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Top 3 Application migration to cloud trends to look out for in 2023

Modernizing legacy apps is the way forward, and as all major organizations head to the inevitable digital transformation, specific approaches and features stand out based on the functionality they offer and their benefits. Most modernization plans are customized to suit the organization's needs, but here are some application migration to cloud trends to watch out for in 2023.

1. Moving legacy apps to the cloud

The trend of modernizing legacy apps will always continue as the world sees the benefits of a digital transformation. Better business performance, streamlined processes, and end-to-end visibility help improve customer experiences. Moreover, the high costs of maintaining legacy applications, the shortage of skilled labor for maintenance, and their incompatibility with modern platforms have contributed to the need to retire these apps. In addition, there has been an exponential growth in the number of organizations adopting legacy modernization, and here are some trends to look forward to as we head toward the new year.
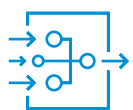
a) Cloud-first – With the flexibility, scalability, and rapid transformation that a cloud platform offers, this transformation is a crucial factor in the app migration journey to the cloud. As per International Data Corporation (IDC), 65% of the organizations will invest in legacy modernization by 2023, with the investments growing from 36% to 53%. Replacing legacy mainframes will be done using containerization, orchestration, microservices, and other tools.

b) Hybrid Cloud – While shifting legacy apps to cloud-based platforms, enterprises can choose a hybrid model to harness the safety of private cloud and the cost-effectiveness of public cloud to manage their workloads. Almost **77% of organizations** use hybrid cloud environments to gain more stability and control over their operations, and this trend will continue to grow in the next year.

c) DevOps – DevOps consists of automation and is the key to determining the right way to modernize legacy apps and allows collaboration between development, quality, operations, and security teams throughout the product lifecycle, ensuring faster transformation, better product quality, and user experience. Serverless applications, low-code applications, multi-cloud environments, and be architecture are some trends to look out for in 2023.

d) Hyper-automation – It simplifies workflows, reduces manual labor, and efforts spent on repetitive tasks and is now an indispensable aspect of any digital transformation. During a legacy app modernization, it helps identify processes that will benefit from automation and which tools and techniques will work best. **Sheer Analytics and Insights** forecasts a CAGR of 21.7% by 2031, amounting to US$46.4 billion. There will be a growing use of tools and techniques like AI, ML, Robotics Processing Automation (RPA), low-code platforms, and more.

e) Micro front-end modernization – The process of modernization of legacy apps may sometimes take a considerable amount of time. However, it's possible to cut down on this time and accelerate the transformation with the micro front-end modernization approach. In this approach, individual components and technologies are changed, or parts of them are reused to speed up the modernization process and make it scalable, while keeping the costs low. There are different approaches to this kind of modernization, however, it doesn't affect user experience and harmonizes front-end development with the latest architectures.

f) Low-code or No-code platforms – When organizations embark on a digital transformation journey to modernize their legacy applications, platforms with low code or no code will make it easier for workforce with little or no technical expertise to use them with some training and support. It can cut the costs and time spent on developing, maintaining, and running complex systems. **Gartner's** observations suggest that 2023-2024, almost 70% of corporate software will be low-code or no-code.
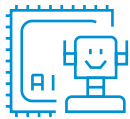
2. Tools for Cloud Migration

Downtime or an impact on the business is a critical concern during the process of legacy app modernization. Cloud migration tools assist organizations with migrating their data, apps, and infrastructure from on-premise systems to the cloud, without any downtime or hindrance to business operations. The usability of a tool for migration is based on factors like assessment before migrating, end-to-end cloud migration support, compatibility with the destination, support for migrating content, data, applications, or workload, and insights regarding the performance of the cloud. In 2023, Amazon Web Services, Microsoft Azure, Google Cloud, Carbonite, CloudM, Flexera, etc., are some popular public cloud platforms that will be chosen for features like migration planning, multi-user migration, collaboration database management, reducing downtime, etc.

3. Cloud Automation

While modernizing the existing legacy applications, organizations choose to shift to public, private, or hybrid cloud platforms and multi-cloud environments for their crucial applications and services. This has naturally led to adoption of automation, a feature that's inherent to cloud-based platforms. Cloud automation not only reduces the time and effort spent on mundane tasks, but also builds effective processes and service continuity, and helps with scaling, data monitoring, tracing, and building resilience. A report by Verified Market Research states that the cloud automation market is estimated to grow at a CAGR that will exceed 26.39% by 2030, from USD 53 billion in 2021 to more than USD 414 billion by 2030. Going ahead, the trends to watch out for would be

a) NLP and conversational AI – Natural Language Processing or NLP help computers understand human language, while conversational AI offers immersive conversational experiences through digital technology. As observed by Gartner, there will be a significant transformation in the user experience by the year 2028, changing how the platforms interact with the digital world.

b) Augmented Intelligence – This model brings together people and AI to enhance cognitive performance, including learning, decision-making, and new experiences. It can be harnessed to collect and organize unstructured data efficiently.

c) Adoption by SMBs – Small and mid-size businesses will adopt intelligent automation for optimizing their businesses with reasonably-priced products. This will help them reduce expenses, provide a better customer experience, and get a competitive edge.

d) Personalized digital journey – According to Gartner, 60% of firms will invest in various technologies to enhance their users' experience by simplifying customer journeys and personalizing their interactions.

Conclusion:

Several studies and observations by IDC point to a massive growth in the legacy app modernization arena, with investments growing at a CAGR or 17.5% from 2020 to 2023, amounting to USD 7.1 trillion. The study presents a promising picture as more and more enterprises and SMBs adopt cloud platforms to make their businesses and offer impeccable experiences not only to their customers, but also employees. Increasing investments and ever-evolving technologies will make technology accessible, easier to use, more responsive and offer personalization. Given all these advantages, we'll see cloud platforms emerge as a popular solution.

About LTIMindtree