computing research

The API's the limit: Why automation and integration will propel you to application and data warehouse success in the cloud

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Introduction

The migration of data, workloads and applications to the cloud has gathered pace over the course of the last several years, as enterprises seek to profit from highly changeable market conditions and meet expectations of faster, more personalised interactions. The pandemic has further accelerated the pace of digital change.

Organisations of all kinds are seeking to compete in what has been termed the "API Economy," as digital-by-default disruptors tap existing applications and underlying data to create new ones. However, research by *Computing* has found that data integration is one of the biggest obstacles faced during cloud migrations.

The increasing complexity in enterprise architectures over the last few years has created challenges in visibility, governance and getting data via applications to the right person at the right time. Organisations need to integrate applications across complex ecosystems which can include different cloud providers, or across cloud and on-premises infrastructure. Many organisations are still wrestling with the difficulties inherent in managing the integration of complex, legacy applications into newer ones, as well as the ongoing challenges of application security and a lack of bandwidth in technical teams.

Common Strategies

How are organisations attempting to resolve these challenges? Organisations contributing to *Computing* research were most likely to focus on best practices, such the creation of robust proof of concepts, leaning on the expertise of vendors and partners, and extensive testing. What they are less likely to be doing is applying automation to the challenges of integration. Despite three quarters of contributors agreeing that automation was central to effective data and infrastructure integration, only a fifth of them had, for example, used automated integration processes and/or pre-built integration points. However, when asked to score how effective various strategies and tools were in overcoming integration challenges these tools scored highly.

Automated "packaged" integration processes can also orchestrate APIs. These were the most highly scored technical tools in the kit bag for cloud integration but only a minority were using them. This may reflect the different types and ages of applications involved. It could also be due to concern about the management implications of an ever-expanding number of APIs – implications that can be mitigated by a cloud API integration platform which facilitates the full API lifecycle.

iPaaS

APIs are just part of a comprehensive platform for integration. Seventy-two per cent of contributors believed that their organisation would or already did benefit greatly from a unified platform allowing them to connect all their applications and data. An integration platform facilitates the migration and integration of applications and data both in individual clouds, across multiple clouds and hybrid infrastructure. One way of accessing these features and benefits is via an Integration Platform-as-a-Service (iPaaS) solution which provides full life cycle support for all the applications and the data that enterprises need to integrate.

Complexity is a demonstrable reality of enterprise infrastructure. A powerful integration platform can help organisations better manage this complexity by taking applications out of their silos and equipping businesses to compete more effectively in the post pandemic digital economy.

To find out more read the full white paper:
The API's the limit: Why automation and integration will propel you to application and data warehouse success in the cloud
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