Integrating the cloud with existing architecture

Adopting cloud solutions does not mean that an organisation has to abandon its existing infrastructure. There are many benefits to integrating existing solutions with the cloud, if companies take certain key considerations, writes **Rajesh Abraham** of eHosting DataFort

Most organisations today are looking to leverage the benefits ofcloud computing and their existing IT systems to increase business productivity. Cloud adoption in the Middle East is growing significantly as enterprises are seeing tremendous value in having a scalable and flexible pool of resources at their fingertips. The assurance of lower IT costs and scalability has drawn IT decision makers to move their business-critical data and applications to the cloud.

However, as most large enterprises have already made sizeable investments in traditional hardware, they are often concerned about how their on-premise applications will integrate with the cloud. In fact, many CIOs are beginning to realise that integrating cloud services with their existing architecture is more difficult than they have anticipated.

Through this article, I would like to highlight some key concerns and share some important tips to simplify your journey to the cloud.

Integrating cloud services with existing architecture can be challenging, says Abraham.

TOP FACTORS TO CONSIDER BEFORE IMPLEMENTING THE CLOUD

While cloud computing has many benefits, it is very important to consider its security and scalability. Just like other IT investments, investing in the cloud also needs to offer the right ROI. Apart from having organisational, operational, and architectural foresight, CIOs must also take into consideration some basic measures before implementing a hybrid cloud environment. For many organisations, implementing cloud computing creates a need to integrate existing systems with new, cloud-based applications and services.

BEST PRACTICES TO FOLLOW WHILE MOVING TO A CLOUD ENVIRONMENT

Create a cloud strategy and plan ahead: CIOs need to assess the company's long-term business and infrastructure needs, establish realistic goals and priorities, set deadlines, and consult with finance directors on IT budgets. This is important because reversing IT systems is time-consuming and expensive. Apart from having an understanding of what resources are available for implementation and maintenance, CIOs should, with proper planning and strategy, keep the complexity and cost to a minimum. Also, determine if the migration will be managed in-house, or if it will be outsourced to a third-party organisation.

Determine what data moves to the cloud: Before moving information to the cloud, CIOs need to conduct an internal review with business heads to identify which data can be moved to the cloud. Full cloud integration may cause regulatory compliance issues as certain data must be secured internally. Enterprises must also be cautious of where they store different types of data.

Address security concerns: While choosing a cloud vendor, it is important to review and evaluate their security standards, policies and governance models to ensure that your data is safe, secure and protected at all times.

Develop a data backup and recovery strategy: Ensure that your organisation has effective data recovery and backup management tools in place in case of any loss during data synchronisation. If you have planned to outsource the migration, it is important to know if the cloud services provider has a robust data backup strategy and recovery procedures.

Maintenance of on-premise assets: Maintenance of on-premise assets — for reasons of legal compliance, data protection and security — is key to any cloud deployment and must not be neglected.

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Plan investment costs: Factor in prior on-premise investment costs and degree of depreciation when migrating to an integrated system.

Comply with regional data privacy requirements: CIOs need to understand where the data will be stored and comply with the legal requirements in his own country as well as the country of the cloud services provider.

Evaluate service level agreements: It is recommended to partner with a cloud provider that offers strong service level agreements (SLAs) and follows security standards, processes and procedures.

SEAMLESS INTEGRATION

In order to move to the cloud, enterprises do not have to discontinue their on-premise systems. In fact, most organisations would want to synchronise the data between their existing legacy systems and the new cloud applications. By implementing hybrid integration, on-premise applications can be seamlessly integrated with cloud systems. Through proper integration of application, data, network and identity systems, enterprises can realise the full benefit of cloud computing while getting the maximum out of their existing architecture.

There are some software solutions which enable real-time an dseamless transfer of data at optimal costs. These solutions are designed to avoid a major architectural transformation, since there are numerous benefits to a hybrid approach. By leveraging the right technology, enterprises can drive new business models through hybrid integration as a bridge between legacy and cloud systems.

BENEFITS OF ENGAGING A THIRD PARTY TO MANAGE THE INTEGRATION

By delegating integration responsibilities to a cloud hosting provider, in-house IT teams can concentrate on internal business functions and data maintenance rather than issues arising from implementation on new platforms. By outsourcing IT support, companies can also avoid pitfalls and pain points of integration, and enjoy the benefits of a cloud approach. These benefits include scalability; anytime anywhere access to information; security offered through multiple channels, which creates a layer of defense for an enterprise; redundancy of data and long-term cost efficiency.

COMBATING CHALLENGES

When shifting from an on-premise system to a hybrid landscape, CIOs must be aware of procedural and policy differences between their enterprise and external companies and software vendors.

According to Forrester, the research house, there are two main challenges when merging on-premise and cloud-based platforms within any IT enterprise space — the interoperability of different integration technologies and maintaining consistency of business logic and data structures in the heterogeneous environment

When moving to a cloud environment, IT managers may find themselves trying to standardise multiple user interfaces, custom codes and programming languages when implementing such integration tools. Consulting with the cloud services provider is recommended in order to achieve the desired benefits of the cloud as the cloud provider should be able to propose the best platform to unify the organisation's IT systems seamlessly.

While business models and technology change rapidly, holding on to existing on-premise systems can become a hindrance for enterprises deciding to incorporate the rich interactive web and mobile experiences that users demand. We recommend that, while integrating the organisation's existing architecture with the cloud, it is imperative to research and pursue best practices. ■

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