Ssas.

MIGRATING ANALYTICS TO THE CLOUD: IT'S ABOUT TIME

Many organisations still run their applications in-house, having made previous investments in hardware, software and infrastructure. However, these can be costly and complex to maintain, requiring regular upgrades and specialist technical expertise to keep pace with changing demands.Which is why organisations are moving many of their applications to the cloud.

Yet it's not just core business systems like finance, HR, supply chain and marketing that are suited to a cloud-based platform. You can migrate your analytics applications too – which will give you three key benefits:

INCREASED AGILITY
With the ability to scale your analytics capabilities up and down as required, your enterprise can pivot faster than ever before.

INCREASED INNOVATION
The flexibility of the cloud enables you to act quick, fail fast and share learnings and new skills across your different analyst groups.

REDUCED COST
By moving infrastructure services to a pay-per-use model, you can cut on-premise costs by around a third.

Why is the time right to migrate?

There are frequent debates about on-premise versus cloud. People often cite regulatory concerns, connectivity issues and network speed as good reasons to keep their data on-site.

Yet as organisations gain more experience of running applications in the cloud, they are building confidence to migrate their mission-critical services too – including analytics.

While there were initial concerns over data security, there's now a growing recognition that applications in the cloud can be more secure than on-premise – for example, there are several types of cyberattack that are more easily deflected in the cloud.

What's more, advances in technology are providing more deployment options. Enterprises can adopt a "cloud first" strategy or, through containerisation, achieve cloud benefits at the same time as protecting their investments in established apps and infrastructure.

Which approach should you choose?

Essentially, there are three ways to move applications to the cloud. They have different cost implications. They require varying degrees of effort. And they offer different levels of benefit.

REHOSTING
This is where an application is moved 'as is' from on-premise to a public cloud service.

- ✔ Minimal recoding
- ✔ No changes for users
- ✔ Cost savings
- ✔ Basic scalability
- ✔ On-prem capacity is freed up

- ✖ Potential glitches in complex user interfaces
- ✖ May not deliver the full benefits of native cloud apps

REPLATFORMING
Changes are made to an application that improve its performance in the cloud.

- ✔ New apps or variations can be launched quickly
- ✔ Easy to scale resources up and down
- ✔ Cost-effective storage

- ✖ Greater effort and cost involved

REPURCHASING
The application is recreated or written to run on the new cloud-native platform.

- ✔ Takes full advantage of cloud benefits
- ✔ Maximum agility, innovation and scalability

- ✖ Greatest effort & cost
- ✖ Requires a lengthy, large-scope project

Could containers hold the key?

As you consider the different options for migrating analytics to the cloud, think also about the application architecture that would help you get the maximum benefit.

Containers, for example, offer the next evolution in virtual computing and help get more out of existing infrastructure resources. They use the minimum operating-system resources required to run a designated application. They are also portable, copyable, disposable and adjustable – offering an elastic utilisation of your underlying hardware infrastructure. Perfect if you need to scale up the environment.

In short, the more your applications can be containerised, the easier the migration.

Getting going

We see different patterns and paces for migrating analytics to the cloud. But the starting point should always be the same: identify what analytics assets you currently have and build an inventory of your data, programs and users.

If you have a good handle on your data assets and their use, you'll be better placed to determine how to format, migrate and access your data in the cloud. It helps enormously too if you have good discipline around model management.

Building consensus and creating a plan

Here are some key questions to ask as you build a business case for cloud analytics and prepare your migration plan:

1

Will cloud migration of our analytics really deliver us benefits and ROI?

How much capital is locked-up in IT infrastructure that would be freed for business investments if we shift to pay-as-you-go service models?

How big is the differential between our peak and average compute demand, and is our infrastructure capacity sized for peak demand?

How long does it take us to stand up computing environments compared to provisioning on-demand capacity from a cloud service?

How long does it take to install new technologies in our infrastructure and put them into use?

2

What will success look like if we migrate analytics to the cloud?

What are our performance improvement expectations and KPIs for analytics in the cloud?

Have we evaluated the migration options and developed a strategy in terms of priorities and pace?

Do we have an adequate inventory of analytics program and data assets – and clarity about what we want to move?

Have we mapped our analytic work patterns and user workflows, and assessed how cloud-based data warehouses and tools will support them?

3

Do we have the right cloud-based platform and architecture for both migration and operation?

Do we have the necessary skill sets and support for migration and operation in the cloud?

Will the environment be scalable enough to run our biggest and most complex analytics jobs?

Will the environment provide on-demand access to specialised tools and technologies, such as GPUs?

What adjustments will we need to make to data architecture and formats to allow access in the cloud, and do we have a data migration strategy?

How much will the user experience change, and how will we manage those changes?

Will the management, governance and control of our analytics and data need to be adjusted for operation in the cloud?

Do we have a thorough testing plan, so we can complete the migration with confidence?

WITH YOU FOR THE JOURNEY

The trend towards hosting apps in the cloud is unrelenting – and it is set to transform the analytics world too. Increased agility, faster innovation and reduced cost will take your analytics capabilities to new heights. Cloud migration will also allow your teams to leverage artificial intelligence and machine learning without the distraction of having to provision technology.

SAS infrastructure and software is fully optimised for cloud-based analytics. We can manage it all in the cloud on your behalf, or it can be integrated as part of your chosen infrastructure-as-a-service (IaaS) platform. We also support 'quick-start' container deployments and bring-your-own-licence arrangements with third-party cloud providers. We offer true flexibility for whatever route you choose.

Read more about how SAS can help you migrate your analytics to the cloud at

www.sas.com/uk/cloud

§sas