Cloud computing impact on pharma sector

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Pharma companies can establish a cloud-based research collaboration platform, which is precompetitive, thus enabling faster and cost-effective drug innovation

Organisations across industrial sectors are taking the plunge to migrate to the cloud, today. Business benefits with adoption of cloud technology are getting further emphasised with importance placed on innovation and best practices. While other sectors are fundamentally leveraging cloud computing to their digital transformation process, pharmaceutical firms are adopting it for drug discovery and other critical processes as well.

Pharma companies do not adopt any technology without studying the associated risks and the benefits. These firms work with large amounts of sensitive healthcare records, intellectual data and trade secrets on yet-to-be-released drugs. The earlier security concern that loomed over the sector is fading with the dramatic improvisation in cloud security features today, driving pharma companies to embrace cloud like never before!

Furthermore, the pandemic has certainly accelerated the speed of cloud adoption by the pharma sector, which was slow in transitioning to cloud earlier. Infact, according to Healthcare Information and Management Systems Society analytics survey report, over 83 per cent of pharma companies are already leveraging cloud services.

With Covid-19 pandemic driving innovation, the industry is already making headway in developing vaccines, repurposing drugs and new drug discoveries to restrain the reach of the infection. Huge investments are being made in R&D with cloud becoming a key tool to streamline all IT expenses by reducing costs and improving efficiency. According to the recent report from Research Reports World, the Cloud Computing in pharma market revenue was $3173 million in 2019 and will reach $7021 million in 2025 at a CAGR of 14.15 per cent during 2020-2025.

Clinical trials and collaboration made easier and at speed

Conducting trials for new medicines after their long period of development comes with complexities and high costs. Thousands of healthy volunteers and patients have to be reached out to and communicated with. Time and huge efforts are invested in coordinating with them. There could be delays in patient benefits. With the medical industry getting more specialised, sophisticated drugs are also being discovered. To conduct clinical trials for such drugs, sourcing appropriate volunteers is certainly a humungous task. By applying cloud computing, data collection from relevant individuals across the globe can be done in real time. Moreover, researchers at different places collaborate comfortably with cloud. It is also reducing the complexity and time consumption during such times. Global pharma companies can leverage cloud from any remote locations to suit a localised workforce, and clinical trials can be conducted without having to incur the cost of developing exclusive data centres.

Volunteer experiences can be recorded, reducing clinical trial drop-outs leading to faster processes. Highly sensitive data such as drug sources, components, details of side effects to patients, tracking patient behaviour and appliance monitoring can be safely brought on cloud without the worry of security and compliance.

Acceleration of Drug development process and Drug production

R&D teams at pharma companies take long periods to start exploring possibilities from the molecule to the compound stage followed by the clinical trial processes. Moreover, sustaining a competitive edge is crucial for pharma companies. Computing power to scale operations up and down at speed is crucial too. Patient symptoms can be monitored, enhancing the quality of new data to develop new drugs. Cloud based high performance computing (HPC) helps R & D teams to access computational resources and along with AI and ML technologies, cloud can speed up the processes leading to faster release of the drug. Researchers will benefit from automation of data processes when cloud is used with other digital technologies like biosensors.

Pharma companies can establish a cloud-based research collaboration platform, which is precompetitive, thus enabling faster and cost-effective drug innovation. This seamless, collaborative platform can support in bringing in best practices, improvement in processes and data standardisation. It speeds up the drug discovery process, thereby saving time during R&D.

Enhances operational excellence and patient experience

Automation of business processes can be easily enabled with cloud computing, thereby reducing redundancies and improving performance. Real-time monitoring with cloud provides actionable insights on performance, thus supporting better business decisions. Predictive analytics is leveraged by the industry for improving patient adherence, targeted messaging, effective promotion and enhanced patient experience. According to Grand View Research, the global life science analytics market size, valued at $7.7 billion in 2020 is expected to grow at CAGR 7.8 per cent from 2021 to 2028.

Cloud can also be leveraged for pharma marketing operations as well. Early adopters of cloud in the pharma sector are also witnessing its advantages, such as lower infrastructure costs, efficient management of workloads and operations, improved business agility and overall performance. Cloud computing is all set to revolutionise the pharma companies by enabling faster innovation towards developing personalised medicine too.

Cloud is undoubtedly more than just a storage solution. With security, privacy and compliance aspects being critical in the pharma industry, it can be a trusted problem solver. Cloud Services can be strategically incorporated in pharma companies to enhance scalability, empower co-operation and collaboration, consolidate IT resources and support in the functions of

backup, archive and disaster recovery. All these aspects are crucial for the pharma industry. While pharma sector is among the major beneficiaries of cloud services, it is important for these organisations to configure a robust cloud strategy with rigorous implementation and ongoing management, thereby ensuring continued business success.

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