud providers will continue to strengthen their native optimization capabilities to help organizations select the most cost-effective architecture that can deliver the required performance.
- In the digital age, businesses operate at a hectic speed. This is an era of instant consumption, and enterprises need IT infrastructure that can scale up exponentially with increase in demand but also

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scale down as the demand reduces. This has given rise to Hyper-scale data centers. HCI (Hyper Converged Infrastructure) solutions are also increasingly emerging as the ideal alternative to public cloud platforms as this IT framework not only integrates storage systems, servers, and networking into one single platform making it simple to manage but also reduces the costs associated with traditional data center systems.

- The need for cost optimization will increase with increase in cloud migration projects and third-party tools to analyze operational data to find cost optimization opportunities without compromising on quality yet providing multi-cloud management consistency will become integral parts of the IT spend. The need to leverage what cloud providers offer natively and augment it with third-party solutions to maximize savings will become a given. The majority of multi-cloud strategies will also be more focused on procurement, functionality and risk mitigation than on portability as firms realize that, in reality, only a few applications ever move once they have been deployed in production and adopted by the business though application portability is seen as a benefit of multi-cloud strategy.
- As more organizations take the digital route, the cost of downtime is increasing rapidly. This has encouraged organizations to increasingly look at Disaster-Recovery-as-a Service, as an automated DR strategy can significantly reduce the recovery time while being legally compliant and preventing data breach. IDC estimates that the DRaaS market will reach \$4.5 billion in 2020 with a 15.4 percent through 2023.
- 2020 will see increased use of AI in the data center. AI can help organizations proactively solve problems before they occur, analyze past data and distribute workloads across peak periods efficiently, solve skill shortage issues, etc. In fact, the impact of AI is such that Gartner predicts that more than 30 percent of data centers that fail to sufficiently prepare for AI will no longer be operationally or economically viable by 2020 and AI-based services and solutions will be delivered using the cloud. Hence, it will be a trend setting organizations apart from competitors.
- In line with the rapid growth in Hybrid Cloud, there will also be a rise in Containers in deployment as containers simplify deployment, management and operational concerns associated with a hybrid cloud. In fact, by 2023, Gartner predicts that more than 70 per cent of global organizations will be running more than two containerized applications in production, up from less than 20 per cent in 2019. Similarly, IDC predicts that 95 per cent of new micro-services will be deployed in containers by 2021.
- Insufficient cloud IaaS skills will delay migrations as today's 'lift-and-shift' cloud migration strategies do not favor native-cloud skills resulting in shortage of talented people with relevant cloud skills. Through 2022, this will delay half of enterprise IT organizations' migration to the cloud by two years or more. To overcome the challenges of this workforce shortage, enterprises looking to migrate workloads to the cloud will have to collaborate with managed service providers and SIs that have a proven track record of successful migrations within the target industry and who are willing to quantify and commit to expected costs and potential savings.

CIOs and CTOs should analyze how these trends will influence their cloud adoption and migration plans for years to come and keep their IT infrastructure future ready.

