Nominee: Datapipe/BMJ

Nomination title: Building the Foundations to Enable Change at BMJ

Introduction

BMJ started out over 170 years ago as a medical journal. Now as a global brand, BMJ has expanded to encompass 60 specialist medical and allied science journals, with millions of readers. This growth required BMJ to reassess its IT infrastructure, and it turned to Datapipe to help initiate radical change within its organisation.

Datapipe, a leading managed cloud services provider, works as a trusted partner for companies across the globe that are making their transition to the cloud. BMJ came to Datapipe for guidance and support for virtualising its infrastructure. Ultimately, this cloud project had a bigger impact than just updating the physical infrastructure; it initiated a culture change throughout the organisation that has led to an embrace of the DevOps way of working. More than this, this philosophy spread out from BMJ's IT department into other areas of the organisation, creating a company-wide positive culture shift that sets it up for future growth.

The driving force behind the project

As BMJ expanded by commissioning new sites, applications and features, and moving to new territories, it became apparent that the infrastructure supporting the application release process was no longer fit for purpose. Thus BMJ made a conscious decision to incite radical change. With the technology department's focus on releasing new products to market, they had little time to go back and revise the architecture. Moreover, now that BMJ was a 24/7 organisation and its products were becoming international in profile, the capacity for allowing downtime – scheduled or otherwise – was diminishing.

The ambition for BMJ's operations team was to move to a fully automated, shared-nothing architecture, where each product would have its own set of application and database servers, and where code and files could be reliably deployed to each application server. BMJ needed to move to a sustainable development cycle of continuous integration, and it needed a trusted partner to get the infrastructure in place to create the foundations for real change. That is when BMJ turned to Datapipe.

How did the solution address the challenge?

BMJ had always been very hands-on, and Datapipe worked to complement the existing IT team to form a true partnership. Datapipe did not seize control of the project; instead, the company was BMJ's helping hand and ally in reaching its goals, and the two worked in unison for a shared purpose.

By the end of the migration, BMJ was fully virtualised, with over 200 virtual machines running its applications 24/7 in a private cloud infrastructure. Importantly, the change was completed with zero downtime, so BMJ's customers were not affected. The company also saw incredible efficiency improvements, as the move to cloud architecture created a seamless release process that improved from around one product update a month to up to three a day.

Major challenges that were faced during the project

The round-the-clock nature of BMJ's operations created an important challenge for Datapipe. BMJ required a service that was reliable and efficient, and the international scale of their expansion needed a flexible, agile, and maintenance-free solution. Datapipe overcame this problem by working in close collaboration with BMJ's operations and development teams. This strong relationship formed between BMJ and Datapipe meant that no customers experienced any downtime while services were moved, allowing BMJ to continue running its business as per usual.

Tangible benefits

This process of moving infrastructure became the lever that brought cultural change to the organisation and cemented a new DevOps way of working. The change in working practises rippled out from the technology department through to the wider company.

Before the project rollout, the BMJ technology team worked in isolation, never truly understanding what the business was trying to achieve. Following its partnership with Datapipe, BMJ co-locates, its employees move desks every three or four weeks, and the business operations team understands what the technology does and vice versa. Now, the two functions are far more integrated.

In the process of automating, the interdependencies were managed or removed and the processes were understood, which freed up time to push out more new products and solutions and reduced the time required to release new features.

For instance, BMJ has moved from delivering content to third parties via weekly batch transfer jobs to creating an API that allows the content to be pulled and services to then be built around the infrastructure.

The automation of BMJ's infrastructure and processes also benefitted the organisation by improving the efficiency of its operations. BMJ can now monitor and analyse everything under a single pane of glass, rather than having to operate siloed applications. This all came about as a result of the trusted partnership forged between BMJ and Datapipe. Datapipe's expertise in cloud migration allowed the BMJ technology staff to focus instead on what they do best: building code and intellectual property.

Importantly, this is setting BMJ up for even greater success in the future. BMJ considers this only as Phase One of its infrastructure overhaul. The next step is to explore moving workloads to the AWS public cloud.

Conclusion

Thanks to Datapipe's assistance, by the end of the rollout:

- **BMJ was fully virtualised. Its applications were running on over 200 virtual machines on a shared-nothing architecture.**
- **Release cycles (upgrades, bug fixes, new features) were automated and the processes and interconnections were understood.**
- **As a result, releases improved drastically from once a month to several times a day. Continuous integration was achieved.**

BMJ has seen extraordinary change in its time. Recently, it has transitioned from traditional print media to digital content provider. With Datapipe's help, it now has the infrastructure and cultural mindset in place to allow it to grow its business worldwide, and it is well placed to take advantage of technology like the public cloud to cement its position as a premier digital publisher and educator.

Why nominee should win

The BMJ project should win the award because it delivered infrastructure that initiated real, positive change in an organisation. It allowed BMJ to:

- **Transform itself by fully virtualising its infrastructure on a shared-nothing architecture.**
- **Introduce continuous integration – features call now be rolled out daily using automation, reducing risk. Processes are fully understood as a result.**
- **The project was delivered with no unplanned downtime – seamless to customers.**
- **The positive culture change meant daily scrum sessions and better working practices. Technology is fully integrated into BMJ's business, not a separate, siloed unit.**